```
────────────────────────────────────────────────────────────────────────────────
      name:  <unnamed>
       log:  /Users/connorbrennan/Library/CloudStorage/OneDrive-TheUniversityo
> fChicago/mmb/output/stepwise_regressions/y_timing_max_frics_sim.smcl
  log type:  smcl
 opened on:  10 Jan 2025, 11:33:18
  - capture ! rm ./output/stepwise_regressions/`depvar'_`type'.pdf
  = capture ! rm ./output/stepwise_regressions/y_timing_max_frics_sim.pdf
  - di "**********************************************************************
> **********"
********************************************************************************
> **
  - di "Outcomes of bi-directional stepwise regressions with `depvar' with rul
> e fixed effects"
  = di "Outcomes of bi-directional stepwise regressions with y_timing_max with
>  rule fixed effects"
Outcomes of bi-directional stepwise regressions with y_timing_max with rule fi
> xed effects
  - di "Independent Variable set: `type'"
  = di "Independent Variable set: frics_sim"
Independent Variable set: frics_sim
  - di "**********************************************************************
> **********"
********************************************************************************
> **
  - ${reg_`depvar'_`type'}
  = nbreg y_timing_max   wlth wg_ndx  stky_pr_rotemberg  stky_pr_calvo open  i
> f y_timing_max<60 , vce(r)
    ────────────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── begin nbreg ────────────────
    - if _by() {
      local BY `"by `_byvars'`_byrc0':"'
      }
    - `BY' _vce_parserun nbreg, mark(Exposure OFFset CLuster) : `0'
    =  _vce_parserun nbreg, mark(Exposure OFFset CLuster) : y_timing_max   wlt
> h wg_ndx  stky_pr_rotemberg  stky_pr_calvo open  if y_timing_max<60 , vce(r)
      ──────────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _vce_parserun ────────────────
      - version 9
      - local version : di "version " string(_caller()) ":"
      - local bycall = _by()
      - _on_colon_parse `0'
      = _on_colon_parse nbreg, mark(Exposure OFFset CLuster) : y_timing_max
> wlth wg_ndx  stky_pr_rotemberg  stky_pr_calvo open  if y_timing_max<60 , vce
> (r)
        ────────────────────────────────────────────────────────────────────────
```

```
> ──────────────────────────────────────── begin _on_colon_parse ────────────────
        - version 8.2
        - sreturn local before ""
        - sreturn local after ""
        - gettoken before after : 0, parse(":") bind match(par) quotes
        - if "`par'" != "" {
        = if "" != "" {
          local before `"(`before')"'
          }
        - if `"`before'"' == ":" {
        = if `"nbreg, mark(Exposure OFFset CLuster) "' == ":" {
          sreturn local after `"`after'"'
          exit
          }
        - while `"`COLON'"' != ":" & `"`after'"' != "" {
        = while `""' != ":" & `": y_timing_max   wlth wg_ndx  stky_pr_rotember
> g  stky_pr_calvo open  if y_timing_max<60 , vce(r)"' != "" {
        - gettoken COLON after : after, parse(":") bind match(par) quotes
        - if "`par'" != "" {
        = if "" != "" {
          local before `before' (`COLON')
          local COLON
          }
        - else if `"`COLON'"' != ":" {
        = else if `":"' != ":" {
          local before `"`before' `COLON'"'
          local COLON
          }
        - }
        - while `"`COLON'"' != ":" & `"`after'"' != "" {
        = while `":"' != ":" & `" y_timing_max   wlth wg_ndx  stky_pr_rotember
> g  stky_pr_calvo open  if y_timing_max<60 , vce(r)"' != "" {
          gettoken COLON after : after, parse(":") bind match(par) quotes
          if "`par'" != "" {
          local before `before' (`COLON')
          local COLON
          }
          else if `"`COLON'"' != ":" {
          local before `"`before' `COLON'"'
          local COLON
          }
          }
        - if `"`COLON'"' != ":" {
        = if `":"' != ":" {
          di as err "'' found where ':' expected"
          exit 198
          }
        - sreturn local before `"`before'"'
        = sreturn local before `"nbreg, mark(Exposure OFFset CLuster) "'
        - sreturn local after `"`after'"'
        = sreturn local after `" y_timing_max   wlth wg_ndx  stky_pr_rotemberg
>   stky_pr_calvo open  if y_timing_max<60 , vce(r)"'
        ──────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
      - local ZERO `"`s(before)'"'
      = local ZERO `"nbreg, mark(Exposure OFFset CLuster) "'
      - local 0 `"`s(after)'"'
      = local 0 `" y_timing_max   wlth wg_ndx  stky_pr_rotemberg  stky_pr_calv
> o open  if y_timing_max<60 , vce(r)"'
      - quietly syntax [anything(equalok)] [if] [in] [fw aw pw iw] [, VCE(stri
> ng asis) VCE1(string asis) LRMODEL * ]
      - if `"`vce'"' == "" {
      = if `"r"' == "" {
        MYRESULT
        exit
        }
      - local AFTER `"`0'"'
      = local AFTER `" y_timing_max   wlth wg_ndx  stky_pr_rotemberg  stky_pr_
> calvo open  if y_timing_max<60 , vce(r)"'
      - local 0 `"`ZERO'"'
      = local 0 `"nbreg, mark(Exposure OFFset CLuster) "'
      - syntax name(name=caller id="calling command name") [, WTYPES(string) N
> OBOOTstrap NOJACKknife NOOTHERvce NOTEST PANELdata STdata bootopts(string as
> is) jkopts(string asis) robustok multivce REQUIREDopts(namelist) NOEQLIST EQ
> opts(passthru) EQARGopts(passthru) noNEEDVARLIST COMMONopts(namelist) MARKop
> ts(passthru) SMARKopts(passthru) RMCOLLopts(passthru) RMDCOLLopts(passthru)
> NUMDEPvars(passthru) NEEDEQUAL ALLDEPSMISsing PARentheses UNPARFIRSTeq OR EQ
> UAL UNEQUALFIRSTeq IGNORENOCONS ]
      - if `"`requiredopts'"' != "" {
      = if `""' != "" {
        tempname reqopts
        .`reqopts' = ._optlist.new
        foreach req of local requiredopts {
        .`reqopts'.addopt `req', passthru
        }
        }
      - if "`wtypes'" == "" {
      = if "" == "" {
      - local wtypes fw aw pw iw
      - }
      - if "`paneldata'" != "" {
      = if "" != "" {
        local panelopt "CLuster(varname) I(varname)"
        }
      - if "`stdata'" != "" {
      = if "" != "" {
        local stopt "CLuster(varname) SHared(varname)"
        }
      - local typelist svy jackknife bootstrap
      - if "`stdata'" == "" & replay() & ! _by() {
      = if "" == "" & replay() & ! _by() {
        local ecmd `e(cmd)'
        local ecmdname `e(cmdname)'
        if `"`ecmd'"' == "" {
        error 301
        }
        else if `"`ecmd'"' != "`caller'" & `"`ecmdname'"' == "`caller'" & `:li
> st ecmd in typelist' {
        `ecmd' `0'
        MYRESULT exit
        }
        MYRESULT
        exit
        }
      - gettoken svy typelist : typelist
      - if "`reqopts'" != "" {
      = if "" != "" {
        local REQOPTLIST `"`.`reqopts'.dumpoptions'"'
        local REQOPTNAMES `"`.`reqopts'.dumpnames'"'
        }
      - local 0 `"`AFTER'"'
      = local 0 `" y_timing_max   wlth wg_ndx  stky_pr_rotemberg  stky_pr_calv
> o open  if y_timing_max<60 , vce(r)"'
      - quietly syntax [anything(equalok)] [if/] [in] [`wtypes'] [, VCE(string
>  asis) VCE1(string asis) Robust NODOTS `panelopt' `stopt' `REQOPTLIST' * ]
      = quietly syntax [anything(equalok)] [if/] [in] [fw aw pw iw] [, VCE(str
> ing asis) VCE1(string asis) Robust NODOTS    * ]
      - if `:list vce === vce1' {
      = if 0 {
        local vce1
        }
      - if `"`vce1'"' != "" & "`multivce'" == "" {
      = if `""' != "" & "" == "" {
        di as err "option vce() specified multiple times"
        exit 198
        }
      - if "`robust'" != "" & "`robustok'" == "" {
      = if "" != "" & "" == "" {
```

```
    di as err "options vce() and robust may not be combined"
    exit 198
    }
   - if `"`if'"' != "" {
   = if `"y_timing_max<60 "' != "" {
   - local if `"if (`if')"'
   = local if `"if (y_timing_max<60 )"'
   - }
   - if "`robust'" != "" {
   = if "" != "" {
    local options `"`robust' `options'"'
    }
   - if "`weight'" != "" {
   = if "" != "" {
    local wgt [`weight'`exp']
    }
   - if `"`options'"' != "" {
   = if `""' != "" {
    local opts `"`:list retok options'"'
    }
   - gettoken uvcetype vceopts : vce, parse(" ,")
   - capture unabVCEtype, `uvcetype'
   = capture unabVCEtype, r
    ───────────────────────────────────
> ─────────────── begin _vce_parserun.unabVCEtype ────────
    - syntax [, BOOTstrap BStrap JACKknife JACKNife JKnife Robust * ]
    - if "`bstrap'" != "" {
    = if "" != "" {
     local bootstrap bootstrap
     }
    - if "`jknife'" != "" | "`jacknife'" != "" {
    = if "" != "" | "" != "" {
     local jackknife jackknife
     }
    - local vcetype `"`jackknife' `bootstrap' `robust' `options'"'
    = local vcetype `"  robust "'
    - sreturn local vcetype `"`:list retok vcetype'"'
    = sreturn local vcetype `"robust"'
    ───────────────────────────────────
> ──────────────── end _vce_parserun.unabVCEtype ────────
   - if c(rc) {
    di as err "invalid vce() option"
    exit c(rc)
    }
   - local vcetype `s(vcetype)'
   = local vcetype robust
   - if "`lrmodel'"!="" {
   = if ""!="" {
     _check_lrmodel `caller', vcetype(`vcetype')
     }
   - if `"`vce1'"' != "" & "`multivce'" != "" {
   = if `""' != "" & "" != "" {
     gettoken uvce1type vce1opts : vce1, parse(" ,")
     capture unabVCEtype, `uvce1type'
     if c(rc) {
     di as err "invalid vce() option"
     exit c(rc)
     }
     local vce1type `s(vcetype)'
     if `:list vce1type in typelist' | `:list vcetype in typelist' {
     di as err "options vce(`vce') and vce(`vce1') cannot be combined"
     exit 198
     }
     MYRESULT
     exit
     }
   - if _caller() >= 17 {
   - if "`vcetype'" == "cluster" {
   = if "robust" == "cluster" {
     gettoken vceopts vce1opts: vceopts, parse(",")
     if `:list sizeof vceopts' > 1 {
     local typelist "`typelist' cluster_multiway"
     local vcetype cluster_multiway
     if `:list sizeof vce1opts' > 0 {
     gettoken comma vce1opts: vce1opts, parse(",")
     local vce1opts: list retokenize vce1opts
     di as err "{p}VCE option " "{bf:`vce1opts'} not allowed{p_end}"
     exit 198
     }
     }
     }
   - }
   - if ! `:list vcetype in typelist' {
   = if ! 0 {
   - if "`vcetype'" != "robust" & "`noothervce'" == "noothervce" {
   = if "robust" != "robust" & "" == "noothervce" {
     di as err "option vce(`uvcetype') not allowed"
     exit 198
     }
   - MYRESULT
     -----------------------------------
> --------------- begin _vce_parserun.MYRESULT --------
```

```
        - args exit
        - sreturn local exit `"`exit'"'
        = sreturn local exit `""'
        ──────────────────────────────────────────────────────────────────────
> ───────────────────────────────── end _vce_parserun.MYRESULT ───────────────
      - exit
      ────────────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _vce_parserun ───────────────
    - if "`s(exit)'" != "" {
    = if "" != "" {
      version 10: ereturn local cmdline `"nbreg `0'"'
      exit
      }
    - version 6, missing
    - local version : di "version " string(_caller()) ":"
    - if replay() {
      if "`e(cmd)'" != "nbreg" { error 301 }
      if _by() { error 190 }
      global S_1 = e(chi2_c)
      Display `0'
      error `e(rc)'
      exit
      }
    - `version' `BY' Estimate `0'
    = version 18:  Estimate y_timing_max   wlth wg_ndx  stky_pr_rotemberg  stk
> y_pr_calvo open  if y_timing_max<60 , vce(r)
      ────────────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin nbreg.Estimate ───────────────
      - local vvpoi : di "version " string(_caller()) ", missing:"
      - if _caller() >= 11 {
      - local vv : di "version " string(_caller()) ":"
      - local mm e2
      - local negh negh
      - }
      - else {
        local vv "version 8.1:"
        local mm d2
        }
      - version 6, missing
      - local awopt = cond(_caller()<7, "aw", "")
      - syntax varlist(numeric fv ts) [fw `awopt' pw iw] [if] [in] [, IRr FROM
> (string) Level(cilevel) OFFset(varname numeric ts) Exposure(varname numeric
> ts) noCONstant Robust CLuster(varname) SCore(string) NOLOg LOg noDISPLAY noL
> Rtest Dispersion(string) CRITTYPE(passthru) VCE(passthru) moptobj(passthru)
> * ]
      = syntax varlist(numeric fv ts) [fw  pw iw] [if] [in] [, IRr FROM(string
> ) Level(cilevel) OFFset(varname numeric ts) Exposure(varname numeric ts) noC
> ONstant Robust CLuster(varname) SCore(string) NOLOg LOg noDISPLAY noLRtest D
> ispersion(string) CRITTYPE(passthru) VCE(passthru) moptobj(passthru) * ]
      - local fvops = "`s(fvops)'" == "true" | _caller() >= 11
      = local fvops = "" == "true" | _caller() >= 11
      - if _by() {
        _byoptnotallowed score() `"`score'"'
        }
      - _get_diopts diopts options, `options'
      = _get_diopts diopts options,
        ──────────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
        - version 11
        - syntax namelist(max=2) [, *]
        - gettoken name1 namelist : namelist
        - gettoken name2 namelist : namelist
        - GetDiopts diopts options, `options'
        = GetDiopts diopts options,
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
          - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
          - syntax namelist(max=2) [, `DIOPTS' *]
          = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
          - opts_exclusive "`allbaselevels' `noallbaselevels'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`allbaselevels' `nobaselevels'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`baselevels' `nobaselevels'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`emptycells' `noemptycells'"
          = opts_exclusive " "
```

```
            ───────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ───────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
          - opts_exclusive "`fvlabel' `nofvlabel'"
          = opts_exclusive " "
            ───────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ───────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
          - opts_exclusive "`omitted' `noomitted'"
          = opts_exclusive " "
            ───────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
```

```
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`lstretch' `nolstretch'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`cnsreport' `fullcnsreport'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
```

```
> --------------------- end opts_exclusive --------
     - opts_exclusive "`coeflegend' `selegend'"
     = opts_exclusive " "
      ---------------------------------
> -------------------- begin opts_exclusive --------
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ---------------------------------
> --------------------- end opts_exclusive --------
     - opts_exclusive "`noci' `nopvalues'"
     = opts_exclusive " "
      ---------------------------------
> -------------------- begin opts_exclusive --------
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ---------------------------------
> --------------------- end opts_exclusive --------
     - local K : list sizeof namelist
     - gettoken c_diopts c_opts : namelist
     - opts_exclusive "`coding' `compare'"
     = opts_exclusive " "
      ---------------------------------
> -------------------- begin opts_exclusive --------
      - version 8.2
```

```
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
          - opts_exclusive "`versus' `compare'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
          - opts_exclusive "`abbrev' `noabbrev'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ------------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
      - local allbaselevels `allbaselevels' `noallbaselevels'
      = local allbaselevels
      - local baselevels `baselevels' `nobaselevels'
      = local baselevels
      - local emptycells `emptycells' `noemptycells'
      = local emptycells
      - local omitted `omitted' `noomitted'
      = local omitted
      - local lstretch `lstretch' `nolstretch'
      = local lstretch
      - local fvlabel `fvlabel' `nofvlabel'
      = local fvlabel
      - local abbrev `abbrev' `noabbrev'
      = local abbrev
      - if "`allbaselevels'`baselevels'" == "" {
      = if "" == "" {
      - if c(showbaselevels) == "all" {
        local allbaselevels allbaselevels
        }
      - else if c(showbaselevels) == "on" {
        local baselevels baselevels
        }
      - }
      - if "`emptycells'" == "" {
      = if "" == "" {
      - if c(showemptycells) == "off" {
        local emptycells noemptycells
        }
      - }
      - if "`omitted'" == "" {
      = if "" == "" {
      - if c(showomitted) == "off" {
        local omitted noomitted
        }
      - }
      - if "`lstretch'" == "" {
      = if "" == "" {
      - if c(lstretch) == "off" {
        local lstretch nolstretch
        }
```

```
          - }
          - if `:length local cformat' {
          = if 0 {
            confirm numeric format `cformat'
            if fmtwidth(`"`cformat'"') > 9 {
            local cformat "%9.0g"
            di "{txt}note: invalid cformat(), using default"
            }
            sreturn local cformat `"`cformat'"'
            local cformat `"cformat(`cformat')"'
            }
          - if `:length local sformat' {
          = if 0 {
            confirm numeric format `sformat'
            if fmtwidth(`"`sformat'"') > 8 {
            local sformat "%8.2f"
            di "{txt}note: invalid sformat(), using default"
            }
            sreturn local sformat `"`sformat'"'
            local sformat `"sformat(`sformat')"'
            }
          - if `:length local pformat' {
          = if 0 {
            confirm numeric format `pformat'
            if fmtwidth(`"`pformat'"') > 5 {
            local pformat "%5.3f"
            di "{txt}note: invalid pformat(), using default"
            }
            sreturn local pformat `"`pformat'"'
            local pformat `"pformat(`pformat')"'
            }
          - if `K' == 1 & `:length local options' {
          = if 2 == 1 & 0 {
            syntax namelist(max=2) [, `DIOPTS']
            }
          - if reldif(`level', c(level)) > 1e-3 {
          = if reldif(95, c(level)) > 1e-3 {
            local levelopt level(`level')
            }
          - Wrapon , `fvwrapon'
          = Wrapon ,
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
            - capture syntax [, WOrd WIdth]
            - if c(rc) {
              di as err "invalid fvwrapon() option;"
              syntax [, WOrd WIdth]
              exit 198
              }
            - opts_exclusive "`word' `width'" fvwrapon
            = opts_exclusive " " fvwrapon
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - local fvwrapon `word' `width'
            = local fvwrapon
            - if `:length local fvwrapon' {
            = if 0 {
              c_local fvwrapon fvwrapon(`fvwrapon')
              }
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
          - if "`fvwrap'" != "" {
          = if "" != "" {
            FVWrap, `fvwrap'
            }
          - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwr
> ap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
          = c_local diopts
          - if `K' == 2 {
          = if 2 == 2 {
          - c_local `c_opts' `"`options'"'
          = c_local  options `""'
          - }
          - sreturn local coding `coding'
          = sreturn local coding
          - sreturn local versus `versus'
          = sreturn local versus
          - sreturn local compare `compare'
          = sreturn local compare
          - sreturn local level `level'
          = sreturn local level 95
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
        - c_local `name1' `"`diopts'"'
        = c_local diopts `""'
        - local snames : s(macros)
        - foreach sname of local snames {
        - local S_`sname' = s(`sname')
        = local S_level = s(level)
        - }
        - sreturn clear
        - GetDiopts DEFAULT
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
          - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
          - syntax namelist(max=2) [, `DIOPTS' *]
          = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
          - opts_exclusive "`allbaselevels' `noallbaselevels'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ------------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
          - opts_exclusive "`allbaselevels' `nobaselevels'"
          = opts_exclusive " "
            ------------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ------------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
          - opts_exclusive "`baselevels' `nobaselevels'"
          = opts_exclusive " "
            ------------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ------------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
          - opts_exclusive "`emptycells' `noemptycells'"
          = opts_exclusive " "
            ------------------------------------------------------------------
```

```
> --------------------------------------- begin opts_exclusive ---------------
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ------------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
          - opts_exclusive "`fvlabel' `nofvlabel'"
          = opts_exclusive " "
            ------------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ------------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
          - opts_exclusive "`omitted' `noomitted'"
          = opts_exclusive " "
            ------------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
```

```
       local ++n
       gettoken item`n' opts : opts, bind
       }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ─────────────────────────────────
> ──────────────────── end opts_exclusive ────────
     - opts_exclusive "`lstretch' `nolstretch'"
     = opts_exclusive " "
      ─────────────────────────────────
> ─────────────────── begin opts_exclusive ────────
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
       local ++n
       gettoken item`n' opts : opts, bind
       }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ─────────────────────────────────
> ──────────────────── end opts_exclusive ────────
     - opts_exclusive "`cnsreport' `fullcnsreport'"
     = opts_exclusive " "
      ─────────────────────────────────
> ─────────────────── begin opts_exclusive ────────
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
       local ++n
       gettoken item`n' opts : opts, bind
       }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ─────────────────────────────────
> ──────────────────── end opts_exclusive ────────
```

```
     - opts_exclusive "`coeflegend' `selegend'"
     = opts_exclusive " "
      ─────────────────────────────────
> ────────────────────── begin opts_exclusive ────────
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ─────────────────────────────────
> ─────────────────────── end opts_exclusive ────────
     - opts_exclusive "`noci' `nopvalues'"
     = opts_exclusive " "
      ─────────────────────────────────
> ────────────────────── begin opts_exclusive ────────
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ─────────────────────────────────
> ─────────────────────── end opts_exclusive ────────
     - local K : list sizeof namelist
     - gettoken c_diopts c_opts : namelist
     - opts_exclusive "`coding' `compare'"
     = opts_exclusive " "
      ─────────────────────────────────
> ────────────────────── begin opts_exclusive ────────
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ---------------------------------
> -------------------- end opts_exclusive --------
     - opts_exclusive "`versus' `compare'"
     = opts_exclusive " "
      ---------------------------------
> ------------------- begin opts_exclusive --------
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
      - if `n' < 2 {
      = if 0 < 2 {
      - exit
      ---------------------------------
> -------------------- end opts_exclusive --------
     - opts_exclusive "`abbrev' `noabbrev'"
     = opts_exclusive " "
      ---------------------------------
> ------------------- begin opts_exclusive --------
      - version 8.2
      - args opts optname errcode optslab
      - local opts `opts'
      = local opts
      - local n 0
      - while `"`opts'"' != "" {
      = while `""' != "" {
        local ++n
        gettoken item`n' opts : opts, bind
        }
```

```
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              -----------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
          - local allbaselevels `allbaselevels' `noallbaselevels'
          = local allbaselevels
          - local baselevels `baselevels' `nobaselevels'
          = local baselevels
          - local emptycells `emptycells' `noemptycells'
          = local emptycells
          - local omitted `omitted' `noomitted'
          = local omitted
          - local lstretch `lstretch' `nolstretch'
          = local lstretch
          - local fvlabel `fvlabel' `nofvlabel'
          = local fvlabel
          - local abbrev `abbrev' `noabbrev'
          = local abbrev
          - if "`allbaselevels'`baselevels'" == "" {
          = if "" == "" {
          - if c(showbaselevels) == "all" {
            local allbaselevels allbaselevels
            }
          - else if c(showbaselevels) == "on" {
            local baselevels baselevels
            }
          - }
          - if "`emptycells'" == "" {
          = if "" == "" {
          - if c(showemptycells) == "off" {
            local emptycells noemptycells
            }
          - }
          - if "`omitted'" == "" {
          = if "" == "" {
          - if c(showomitted) == "off" {
            local omitted noomitted
            }
          - }
          - if "`lstretch'" == "" {
          = if "" == "" {
          - if c(lstretch) == "off" {
            local lstretch nolstretch
            }
          - }
          - if `:length local cformat' {
          = if 0 {
            confirm numeric format `cformat'
            if fmtwidth(`"`cformat'"') > 9 {
            local cformat "%9.0g"
            di "{txt}note: invalid cformat(), using default"
            }
            sreturn local cformat `"`cformat'"'
            local cformat `"cformat(`cformat')"'
            }
          - if `:length local sformat' {
          = if 0 {
            confirm numeric format `sformat'
            if fmtwidth(`"`sformat'"') > 8 {
            local sformat "%8.2f"
            di "{txt}note: invalid sformat(), using default"
            }
            sreturn local sformat `"`sformat'"'
            local sformat `"sformat(`sformat')"'
            }
          - if `:length local pformat' {
          = if 0 {
            confirm numeric format `pformat'
            if fmtwidth(`"`pformat'"') > 5 {
            local pformat "%5.3f"
            di "{txt}note: invalid pformat(), using default"
            }
            sreturn local pformat `"`pformat'"'
            local pformat `"pformat(`pformat')"'
            }
          - if `K' == 1 & `:length local options' {
          = if 1 == 1 & 0 {
            syntax namelist(max=2) [, `DIOPTS']
            }
          - if reldif(`level', c(level)) > 1e-3 {
          = if reldif(95, c(level)) > 1e-3 {
            local levelopt level(`level')
            }
          - Wrapon , `fvwrapon'
          = Wrapon ,
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
            - capture syntax [, WOrd WIdth]
            - if c(rc) {
              di as err "invalid fvwrapon() option;"
              syntax [, WOrd WIdth]
              exit 198
              }
            - opts_exclusive "`word' `width'" fvwrapon
            = opts_exclusive " " fvwrapon
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
            - local fvwrapon `word' `width'
            = local fvwrapon
            - if `:length local fvwrapon' {
            = if 0 {
              c_local fvwrapon fvwrapon(`fvwrapon')
              }
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ────────────────
          - if "`fvwrap'" != "" {
          = if "" != "" {
            FVWrap, `fvwrap'
            }
          - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwr
> ap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
          = c_local DEFAULT
          - if `K' == 2 {
          = if 1 == 2 {
            c_local `c_opts' `"`options'"'
            }
          - sreturn local coding `coding'
          = sreturn local coding
          - sreturn local versus `versus'
          = sreturn local versus
          - sreturn local compare `compare'
          = sreturn local compare
          - sreturn local level `level'
          = sreturn local level 95
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
        - if `"`name2'"' == "" {
        = if `"options"' == "" {
          GetDiopts DUPS, `options'
          }
        - else {
        - GetDiopts DUPS options, `options'
        = GetDiopts DUPS options,
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
          - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels
> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
          - syntax namelist(max=2) [, `DIOPTS' *]
          = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
          - opts_exclusive "`allbaselevels' `noallbaselevels'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`allbaselevels' `nobaselevels'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`baselevels' `nobaselevels'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`emptycells' `noemptycells'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`fvlabel' `nofvlabel'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`omitted' `noomitted'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
```

```
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`lstretch' `nolstretch'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`cnsreport' `fullcnsreport'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`coeflegend' `selegend'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
```

```
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
          - opts_exclusive "`noci' `nopvalues'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
          - local K : list sizeof namelist
          - gettoken c_diopts c_opts : namelist
          - opts_exclusive "`coding' `compare'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
```

```
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`versus' `compare'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
          - opts_exclusive "`abbrev' `noabbrev'"
          = opts_exclusive " "
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ──────────────────────────────────────────────────────────────────
```

```
> --------------------- end opts_exclusive --------
     - local allbaselevels `allbaselevels' `noallbaselevels'
     = local allbaselevels
     - local baselevels `baselevels' `nobaselevels'
     = local baselevels
     - local emptycells `emptycells' `noemptycells'
     = local emptycells
     - local omitted `omitted' `noomitted'
     = local omitted
     - local lstretch `lstretch' `nolstretch'
     = local lstretch
     - local fvlabel `fvlabel' `nofvlabel'
     = local fvlabel
     - local abbrev `abbrev' `noabbrev'
     = local abbrev
     - if "`allbaselevels'`baselevels'" == "" {
     = if "" == "" {
     - if c(showbaselevels) == "all" {
       local allbaselevels allbaselevels
       }
     - else if c(showbaselevels) == "on" {
       local baselevels baselevels
       }
     - }
     - if "`emptycells'" == "" {
     = if "" == "" {
     - if c(showemptycells) == "off" {
       local emptycells noemptycells
       }
     - }
     - if "`omitted'" == "" {
     = if "" == "" {
     - if c(showomitted) == "off" {
       local omitted noomitted
       }
     - }
     - if "`lstretch'" == "" {
     = if "" == "" {
     - if c(lstretch) == "off" {
       local lstretch nolstretch
       }
     - }
     - if `:length local cformat' {
     = if 0 {
       confirm numeric format `cformat'
       if fmtwidth(`"`cformat'"') > 9 {
            local cformat "%9.0g"
            di "{txt}note: invalid cformat(), using default"
            }
            sreturn local cformat `"`cformat'"'
            local cformat `"cformat(`cformat')"'
            }
          - if `:length local sformat' {
          = if 0 {
            confirm numeric format `sformat'
            if fmtwidth(`"`sformat'"') > 8 {
            local sformat "%8.2f"
            di "{txt}note: invalid sformat(), using default"
            }
            sreturn local sformat `"`sformat'"'
            local sformat `"sformat(`sformat')"'
            }
          - if `:length local pformat' {
          = if 0 {
            confirm numeric format `pformat'
            if fmtwidth(`"`pformat'"') > 5 {
            local pformat "%5.3f"
            di "{txt}note: invalid pformat(), using default"
            }
            sreturn local pformat `"`pformat'"'
            local pformat `"pformat(`pformat')"'
            }
          - if `K' == 1 & `:length local options' {
          = if 2 == 1 & 0 {
            syntax namelist(max=2) [, `DIOPTS']
            }
          - if reldif(`level', c(level)) > 1e-3 {
          = if reldif(95, c(level)) > 1e-3 {
            local levelopt level(`level')
            }
          - Wrapon , `fvwrapon'
          = Wrapon ,
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
            - capture syntax [, WOrd WIdth]
            - if c(rc) {
              di as err "invalid fvwrapon() option;"
              syntax [, WOrd WIdth]
              exit 198
              }
            - opts_exclusive "`word' `width'" fvwrapon
            = opts_exclusive " " fvwrapon
```

```
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - local fvwrapon `word' `width'
            = local fvwrapon
            - if `:length local fvwrapon' {
            = if 0 {
              c_local fvwrapon fvwrapon(`fvwrapon')
              }
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
          - if "`fvwrap'" != "" {
          = if "" != "" {
            FVWrap, `fvwrap'
            }
          - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwr
> ap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
          = c_local DUPS
          - if `K' == 2 {
          = if 2 == 2 {
          - c_local `c_opts' `"`options'"'
          = c_local  options `""'
          - }
          - sreturn local coding `coding'
          = sreturn local coding
          - sreturn local versus `versus'
          = sreturn local versus
          - sreturn local compare `compare'
          = sreturn local compare
          - sreturn local level `level'
          = sreturn local level 95
          ─────────────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _get_diopts.GetDiopts ───────────────
        - c_local `name2' `"`options'"'
        = c_local options `""'
        - }
        - local DUPS : list DUPS - DEFAULT
        - gettoken DUPS : DUPS
        - if `"`DUPS'"' != "" {
        = if `""' != "" {
          if (strpos(`"`DUPS'"', "(")) {
          gettoken DUPS : DUPS, parse("(")
          local DUPS `"`DUPS'()"'
          }
          di as err "duplicate {bf:`DUPS'} option not allowed"
          exit 198
          }
        - sreturn clear
        - foreach sname of local snames {
        - sreturn local `sname' = `"`S_`sname''"'
        = sreturn local level = `"95"'
        - }
        ───────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _get_diopts ───────────────
      - mlopts mlopts, `options' `log' `nolog'
      = mlopts mlopts,
        ───────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── begin mlopts ───────────────
        - version 8.0
        - local maxoptlist MLOPTs(string) TRace TRACEDIffs GRADient HESSian SH
> OWSTEP ITERate(int -1) TOLerance(real -1) LTOLerance(real -1) GTOLerance(rea
> l -1) NONRTOLerance SHOWNRtolerance SHOWTOLerance NRTOLerance(real -1) QTOLe
> rance(real -1) DIFficult HALFSTEPonly CONSTraints(string) noCNSNOTEs COLline
> ar TECHnique(passthru) VCE(passthru) DOTS depsilon(passthru) SHOWH NOTCONCAV
> E(passthru) USEVIEWS NOLOg LOg nrderiv
        - syntax namelist(id="macro names" min=1 max=2) [, `maxoptlist' * ]
        = syntax namelist(id="macro names" min=1 max=2) [, MLOPTs(string) TRac
> e TRACEDIffs GRADient HESSian SHOWSTEP ITERate(int -1) TOLerance(real -1) LT
> OLerance(real -1) GTOLerance(real -1) NONRTOLerance SHOWNRtolerance SHOWTOLe
> rance NRTOLerance(real -1) QTOLerance(real -1) DIFficult HALFSTEPonly CONSTr
> aints(string) noCNSNOTEs COLlinear TECHnique(passthru) VCE(passthru) DOTS de
> psilon(passthru) SHOWH NOTCONCAVE(passthru) USEVIEWS NOLOg LOg nrderiv * ]
        - gettoken dest rest : namelist
        - if "`rest'" == "" {
        = if "" == "" {
        - syntax namelist [, `maxoptlist' ]
        = syntax namelist [, MLOPTs(string) TRace TRACEDIffs GRADient HESSian
> SHOWSTEP ITERate(int -1) TOLerance(real -1) LTOLerance(real -1) GTOLerance(r
> eal -1) NONRTOLerance SHOWNRtolerance SHOWTOLerance NRTOLerance(real -1) QTO
> Lerance(real -1) DIFficult HALFSTEPonly CONSTraints(string) noCNSNOTEs COLli
> near TECHnique(passthru) VCE(passthru) DOTS depsilon(passthru) SHOWH NOTCONC
> AVE(passthru) USEVIEWS NOLOg LOg nrderiv ]
        - }
        - local mlopts `mlopts' `trace' `tracediffs' `gradient' `hessian' `sho
> wstep' `difficult' `halfsteponly' `nonrtolerance' `shownrtolerance' `showtol
> erance' `dots' `depsilon' `showh' `notconcave' `useviews' `log' `nolog' `nrd
> eriv'
        = local mlopts
        - if `tolerance'!= -1 {
        = if -1!= -1 {
          local tol "tolerance(`tolerance')"
          }
        - if `ltolerance' != -1 {
        = if -1 != -1 {
          local ltol "ltolerance(`ltolerance')"
          }
        - if `gtolerance' != -1 {
        = if -1 != -1 {
          local gtol "gtolerance(`gtolerance')"
          }
        - if `nrtolerance' != -1 {
        = if -1 != -1 {
          local nrtol "nrtolerance(`nrtolerance')"
          }
        - if `qtolerance' != -1 {
        = if -1 != -1 {
          local qtol "qtolerance(`qtolerance')"
          }
        - if `iterate' != -1 {
        = if -1 != -1 {
          local iter "iterate(`iterate')"
          }
        - sreturn clear
        - if "`technique'`vce'" != "" {
        = if "" != "" {
          ml_technique, `technique' `vce' nodefault
          if `"`s(technique)'"' != "" {
          local technique "technique(`s(technique)')"
          }
          if "`s(vce)'" != "" {
          local vce "`s(vceopt)'"
          }
          sreturn local technique "`technique'"
          sreturn local vce "`vce'"
          }
        - if "`constraints'" != "" {
        = if "" != "" {
          capture confirm name `constraints'
          if _rc {
          CheckClist constraints , constraints(`constraints')
          }
          else {
          CheckCmat `constraints'
          }
          local const "constraints(`constraints')"
          sreturn local constraints "`constraints'"
          }
        - sreturn local collinear "`collinear'"
        = sreturn local collinear ""
        - c_local `dest' `mlopts' `tol' `ltol' `gtol' `nrtol' `iter' `const' `
> cnsnotes' `collinear' `technique' `vce' `qtol'
        = c_local mlopts
        - if "`rest'" != "" {
        = if "" != "" {
          c_local `rest' `"`options'"'
          }
        ──────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end mlopts ───────────────
      - local coll `s(collinear)'
      = local coll
      - local cns `s(constraints)'
      = local cns
      - local mlopts `mlopts' `crittype'
      = local mlopts
      - Dispers , `dispers'
      = Dispers ,
        ──────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin nbreg.Dispers ───────────────
        - sret clear
        - syntax [, Mean Constant ]
        - if "`constan'"=="" {
        = if ""=="" {
        - sret local dispers "mean"
        - exit
        ──────────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end nbreg.Dispers ───────────────
      - local dispers `s(dispers)'
      = local dispers mean
      - if "`dispers'"=="mean" {
      = if "mean"=="mean" {
      - local prog "nbreg_lf"
      - local parm "alpha"
      - local LLprog "LLalpha"
      - }
      - else {
        local prog "nbreg_al"
        local parm "delta"
        local LLprog "LLdelta"
        }
      - local title "Negative binomial regression"
      - if `"`score'"'!="" {
      = if `""'!="" {
        local nword : word count `score'
        if `nword'==1 & bsubstr("`score'",-1,1)=="*" {
        local score = bsubstr("`score'",1,length("`score'")-1)
        local score `score'1 `score'2
        local nword 2
        }
        confirm new variable `score'
        if `nword' != 2 {
        version 7: di as err "option {bf:score()} must contain the name of " "
> two new variables"
        exit 198
        }
        local scname1 : word 1 of `score'
        local scname2 : word 2 of `score'
        tempvar scvar1 scvar2
        local scopt "score(`scvar1' `scvar2')"
        }
      - if "`offset'"!="" & "`exposur'"!="" {
      = if ""!="" & ""!="" {
        version 7: di as err "options {bf:offset()} and {bf:exposure()} may no
> t be specified together"
        exit 198
        }
      - if "`constan'"!="" {
      = if ""!="" {
        local nvar : word count `varlist'
        if `nvar' == 1 {
        version 7: di as err "independent variables required with " "option {b
> f:noconstant}"
        exit 102
        }
        }
      - marksample touse
      - if `"`cluster'"'!="" {
      = if `""'!="" {
        local clopt cluster(`cluster')
        }
      - _vce_parse, argopt(CLuster) opt(Robust oim opg) old: [`weight'`exp'],
> `vce' `clopt' `robust'
      = _vce_parse, argopt(CLuster) opt(Robust oim opg) old: [], vce(r)
        ──────────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _vce_parse ───────────────
        - version 10
        - _on_colon_parse `0'
        = _on_colon_parse , argopt(CLuster) opt(Robust oim opg) old: [], vce(r
> )
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _on_colon_parse ───────────────
          - version 8.2
          - sreturn local before ""
          - sreturn local after ""
          - gettoken before after : 0, parse(":") bind match(par) quotes
          - if "`par'" != "" {
          = if "" != "" {
            local before `"(`before')"'
            }
          - if `"`before'"' == ":" {
          = if `", argopt(CLuster) opt(Robust oim opg) old"' == ":" {
            sreturn local after `"`after'"'
            exit
            }
          - while `"`COLON'"' != ":" & `"`after'"' != "" {
          = while `""' != ":" & `": [], vce(r)  "' != "" {
          - gettoken COLON after : after, parse(":") bind match(par) quotes
          - if "`par'" != "" {
          = if "" != "" {
            local before `before' (`COLON')
            local COLON
            }
          - else if `"`COLON'"' != ":" {
          = else if `":"' != ":" {
            local before `"`before' `COLON'"'
            local COLON
            }
          - }
          - while `"`COLON'"' != ":" & `"`after'"' != "" {
          = while `":"' != ":" & `" [], vce(r)  "' != "" {
            gettoken COLON after : after, parse(":") bind match(par) quotes
            if "`par'" != "" {
            local before `before' (`COLON')
            local COLON
            }
            else if `"`COLON'"' != ":" {
            local before `"`before' `COLON'"'
            local COLON
            }
            }
          - if `"`COLON'"' != ":" {
          = if `":"' != ":" {
            di as err "'' found where ':' expected"
            exit 198
            }
          - sreturn local before `"`before'"'
          = sreturn local before `", argopt(CLuster) opt(Robust oim opg) old"'
          - sreturn local after `"`after'"'
          = sreturn local after `" [], vce(r)  "'
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
        - local 0 `"`s(before)'"'
        = local 0 `", argopt(CLuster) opt(Robust oim opg) old"'
        - local user `"`s(after)'"'
        = local user `" [], vce(r)  "'
        - syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTlist(namel
> ist) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
        - local touse `varlist'
        = local touse
        - tempname o a
        - .`o' = ._optlist.new
        = .__000001 = ._optlist.new
          -class {
          -instance:
          -        array options   = {}
          -        array names     = {}
          -}
        - local optlist : list uniq optlist
        - foreach name of local optlist {
        - .`o'.addopt `name'
        = .__000001.addopt Robust
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
          - version 9
          - syntax name(name=optspec) [, PASSthru]
          - local mname = lower("`optspec'")
          = local mname = lower("Robust")
          - if "`passthru'" != "" {
          = if "" != "" {
            local optspec `optspec'(passthru)
            }
          - .options.Arrpush "`optspec'"
          = .options.Arrpush "Robust"
          - .names.Arrpush "`mname'"
          = .names.Arrpush "robust"
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
        - }
        - .`o'.addopt `name'
        = .__000001.addopt oim
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
          - version 9
          - syntax name(name=optspec) [, PASSthru]
          - local mname = lower("`optspec'")
          = local mname = lower("oim")
          - if "`passthru'" != "" {
          = if "" != "" {
            local optspec `optspec'(passthru)
            }
          - .options.Arrpush "`optspec'"
          = .options.Arrpush "oim"
          - .names.Arrpush "`mname'"
          = .names.Arrpush "oim"
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
        - }
        - .`o'.addopt `name'
        = .__000001.addopt opg
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
          - version 9
          - syntax name(name=optspec) [, PASSthru]
          - local mname = lower("`optspec'")
          = local mname = lower("opg")
          - if "`passthru'" != "" {
          = if "" != "" {
            local optspec `optspec'(passthru)
            }
          - .options.Arrpush "`optspec'"
          = .options.Arrpush "opg"
          - .names.Arrpush "`mname'"
          = .names.Arrpush "opg"
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
        - }
        - .`a' = ._optlist.new
        = .__000002 = ._optlist.new
        - local argoptlist : list uniq argoptlist
        - foreach name of local argoptlist {
        - .`a'.addopt `name'
        = .__000002.addopt CLuster
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
          - version 9
          - syntax name(name=optspec) [, PASSthru]
          - local mname = lower("`optspec'")
          = local mname = lower("CLuster")
          - if "`passthru'" != "" {
          = if "" != "" {
            local optspec `optspec'(passthru)
            }
          - .options.Arrpush "`optspec'"
          = .options.Arrpush "CLuster"
          - .names.Arrpush "`mname'"
          = .names.Arrpush "cluster"
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
        - }
        - local OPTNAMES `"`.`o'.dumpnames'"'
          ────────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
          - version 9
          - forval i = 1/`.names.arrnels' {
          = forval i = 1/3 {
          - local namelist `namelist' `.names[`i']'
          = local namelist  robust
          - }
          - local namelist `namelist' `.names[`i']'
          = local namelist robust oim
          - }
          - local namelist `namelist' `.names[`i']'
          = local namelist robust oim opg
          - }
          - local namelist : list uniq namelist
          - sreturn local namelist `"`namelist'"'
          = sreturn local namelist `"robust oim opg"'
          - class exit `"`namelist'"'
          = class exit `"robust oim opg"'
          ---------------------------------------------------------------------
> ------------------------------------- end _optlist.dumpnames ---------------
        = local OPTNAMES `"robust oim opg"'
        - local ARGOPTNAMES `"`.`a'.dumpnames'"'
          ---------------------------------------------------------------------
> ----------------------------------- begin _optlist.dumpnames ---------------
          - version 9
          - forval i = 1/`.names.arrnels' {
          = forval i = 1/1 {
          - local namelist `namelist' `.names[`i']'
          = local namelist  cluster
          - }
          - local namelist : list uniq namelist
          - sreturn local namelist `"`namelist'"'
          = sreturn local namelist `"cluster"'
          - class exit `"`namelist'"'
          = class exit `"cluster"'
          ---------------------------------------------------------------------
> ------------------------------------- end _optlist.dumpnames ---------------
        = local ARGOPTNAMES `"cluster"'
        - local AND : list OPTNAMES & ARGOPTNAMES
        - if `:list sizeof AND' {
        = if 0 {
          di as err "vcetype '`:word 1 of `AND''' specified twice"
          exit 198
          }
        - local pwallowed : list uniq pwallowed
        - local pwlist robust cluster
        - foreach n of local pwallowed {
          local lc = lower("`n'")
          local pwlist `pwlist' `lc'
          }
        - if "`old_is_ok'" != "" {
        = if "old_is_ok" != "" {
        - local ROBUST robust
        - if `:list ROBUST in OPTNAMES' {
        = if 1 {
        - local robust Robust
        - }
        - local CLUSTER cluster
        - if `:list CLUSTER in ARGOPTNAMES' {
        = if 1 {
        - local cluster CLuster(varname)
        - }
        - }
        - local 0 `"`user'"'
        = local 0 `" [], vce(r)  "'
        - syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
        = syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varname) ]
        - if `"`vce'"' != "" {
        = if `"r"' != "" {
        - gettoken name args : vce, parse(" ,")
        - local args : list retok args
        - capture ParseVCE `o' `a' , `name'
        = capture ParseVCE __000001 __000002 , r
          ─────────────────────────────────────────────────────────────────────
> ────────────────────────────────── begin _vce_parse.ParseVCE ────────────────
          - gettoken O 0 : 0, parse(" ,")
          - gettoken A 0 : 0, parse(" ,")
          - local OPTSPECS `"`.`O'.dumpoptions' `.`A'.dumpoptions'"'
            ───────────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ────────────────
            - version 9
            - forval i = 1/`.options.arrnels' {
            = forval i = 1/3 {
            - local optlist `optlist' `.options[`i']'
            = local optlist  Robust
            - }
            - local optlist `optlist' `.options[`i']'
            = local optlist Robust oim
            - }
            - local optlist `optlist' `.options[`i']'
            = local optlist Robust oim opg
            - }
            - local optlist : list uniq optlist
            - sreturn local optlist `"`optlist'"'
            = sreturn local optlist `"Robust oim opg"'
            - class exit `"`optlist'"'
            = class exit `"Robust oim opg"'
            ───────────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ────────────────
            ───────────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ────────────────
            - version 9
            - forval i = 1/`.options.arrnels' {
            = forval i = 1/1 {
            - local optlist `optlist' `.options[`i']'
            = local optlist  CLuster
            - }
            - local optlist : list uniq optlist
            - sreturn local optlist `"`optlist'"'
            = sreturn local optlist `"CLuster"'
            - class exit `"`optlist'"'
            = class exit `"CLuster"'
            ───────────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
          = local OPTSPECS `"Robust oim opg CLuster"'
          - local OPTNAMES `"`.`O'.dumpnames' `.`A'.dumpnames'"'
            ───────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
            - version 9
            - forval i = 1/`.names.arrnels' {
            = forval i = 1/3 {
            - local namelist `namelist' `.names[`i']'
            = local namelist  robust
            - }
            - local namelist `namelist' `.names[`i']'
            = local namelist robust oim
            - }
            - local namelist `namelist' `.names[`i']'
            = local namelist robust oim opg
            - }
            - local namelist : list uniq namelist
            - sreturn local namelist `"`namelist'"'
            = sreturn local namelist `"robust oim opg"'
            - class exit `"`namelist'"'
            = class exit `"robust oim opg"'
            ───────────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
            ───────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
            - version 9
            - forval i = 1/`.names.arrnels' {
            = forval i = 1/1 {
            - local namelist `namelist' `.names[`i']'
            = local namelist  cluster
            - }
            - local namelist : list uniq namelist
            - sreturn local namelist `"`namelist'"'
            = sreturn local namelist `"cluster"'
            - class exit `"`namelist'"'
            = class exit `"cluster"'
            ───────────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
          = local OPTNAMES `"robust oim opg cluster"'
          - syntax [, `OPTSPECS']
          = syntax [, Robust oim opg CLuster]
          - foreach OPT of local OPTNAMES {
```

```
          - if `"``OPT''"' != "" {
          = if `"robust"' != "" {
          - return local vce `OPT'
          = return local vce robust
          - continue, break
            }
            }
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────────── end _vce_parse.ParseVCE ───────────────
        - if c(rc) {
          di as err "vcetype {bf:`name'} not allowed"
          exit 198
          }
        - local name `r(vce)'
        = local name robust
        - if "`weight'" == "pweight" & !`:list name in pwlist' {
        = if "" == "pweight" & !1 {
          di as err "pweights are not allowed with vce(`name')"
          exit 198
          }
        - return add
        - if `"`robust'"' != "" & !inlist("`name'","","robust","eim","oim","cl
> uster") {
        = if `""' != "" & !inlist("robust","","robust","eim","oim","cluster")
> {
          opts_exclusive "`robust' vce(`name')"
          }
        - if "`name'" == "cluster" {
        = if "robust" == "cluster" {
          if `"`args'"' == "" {
          di as err "invalid vce(cluster) option"
          exit 198
          }
          confirm var `args'
          unab args : `args'
          local markout `args'
          if "`cluster'" != "" {
          if !`:list args == cluster' {
          di as err "options cluster() and vce(cluster) are in conflict"
          exit 100
          }
          }
          }
        - else if "`cluster'" != "" & !inlist("`name'","eim","oim") {
        = else if "" != "" & !inlist("robust","eim","oim") {
          opts_exclusive "cluster() vce(`name')"
```

```
  }
- if `"`args'"' != "" {
= if `""' != "" {
  if ! `:list name in ARGOPTNAMES' {
  di as err "invalid vce() option"
  exit 198
  }
  if "`name'" == "hc2" {
  confirm var `args'
  unab args : `args'
  local markout `args'
  }
  return local vceargs `"`:list retok args'"'
  }
- else if `:list name in ARGOPTNAMES' {
= else if 0 {
  if "`noargopt_is_ok'" == "" {
  di as err "invalid vce() option"
  exit 198
  }
  }
- }
- else {
  if "`weight'" == "pweight" | "`robust'" != "" {
  local vce robust
  }
  if "`cluster'" != "" {
  local vce cluster
  local args `cluster'
  local markout `cluster'
  }
  return local vce `"`vce'"'
  return local vceargs `"`args'"'
  }
- if "`return(vce)'" != "" {
= if "robust" != "" {
- if `"`return(vceargs)'"' != "" {
= if `""' != "" {
  local ss " "
  }
- return local vceopt `"vce(`return(vce)'`ss'`return(vceargs)')"'
= return local vceopt `"vce(robust)"'
- }
- if "`return(vce)'" == "cluster" {
= if "robust" == "cluster" {
  return local cluster `return(vceargs)'
```

```
    }
  - if inlist("`return(vce)'", "robust", "cluster") {
  = if inlist("robust", "robust", "cluster") {
  - return local robust robust
  - }
  - if "`touse'" != "" {
  = if "" != "" {
    if "`markout'" != "" {
    markout `touse' `markout', strok
    }
    }
  ----------------------------------------------------------------------
> ---------------------------------------------- end _vce_parse --------
      - local cluster `r(cluster)'
      = local cluster
      - local robust `r(robust)'
      = local robust robust
      - local vce `"`r(vceopt)'"'
      = local vce `"vce(robust)"'
      - if `"`cluster'"'!="" {
      = if `""'!="" {
        markout `touse' `cluster', strok
        }
      - if "`exposur'"!="" {
      = if ""!="" {
        capture assert `exposur' > 0 if `touse'
        if _rc {
        version 7: di as err "option {bf:exposure()} must be greater than zero
> "
        exit 459
        }
        tempvar offset
        qui gen double `offset' = ln(`exposur')
        local offvar "ln(`exposur')"
        }
      - if "`offset'"!="" {
      = if ""!="" {
        markout `touse' `offset'
        local offopt "offset(`offset')"
        if "`offvar'"=="" {
        local offvar "`offset'"
        }
        }
      - gettoken y xvars : varlist
      - _fv_check_depvar `y'
      = _fv_check_depvar y_timing_max
      - tsunab y : `y'
      = tsunab y : y_timing_max
        ──────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── begin tsunab ─────────────
        - version 6
        - gettoken user 0: 0, parse(" :")
        - gettoken colon 0: 0, parse(" :")
        - if `"`colon'"' != ":" { error 198 }
        = if `":"' != ":" { error 198 }
        - syntax [varlist(ts default=empty)] [, MIN(integer 1) MAX(integer 320
> 00) NAME(string)]
        - c_local `user' `varlist'
        = c_local y y_timing_max
        - local n : word count `varlist'
        = local n : word count y_timing_max
        - if `n'>=`min' & `n'<=`max' { exit }
        = if 1>=1 & 1<=32000 { exit }
        ──────────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────────── end tsunab ─────────────
      - local yname : subinstr local y "." "_"
      - if "`weight'"!="" {
      = if ""!="" {
        if "`weight'"=="fweight" {
        local wt `"[fw`exp']"'
        }
        else local wt `"[aw`exp']"'
        }
      - summarize `y' `wt' if `touse', meanonly
      = summarize y_timing_max  if __000000, meanonly
      - if r(N) == 0 { error 2000 }
      - if r(N) == 1 { error 2001 }
      - if r(min) < 0 {
        version 7: di as err "{bf:`y'} must be greater than or equal to zero"
        exit 459
        }
      - if r(min) == r(max) & r(min) == 0 {
        version 7: di as err "{bf:`y'} is zero for all observations"
        exit 498
        }
      - tempname mean
      - scalar `mean' = r(mean)
      = scalar __000001 = r(mean)
      - if "`display'"=="" {
      = if ""=="" {
      - capture assert `y' == int(`y') if `touse'
      = capture assert y_timing_max == int(y_timing_max) if __000000
```

```
   - if _rc {
     di in gr "note: you are responsible for " "interpretation of non-count
>  dep. variable"
     }
   - }
   - if "`display'"=="" & "`weight'"=="aweight" {
   = if ""=="" & ""=="aweight" {
     di in gr "note: you are responsible for interpretation " "of analytic
> weights"
     }
   - if `fvops' {
   = if 1 {
   - local rmcoll "version 11: _rmcoll"
   - }
   - else local rmcoll _rmcoll
   - if "`display'"!="" & "`weight'"=="aweight" {
   = if ""!="" & ""=="aweight" {
     `rmcoll' `xvars' [iw`exp'] if `touse', `constan' `coll'
     }
   - else `rmcoll' `xvars' [`weight'`exp'] if `touse', `constan' `coll'
   = else version 11: _rmcoll  wlth wg_ndx stky_pr_rotemberg stky_pr_calvo
> open [] if __000000,
   - local xvars `r(varlist)'
   = local xvars wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open
   - _parse_iterlog, `log' `nolog'
   = _parse_iterlog,
    ───────────────────────────────────
> ─────────────────── begin _parse_iterlog ───────
    - version 16
    - syntax [, NOLOG LOG]
    - if "`log'`nolog'" != "" {
    = if "" != "" {
      opts_exclusive "`log' `nolog'"
      }
    - else if "`c(iterlog)'" == "on" {
    = else if "on" == "on" {
    - local log log
    - }
    - else {
      local nolog nolog
      }
    - sreturn local log `log'
    = sreturn local log log
    - sreturn local nolog `nolog'
    = sreturn local nolog
    ───────────────────────────────────
```

```
> ────────────────────────────────────────── end _parse_iterlog ───────────────
      - local log "`s(nolog)'"
      = local log ""
      - if "`log'"!="" | "`display'"!="" { local nohead "*" }
      = if ""!="" | ""!="" { local nohead "*" }
      - if `"`from'"'=="" & "`lrtest'"=="" {
      = if `""'=="" & ""=="" {
      - if "`robust'`cns'`cluster'"!="" | "`weight'"=="pweight" {
      = if "robust"!="" | ""=="pweight" {
      - local lrtest "nolrtest"
      - }
      - `nohead' di in gr _n "Fitting Poisson model:"
      =  di in gr _n "Fitting Poisson model:"

Fitting Poisson model:
      - `vvpoi' poisson `y' `xvars' [`weight'`exp'] if `touse', nodisplay `off
> opt' `constan' `mlopts' `robust'
      = version 18, missing: poisson y_timing_max wlth wg_ndx stky_pr_rotember
> g stky_pr_calvo open [] if __000000, nodisplay    robust
        ───────────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin poisson ───────────────
        - if _by() {
          local BY `"by `_byvars'`_byrc0':"'
          }
        - `BY' _vce_parserun poisson, mark(Exposure OFFset CLuster) : `0'
        =  _vce_parserun poisson, mark(Exposure OFFset CLuster) : y_timing_max
>  wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open [] if __000000, nodisplay
>    robust
          ─────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _vce_parserun ───────────────
          - version 9
          - local version : di "version " string(_caller()) ":"
          - local bycall = _by()
          - _on_colon_parse `0'
          = _on_colon_parse poisson, mark(Exposure OFFset CLuster) : y_timing_
> max wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open [] if __000000, nodispl
> ay    robust
            ───────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _on_colon_parse ───────────────
            - version 8.2
            - sreturn local before ""
            - sreturn local after ""
            - gettoken before after : 0, parse(":") bind match(par) quotes
            - if "`par'" != "" {
            = if "" != "" {
              local before `"(`before')"'
              }
            - if `"`before'"' == ":" {
            = if `"poisson, mark(Exposure OFFset CLuster) "' == ":" {
              sreturn local after `"`after'"'
              exit
              }
            - while `"`COLON'"' != ":" & `"`after'"' != "" {
            = while `""' != ":" & `": y_timing_max wlth wg_ndx stky_pr_rotembe
> rg stky_pr_calvo open [] if __000000, nodisplay    robust"' != "" {
            - gettoken COLON after : after, parse(":") bind match(par) quotes
            - if "`par'" != "" {
            = if "" != "" {
              local before `before' (`COLON')
              local COLON
              }
            - else if `"`COLON'"' != ":" {
            = else if `":"' != ":" {
              local before `"`before' `COLON'"'
              local COLON
              }
            - }
            - while `"`COLON'"' != ":" & `"`after'"' != "" {
            = while `":"' != ":" & `" y_timing_max wlth wg_ndx stky_pr_rotembe
> rg stky_pr_calvo open [] if __000000, nodisplay    robust"' != "" {
              gettoken COLON after : after, parse(":") bind match(par) quotes
              if "`par'" != "" {
              local before `before' (`COLON')
              local COLON
              }
              else if `"`COLON'"' != ":" {
              local before `"`before' `COLON'"'
              local COLON
              }
              }
            - if `"`COLON'"' != ":" {
            = if `":"' != ":" {
              di as err "`' found where ':' expected"
              exit 198
              }
            - sreturn local before `"`before'"'
            = sreturn local before `"poisson, mark(Exposure OFFset CLuster) "'
            - sreturn local after `"`after'"'
            = sreturn local after `" y_timing_max wlth wg_ndx stky_pr_rotember
> g stky_pr_calvo open [] if __000000, nodisplay    robust"'
            ──────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
```

```
          - local ZERO `"`s(before)'"'
          = local ZERO `"poisson, mark(Exposure OFFset CLuster) "'
          - local 0 `"`s(after)'"'
          = local 0 `" y_timing_max wlth wg_ndx stky_pr_rotemberg stky_pr_calv
> o open [] if __000000, nodisplay    robust"'
          - quietly syntax [anything(equalok)] [if] [in] [fw aw pw iw] [, VCE(
> string asis) VCE1(string asis) LRMODEL * ]
          - if `"`vce'"' == "" {
          = if `""' == "" {
          - MYRESULT
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────── begin _vce_parserun.MYRESULT ───────────────
            - args exit
            - sreturn local exit `"`exit'"'
            = sreturn local exit `""'
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────── end _vce_parserun.MYRESULT ───────────────
          - exit
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _vce_parserun ───────────────
        - if "`s(exit)'" != "" {
        = if "" != "" {
          version 10: ereturn local cmdline `"poisson `0'"'
          exit
          }
        - version 6, missing
        - local version : di "version " string(_caller()) ":"
        - if replay() {
          if "`e(cmd)'" != "poisson" {
          error 301
          }
          if _by() { error(190) }
          Display `0'
          error `e(rc)'
          exit
          }
        - `version' `BY' Estimate `0'
        = version 18:  Estimate y_timing_max wlth wg_ndx stky_pr_rotemberg stk
> y_pr_calvo open [] if __000000, nodisplay    robust
          ────────────────────────────────────────────────────────────────────
> ───────────────────────────────────── begin poisson.Estimate ───────────────
          - local vv "version 8.1:"
          - local mm d2
          - local eval poiss_lf
          - version 6, missing
          - local awopt = cond(_caller()<7, "aw", "")
          - syntax varlist(numeric fv ts) [fw `awopt' pw iw] [if] [in] [, IRr
> FROM(string) Level(cilevel) OFFset(varname numeric ts) Exposure(varname nume
> ric ts) noCONstant Robust CLuster(varname) SCore(string) noDISPLAY CRITTYPE(
> passthru) MATAevaluator moptobj(passthru) * ]
          = syntax varlist(numeric fv ts) [fw  pw iw] [if] [in] [, IRr FROM(st
> ring) Level(cilevel) OFFset(varname numeric ts) Exposure(varname numeric ts)
>  noCONstant Robust CLuster(varname) SCore(string) noDISPLAY CRITTYPE(passthr
> u) MATAevaluator moptobj(passthru) * ]
          - local fvops = "`s(fvops)'" == "true" | _caller() >= 11
          = local fvops = "" == "true" | _caller() >= 11
          - if `fvops' {
          = if 1 {
          - local vv : di "version " string(max(11,_caller())) ", missing:"
          - local mm e2
          - if "`mataevaluator'" != "" {
          = if "" != "" {
            local eval mopt__poisson_e2()
            }
          - local negh negh
          - }
          - if _by() {
            _byoptnotallowed score `"`score'"'
            }
          - _get_diopts diopts options, `options'
          = _get_diopts diopts options,
            ──────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
            - version 11
            - syntax namelist(max=2) [, *]
            - gettoken name1 namelist : namelist
            - gettoken name2 namelist : namelist
            - GetDiopts diopts options, `options'
            = GetDiopts diopts options,
              ────────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
              - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElev
> els NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcell
> s NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string)
> sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRA
> PON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABB
> REV ABBREV
              - syntax namelist(max=2) [, `DIOPTS' *]
              = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEleve
> ls ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYce
> lls EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cfo
> rmat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pa
> ssthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pa
> ssthru) NOABBREV ABBREV *]
       - opts_exclusive "`allbaselevels' `noallbaselevels'"
       = opts_exclusive " "
        ───────────────────────────────
> ──────────────────── begin opts_exclusive ────────
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ───────────────────────────────
> ───────────────────── end opts_exclusive ────────
       - opts_exclusive "`allbaselevels' `nobaselevels'"
       = opts_exclusive " "
        ───────────────────────────────
> ──────────────────── begin opts_exclusive ────────
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ───────────────────────────────
> ───────────────────── end opts_exclusive ────────
       - opts_exclusive "`baselevels' `nobaselevels'"
       = opts_exclusive " "
        ───────────────────────────────
> ──────────────────── begin opts_exclusive ────────
        - version 8.2
        - args opts optname errcode optslab
```

```
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`emptycells' `noemptycells'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`fvlabel' `nofvlabel'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`omitted' `noomitted'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`lstretch' `nolstretch'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`cnsreport' `fullcnsreport'"
              = opts_exclusive " "
                --------------------------------------------------------------
```

```
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ---------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`coeflegend' `selegend'"
              = opts_exclusive " "
                ---------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ---------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`noci' `nopvalues'"
              = opts_exclusive " "
                ---------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  -------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                - local K : list sizeof namelist
                - gettoken c_diopts c_opts : namelist
                - opts_exclusive "`coding' `compare'"
                = opts_exclusive " "
                  -------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  -------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                - opts_exclusive "`versus' `compare'"
                = opts_exclusive " "
                  -------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
              - opts_exclusive "`abbrev' `noabbrev'"
              = opts_exclusive " "
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
              - local allbaselevels `allbaselevels' `noallbaselevels'
              = local allbaselevels
              - local baselevels `baselevels' `nobaselevels'
              = local baselevels
              - local emptycells `emptycells' `noemptycells'
              = local emptycells
              - local omitted `omitted' `noomitted'
              = local omitted
              - local lstretch `lstretch' `nolstretch'
              = local lstretch
              - local fvlabel `fvlabel' `nofvlabel'
              = local fvlabel
              - local abbrev `abbrev' `noabbrev'
              = local abbrev
              - if "`allbaselevels'`baselevels'" == "" {
              = if "" == "" {
              - if c(showbaselevels) == "all" {
                local allbaselevels allbaselevels
                }
              - else if c(showbaselevels) == "on" {
                local baselevels baselevels
                }
              - }
              - if "`emptycells'" == "" {
              = if "" == "" {
```

```
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
  }
```

```
              - if `K' == 1 & `:length local options' {
              = if 2 == 1 & 0 {
                syntax namelist(max=2) [, `DIOPTS']
                }
              - if reldif(`level', c(level)) > 1e-3 {
              = if reldif(95, c(level)) > 1e-3 {
                local levelopt level(`level')
                }
              - Wrapon , `fvwrapon'
              = Wrapon ,
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                - capture syntax [, WOrd WIdth]
                - if c(rc) {
                  di as err "invalid fvwrapon() option;"
                  syntax [, WOrd WIdth]
                  exit 198
                  }
                - opts_exclusive "`word' `width'" fvwrapon
                = opts_exclusive " " fvwrapon
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - local fvwrapon `word' `width'
                = local fvwrapon
                - if `:length local fvwrapon' {
                = if 0 {
                  c_local fvwrapon fvwrapon(`fvwrapon')
                  }
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
              - if "`fvwrap'" != "" {
```

```
              = if "" != "" {
                FVWrap, `fvwrap'
                }
              - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `basel
> evels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coefle
> gend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `
> fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
              = c_local diopts
              - if `K' == 2 {
              = if 2 == 2 {
              - c_local `c_opts' `"`options'"'
              = c_local  options `""'
              - }
              - sreturn local coding `coding'
              = sreturn local coding
              - sreturn local versus `versus'
              = sreturn local versus
              - sreturn local compare `compare'
              = sreturn local compare
              - sreturn local level `level'
              = sreturn local level 95
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
            - c_local `name1' `"`diopts'"'
            = c_local diopts `""'
            - local snames : s(macros)
            - foreach sname of local snames {
            - local S_`sname' = s(`sname')
            = local S_level = s(level)
            - }
            - sreturn clear
            - GetDiopts DEFAULT
              ────────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
              - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElev
> els NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcell
> s NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string)
> sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRA
> PON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABB
> REV ABBREV
              - syntax namelist(max=2) [, `DIOPTS' *]
              = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEleve
> ls ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYce
> lls EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cfo
> rmat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pa
> ssthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pa
> ssthru) NOABBREV ABBREV *]
              - opts_exclusive "`allbaselevels' `noallbaselevels'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`allbaselevels' `nobaselevels'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`baselevels' `nobaselevels'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`emptycells' `noemptycells'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`fvlabel' `nofvlabel'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
```

```
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`omitted' `noomitted'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`lstretch' `nolstretch'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`cnsreport' `fullcnsreport'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
```

```
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ───────────────────────────────
> ───────────────────── end opts_exclusive ────────
       - opts_exclusive "`coeflegend' `selegend'"
       = opts_exclusive " "
        ───────────────────────────────
> ──────────────────── begin opts_exclusive ────────
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ───────────────────────────────
> ───────────────────── end opts_exclusive ────────
       - opts_exclusive "`noci' `nopvalues'"
       = opts_exclusive " "
        ───────────────────────────────
> ──────────────────── begin opts_exclusive ────────
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
```

```
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - local K : list sizeof namelist
              - gettoken c_diopts c_opts : namelist
              - opts_exclusive "`coding' `compare'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`versus' `compare'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
```

```
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`abbrev' `noabbrev'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - local allbaselevels `allbaselevels' `noallbaselevels'
              = local allbaselevels
              - local baselevels `baselevels' `nobaselevels'
              = local baselevels
              - local emptycells `emptycells' `noemptycells'
              = local emptycells
              - local omitted `omitted' `noomitted'
              = local omitted
              - local lstretch `lstretch' `nolstretch'
              = local lstretch
              - local fvlabel `fvlabel' `nofvlabel'
              = local fvlabel
              - local abbrev `abbrev' `noabbrev'
              = local abbrev
              - if "`allbaselevels'`baselevels'" == "" {
              = if "" == "" {
              - if c(showbaselevels) == "all" {
                local allbaselevels allbaselevels
                }
              - else if c(showbaselevels) == "on" {
                local baselevels baselevels
                }
              - }
              - if "`emptycells'" == "" {
              = if "" == "" {
              - if c(showemptycells) == "off" {
```

```
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
```

```
              = if 1 == 1 & 0 {
                syntax namelist(max=2) [, `DIOPTS']
                }
              - if reldif(`level', c(level)) > 1e-3 {
              = if reldif(95, c(level)) > 1e-3 {
                local levelopt level(`level')
                }
              - Wrapon , `fvwrapon'
              = Wrapon ,
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                - capture syntax [, WOrd WIdth]
                - if c(rc) {
                  di as err "invalid fvwrapon() option;"
                  syntax [, WOrd WIdth]
                  exit 198
                  }
                - opts_exclusive "`word' `width'" fvwrapon
                = opts_exclusive " " fvwrapon
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - local fvwrapon `word' `width'
                = local fvwrapon
                - if `:length local fvwrapon' {
                = if 0 {
                  c_local fvwrapon fvwrapon(`fvwrapon')
                  }
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
              - if "`fvwrap'" != "" {
              = if "" != "" {
                FVWrap, `fvwrap'
                }
              - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `basel
> evels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coefle
> gend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `
> fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
              = c_local DEFAULT
              - if `K' == 2 {
              = if 1 == 2 {
                c_local `c_opts' `"`options'"'
                }
              - sreturn local coding `coding'
              = sreturn local coding
              - sreturn local versus `versus'
              = sreturn local versus
              - sreturn local compare `compare'
              = sreturn local compare
              - sreturn local level `level'
              = sreturn local level 95
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
            - if `"`name2'"' == "" {
            = if `"options"' == "" {
              GetDiopts DUPS, `options'
              }
            - else {
            - GetDiopts DUPS options, `options'
            = GetDiopts DUPS options,
              ────────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
              - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElev
> els NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcell
> s NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string)
> sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRA
> PON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABB
> REV ABBREV
              - syntax namelist(max=2) [, `DIOPTS' *]
              = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEleve
> ls ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYce
> lls EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cfo
> rmat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pa
> ssthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pa
> ssthru) NOABBREV ABBREV *]
              - opts_exclusive "`allbaselevels' `noallbaselevels'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
```

```
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`allbaselevels' `nobaselevels'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - opts_exclusive "`baselevels' `nobaselevels'"
              = opts_exclusive " "
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`emptycells' `noemptycells'"
              = opts_exclusive " "
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`fvlabel' `nofvlabel'"
              = opts_exclusive " "
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
```

```
              - opts_exclusive "`omitted' `noomitted'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`lstretch' `nolstretch'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`cnsreport' `fullcnsreport'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`coeflegend' `selegend'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - opts_exclusive "`noci' `nopvalues'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
```

```
        - exit
        ───────────────────────────────
> ──────────────────── end opts_exclusive ────────
       - local K : list sizeof namelist
       - gettoken c_diopts c_opts : namelist
       - opts_exclusive "`coding' `compare'"
       = opts_exclusive " "
        ───────────────────────────────
> ─────────────────── begin opts_exclusive ────────
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ───────────────────────────────
> ──────────────────── end opts_exclusive ────────
       - opts_exclusive "`versus' `compare'"
       = opts_exclusive " "
        ───────────────────────────────
> ─────────────────── begin opts_exclusive ────────
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ───────────────────────────────
> ──────────────────── end opts_exclusive ────────
       - opts_exclusive "`abbrev' `noabbrev'"
       = opts_exclusive " "
        ───────────────────────────────
```

```
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - local allbaselevels `allbaselevels' `noallbaselevels'
              = local allbaselevels
              - local baselevels `baselevels' `nobaselevels'
              = local baselevels
              - local emptycells `emptycells' `noemptycells'
              = local emptycells
              - local omitted `omitted' `noomitted'
              = local omitted
              - local lstretch `lstretch' `nolstretch'
              = local lstretch
              - local fvlabel `fvlabel' `nofvlabel'
              = local fvlabel
              - local abbrev `abbrev' `noabbrev'
              = local abbrev
              - if "`allbaselevels'`baselevels'" == "" {
              = if "" == "" {
              - if c(showbaselevels) == "all" {
                local allbaselevels allbaselevels
                }
              - else if c(showbaselevels) == "on" {
                local baselevels baselevels
                }
              - }
              - if "`emptycells'" == "" {
              = if "" == "" {
              - if c(showemptycells) == "off" {
                local emptycells noemptycells
                }
              - }
              - if "`omitted'" == "" {
```

```
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
  }
- if reldif(`level', c(level)) > 1e-3 {
```

```
              = if reldif(95, c(level)) > 1e-3 {
                local levelopt level(`level')
                }
              - Wrapon , `fvwrapon'
              = Wrapon ,
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                - capture syntax [, WOrd WIdth]
                - if c(rc) {
                  di as err "invalid fvwrapon() option;"
                  syntax [, WOrd WIdth]
                  exit 198
                  }
                - opts_exclusive "`word' `width'" fvwrapon
                = opts_exclusive " " fvwrapon
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - local fvwrapon `word' `width'
                = local fvwrapon
                - if `:length local fvwrapon' {
                = if 0 {
                  c_local fvwrapon fvwrapon(`fvwrapon')
                  }
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
              - if "`fvwrap'" != "" {
              = if "" != "" {
                FVWrap, `fvwrap'
                }
              - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `basel
> evels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coefle
> gend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `
> fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
              = c_local DUPS
              - if `K' == 2 {
              = if 2 == 2 {
              - c_local `c_opts' `"`options'"'
              = c_local  options `""'
              - }
              - sreturn local coding `coding'
              = sreturn local coding
              - sreturn local versus `versus'
              = sreturn local versus
              - sreturn local compare `compare'
              = sreturn local compare
              - sreturn local level `level'
              = sreturn local level 95
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ────────────────
            - c_local `name2' `"`options'"'
            = c_local options `""'
            - }
            - local DUPS : list DUPS - DEFAULT
            - gettoken DUPS : DUPS
            - if `"`DUPS'"' != "" {
            = if `""' != "" {
              if (strpos(`"`DUPS'"', "(")) {
              gettoken DUPS : DUPS, parse("(")
              local DUPS `"`DUPS'()"'
              }
              di as err "duplicate {bf:`DUPS'} option not allowed"
              exit 198
              }
            - sreturn clear
            - foreach sname of local snames {
            - sreturn local `sname' = `"`S_`sname''"'
            = sreturn local level = `"95"'
            - }
            ──────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end _get_diopts ────────────────
          - mlopts mlopts, `options'
          = mlopts mlopts,
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────────── begin mlopts ────────────────
            - version 8.0
            - local maxoptlist MLOPTs(string) TRace TRACEDIffs GRADient HESSia
> n SHOWSTEP ITERate(int -1) TOLerance(real -1) LTOLerance(real -1) GTOLerance
> (real -1) NONRTOLerance SHOWNRtolerance SHOWTOLerance NRTOLerance(real -1) Q
> TOLerance(real -1) DIFficult HALFSTEPonly CONSTraints(string) noCNSNOTEs COL
> linear TECHnique(passthru) VCE(passthru) DOTS depsilon(passthru) SHOWH NOTCO
> NCAVE(passthru) USEVIEWS NOLOg LOg nrderiv
            - syntax namelist(id="macro names" min=1 max=2) [, `maxoptlist' *
> ]
            = syntax namelist(id="macro names" min=1 max=2) [, MLOPTs(string)
> TRace TRACEDIffs GRADient HESSian SHOWSTEP ITERate(int -1) TOLerance(real -1
> ) LTOLerance(real -1) GTOLerance(real -1) NONRTOLerance SHOWNRtolerance SHOW
> TOLerance NRTOLerance(real -1) QTOLerance(real -1) DIFficult HALFSTEPonly CO
> NSTraints(string) noCNSNOTEs COLlinear TECHnique(passthru) VCE(passthru) DOT
> S depsilon(passthru) SHOWH NOTCONCAVE(passthru) USEVIEWS NOLOg LOg nrderiv *
>  ]
            - gettoken dest rest : namelist
            - if "`rest'" == "" {
            = if "" == "" {
            - syntax namelist [, `maxoptlist' ]
            = syntax namelist [, MLOPTs(string) TRace TRACEDIffs GRADient HESS
> ian SHOWSTEP ITERate(int -1) TOLerance(real -1) LTOLerance(real -1) GTOLeran
> ce(real -1) NONRTOLerance SHOWNRtolerance SHOWTOLerance NRTOLerance(real -1)
>  QTOLerance(real -1) DIFficult HALFSTEPonly CONSTraints(string) noCNSNOTEs C
> OLlinear TECHnique(passthru) VCE(passthru) DOTS depsilon(passthru) SHOWH NOT
> CONCAVE(passthru) USEVIEWS NOLOg LOg nrderiv ]
            - }
            - local mlopts `mlopts' `trace' `tracediffs' `gradient' `hessian'
> `showstep' `difficult' `halfsteponly' `nonrtolerance' `shownrtolerance' `sho
> wtolerance' `dots' `depsilon' `showh' `notconcave' `useviews' `log' `nolog'
> `nrderiv'
            = local mlopts
            - if `tolerance'!= -1 {
            = if -1!= -1 {
              local tol "tolerance(`tolerance')"
              }
            - if `ltolerance' != -1 {
            = if -1 != -1 {
              local ltol "ltolerance(`ltolerance')"
              }
            - if `gtolerance' != -1 {
            = if -1 != -1 {
              local gtol "gtolerance(`gtolerance')"
              }
            - if `nrtolerance' != -1 {
            = if -1 != -1 {
              local nrtol "nrtolerance(`nrtolerance')"
              }
            - if `qtolerance' != -1 {
```

```
          = if -1 != -1 {
            local qtol "qtolerance(`qtolerance')"
            }
          - if `iterate' != -1 {
          = if -1 != -1 {
            local iter "iterate(`iterate')"
            }
          - sreturn clear
          - if "`technique'`vce'" != "" {
          = if "" != "" {
            ml_technique, `technique' `vce' nodefault
            if `"`s(technique)'"' != "" {
            local technique "technique(`s(technique)')"
            }
            if "`s(vce)'" != "" {
            local vce "`s(vceopt)'"
            }
            sreturn local technique "`technique'"
            sreturn local vce "`vce'"
            }
          - if "`constraints'" != "" {
          = if "" != "" {
            capture confirm name `constraints'
            if _rc {
            CheckClist constraints , constraints(`constraints')
            }
            else {
            CheckCmat `constraints'
            }
            local const "constraints(`constraints')"
            sreturn local constraints "`constraints'"
            }
          - sreturn local collinear "`collinear'"
          = sreturn local collinear ""
          - c_local `dest' `mlopts' `tol' `ltol' `gtol' `nrtol' `iter' `cons
> t' `cnsnotes' `collinear' `technique' `vce' `qtol'
          = c_local mlopts
          - if "`rest'" != "" {
          = if "" != "" {
            c_local `rest' `"`options'"'
            }
          ------------------------------------------------------------------
> -------------------------------------------------- end mlopts ----------
        - local coll `s(collinear)'
        = local coll
        - local cns `s(constraints)'
```

```
          = local cns
          - local mlopts `mlopts' `crittype'
          = local mlopts
          - if `"`score'"'!="" {
          = if `""'!="" {
            confirm new variable `score'
            local nword : word count `score'
            if `nword' > 1 {
            di in red "score() must contain the name of only " "one new variab
> le"
            exit 198
            }
            tempvar scvar
            local scopt score(`scvar')
            }
          - if "`offset'"!="" & "`exposur'"!="" {
          = if ""!="" & ""!="" {
            di in red "only one of offset() or exposure() can be specified"
            exit 198
            }
          - if "`constan'"!="" {
          = if ""!="" {
            local nvar : word count `varlist'
            if `nvar' == 1 {
            di in red "independent variables required with " "noconstant optio
> n"
            exit 100
            }
            }
          - marksample touse
          - if `"`cluster'"'!="" {
          = if `""'!="" {
            markout `touse' `cluster', strok
            local clopt cluster(`cluster')
            }
          - if "`exposur'"!="" {
          = if ""!="" {
            capture assert `exposur' > 0 if `touse'
            if _rc {
            di in red "exposure() must be greater than zero"
            exit 459
            }
            tempvar offset
            qui gen double `offset' = ln(`exposur')
            local offvar "ln(`exposur')"
            }
          - if "`offset'"!="" {
          = if ""!="" {
            markout `touse' `offset'
            local offopt "offset(`offset')"
            if "`offvar'"=="" {
            local offvar "`offset'"
            }
            }
          - gettoken y xvars : varlist
          - _fv_check_depvar `y'
          = _fv_check_depvar y_timing_max
          - tsunab y : `y'
          = tsunab y : y_timing_max
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin tsunab ───────────────
            - version 6
            - gettoken user 0: 0, parse(" :")
            - gettoken colon 0: 0, parse(" :")
            - if `"`colon'"' != ":" { error 198 }
            = if `":"' != ":" { error 198 }
            - syntax [varlist(ts default=empty)] [, MIN(integer 1) MAX(integer
>  32000) NAME(string)]
            - c_local `user' `varlist'
            = c_local y y_timing_max
            - local n : word count `varlist'
            = local n : word count y_timing_max
            - if `n'>=`min' & `n'<=`max' { exit }
            = if 1>=1 & 1<=32000 { exit }
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end tsunab ───────────────
          - local yname : subinstr local y "." "_"
          - if "`weight'"!="" {
          = if ""!="" {
            if "`weight'"=="fweight" {
            local wt `"[fw`exp']"'
            }
            else if "`weight'"=="iweight" {
            local wt `"[iw`exp']"'
            }
            else local wt `"[aw`exp']"'
            }
          - summarize `y' `wt' if `touse', meanonly
          = summarize y_timing_max  if __000002, meanonly
          - if r(N) == 0 { error 2000 }
          - if r(N) == 1 { error 2001 }
          - if r(min) < 0 {
```

```
          di in red "`y' must be greater than or equal to zero"
          exit 459
          }
        - if r(min) == r(max) & r(min) == 0 {
          di in red "`y' is zero for all observations"
          exit 498
          }
        - tempname mean nobs
        - scalar `mean' = r(mean)
        = scalar __000003 = r(mean)
        - scalar `nobs' = r(N)
        = scalar __000004 = r(N)
        - if "`display'"=="" {
        = if "nodisplay"=="" {
          capture assert `y' == int(`y') if `touse'
          if _rc {
          __NeW_Note `0'
          }
          }
        - if "`display'"=="" & "`weight'"=="aweight" {
        = if "nodisplay"=="" & ""=="aweight" {
          di in blu "note: you are responsible for interpretation " "of anal
> ytic weights."
          }
        - if "`constan'`cns'"=="" & "`cluster'"=="" & "`weight'"!="pweight"
> {
        = if ""=="" & ""=="" & ""!="pweight" {
        - tempname c
        - if "`offset'"!="" {
        = if ""!="" {
          SolveC `y' `offset' [`weight'`exp'] if `touse', n(`nobs') mean(`me
> an')
          scalar `c' = r(_cons)
          if `c'>=. {
          di in blu "note: exposure = exp(`offvar') overflows;" _n "      co
> uld not estimate constant-only model" _c
          if "`exposur'"=="" {
          di in blu _n "      use exposure() option for exposure = `offvar'.
> "
          }
          else di in blu "."
          local cfail 1
          }
          local c "`c'+`offset'"
          }
        - else scalar `c' = ln(`mean')
```

```
          = else scalar __000005 = ln(__000003)
          - if "`cfail'"=="" {
          = if ""=="" {
          - LikePois `y' `c' [`weight'`exp'] if `touse', n(`nobs')
          = LikePois y_timing_max __000005 [] if __000002, n(__000004)
            ──────────────────────────────────────────────────────────────────
> ──────────────────────────────────── begin poisson.LikePois ────────────────
            - gettoken y 0 : 0
            - gettoken xb 0 : 0
            - syntax [fw aw pw iw] [if] , Nobs(string)
            - if "`weight'"!="" {
            = if ""!="" {
              if "`weight'"=="fweight" {
              local wt `"[fw`exp']"'
              }
              else if "`weight'"=="iweight" {
              local wt `"[iw`exp']"'
              }
              else local wt `"[aw`exp']"'
              }
            - tempvar lnf
            - qui gen double `lnf' = `y'*(`xb')-exp(`xb')-lngamma(`y'+1) `if'
            = qui gen double __000006 = y_timing_max*(__000005)-exp(__000005)-
> lngamma(y_timing_max+1) if __000002
            - summarize `lnf' `wt' `if', meanonly
            = summarize __000006  if __000002, meanonly
            - if r(N) != `nobs' { exit }
            = if r(N) != __000004 { exit }
            - if "`weight'"=="aweight" {
            = if ""=="aweight" {
              ret scalar lnf = r(N)*r(mean)
              }
            - else ret scalar lnf = r(sum)
            ──────────────────────────────────────────────────────────────────
> ────────────────────────────────────── end poisson.LikePois ────────────────
          - if r(lnf)<. {
          - local ll0 "lf0(1 `r(lnf)')"
          = local ll0 "lf0(1 -437.385284075989)"
          - }
          - else {
            di in blu "note: could not compute " "constant-only model log like
> lihood."
            }
          - }
          - }
          - if `fvops' {
```

```
          = if 1 {
          - local rmcoll "version 11: _rmcoll"
          - }
          - else local rmcoll _rmcoll
          - if "`display'"!="" & "`weight'"=="aweight" {
          = if "nodisplay"!="" & ""=="aweight" {
            `rmcoll' `xvars' [iw`exp'] if `touse', `constan' `coll'
            }
          - else `rmcoll' `xvars' [`weight'`exp'] if `touse', `constan' `coll'
          = else version 11: _rmcoll  wlth wg_ndx stky_pr_rotemberg stky_pr_ca
> lvo open [] if __000002,
          - local xvars `r(varlist)'
          = local xvars wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open
          - if "`from'"=="" {
          = if ""=="" {
          - `vv' Ipois `y' `xvars' [`weight'`exp'] if `touse', n(`nobs') mean(
> `mean') `constan' `offopt'
          = version 18, missing: Ipois y_timing_max wlth wg_ndx stky_pr_rotemb
> erg stky_pr_calvo open [] if __000002, n(__000004) mean(__000003)
            ──────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin poisson.Ipois ───────────────
            - local vv : display "version " string(_caller()) ", missing:"
            - version 6, missing
            - syntax varlist(fv ts) [fw aw pw iw/] [if] , Nobs(string) Mean(st
> ring) [ noCONstant OFFset(string) ]
            - gettoken y xvars : varlist
            - tempvar xb z
            - tempname b1 b2 lnf1
            - if "`weight'"!="" {
            = if ""!="" {
              local awt `"[aw=`exp']"'
              local wt `"(`exp')*"'
              local exp `"=`exp'"'
              }
            - quietly {
            - if "`offset'"!="" {
            = if ""!="" {
              tempvar ynew
              gen double `ynew' = `y' - `offset'*`mean' `if'
              local poff "+`offset'"
              }
            - else local ynew `y'
            = else local ynew y_timing_max
            - `vv' _regress `ynew' `xvars' `awt' `if', `constan'
            = version 18, missing: _regress y_timing_max  wlth wg_ndx stky_pr_
> rotemberg stky_pr_calvo open  if __000002,
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _ereturn_display ───────────────
              - version 11
              - if "`e(b)'" == "" & "`e(V)'" == "" {
              = if "matrix" == "" & "matrix" == "" {
                exit
                }
              - if "`e(cmd)'" == "regress" {
              = if "regress" == "regress" {
              - local ALTOPT Beta
              - }
              - syntax [, eform(passthru) First neq(integer -1) PLus `ALTOPT'
> *]
              = syntax [, eform(passthru) First neq(integer -1) PLus Beta *]
              - _get_mcompare, `options'
              = _get_mcompare, level(95.00) fvwrap(1)
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _get_mcompare ───────────────
                - version 11
                - local cmd `"`e(cmd)'"'
                = local cmd `"regress"'
                - syntax [name(name=caller)] [, *]
                - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") | in
> list("pwmean", "`cmd'", "`caller'")
                = local is_pwc = inlist("pwcompare", "regress", "") | inlist("
> pwmean", "regress", "")
                - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'", "`ca
> ller'")
                = local is_marg = inlist("margins", "regress", "", "")
                - local OPTIONS NOADJust BONferroni DUNCan DUNNett SCHeffe SID
> ak SNK TUKey ADJustall
                - if `is_pwc' {
                = if 0 {
                  syntax [name] [, `OPTIONS' MCOMPare(string) *]
                  }
                - else {
                - syntax [name] [, MCOMPare(string) *]
                - local suboption mcompare()
                - }
                - sreturn clear
                - sreturn local options `"`options'"'
                = sreturn local options `"level(95.00) fvwrap(1)"'
                - if `is_pwc' {
                = if 0 {
                  local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `sch
> effe' `sidak' `snk' `tukey'
```

```
                  local METHOD : list uniq METHOD
                  opts_exclusive "`METHOD'"
                  local ALL `adjustall'
                  opts_exclusive "`noadjust' `ALL'"
                  }
                - local 0 `", `mcompare'"'
                = local 0 `", "'
                - capture syntax [, `OPTIONS']
                = capture syntax [, NOADJust BONferroni DUNCan DUNNett SCHeffe
>  SIDak SNK TUKey ADJustall]
                - if c(rc) {
                  di as err "invalid mcompare() option;"
                  di as err "method '`mcompare'' not allowed"
                  error 198
                  }
                - local METHOD `METHOD' `noadjust' `bonferroni' `duncan' `dunn
> ett' `scheffe' `sidak' `snk' `tukey'
                = local METHOD
                - local METHOD : list uniq METHOD
                - local ALL `ALL' `adjustall'
                = local ALL
                - local ALL : list uniq ALL
                - opts_exclusive "`METHOD'" `suboption'
                = opts_exclusive "" mcompare()
                  ---------------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ---------------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                - if "`METHOD'" == "" {
                = if "" == "" {
                - if "`ALL'" != "" {
                = if "" != "" {
                  di as err "multiple comparison method required with the adju
```

```
> stall option"
                  exit 198
                  }
                - local METHOD noadjust
                - local noadjust noadjust
                - }
                - opts_exclusive "`ALL' `noadjust'" `suboption'
                = opts_exclusive " noadjust" mcompare()
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts  noadjust
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `"noadjust"' != "" {
                    - local ++n
                    - gettoken item`n' opts : opts, bind
                    = gettoken item1 opts : opts, bind
                    - }
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 1 < 2 {
                    - exit
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                - local EXCLUDE duncan dunnett snk tukey
                - if `:list METHOD in EXCLUDE' {
                = if 0 {
                  if `is_pwc' {
                  local opt : copy local METHOD
                  }
                  else {
                  local opt "mcompare(`METHOD')"
                  }
                  local cmdlist anova manova regress mvreg pwmean
                  if "`cmd'" == "pwcompare" {
                  local cmd `"`e(cmd_est)'"'
                  }
                  if `is_marg' {
                  local cmd margins
                  }
                  if !`:list cmd in cmdlist' | !`is_pwc' {
                  di as err `"method `opt' is not allowed with results from `c
> md'"'
                  exit 322
                  }
                  if `"`e(prefix)'"' == "svy" {
                  di as err `"method `opt' is not allowed with results using t
> he svy prefix"'
                  exit 322
                  }
                  local vce `"`e(vce)'"'
                  if !inlist("`vce'", "", "ols") {
                  di as err `"method `opt' is not allowed with results using v
> ce(`vce')"'
                  exit 322
                  }
                  }
                - local EXCLUDE duncan dunnett snk tukey scheffe
                - if `:list METHOD in EXCLUDE' {
                = if 0 {
                  if "`ALL'" != "" {
                  di as err `"option adjustall is not allowed with method `MET
> HOD'"'
                  exit 198
                  }
                  }
                - sreturn local method `"`METHOD'"'
                = sreturn local method `"noadjust"'
                - sreturn local adjustall `"`ALL'"'
                = sreturn local adjustall `""'
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _get_mcompare ───────────────
              - if "`s(method)'" != "" {
              = if "noadjust" != "" {
              - loca mcopt mcompare(`s(method)' `s(adjustall)')
              = loca mcopt mcompare(noadjust )
              - }
              - _get_diopts diopts, `s(options)'
              = _get_diopts diopts, level(95.00) fvwrap(1)
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
                - version 11
                - syntax namelist(max=2) [, *]
                - gettoken name1 namelist : namelist
                - gettoken name2 namelist : namelist
                - GetDiopts diopts options, `options'
                = GetDiopts diopts options, level(95.00) fvwrap(1)
                  ------------------------------------------------------------
> -------------------------------- begin _get_diopts.GetDiopts ---------------
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                  - opts_exclusive "`allbaselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
```

```
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ────────────────────── end opts_exclusive ────────
         - opts_exclusive "`baselevels' `nobaselevels'"
         = opts_exclusive " "
          ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ────────────────────── end opts_exclusive ────────
         - opts_exclusive "`emptycells' `noemptycells'"
         = opts_exclusive " "
          ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
```

```
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`lstretch' `nolstretch'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    -----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`cnsreport' `fullcnsreport'"
                  = opts_exclusive " "
                    -----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    -----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`coeflegend' `selegend'"
                  = opts_exclusive " "
                    -----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
```

```
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ───────────────────── end opts_exclusive ────────
         - opts_exclusive "`noci' `nopvalues'"
         = opts_exclusive " "
          ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ───────────────────── end opts_exclusive ────────
         - local K : list sizeof namelist
         - gettoken c_diopts c_opts : namelist
         - opts_exclusive "`coding' `compare'"
         = opts_exclusive " "
          ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ───────────────────── end opts_exclusive ────────
         - opts_exclusive "`versus' `compare'"
         = opts_exclusive " "
```

```
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
                  = local baselevels
                  - local emptycells `emptycells' `noemptycells'
                  = local emptycells
                  - local omitted `omitted' `noomitted'
                  = local omitted
                  - local lstretch `lstretch' `nolstretch'
                  = local lstretch
```

```
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
```

```
                    di "{txt}note: invalid sformat(), using default"
                    }
                    sreturn local sformat `"`sformat'"'
                    local sformat `"sformat(`sformat')"'
                    }
                  - if `:length local pformat' {
                  = if 0 {
                    confirm numeric format `pformat'
                    if fmtwidth(`"`pformat'"') > 5 {
                    local pformat "%5.3f"
                    di "{txt}note: invalid pformat(), using default"
                    }
                    sreturn local pformat `"`pformat'"'
                    local pformat `"pformat(`pformat')"'
                    }
                  - if `K' == 1 & `:length local options' {
                  = if 2 == 1 & 0 {
                    syntax namelist(max=2) [, `DIOPTS']
                    }
                  - if reldif(`level', c(level)) > 1e-3 {
                  = if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                    }
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                    ----------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ---------------
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────────── end _get_diopts.Wrapon ────────────────
                  - if "`fvwrap'" != "" {
                  = if "fvwrap(1)" != "" {
                  - FVWrap, `fvwrap'
                  = FVWrap, fvwrap(1)
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────────── begin _get_diopts.FVWrap ────────────────
                    - syntax, fvwrap(integer)
                    - if `fvwrap' < 0 {
                    = if 1 < 0 {
                      di as err "{p}invalid option {bf:fvwrap(`fvwrap')}; " "n
> onnegative integer required{p_end}"
                      exit 198
                      }
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────────── end _get_diopts.FVWrap ────────────────
                  - }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local diopts                 fvwrap(1)
                  - if `K' == 2 {
                  = if 2 == 2 {
                  - c_local `c_opts' `"`options'"'
                  = c_local  options `""'
                  - }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ────────────────
                - c_local `name1' `"`diopts'"'
                = c_local diopts `"fvwrap(1)"'
                - local snames : s(macros)
                - foreach sname of local snames {
                - local S_`sname' = s(`sname')
                = local S_level = s(level)
                - }
                - local S_`sname' = s(`sname')
                = local S_method = s(method)
                - }
                - local S_`sname' = s(`sname')
                = local S_options = s(options)
                - }
                - sreturn clear
                - GetDiopts DEFAULT
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ────────────────
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
```

```
           local ++n
           gettoken item`n' opts : opts, bind
           }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          -----------------------------------------------------------
> --------------------------------------------- end opts_exclusive ---------------
         - opts_exclusive "`allbaselevels' `nobaselevels'"
         = opts_exclusive " "
          -----------------------------------------------------------
> ------------------------------------------- begin opts_exclusive ---------------
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
           local ++n
           gettoken item`n' opts : opts, bind
           }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          -----------------------------------------------------------
> --------------------------------------------- end opts_exclusive ---------------
         - opts_exclusive "`baselevels' `nobaselevels'"
         = opts_exclusive " "
          -----------------------------------------------------------
> ------------------------------------------- begin opts_exclusive ---------------
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
           local ++n
           gettoken item`n' opts : opts, bind
           }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          -----------------------------------------------------------
> --------------------------------------------- end opts_exclusive ---------------
```

```
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    -----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    -----------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    -----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    -----------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    -----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`lstretch' `nolstretch'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`cnsreport' `fullcnsreport'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
```

```
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`coeflegend' `selegend'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`noci' `nopvalues'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local K : list sizeof namelist
                  - gettoken c_diopts c_opts : namelist
                  - opts_exclusive "`coding' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
```

```
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`versus' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
                  = local baselevels
                  - local emptycells `emptycells' `noemptycells'
                  = local emptycells
                  - local omitted `omitted' `noomitted'
                  = local omitted
                  - local lstretch `lstretch' `nolstretch'
                  = local lstretch
                  - local fvlabel `fvlabel' `nofvlabel'
                  = local fvlabel
                  - local abbrev `abbrev' `noabbrev'
                  = local abbrev
                  - if "`allbaselevels'`baselevels'" == "" {
                  = if "" == "" {
                  - if c(showbaselevels) == "all" {
                    local allbaselevels allbaselevels
                    }
                  - else if c(showbaselevels) == "on" {
                    local baselevels baselevels
                    }
                  - }
                  - if "`emptycells'" == "" {
                  = if "" == "" {
                  - if c(showemptycells) == "off" {
                    local emptycells noemptycells
                    }
                  - }
                  - if "`omitted'" == "" {
                  = if "" == "" {
                  - if c(showomitted) == "off" {
                    local omitted noomitted
                    }
                  - }
                  - if "`lstretch'" == "" {
                  = if "" == "" {
                  - if c(lstretch) == "off" {
```

```
                               local lstretch nolstretch
                               }
                             - }
                             - if `:length local cformat' {
                             = if 0 {
                               confirm numeric format `cformat'
                               if fmtwidth(`"`cformat'"') > 9 {
                               local cformat "%9.0g"
                               di "{txt}note: invalid cformat(), using default"
                               }
                               sreturn local cformat `"`cformat'"'
                               local cformat `"cformat(`cformat')"'
                               }
                             - if `:length local sformat' {
                             = if 0 {
                               confirm numeric format `sformat'
                               if fmtwidth(`"`sformat'"') > 8 {
                               local sformat "%8.2f"
                               di "{txt}note: invalid sformat(), using default"
                               }
                               sreturn local sformat `"`sformat'"'
                               local sformat `"sformat(`sformat')"'
                               }
                             - if `:length local pformat' {
                             = if 0 {
                               confirm numeric format `pformat'
                               if fmtwidth(`"`pformat'"') > 5 {
                               local pformat "%5.3f"
                               di "{txt}note: invalid pformat(), using default"
                               }
                               sreturn local pformat `"`pformat'"'
                               local pformat `"pformat(`pformat')"'
                               }
                             - if `K' == 1 & `:length local options' {
                             = if 1 == 1 & 0 {
                               syntax namelist(max=2) [, `DIOPTS']
                               }
                             - if reldif(`level', c(level)) > 1e-3 {
                             = if reldif(95, c(level)) > 1e-3 {
                               local levelopt level(`level')
                               }
                             - Wrapon , `fvwrapon'
                             = Wrapon ,
                               ----------------------------------------------------------
> ------------------------------------ begin _get_diopts.Wrapon -----------------
                                 - capture syntax [, WOrd WIdth]
```

```
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ────────────────
                - if `"`name2'"' == "" {
                = if `""' == "" {
                - GetDiopts DUPS, `options'
                = GetDiopts DUPS,
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ────────────────
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`allbaselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`baselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
```

```
                          - if `n' < 2 {
                          = if 0 < 2 {
                          - exit
                          ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive --------------------
                        - opts_exclusive "`lstretch' `nolstretch'"
                        = opts_exclusive " "
                          ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive --------------------
                          - version 8.2
                          - args opts optname errcode optslab
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
                            local ++n
                            gettoken item`n' opts : opts, bind
                            }
                          - if `n' < 2 {
                          = if 0 < 2 {
                          - exit
                          ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive --------------------
                        - opts_exclusive "`cnsreport' `fullcnsreport'"
                        = opts_exclusive " "
                          ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive --------------------
                          - version 8.2
                          - args opts optname errcode optslab
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
                            local ++n
                            gettoken item`n' opts : opts, bind
                            }
                          - if `n' < 2 {
                          = if 0 < 2 {
                          - exit
                          ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive --------------------
                        - opts_exclusive "`coeflegend' `selegend'"
                        = opts_exclusive " "
                          ---------------------------------------------------------
```

```
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`noci' `nopvalues'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local K : list sizeof namelist
                  - gettoken c_diopts c_opts : namelist
                  - opts_exclusive "`coding' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`versus' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
                  = local baselevels
                  - local emptycells `emptycells' `noemptycells'
                  = local emptycells
                  - local omitted `omitted' `noomitted'
                  = local omitted
                  - local lstretch `lstretch' `nolstretch'
                  = local lstretch
                  - local fvlabel `fvlabel' `nofvlabel'
                  = local fvlabel
                  - local abbrev `abbrev' `noabbrev'
                  = local abbrev
                  - if "`allbaselevels'`baselevels'" == "" {
                  = if "" == "" {
                  - if c(showbaselevels) == "all" {
                    local allbaselevels allbaselevels
                    }
                  - else if c(showbaselevels) == "on" {
                    local baselevels baselevels
                    }
                  - }
                  - if "`emptycells'" == "" {
                  = if "" == "" {
                  - if c(showemptycells) == "off" {
                    local emptycells noemptycells
                    }
                  - }
                  - if "`omitted'" == "" {
                  = if "" == "" {
                  - if c(showomitted) == "off" {
                    local omitted noomitted
                    }
                  - }
                  - if "`lstretch'" == "" {
                  = if "" == "" {
                  - if c(lstretch) == "off" {
                    local lstretch nolstretch
                    }
                  - }
                  - if `:length local cformat' {
                  = if 0 {
                    confirm numeric format `cformat'
                    if fmtwidth(`"`cformat'"') > 9 {
                    local cformat "%9.0g"
                    di "{txt}note: invalid cformat(), using default"
                    }
                    sreturn local cformat `"`cformat'"'
                    local cformat `"cformat(`cformat')"'
                    }
                  - if `:length local sformat' {
                  = if 0 {
                    confirm numeric format `sformat'
                    if fmtwidth(`"`sformat'"') > 8 {
                    local sformat "%8.2f"
                    di "{txt}note: invalid sformat(), using default"
                    }
                    sreturn local sformat `"`sformat'"'
                    local sformat `"sformat(`sformat')"'
                    }
                  - if `:length local pformat' {
                  = if 0 {
                    confirm numeric format `pformat'
                    if fmtwidth(`"`pformat'"') > 5 {
                    local pformat "%5.3f"
                    di "{txt}note: invalid pformat(), using default"
                    }
                    sreturn local pformat `"`pformat'"'
                    local pformat `"pformat(`pformat')"'
                    }
                  - if `K' == 1 & `:length local options' {
                  = if 1 == 1 & 0 {
                    syntax namelist(max=2) [, `DIOPTS']
                    }
                  - if reldif(`level', c(level)) > 1e-3 {
                  = if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                    }
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ────────────────
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ------------------------------------------------------------
> ---------------------------------- end _get_diopts.GetDiopts ---------------
                - }
                - else {
                  GetDiopts DUPS options, `options'
                  c_local `name2' `"`options'"'
                  }
                - local DUPS : list DUPS - DEFAULT
                - gettoken DUPS : DUPS
                - if `"`DUPS'"' != "" {
                = if `""' != "" {
                  if (strpos(`"`DUPS'"', "(")) {
                  gettoken DUPS : DUPS, parse("(")
                  local DUPS `"`DUPS'()"'
                  }
                  di as err "duplicate {bf:`DUPS'} option not allowed"
                  exit 198
                  }
                - sreturn clear
                - foreach sname of local snames {
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local level = `"95"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local method = `"noadjust"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local options = `"level(95.00) fvwrap(1)"'
                - }
                --------------------------------------------------------------
> -------------------------------------------- end _get_diopts ---------------
              - if !`:length local first' {
              = if !0 {
              - local first showeqns
              - }
              - if `neq' < 1 {
              = if -1 < 1 {
              - _ms_eq_info
              - local neqopt neq(`r(k_eq)')
              = local neqopt neq(1)
              - }
              - else {
                local neqopt neq(`neq')
                }
              - _coef_table, nodiparm nocnsreport noeqcheck eformall `eform' `
> first' `neqopt' `plus' `beta' `mcopt' `diopts'
              = _coef_table, nodiparm nocnsreport noeqcheck eformall  showeqns
>  neq(1)   mcompare(noadjust ) fvwrap(1)
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _coef_table ───────────────
                - version 11
                - local vv : di "version " string(max(11,_caller())) ", missin
> g:"
                - if (!c(noisily) & c(coeftabresults) == "off") {
                  exit
                  }
                - _check_eclass
                - syntax [, BMATrix(passthru) VMATrix(passthru) * ]
                - if "`e(b)'" == "" & "`e(V)'" == "" & "`bmatrix'`vmatrix'"=="
> " {
                = if "matrix" == "" & "matrix" == "" & ""=="" {
                  exit
                  }
                - local mc_cmds contrast margins pwcompare pwmean
                - local cmd "`e(cmd)'"
                = local cmd "regress"
                - local keepmc : list cmd in mc_cmds
                - if inlist("`cmd'", "pwcompare", "pwmean") {
                = if inlist("regress", "pwcompare", "pwmean") {
                  local groups GROUPS
                  }
                - if "`cmd'" == "regress" {
                = if "regress" == "regress" {
                - local beta Beta
                - }
                - if "`cmd'" == "gsem" {
                = if "regress" == "gsem" {
                  local fvignore fvignore(int 0)
                  local flignore flignore
                  }
                - if "`cmd'" == "sem" {
                = if "regress" == "sem" {
                  local standardized STANDARDIZED
                  local showginvariant SHOWGINVariant
                  local nolabel NOLABel LABel NOFVLABel FVLABel
                  local nofootnote NOFOOTnote
                  local wrap wrap(numlist max=1) fvwrap(passthru)
                  }
                - if "`e(mi)'"=="mi" {
                = if ""=="mi" {
                  local dftable DFTable
                  local dfonly DFONLY
                  local noclustreport NOCLUSTReport
                  local pisematrix PISEMATrix(string)
                  }
                - syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(
> string) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string)
>  ROWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(st
> ring) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string)
>  PCLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(st
> ring asis) `beta' `standardized' NOCI NOPValues `dftable' `dfonly' dfci DFPV
> alues dfmissing `groups' COEFLegend selegend `fvignore' `flignore' `showginv
> ariant' `nolabel' `nofootnote' `wrap' sort `pisematrix' depname(string) COEF
> Title(string) coeftitle2(string) ptitle(string) cititle(string) NOMCLEGend n
> oCNSReport FULLCNSReport `noclustreport' cformat(passthru) sformat(passthru)
>  pformat(passthru) NOFirst First SHOWEQns neq(integer -1) NODIPARM NOTEST SE
> Parator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFORMALL CITYPE(string)
>  eqselect(string) noEFORMNOTE * ]
                = syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(
> string) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string)
>  ROWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(st
> ring) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string)
>  PCLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(st
> ring asis) Beta  NOCI NOPValues   dfci DFPValues dfmissing  COEFLegend seleg
> end       sort  depname(string) COEFTitle(string) coeftitle2(string) ptitle(
> string) cititle(string) NOMCLEGend noCNSReport FULLCNSReport  cformat(passth
> ru) sformat(passthru) pformat(passthru) NOFirst First SHOWEQns neq(integer -
> 1) NODIPARM NOTEST SEParator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EF
> ORMALL CITYPE(string) eqselect(string) noEFORMNOTE * ]
                - if "`wrap'" != "" {
                = if "" != "" {
                  opts_exclusive `"wrap(`wrap') `fvwrap'"'
                  local fvwrap fvwrap(`wrap')
                  }
                - if "`nolabel'`label'" != "" {
                = if "" != "" {
                  opts_exclusive "`nolabel' `label'"
                  opts_exclusive "`nofvlabel' `fvlabel'"
                  opts_exclusive "`nolabel' `fvlabel'"
                  opts_exclusive "`nofvlabel' `label'"
                  if "`nolabel'" != "" {
                  local fvlabel nofvlabel
                  }
                  else {
                  local fvlabel fvlabel
                  }
                  }
                - else local fvlabel `nofvlabel' `fvlabel'
                = else local fvlabel
                - local type `coeflegend' `selegend'
                = local type
                - opts_exclusive "`type' `standardized'"
                = opts_exclusive " "
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - if (`"`rowmatrix'"'=="" & "`norowci'"!="") {
                = if (`""'=="" & ""!="") {
                  di as err "{bf:norowci} requires {bf:rowmatrix()}"
                  exit 198
                  }
                - if ("`dftable'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`dftable'}"
                  exit 198
                  }
                - if ("`dfonly'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`dfonly'}"
                  exit 198
                  }
                - if ("`noci'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`noci'}"
                  exit 198
                  }
                - if "`standardized'" != "" & "`bstdmatrix'" != "" {
                = if "" != "" & "" != "" {
                  local beta beta
                  local standardized
                  }
                - if `:length local type' == 0 {
                = if 0 == 0 {
                - local type `beta' `noci' `nopvalues' `dftable' `dfonly' `gro
> ups' `dfci' `dfpvalues'
                = local type
                - }
                - opts_exclusive "`type'"
                = opts_exclusive ""
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - opts_exclusive "`first' `nofirst'"
                = opts_exclusive " "
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
```

```
> ───────────────────── end opts_exclusive ────────
        - opts_exclusive "`first' `showeqns'"
        = opts_exclusive " showeqns"
         ──────────────────────────────
> ──────────────────── begin opts_exclusive ────────
         - version 8.2
         - args opts optname errcode optslab
         - local opts `opts'
         = local opts  showeqns
         - local n 0
         - while `"`opts'"' != "" {
         = while `"showeqns"' != "" {
         - local ++n
         - gettoken item`n' opts : opts, bind
         = gettoken item1 opts : opts, bind
         - }
         - while `"`opts'"' != "" {
         = while `""' != "" {
           local ++n
           gettoken item`n' opts : opts, bind
           }
         - if `n' < 2 {
         = if 1 < 2 {
         - exit
         ──────────────────────────────
> ───────────────────── end opts_exclusive ────────
        - local cnsreport `cnsreport' `fullcnsreport'
        = local cnsreport nocnsreport
        - opts_exclusive "`cnsreport'"
        = opts_exclusive "nocnsreport"
         ──────────────────────────────
> ──────────────────── begin opts_exclusive ────────
         - version 8.2
         - args opts optname errcode optslab
         - local opts `opts'
         = local opts nocnsreport
         - local n 0
         - while `"`opts'"' != "" {
         = while `"nocnsreport"' != "" {
         - local ++n
         - gettoken item`n' opts : opts, bind
         = gettoken item1 opts : opts, bind
         - }
         - while `"`opts'"' != "" {
         = while `""' != "" {
           local ++n
```

```
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 1 < 2 {
                  - exit
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                - if `"`showeqns'"' != "" {
                = if `"showeqns"' != "" {
                - local nofirst nofirst
                - }
                - if `"`ematrix'`noeqcheck'"' == "" {
                = if `"noeqcheck"' == "" {
                  if `"`e(error)'"' == "matrix" {
                  local ematrix e(error)
                  }
                  }
                - _get_mcompare, `options'
                = _get_mcompare, mcompare(noadjust ) fvwrap(1)
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _get_mcompare ────────────────
                  - version 11
                  - local cmd `"`e(cmd)'"'
                  = local cmd `"regress"'
                  - syntax [name(name=caller)] [, *]
                  - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") |
> inlist("pwmean", "`cmd'", "`caller'")
                  = local is_pwc = inlist("pwcompare", "regress", "") | inlist
> ("pwmean", "regress", "")
                  - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'", "`
> caller'")
                  = local is_marg = inlist("margins", "regress", "", "")
                  - local OPTIONS NOADJust BONferroni DUNCan DUNNett SCHeffe S
> IDak SNK TUKey ADJustall
                  - if `is_pwc' {
                  = if 0 {
                    syntax [name] [, `OPTIONS' MCOMPare(string) *]
                    }
                  - else {
                  - syntax [name] [, MCOMPare(string) *]
                  - local suboption mcompare()
                  - }
                  - sreturn clear
                  - sreturn local options `"`options'"'
                  = sreturn local options `"fvwrap(1)"'
                  - if `is_pwc' {
```

```
         = if 0 {
          local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `s
> cheffe' `sidak' `snk' `tukey'
          local METHOD : list uniq METHOD
          opts_exclusive "`METHOD'"
          local ALL `adjustall'
          opts_exclusive "`noadjust' `ALL'"
          }
         - local 0 `", `mcompare'"'
         = local 0 `", noadjust"'
         - capture syntax [, `OPTIONS']
         = capture syntax [, NOADJust BONferroni DUNCan DUNNett SCHef
> fe SIDak SNK TUKey ADJustall]
         - if c(rc) {
          di as err "invalid mcompare() option;"
          di as err "method '`mcompare'' not allowed"
          error 198
          }
         - local METHOD `METHOD' `noadjust' `bonferroni' `duncan' `du
> nnett' `scheffe' `sidak' `snk' `tukey'
         = local METHOD  noadjust
         - local METHOD : list uniq METHOD
         - local ALL `ALL' `adjustall'
         = local ALL
         - local ALL : list uniq ALL
         - opts_exclusive "`METHOD'" `suboption'
         = opts_exclusive "noadjust" mcompare()
          ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts noadjust
          - local n 0
          - while `"`opts'"' != "" {
          = while `"noadjust"' != "" {
          - local ++n
          - gettoken item`n' opts : opts, bind
          = gettoken item1 opts : opts, bind
          - }
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
```

```
                    = if 1 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - if "`METHOD'" == "" {
                  = if "noadjust" == "" {
                    if "`ALL'" != "" {
                    di as err "multiple comparison method required with the ad
> justall option"
                    exit 198
                    }
                    local METHOD noadjust
                    local noadjust noadjust
                    }
                  - opts_exclusive "`ALL' `noadjust'" `suboption'
                  = opts_exclusive " noadjust" mcompare()
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts  noadjust
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `"noadjust"' != "" {
                    - local ++n
                    - gettoken item`n' opts : opts, bind
                    = gettoken item1 opts : opts, bind
                    - }
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 1 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local EXCLUDE duncan dunnett snk tukey
                  - if `:list METHOD in EXCLUDE' {
                  = if 0 {
                    if `is_pwc' {
                    local opt : copy local METHOD
                    }
                    else {
```

```
                    local opt "mcompare(`METHOD')"
                    }
                    local cmdlist anova manova regress mvreg pwmean
                    if "`cmd'" == "pwcompare" {
                    local cmd `"`e(cmd_est)'"'
                    }
                    if `is_marg' {
                    local cmd margins
                    }
                    if !`:list cmd in cmdlist' | !`is_pwc' {
                    di as err `"method `opt' is not allowed with results from
> `cmd'"'
                    exit 322
                    }
                    if `"`e(prefix)'"' == "svy" {
                    di as err `"method `opt' is not allowed with results using
>  the svy prefix"'
                    exit 322
                    }
                    local vce `"`e(vce)'"'
                    if !inlist("`vce'", "", "ols") {
                    di as err `"method `opt' is not allowed with results using
>  vce(`vce')"'
                    exit 322
                    }
                    }
                  - local EXCLUDE duncan dunnett snk tukey scheffe
                  - if `:list METHOD in EXCLUDE' {
                  = if 0 {
                    if "`ALL'" != "" {
                    di as err `"option adjustall is not allowed with method `M
> ETHOD'"'
                    exit 198
                    }
                    }
                  - sreturn local method `"`METHOD'"'
                  = sreturn local method `"noadjust"'
                  - sreturn local adjustall `"`ALL'"'
                  = sreturn local adjustall `""'
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _get_mcompare ───────────────
                - local method `"`s(method)'"'
                = local method `"noadjust"'
                - local all `"`s(adjustall)'"'
                = local all `""'
                - local options `"`s(options)'"'
                = local options `"fvwrap(1)"'
                - if "`method'" != "noadjust" {
                = if "noadjust" != "noadjust" {
                  local keepmc 1
                  }
                - opts_exclusive "`all' `groups'"
                = opts_exclusive " "
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - if "`method'" == "dunnett" {
                = if "noadjust" == "dunnett" {
                  opts_exclusive "`method' `groups'"
                  }
                - _get_diopts diopts options, `options' `fvwrap' `fvlabel'
                = _get_diopts diopts options, fvwrap(1)
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options, fvwrap(1)
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
```

```
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
                      local allbaselevels allbaselevels
                      }
                    - else if c(showbaselevels) == "on" {
```

```
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
```

```
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "fvwrap(1)" != "" {
                    - FVWrap, `fvwrap'
                    = FVWrap, fvwrap(1)
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.FVWrap ───────────────
                      - syntax, fvwrap(integer)
                      - if `fvwrap' < 0 {
                      = if 1 < 0 {
                        di as err "{p}invalid option {bf:fvwrap(`fvwrap')}; "
> "nonnegative integer required{p_end}"
                        exit 198
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.FVWrap ───────────────
                    - }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts                  fvwrap(1)
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name1' `"`diopts'"'
                  = c_local diopts `"fvwrap(1)"'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_method = s(method)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_options = s(options)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
```

```
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
  > ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
  > ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
  > ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
  > ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                - opts_exclusive "`versus' `compare'"
                = opts_exclusive " "
                  ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                - opts_exclusive "`abbrev' `noabbrev'"
                = opts_exclusive " "
                  ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                - local allbaselevels `allbaselevels' `noallbaselevels'
                = local allbaselevels
```

```
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
```

```
                      sreturn local cformat `"`cformat'"'
                      local cformat `"cformat(`cformat')"'
                      }
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                        - capture syntax [, WOrd WIdth]
                        - if c(rc) {
                          di as err "invalid fvwrapon() option;"
                          syntax [, WOrd WIdth]
                          exit 198
                          }
                        - opts_exclusive "`word' `width'" fvwrapon
                        = opts_exclusive " " fvwrapon
                          ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                          - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DEFAULT
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
```

```
                  - if `"`name2'"' == "" {
                  = if `"options"' == "" {
                    GetDiopts DUPS, `options'
                    }
                  - else {
                  - GetDiopts DUPS options, `options'
                  = GetDiopts DUPS options,
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                  - opts_exclusive "`baselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
```

```
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
```

```
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
```

```
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
```

```
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        -------------------------------------------------------
> ----------------------------------------- end opts_exclusive -----------------
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ----------------------------------------------------------
> ------------------------------------- end _get_diopts.Wrapon -----------------
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DUPS
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ------------------------------------------------------------
> ---------------------------------- end _get_diopts.GetDiopts -----------------
                  - c_local `name2' `"`options'"'
                  = c_local options `""'
                  - }
                  - local DUPS : list DUPS - DEFAULT
                  - gettoken DUPS : DUPS
                  - if `"`DUPS'"' != "" {
                  = if `""' != "" {
                    if (strpos(`"`DUPS'"', "(")) {
                    gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local method = `"noadjust"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local options = `"fvwrap(1)"'
                  - }
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _get_diopts ───────────────
                - local legend coeflegend selegend
                - local legend : list legend & diopts
                - local diopts : list diopts - legend
                - local lstretch lstretch nolstretch
                - local lstretch : list lstretch & diopts
                - local diopts : list diopts - lstretch
                - local markdown markdown
                - local markdown : list markdown & diopts
                - local diopts : list diopts - markdown
                - _get_diopts ignore, `diopts' `cformat' `sformat' `pformat'
                = _get_diopts ignore, fvwrap(1)
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options, fvwrap(1)
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
```

```
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
```

```
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ────────────────────── end opts_exclusive ────────
          - opts_exclusive "`baselevels' `nobaselevels'"
          = opts_exclusive " "
           ────────────────────────────
> ───────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ────────────────────── end opts_exclusive ────────
          - opts_exclusive "`emptycells' `noemptycells'"
          = opts_exclusive " "
           ────────────────────────────
> ───────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ────────────────────── end opts_exclusive ────────
          - opts_exclusive "`fvlabel' `nofvlabel'"
          = opts_exclusive " "
           ────────────────────────────
```

```
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ----------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ----------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ----------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ----------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
```

```
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
```

```
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
```

```
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ────────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "fvwrap(1)" != "" {
                    - FVWrap, `fvwrap'
                    = FVWrap, fvwrap(1)
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.FVWrap ───────────────
                      - syntax, fvwrap(integer)
                      - if `fvwrap' < 0 {
                      = if 1 < 0 {
                        di as err "{p}invalid option {bf:fvwrap(`fvwrap')}; "
> "nonnegative integer required{p_end}"
                        exit 198
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.FVWrap ───────────────
                    - }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts                  fvwrap(1)
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
```

```
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name1' `"`diopts'"'
                  = c_local ignore `"fvwrap(1)"'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_options = s(options)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_method = s(method)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
```

```
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                              - opts_exclusive "`allbaselevels' `nobaselevels'"
                              = opts_exclusive " "
                                ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                                - version 8.2
                                - args opts optname errcode optslab
                                - local opts `opts'
                                = local opts
                                - local n 0
                                - while `"`opts'"' != "" {
                                = while `""' != "" {
                                  local ++n
                                  gettoken item`n' opts : opts, bind
                                  }
                                - if `n' < 2 {
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                              - opts_exclusive "`baselevels' `nobaselevels'"
                              = opts_exclusive " "
                                ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                                - version 8.2
                                - args opts optname errcode optslab
                                - local opts `opts'
                                = local opts
                                - local n 0
                                - while `"`opts'"' != "" {
                                = while `""' != "" {
                                  local ++n
                                  gettoken item`n' opts : opts, bind
                                  }
                                - if `n' < 2 {
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                              - opts_exclusive "`emptycells' `noemptycells'"
                              = opts_exclusive " "
                                ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
```

```
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
```

```
                                  gettoken item`n' opts : opts, bind
                                  }
                                - if `n' < 2 {
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ----------------
                              - opts_exclusive "`lstretch' `nolstretch'"
                              = opts_exclusive " "
                                ---------------------------------------------------------
  > ---------------------------------------- begin opts_exclusive ----------------
                                - version 8.2
                                - args opts optname errcode optslab
                                - local opts `opts'
                                = local opts
                                - local n 0
                                - while `"`opts'"' != "" {
                                = while `""' != "" {
                                  local ++n
                                  gettoken item`n' opts : opts, bind
                                  }
                                - if `n' < 2 {
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ----------------
                              - opts_exclusive "`cnsreport' `fullcnsreport'"
                              = opts_exclusive " "
                                ---------------------------------------------------------
  > ---------------------------------------- begin opts_exclusive ----------------
                                - version 8.2
                                - args opts optname errcode optslab
                                - local opts `opts'
                                = local opts
                                - local n 0
                                - while `"`opts'"' != "" {
                                = while `""' != "" {
                                  local ++n
                                  gettoken item`n' opts : opts, bind
                                  }
                                - if `n' < 2 {
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ----------------
                              - opts_exclusive "`coeflegend' `selegend'"
```

```
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
```

```
                                  = if 0 < 2 {
                                  - exit
                                  ------------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                                - local allbaselevels `allbaselevels' `noallbaselevels'
                                = local allbaselevels
                                - local baselevels `baselevels' `nobaselevels'
                                = local baselevels
                                - local emptycells `emptycells' `noemptycells'
                                = local emptycells
                                - local omitted `omitted' `noomitted'
                                = local omitted
                                - local lstretch `lstretch' `nolstretch'
                                = local lstretch
                                - local fvlabel `fvlabel' `nofvlabel'
                                = local fvlabel
                                - local abbrev `abbrev' `noabbrev'
                                = local abbrev
                                - if "`allbaselevels'`baselevels'" == "" {
                                = if "" == "" {
                                - if c(showbaselevels) == "all" {
                                  local allbaselevels allbaselevels
                                  }
                                - else if c(showbaselevels) == "on" {
                                  local baselevels baselevels
                                  }
                                - }
                                - if "`emptycells'" == "" {
                                = if "" == "" {
                                - if c(showemptycells) == "off" {
                                  local emptycells noemptycells
                                  }
                                - }
                                - if "`omitted'" == "" {
                                = if "" == "" {
                                - if c(showomitted) == "off" {
                                  local omitted noomitted
                                  }
                                - }
                                - if "`lstretch'" == "" {
                                = if "" == "" {
                                - if c(lstretch) == "off" {
                                  local lstretch nolstretch
                                  }
                                - }
                                - if `:length local cformat' {
```

```
                    = if 0 {
                      confirm numeric format `cformat'
                      if fmtwidth(`"`cformat'"') > 9 {
                      local cformat "%9.0g"
                      di "{txt}note: invalid cformat(), using default"
                      }
                      sreturn local cformat `"`cformat'"'
                      local cformat `"cformat(`cformat')"'
                      }
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DEFAULT
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - if `"`name2'"' == "" {
                  = if `""' == "" {
                  - GetDiopts DUPS, `options'
                  = GetDiopts DUPS,
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
```

```
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
```

```
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
```

```
                      sreturn local cformat `"`cformat'"'
                      local cformat `"cformat(`cformat')"'
                      }
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ───────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ────────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DUPS
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ────────────────
```

```
                  - }
                  - else {
                    GetDiopts DUPS options, `options'
                    c_local `name2' `"`options'"'
                    }
                  - local DUPS : list DUPS - DEFAULT
                  - gettoken DUPS : DUPS
                  - if `"`DUPS'"' != "" {
                  = if `""' != "" {
                    if (strpos(`"`DUPS'"', "(")) {
                    gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local options = `"fvwrap(1)"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local method = `"noadjust"'
                  - }
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _get_diopts ───────────────
                - local cformat `"`s(cformat)'"'
                = local cformat `""'
                - local sformat `"`s(sformat)'"'
                = local sformat `""'
                - local pformat `"`s(pformat)'"'
                = local pformat `""'
                - _get_eformopts , eformopts(`options') allowed(__all__) sopti
> ons
                = _get_eformopts , eformopts() allowed(__all__) soptions
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _get_eformopts ───────────────
                  - version 8.0
                  - syntax [, eformopts(string asis) soptions ALLOWed(string)
> ]
                  - local 0 , `eformopts'
                  = local 0 ,
                  - local EFALL NOHR hr NOSHR shr or IRr RRr tr TRatio
                  - if "`soptions'" != "" {
                  = if "soptions" != "" {
                  - syntax [, EForm1(passthru) EForm `EFALL' * ]
                  = syntax [, EForm1(passthru) EForm NOHR hr NOSHR shr or IRr
> RRr tr TRatio * ]
                  - local opts `"`options'"'
                  = local opts `""'
                  - local 0 , `eform1' `eform' `nohr' `hr' `noshr' `shr' `or'
> `irr' `rrr' `tr' `tratio'
                  = local 0 ,
                  - }
                  - if "`allowed'" == "__all__" {
                  = if "__all__" == "__all__" {
                  - local allowed `EFALL'
                  = local allowed NOHR hr NOSHR shr or IRr RRr tr TRatio
                  - }
                  - foreach ef of local allowed {
                  - capture confirm name `ef'
                  = capture confirm name NOHR
                  - if _rc {
                    di as err "`ef' is not a valid name"
                    exit 198
                    }
                  - local efopts `efopts' `=lower("`ef'")'
                  = local efopts  nohr
                  - }
                  - capture confirm name `ef'
                  = capture confirm name hr
                  - if _rc {
                    di as err "`ef' is not a valid name"
                    exit 198
                    }
                  - local efopts `efopts' `=lower("`ef'")'
                  = local efopts nohr hr
                  - }
                  - capture confirm name `ef'
                  = capture confirm name NOSHR
                  - if _rc {
                    di as err "`ef' is not a valid name"
                    exit 198
                    }
                  - local efopts `efopts' `=lower("`ef'")'
                  = local efopts nohr hr noshr
                  - }
                  - capture confirm name `ef'
                  = capture confirm name shr
```

```
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr
- }
- capture confirm name `ef'
= capture confirm name or
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or
- }
- capture confirm name `ef'
= capture confirm name IRr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr
- }
- capture confirm name `ef'
= capture confirm name RRr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr rrr
- }
- capture confirm name `ef'
= capture confirm name tr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr rrr tr
- }
- capture confirm name `ef'
= capture confirm name TRatio
- if _rc {
```

```
                    di as err "`ef' is not a valid name"
                    exit 198
                    }
                  - local efopts `efopts' `=lower("`ef'")'
                  = local efopts nohr hr noshr shr or irr rrr tr tratio
                  - }
                  - local efopts : list uniq efopts
                  - syntax [, EForm1(string) EForm `allowed' ]
                  = syntax [, EForm1(string) EForm NOHR hr NOSHR shr or IRr RR
> r tr TRatio ]
                  - foreach ef of local efopts {
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - if `"`eform1'"'=="Odds ratio" {
                  = if `""'=="Odds ratio" {
                    local eform_cons_ti = "Odds"
                    local eform_cons_note = "odds ratios"
                    }
                  - else if `"`eform1'"'=="Haz. ratio" {
                  = else if `""'=="Haz. ratio" {
                    local eform_cons_ti = "Hazard"
```

```
  local eform_cons_note = "hazard ratios"
  }
- else if `"`eform1'"'=="Time ratio" {
= else if `""'=="Time ratio" {
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
  }
- else if `"`eform1'"'=="IRR" {
= else if `""'=="IRR" {
  local eform_cons_ti = "Inc. rate"
  local eform_cons_note = "incidence-rate ratios"
  local eform_cons_ti2 = "incidence rate"
  }
- else if `"`eform1'"'=="Risk ratio" {
= else if `""'=="Risk ratio" {
  local eform_cons_ti = "Risk"
  local eform_cons_note = "risk ratios"
  }
- else if `"`eform1'"'=="Hlth ratio" {
= else if `""'=="Hlth ratio" {
  local eform_cons_ti = "Health"
  local eform_cons_note = "health ratios"
  }
- local k : list sizeof eform
- if `k' {
= if 0 {
  opts_exclusive "`eform'"
  if `:length local eform1' {
  opts_exclusive "eform() `eform'"
  }
  }
- if `k' {
= if 0 {
  if ("`eform'"=="eform") local eform1 = "exp(b)"
  else if ("`eform'"=="hr") {
  local eform1 = "Haz. ratio"
  local eform_cons_ti = "Hazard"
  local eform_cons_note = "hazard ratios"
  }
  else if ("`eform'"=="shr") {
  local eform1 = "SHR"
  local eform_cons_ti = "Subhazard"
  local eform_cons_note = "subhazard ratios"
  }
  else if ("`eform'"=="tr") {
  local eform1 = "Time ratio"
```

```
                    local eform_cons_ti = "Time"
                    local eform_cons_note = "time ratios"
                    }
                    else if ("`eform'"=="tratio") {
                    local eform1 = "Time ratio"
                    local eform_cons_ti = "Time"
                    local eform_cons_note = "time ratios"
                    }
                    else if ("`eform'"=="or") {
                    local eform1 = "Odds ratio"
                    if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(
> cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                    local eform_cons_ti = "Rel. risk"
                    local eform_cons_note = "relative-risk ratios"
                    local eform_cons_ti2 = "relative risk"
                    }
                    else {
                    local eform_cons_ti = "Odds"
                    local eform_cons_note = "odds ratios"
                    }
                    }
                    else if ("`eform'"=="irr") {
                    local eform1 = "IRR"
                    local eform_cons_ti = "Inc. rate"
                    local eform_cons_note = "incidence-rate ratios"
                    local eform_cons_ti2 = "incidence rate"
                    }
                    else if ("`eform'"=="rrr") {
                    local eform1 = "RRR"
                    local eform_cons_ti = "Rel. risk"
                    local eform_cons_note = "relative-risk ratios"
                    local eform_cons_ti2 = "relative risk"
                    }
                    else if ("`eform'"!="nohr") & ("`eform'"!="noshr") {
                    local eform1 = upper("`eform'")
                    }
                    }
                  - sreturn clear
                  - sreturn local options `"`opts'"'
                  = sreturn local options `""'
                  - sreturn local opt `eform'
                  = sreturn local opt
                  - sreturn local str `eform1'
                  = sreturn local str
                  - if `"`eform1'"' != "" {
                  = if `""' != "" {
                    sreturn local eform eform(`"`eform1'"')
                    }
                  - else sreturn local eform ""
                  - sreturn local eform_cons_ti `eform_cons_ti'
                  = sreturn local eform_cons_ti
                  - sreturn local eform_cons_note `eform_cons_note'
                  = sreturn local eform_cons_note
                  - sreturn local eform_cons_ti2 `eform_cons_ti2'
                  = sreturn local eform_cons_ti2
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _get_eformopts ───────────────
                - local tr_item = `"`s(eform_cons_note)'"'
                = local tr_item = `""'
                - if inlist("`bmatrix'", "", "e(b)") & "`e(k_eform)'" == "0" {
                = if inlist("", "", "e(b)") & "" == "0" {
                  local eform
                  }
                - else local eform `"`s(str)'"'
                = else local eform `""'
                - local eform_cons_ti `"`s(eform_cons_ti)'"'
                = local eform_cons_ti `""'
                - local eform_cons_ti2 `"`s(eform_cons_ti2)'"'
                = local eform_cons_ti2 `""'
                - if ("`e(consonly)'"!="1" | `"`eform_cons_ti'"'=="") {
                = if (""!="1" | `""'=="") {
                - local eformdi `"`s(str)'"'
                = local eformdi `""'
                - }
                - else {
                  local eformdi `"`eform_cons_ti'"'
                  local tr_item = cond(missing("`eform_cons_ti2'"), strlower(`
> "`eform_cons_ti'"'), `"`eform_cons_ti2'"')
                  }
                - local coefttl = cond(`"`eform'"'==`""', `"`coeftitle'"', `"`
> eformdi'"')
                = local coefttl = cond(`""'==`""', `""', `""')
                - local options `"`s(options)'"'
                = local options `""'
                - _get_diparmopts, diparmopts(`options') level(`level')
                = _get_diparmopts, diparmopts() level(95)
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _get_diparmopts ───────────────
                  - if _caller() < 8.2 {
                    _get_diparmopts_8 `0'
                    exit
                    }
                  - version 9
                  - local version : di "version " string(_caller()) ":"
                  - syntax [, diparmopts(string asis) EXECute soptions bottom
> plus SYNTAXonly * ]
                  - local goptions `options'
                  = local goptions level(95)
                  - SpliceGlobals junk , `goptions'
                  = SpliceGlobals junk , level(95)
                    ───────────────────────────────────────────────────────────
> ──────────────────────── begin _get_diparmopts.SpliceGlobals ────────────────
                    - syntax name(id="macro name" name=c_diparm) [, diparm(str
> ing asis) Level(cilevel) dof(passthru) syntaxonly ]
                    - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                    = if `""' == "" & `"215"' != "" {
                    - capture confirm integer number `e(df_r)'
                    = capture confirm integer number 215
                    - if !c(rc) {
                    - local gdof dof(`e(df_r)')
                    = local gdof dof(215)
                    - }
                    - capture
                    - }
                    - else local gdof `"`dof'"'
                    = else local gdof `""'
                    - local glevel `level'
                    = local glevel 95
                    - local lopt level(`glevel')
                    = local lopt level(95)
                    - if (`"`diparm'"' == "") exit
                    = if (`""' == "") exit
                    ───────────────────────────────────────────────────────────
> ────────────────────────── end _get_diparmopts.SpliceGlobals ────────────────
                  - local 0 `", `diparmopts'"'
                  = local 0 `", "'
                  - local diparmopts
                  - local k 0
                  - syntax [, diparm(string asis) * ]
                  - while `"`diparm'"' != "" {
                  = while `""' != "" {
                    local ++k
                    local single 1
                    local after
                    capture _on_colon_parse `diparm'
                    if !c(rc) {
                    local single 0
                    local diparm `"`s(before)'"'
```

```
          local after `"`s(after)'"'
          }
          capture
          SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `gopt
> ions'
          local diparm`k' `"`diparm'"'
          local diparmopts `"`diparmopts' : `diparm'"'
          if `single' | `"`:list retok after'"' == "" {
          local 0 `", `options'"'
          syntax [, diparm(string asis) * ]
          }
          else {
          local diparm `"`after'"'
          }
          }
         - if `"`soptions'"' == "" {
         = if `""' == "" {
         - syntax [, diparm(string asis) ]
         - }
         - if ("`execute'" == "") {
         = if ("" == "") {
         - sreturn clear
         - sreturn local options `"`options'"'
         = sreturn local options `""'
         - sreturn local diparm `"`diparmopts'"'
         = sreturn local diparm `""'
         - forval i = 1/`k' {
         = forval i = 1/0 {
          sreturn local diparm`i' `"`diparm`i''"'
          }
         - sreturn local k `k'
         = sreturn local k 0
         - exit
         ──────────────────────────────
> ──────────────────── end _get_diparmopts ────────
        - local NODIPARM : length local nodiparm
        - if `NODIPARM' {
        = if 8 {
        - local options
        - }
        - local GTOPTS parse(":") bind quotes
        - local k 0
        - if !`NODIPARM' {
        = if !8 {
         if `"`e(diparm)'"' != "" {
         local i 0
```

```
  local diparm `"`e(diparm)'"'
  }
  else if `"`e(diparm1)'"' != "" {
  local i 1
  local diparm `"`e(diparm1)'"'
  }
  while `:length local diparm' {
  gettoken diparm rest : diparm, `GTOPTS'
  while `:length local rest' {
  local ++k
  local diparm`k' : copy local diparm
  gettoken COLON rest : rest, `GTOPTS'
  gettoken diparm rest : rest, `GTOPTS'
  }
  local ++k
  local diparm`k' : copy local diparm
  local ++i
  local diparm `"`e(diparm`i')'"'
  }
  }
- if `:length local options' {
= if 0 {
  local 0 `", `options'"'
  syntax [, diparm(string asis) *]
  if `k' & `:length local diparm' {
  local ++k
  local diparm`k' __sep__
  }
  while `:length local diparm' {
  gettoken diparm rest : diparm, `GTOPTS'
  while `:length local rest' {
  local ++k
  local diparm`k' : copy local diparm
  gettoken COLON rest : rest, `GTOPTS'
  gettoken diparm rest : rest, `GTOPTS'
  }
  local ++k
  local diparm`k' : copy local diparm
  local 0 `", `options'"'
  syntax [, diparm(string asis) *]
  }
  }
- if "`markdown'" != "" {
= if "" != "" {
  local lsize = c(linesize)
  set linesize 255
```

```
                  }
                - `vv' mata: _coef_table()
                = version 11, missing: mata: _coef_table()
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options, fvwrap(1)
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
```

```
          = opts_exclusive " "
           ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ─────────────────────────────
> ───────────────────── end opts_exclusive ────────
          - opts_exclusive "`baselevels' `nobaselevels'"
          = opts_exclusive " "
           ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ─────────────────────────────
> ───────────────────── end opts_exclusive ────────
          - opts_exclusive "`emptycells' `noemptycells'"
          = opts_exclusive " "
           ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
```

```
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
```

```
                                  ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                                - opts_exclusive "`lstretch' `nolstretch'"
                                = opts_exclusive " "
                                  ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                                  - version 8.2
                                  - args opts optname errcode optslab
                                  - local opts `opts'
                                  = local opts
                                  - local n 0
                                  - while `"`opts'"' != "" {
                                  = while `""' != "" {
                                    local ++n
                                    gettoken item`n' opts : opts, bind
                                    }
                                  - if `n' < 2 {
                                  = if 0 < 2 {
                                  - exit
                                  ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                                - opts_exclusive "`cnsreport' `fullcnsreport'"
                                = opts_exclusive " "
                                  ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                                  - version 8.2
                                  - args opts optname errcode optslab
                                  - local opts `opts'
                                  = local opts
                                  - local n 0
                                  - while `"`opts'"' != "" {
                                  = while `""' != "" {
                                    local ++n
                                    gettoken item`n' opts : opts, bind
                                    }
                                  - if `n' < 2 {
                                  = if 0 < 2 {
                                  - exit
                                  ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                                - opts_exclusive "`coeflegend' `selegend'"
                                = opts_exclusive " "
                                  ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                                  - version 8.2
                                  - args opts optname errcode optslab
```

```
                         - local opts `opts'
                         = local opts
                         - local n 0
                         - while `"`opts'"' != "" {
                         = while `""' != "" {
                           local ++n
                           gettoken item`n' opts : opts, bind
                           }
                         - if `n' < 2 {
                         = if 0 < 2 {
                         - exit
                         ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                       - opts_exclusive "`noci' `nopvalues'"
                       = opts_exclusive " "
                         ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                         - version 8.2
                         - args opts optname errcode optslab
                         - local opts `opts'
                         = local opts
                         - local n 0
                         - while `"`opts'"' != "" {
                         = while `""' != "" {
                           local ++n
                           gettoken item`n' opts : opts, bind
                           }
                         - if `n' < 2 {
                         = if 0 < 2 {
                         - exit
                         ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                       - local K : list sizeof namelist
                       - gettoken c_diopts c_opts : namelist
                       - opts_exclusive "`coding' `compare'"
                       = opts_exclusive " "
                         ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                         - version 8.2
                         - args opts optname errcode optslab
                         - local opts `opts'
                         = local opts
                         - local n 0
                         - while `"`opts'"' != "" {
                         = while `""' != "" {
                           local ++n
```

```
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
```

```
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
```

```
                      }
                      sreturn local cformat `"`cformat'"'
                      local cformat `"cformat(`cformat')"'
                      }
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      --------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ---------------
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
```

```
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "fvwrap(1)" != "" {
                    - FVWrap, `fvwrap'
                    = FVWrap, fvwrap(1)
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.FVWrap ───────────────
                      - syntax, fvwrap(integer)
                      - if `fvwrap' < 0 {
                      = if 1 < 0 {
                        di as err "{p}invalid option {bf:fvwrap(`fvwrap')}; "
> "nonnegative integer required{p_end}"
                        exit 198
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.FVWrap ───────────────
                    - }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts                  fvwrap(1)
                    - if `K' == 2 {
```

```
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name1' `"`diopts'"'
                  = c_local __00000B `"fvwrap(1)"'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_k = s(k)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
```

```
                                      = while `""' != "" {
                                        local ++n
                                        gettoken item`n' opts : opts, bind
                                        }
                                      - if `n' < 2 {
                                      = if 0 < 2 {
                                      - exit
                                      ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ----------------
                                    - opts_exclusive "`coeflegend' `selegend'"
                                    = opts_exclusive " "
                                      ---------------------------------------------------------
  > ---------------------------------------- begin opts_exclusive ----------------
                                      - version 8.2
                                      - args opts optname errcode optslab
                                      - local opts `opts'
                                      = local opts
                                      - local n 0
                                      - while `"`opts'"' != "" {
                                      = while `""' != "" {
                                        local ++n
                                        gettoken item`n' opts : opts, bind
                                        }
                                      - if `n' < 2 {
                                      = if 0 < 2 {
                                      - exit
                                      ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ----------------
                                    - opts_exclusive "`noci' `nopvalues'"
                                    = opts_exclusive " "
                                      ---------------------------------------------------------
  > ---------------------------------------- begin opts_exclusive ----------------
                                      - version 8.2
                                      - args opts optname errcode optslab
                                      - local opts `opts'
                                      = local opts
                                      - local n 0
                                      - while `"`opts'"' != "" {
                                      = while `""' != "" {
                                        local ++n
                                        gettoken item`n' opts : opts, bind
                                        }
                                      - if `n' < 2 {
                                      = if 0 < 2 {
                                      - exit
                                      ---------------------------------------------------------
```

```
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
                      local allbaselevels allbaselevels
                      }
                    - else if c(showbaselevels) == "on" {
                      local baselevels baselevels
                      }
                    - }
                    - if "`emptycells'" == "" {
                    = if "" == "" {
                    - if c(showemptycells) == "off" {
                      local emptycells noemptycells
                      }
                    - }
                    - if "`omitted'" == "" {
                    = if "" == "" {
                    - if c(showomitted) == "off" {
```

```
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
  }
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
  local levelopt level(`level')
```

```
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      --------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ---------------
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      --------------------------------------------------------
> ------------------------------------- end _get_diopts.Wrapon ---------------
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DEFAULT
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _get_diopts.GetDiopts ────────────────
                  - if `"`name2'"' == "" {
                  = if `""' == "" {
                  - GetDiopts DUPS, `options'
                  = GetDiopts DUPS,
                    ────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _get_diopts.GetDiopts ────────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
```

```
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
```

```
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
                      local allbaselevels allbaselevels
                      }
                    - else if c(showbaselevels) == "on" {
                      local baselevels baselevels
                      }
                    - }
                    - if "`emptycells'" == "" {
                    = if "" == "" {
                    - if c(showemptycells) == "off" {
                      local emptycells noemptycells
                      }
                    - }
                    - if "`omitted'" == "" {
                    = if "" == "" {
                    - if c(showomitted) == "off" {
                      local omitted noomitted
                      }
                    - }
                    - if "`lstretch'" == "" {
                    = if "" == "" {
                    - if c(lstretch) == "off" {
                      local lstretch nolstretch
                      }
                    - }
                    - if `:length local cformat' {
                    = if 0 {
                      confirm numeric format `cformat'
                      if fmtwidth(`"`cformat'"') > 9 {
                      local cformat "%9.0g"
                      di "{txt}note: invalid cformat(), using default"
                      }
                      sreturn local cformat `"`cformat'"'
                      local cformat `"cformat(`cformat')"'
                      }
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DUPS
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ----------------------------------------------------------
> ---------------------------------- end _get_diopts.GetDiopts ---------------
                  - }
                  - else {
                    GetDiopts DUPS options, `options'
                    c_local `name2' `"`options'"'
                    }
                  - local DUPS : list DUPS - DEFAULT
                  - gettoken DUPS : DUPS
                  - if `"`DUPS'"' != "" {
                  = if `""' != "" {
                    if (strpos(`"`DUPS'"', "(")) {
                    gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local k = `"0"'
                  - }
                  ------------------------------------------------------------
> -------------------------------------------- end _get_diopts ---------------
                - if "`markdown'" != "" {
                = if "" != "" {
                  set linesize `lsize'
                  }
                - if "`eqselect'" == "" & "`eformnote'" != "noeformnote" {
                = if "" == "" & "" != "noeformnote" {
                - if `"`eformdi'"'!="" & ("`e(cmd)'"!="gnbreg" | "`e(prefix)'"
> =="svy") {
                = if `""'!="" & ("regress"!="gnbreg" | ""=="svy") {
                  local k_eform `e(k_eform)'
                  if ("`k_eform'"=="") {
                  local k_eform = 1
                  }
                  local k_eq `e(k_eq)'
                  if ("`k_eq'"=="") {
                  local k_eq = 1
                  }
                  if (`k_eform'<`k_eq' & `k_eform') {
                  if ("`e(cmd2)'" == "stintreg" | "`e(cmd2)'" == "streg") & ("
> `e(cmd)'" == "weibull" | "`e(cmd)'" == "gompertz") {
                  }
                  else {
                  _eform_multeq_note efnote : `k_eform' `"`tr_item'"'
                  di as txt "`efnote'"
                  }
                  }
                  }
                - if (`"`eformdi'"'!="" & "`e(noconstant)'"=="0" & `"`eform_co
> ns_ti'"'!="" & "`e(consonly)'"!="1") {
                = if (`""'!="" & ""=="0" & `""'!="" & ""!="1") {
                  if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cm
> d)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                  local asvar = `"`e(ranvars)'`e(fixvars)'`e(indvars)'"' != ""
                  if `"`e(casevars)'"' != "" & `asvar' {
                  local note1 "Exponentiated coefficients represent odds ratio
> s for "
                  local note2 "alternative-specific variables (first equation)
>  and "
                  local note3 "{help j_cmrisk##|_new:relative-risk ratios} "
                  local note4 "for case-specific variables."
                  di as txt "{p 0 6 2}Note: `note1'`note2'`note3'`note4'{p_end
> }"
                  }
                  }
                  if "`eform_cons_ti'" == "Inc. rate" {
                  local eform_cons_note "incidence rate"
                  }
                  else if "`eform_cons_ti'" == "Rel. risk" {
                  local eform_cons_note "relative risk"
                  }
                  else if "`eform_cons_ti'" == "Health" {
                  local eform_cons_note "health (probability of no disease)"
                  }
                  else {
                  local eform_cons_note = strlower(`"`eform_cons_ti'"')
                  }
                  local eform_cons_note "baseline `eform_cons_note'"
                  if ("`e(cmd2)'"=="") {
                  local cmd `e(cmd)'
                  }
                  else {
                  local cmd `e(cmd2)'
                  }
                  local f2 = udsubstr("`cmd'",1,2)
                  local is_re = ("`f2'"=="xt" | "`f2'"=="me")
                  if `is_re' {
                  local extranote " (conditional on zero random effects)"
                  }
                  di as txt "{p 0 6 2}Note: {bf:_cons} estimates " "`eform_con
> s_note'`extranote'" _c
                  if ("`e(cmd)'"=="mlogit" | "`e(cmd)'"=="asclogit" | "`e(cmd)
> '"=="cmclogit" | "`e(cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                  di as txt " for each outcome" _c
                  }
                  di as txt ".{p_end}"
                  }
                - }
                - return add
                - if !`keepmc' {
                = if !0 {
                - return local mcmethod
                - return local mctitle
                - }
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _coef_table ───────────────
              ─────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _ereturn_display ───────────────
            - mat `b1' = (1/`mean')*e(b)
            = mat __000008 = (1/__000003)*e(b)
            - mat score double `xb' = `b1' `if'
            = mat score double __000006 = __000008 if __000002
            - LikePois `y' `xb'`poff' [`weight'`exp'] `if', n(`nobs')
            = LikePois y_timing_max __000006 [] if __000002, n(__000004)
              ─────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin poisson.LikePois ───────────────
              - gettoken y 0 : 0
              - gettoken xb 0 : 0
              - syntax [fw aw pw iw] [if] , Nobs(string)
              - if "`weight'"!="" {
              = if ""!="" {
                if "`weight'"=="fweight" {
                local wt `"[fw`exp']"'
                }
                else if "`weight'"=="iweight" {
                local wt `"[iw`exp']"'
                }
                else local wt `"[aw`exp']"'
                }
              - tempvar lnf
              - qui gen double `lnf' = `y'*(`xb')-exp(`xb')-lngamma(`y'+1) `if
> '
              = qui gen double __00000B = y_timing_max*(__000006)-exp(__000006
> )-lngamma(y_timing_max+1) if __000002
              - summarize `lnf' `wt' `if', meanonly
              = summarize __00000B  if __000002, meanonly
              - if r(N) != `nobs' { exit }
              = if r(N) != __000004 { exit }
              - if "`weight'"=="aweight" {
              = if ""=="aweight" {
                ret scalar lnf = r(N)*r(mean)
                }
              - else ret scalar lnf = r(sum)
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── end poisson.LikePois ───────────────
            - scalar `lnf1' = r(lnf)
            = scalar __00000A = r(lnf)
            - }
            - if "`constan'"=="" {
            = if ""=="" {
            - SolveC `y' `xb'`poff' [`weight'`exp'] `if', n(`nobs') mean(`mean
> ')
            = SolveC y_timing_max __000006 [] if __000002, n(__000004) mean(__
> 000003)
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin poisson.SolveC ───────────────
              - gettoken y 0 : 0
              - gettoken xb 0 : 0
              - syntax [fw aw pw iw] [if] , Nobs(string) Mean(string)
              - if "`weight'"=="pweight" {
              = if ""=="pweight" {
                local weight "aweight"
                }
              - capture confirm variable `xb'
              = capture confirm variable __000006
              - if _rc {
                tempvar xbnew
                qui gen double `xbnew' = (`xb') `if'
                local xb `xbnew'
                }
              - summarize `xb' [`weight'`exp'] `if', meanonly
              = summarize __000006 [] if __000002, meanonly
              - if r(N) != `nobs' { exit }
              = if r(N) != __000004 { exit }
              - if r(max) - r(min) > 2*709 {
                exit
                }
              - if r(max) > 709 | r(min) < -709 {
                tempname shift
                if r(max) > 709 { scalar `shift' = 709 - r(max) }
                else scalar `shift' = -709 - r(min)
                local shift "+`shift'"
                }
              - tempvar expoff
              - qui gen double `expoff' = exp(`xb'`shift') `if'
              = qui gen double __00000B = exp(__000006) if __000002
              - summarize `expoff' [`weight'`exp'], meanonly
              = summarize __00000B [], meanonly
              - if r(N) != `nobs' { exit }
              = if r(N) != __000004 { exit }
              - return scalar _cons = ln(`mean')-ln(r(mean))`shift'
              = return scalar _cons = ln(__000003)-ln(r(mean))
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end poisson.SolveC ───────────────
            - tempname c
            - scalar `c' = r(_cons)
            = scalar __00000B = r(_cons)
            - if `c'<. {
            = if __00000B<. {
            - local c "+`c'"
            = local c "+__00000B"
            - }
            - else local c
            - LikePois `y' `xb'`poff'`c' [`weight'`exp'] `if', n(`nobs')
            = LikePois y_timing_max __000006+__00000B [] if __000002, n(__0000
> 04)
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────── begin poisson.LikePois ───────────────
              - gettoken y 0 : 0
              - gettoken xb 0 : 0
              - syntax [fw aw pw iw] [if] , Nobs(string)
              - if "`weight'"!="" {
              = if ""!="" {
                if "`weight'"=="fweight" {
                local wt `"[fw`exp']"'
```

```
        }
        else if "`weight'"=="iweight" {
        local wt `"[iw`exp']"'
        }
        else local wt `"[aw`exp']"'
        }
       - tempvar lnf
       - qui gen double `lnf' = `y'*(`xb')-exp(`xb')-lngamma(`y'+1) `if
> '
       = qui gen double __00000C = y_timing_max*(__000006+__00000B)-exp
> (__000006+__00000B)-lngamma(y_timing_max+1) if __000002
       - summarize `lnf' `wt' `if', meanonly
       = summarize __00000C  if __000002, meanonly
       - if r(N) != `nobs' { exit }
       = if r(N) != __000004 { exit }
       - if "`weight'"=="aweight" {
       = if ""=="aweight" {
         ret scalar lnf = r(N)*r(mean)
         }
       - else ret scalar lnf = r(sum)
       ────────────────────────────────
> ──────────────────── end poisson.LikePois ────────
      - tempname lnf1c
      - scalar `lnf1c' = r(lnf)
      = scalar __00000C = r(lnf)
      - }
      - else local lnf1c .
      - capture {
      - gen double `z' = `y'*exp(-(`xb'`poff'`c'))-1 +`xb'`c' `if'
      = gen double __000007 = y_timing_max*exp(-(__000006+__00000B))-1 +
> __000006+__00000B if __000002
      - `vv' _regress `z' `xvars' [aw=`wt'exp(`xb'`poff'`c')] `if', `con
> stan'
      = version 18, missing: _regress __000007  wlth wg_ndx stky_pr_rote
> mberg stky_pr_calvo open [aw=exp(__000006+__00000B)] if __000002,
       ────────────────────────────────
> ─────────────────── begin _ereturn_display ────────
       - version 11
       - if "`e(b)'" == "" & "`e(V)'" == "" {
       = if "matrix" == "" & "matrix" == "" {
         exit
         }
       - if "`e(cmd)'" == "regress" {
       = if "regress" == "regress" {
       - local ALTOPT Beta
       - }
```

```
              - syntax [, eform(passthru) First neq(integer -1) PLus `ALTOPT'
> *]
              = syntax [, eform(passthru) First neq(integer -1) PLus Beta *]
              - _get_mcompare, `options'
              = _get_mcompare, level(95.00) fvwrap(1)
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _get_mcompare ───────────────
                - version 11
                - local cmd `"`e(cmd)'"'
                = local cmd `"regress"'
                - syntax [name(name=caller)] [, *]
                - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") | in
> list("pwmean", "`cmd'", "`caller'")
                = local is_pwc = inlist("pwcompare", "regress", "") | inlist("
> pwmean", "regress", "")
                - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'", "`ca
> ller'")
                = local is_marg = inlist("margins", "regress", "", "")
                - local OPTIONS NOADJust BONferroni DUNCan DUNNett SCHeffe SID
> ak SNK TUKey ADJustall
                - if `is_pwc' {
                = if 0 {
                  syntax [name] [, `OPTIONS' MCOMPare(string) *]
                  }
                - else {
                - syntax [name] [, MCOMPare(string) *]
                - local suboption mcompare()
                - }
                - sreturn clear
                - sreturn local options `"`options'"'
                = sreturn local options `"level(95.00) fvwrap(1)"'
                - if `is_pwc' {
                = if 0 {
                  local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `sch
> effe' `sidak' `snk' `tukey'
                  local METHOD : list uniq METHOD
                  opts_exclusive "`METHOD'"
                  local ALL `adjustall'
                  opts_exclusive "`noadjust' `ALL'"
                  }
                - local 0 `", `mcompare'"'
                = local 0 `", "'
                - capture syntax [, `OPTIONS']
                = capture syntax [, NOADJust BONferroni DUNCan DUNNett SCHeffe
>  SIDak SNK TUKey ADJustall]
                - if c(rc) {
                  di as err "invalid mcompare() option;"
                  di as err "method '`mcompare'' not allowed"
                  error 198
                  }
                - local METHOD `METHOD' `noadjust' `bonferroni' `duncan' `dunn
> ett' `scheffe' `sidak' `snk' `tukey'
                = local METHOD
                - local METHOD : list uniq METHOD
                - local ALL `ALL' `adjustall'
                = local ALL
                - local ALL : list uniq ALL
                - opts_exclusive "`METHOD'" `suboption'
                = opts_exclusive "" mcompare()
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - if "`METHOD'" == "" {
                = if "" == "" {
                - if "`ALL'" != "" {
                = if "" != "" {
                  di as err "multiple comparison method required with the adju
> stall option"
                  exit 198
                  }
                - local METHOD noadjust
                - local noadjust noadjust
                - }
                - opts_exclusive "`ALL' `noadjust'" `suboption'
                = opts_exclusive " noadjust" mcompare()
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts  noadjust
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `"noadjust"' != "" {
                  - local ++n
                  - gettoken item`n' opts : opts, bind
                  = gettoken item1 opts : opts, bind
                  - }
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 1 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - local EXCLUDE duncan dunnett snk tukey
                - if `:list METHOD in EXCLUDE' {
                = if 0 {
                  if `is_pwc' {
                  local opt : copy local METHOD
                  }
                  else {
                  local opt "mcompare(`METHOD')"
                  }
                  local cmdlist anova manova regress mvreg pwmean
                  if "`cmd'" == "pwcompare" {
                  local cmd `"`e(cmd_est)'"'
                  }
                  if `is_marg' {
                  local cmd margins
                  }
                  if !`:list cmd in cmdlist' | !`is_pwc' {
                  di as err `"method `opt' is not allowed with results from `c
> md'"'
                  exit 322
                  }
                  if `"`e(prefix)'"' == "svy" {
                  di as err `"method `opt' is not allowed with results using t
> he svy prefix"'
                  exit 322
                  }
                  local vce `"`e(vce)'"'
                  if !inlist("`vce'", "", "ols") {
                  di as err `"method `opt' is not allowed with results using v
> ce(`vce')"'
                  exit 322
                  }
                  }
                - local EXCLUDE duncan dunnett snk tukey scheffe
                - if `:list METHOD in EXCLUDE' {
                = if 0 {
                  if "`ALL'" != "" {
                  di as err `"option adjustall is not allowed with method `MET
> HOD'"'
                  exit 198
                  }
                  }
                - sreturn local method `"`METHOD'"'
                = sreturn local method `"noadjust"'
                - sreturn local adjustall `"`ALL'"'
                = sreturn local adjustall `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _get_mcompare ───────────────
              - if "`s(method)'" != "" {
              = if "noadjust" != "" {
              - loca mcopt mcompare(`s(method)' `s(adjustall)')
              = loca mcopt mcompare(noadjust )
              - }
              - _get_diopts diopts, `s(options)'
              = _get_diopts diopts, level(95.00) fvwrap(1)
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _get_diopts ───────────────
                - version 11
                - syntax namelist(max=2) [, *]
                - gettoken name1 namelist : namelist
                - gettoken name2 namelist : namelist
                - GetDiopts diopts options, `options'
                = GetDiopts diopts options, level(95.00) fvwrap(1)
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`allbaselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`baselevels' `nobaselevels'"
                  = opts_exclusive " "
```

```
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
```

```
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`lstretch' `nolstretch'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
```

```
> -------------------- end opts_exclusive --------
         - opts_exclusive "`cnsreport' `fullcnsreport'"
         = opts_exclusive " "
          -----------------------------
> ------------------- begin opts_exclusive --------
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          -----------------------------
> -------------------- end opts_exclusive --------
         - opts_exclusive "`coeflegend' `selegend'"
         = opts_exclusive " "
          -----------------------------
> ------------------- begin opts_exclusive --------
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          -----------------------------
> -------------------- end opts_exclusive --------
         - opts_exclusive "`noci' `nopvalues'"
         = opts_exclusive " "
          -----------------------------
> ------------------- begin opts_exclusive --------
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
```

```
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - local K : list sizeof namelist
                  - gettoken c_diopts c_opts : namelist
                  - opts_exclusive "`coding' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`versus' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
                  = local baselevels
                  - local emptycells `emptycells' `noemptycells'
                  = local emptycells
                  - local omitted `omitted' `noomitted'
                  = local omitted
                  - local lstretch `lstretch' `nolstretch'
                  = local lstretch
                  - local fvlabel `fvlabel' `nofvlabel'
                  = local fvlabel
                  - local abbrev `abbrev' `noabbrev'
                  = local abbrev
                  - if "`allbaselevels'`baselevels'" == "" {
                  = if "" == "" {
                  - if c(showbaselevels) == "all" {
                    local allbaselevels allbaselevels
                    }
                  - else if c(showbaselevels) == "on" {
                    local baselevels baselevels
```

```
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
```

```
                    }
                    sreturn local pformat `"`pformat'"'
                    local pformat `"pformat(`pformat')"'
                    }
                  - if `K' == 1 & `:length local options' {
                  = if 2 == 1 & 0 {
                    syntax namelist(max=2) [, `DIOPTS']
                    }
                  - if reldif(`level', c(level)) > 1e-3 {
                  = if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                    }
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ─────────────────────────────────────────────────────────
> ────────────────────────────────────── end _get_diopts.Wrapon ───────────────
                  - if "`fvwrap'" != "" {
                  = if "fvwrap(1)" != "" {
                  - FVWrap, `fvwrap'
                  = FVWrap, fvwrap(1)
                    ─────────────────────────────────────────────────────────
> ───────────────────────────────────── begin _get_diopts.FVWrap ───────────────
                    - syntax, fvwrap(integer)
                    - if `fvwrap' < 0 {
                    = if 1 < 0 {
                      di as err "{p}invalid option {bf:fvwrap(`fvwrap')}; " "n
> onnegative integer required{p_end}"
                      exit 198
                      }
                    ─────────────────────────────────────────────────────────
> ────────────────────────────────────── end _get_diopts.FVWrap ───────────────
                  - }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local diopts                  fvwrap(1)
                  - if `K' == 2 {
                  = if 2 == 2 {
                  - c_local `c_opts' `"`options'"'
                  = c_local  options `""'
                  - }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ───────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                - c_local `name1' `"`diopts'"'
                = c_local diopts `"fvwrap(1)"'
                - local snames : s(macros)
                - foreach sname of local snames {
                - local S_`sname' = s(`sname')
                = local S_level = s(level)
                - }
                - local S_`sname' = s(`sname')
                = local S_method = s(method)
                - }
                - local S_`sname' = s(`sname')
                = local S_options = s(options)
                - }
                - sreturn clear
                - GetDiopts DEFAULT
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ────────────────
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`allbaselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
```

```
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`baselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
```

```
                  - opts_exclusive "`lstretch' `nolstretch'"
                  = opts_exclusive " "
                    -----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    -----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`cnsreport' `fullcnsreport'"
                  = opts_exclusive " "
                    -----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    -----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`coeflegend' `selegend'"
                  = opts_exclusive " "
                    -----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`noci' `nopvalues'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - local K : list sizeof namelist
                  - gettoken c_diopts c_opts : namelist
                  - opts_exclusive "`coding' `compare'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`versus' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
```

```
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
```

```
                    local cformat `"cformat(`cformat')"'
                    }
                  - if `:length local sformat' {
                  = if 0 {
                    confirm numeric format `sformat'
                    if fmtwidth(`"`sformat'"') > 8 {
                    local sformat "%8.2f"
                    di "{txt}note: invalid sformat(), using default"
                    }
                    sreturn local sformat `"`sformat'"'
                    local sformat `"sformat(`sformat')"'
                    }
                  - if `:length local pformat' {
                  = if 0 {
                    confirm numeric format `pformat'
                    if fmtwidth(`"`pformat'"') > 5 {
                    local pformat "%5.3f"
                    di "{txt}note: invalid pformat(), using default"
                    }
                    sreturn local pformat `"`pformat'"'
                    local pformat `"pformat(`pformat')"'
                    }
                  - if `K' == 1 & `:length local options' {
                  = if 1 == 1 & 0 {
                    syntax namelist(max=2) [, `DIOPTS']
                    }
                  - if reldif(`level', c(level)) > 1e-3 {
                  = if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                    }
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                - if `"`name2'"' == "" {
```

```
                = if `""' == "" {
                - GetDiopts DUPS, `options'
                = GetDiopts DUPS,
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`allbaselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                  - opts_exclusive "`baselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`lstretch' `nolstretch'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`cnsreport' `fullcnsreport'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`coeflegend' `selegend'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`noci' `nopvalues'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local K : list sizeof namelist
                  - gettoken c_diopts c_opts : namelist
                  - opts_exclusive "`coding' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`versus' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
                  = local baselevels
                  - local emptycells `emptycells' `noemptycells'
                  = local emptycells
                  - local omitted `omitted' `noomitted'
                  = local omitted
                  - local lstretch `lstretch' `nolstretch'
```

```
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
```

```
                    local sformat "%8.2f"
                    di "{txt}note: invalid sformat(), using default"
                    }
                    sreturn local sformat `"`sformat'"'
                    local sformat `"sformat(`sformat')"'
                    }
                  - if `:length local pformat' {
                  = if 0 {
                    confirm numeric format `pformat'
                    if fmtwidth(`"`pformat'"') > 5 {
                    local pformat "%5.3f"
                    di "{txt}note: invalid pformat(), using default"
                    }
                    sreturn local pformat `"`pformat'"'
                    local pformat `"pformat(`pformat')"'
                    }
                  - if `K' == 1 & `:length local options' {
                  = if 1 == 1 & 0 {
                    syntax namelist(max=2) [, `DIOPTS']
                    }
                  - if reldif(`level', c(level)) > 1e-3 {
                  = if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                    }
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ──────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ────────────────────────────────────────────────────────────
> ────────────────────────────────────── end _get_diopts.Wrapon ────────────────
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ──────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ────────────────
                - }
                - else {
                  GetDiopts DUPS options, `options'
                  c_local `name2' `"`options'"'
                  }
                - local DUPS : list DUPS - DEFAULT
                - gettoken DUPS : DUPS
                - if `"`DUPS'"' != "" {
                = if `""' != "" {
                  if (strpos(`"`DUPS'"', "(")) {
                  gettoken DUPS : DUPS, parse("(")
                  local DUPS `"`DUPS'()"'
                  }
                  di as err "duplicate {bf:`DUPS'} option not allowed"
                  exit 198
                  }
                - sreturn clear
                - foreach sname of local snames {
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local level = `"95"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local method = `"noadjust"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local options = `"level(95.00) fvwrap(1)"'
                - }
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _get_diopts ───────────────
              - if !`:length local first' {
              = if !0 {
              - local first showeqns
              - }
              - if `neq' < 1 {
              = if -1 < 1 {
              - _ms_eq_info
              - local neqopt neq(`r(k_eq)')
              = local neqopt neq(1)
              - }
              - else {
                local neqopt neq(`neq')
                }
              - _coef_table, nodiparm nocnsreport noeqcheck eformall `eform' `
> first' `neqopt' `plus' `beta' `mcopt' `diopts'
              = _coef_table, nodiparm nocnsreport noeqcheck eformall  showeqns
>  neq(1)   mcompare(noadjust ) fvwrap(1)
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _coef_table ───────────────
                - version 11
                - local vv : di "version " string(max(11,_caller())) ", missin
> g:"
                - if (!c(noisily) & c(coeftabresults) == "off") {
                  exit
                  }
                - _check_eclass
                - syntax [, BMATrix(passthru) VMATrix(passthru) * ]
                - if "`e(b)'" == "" & "`e(V)'" == "" & "`bmatrix'`vmatrix'"=="
> " {
                = if "matrix" == "" & "matrix" == "" & ""=="" {
                  exit
                  }
                - local mc_cmds contrast margins pwcompare pwmean
                - local cmd "`e(cmd)'"
                = local cmd "regress"
                - local keepmc : list cmd in mc_cmds
                - if inlist("`cmd'", "pwcompare", "pwmean") {
                = if inlist("regress", "pwcompare", "pwmean") {
                  local groups GROUPS
                  }
                - if "`cmd'" == "regress" {
                = if "regress" == "regress" {
                - local beta Beta
                - }
                - if "`cmd'" == "gsem" {
                = if "regress" == "gsem" {
                  local fvignore fvignore(int 0)
                  local flignore flignore
                  }
                - if "`cmd'" == "sem" {
                = if "regress" == "sem" {
                  local standardized STANDARDIZED
                  local showginvariant SHOWGINVariant
                  local nolabel NOLABel LABel NOFVLABel FVLABel
                  local nofootnote NOFOOTnote
                  local wrap wrap(numlist max=1) fvwrap(passthru)
                  }
                - if "`e(mi)'"=="mi" {
                = if ""=="mi" {
                  local dftable DFTable
                  local dfonly DFONLY
                  local noclustreport NOCLUSTReport
                  local pisematrix PISEMATrix(string)
                  }
                - syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(
> string) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string)
>  ROWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(st
> ring) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string)
>  PCLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(st
> ring asis) `beta' `standardized' NOCI NOPValues `dftable' `dfonly' dfci DFPV
> alues dfmissing `groups' COEFLegend selegend `fvignore' `flignore' `showginv
> ariant' `nolabel' `nofootnote' `wrap' sort `pisematrix' depname(string) COEF
> Title(string) coeftitle2(string) ptitle(string) cititle(string) NOMCLEGend n
> oCNSReport FULLCNSReport `noclustreport' cformat(passthru) sformat(passthru)
>  pformat(passthru) NOFirst First SHOWEQns neq(integer -1) NODIPARM NOTEST SE
> Parator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFORMALL CITYPE(string)
>  eqselect(string) noEFORMNOTE * ]
                = syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(
> string) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string)
>  ROWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(st
> ring) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string)
>  PCLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(st
> ring asis) Beta  NOCI NOPValues   dfci DFPValues dfmissing  COEFLegend seleg
> end       sort  depname(string) COEFTitle(string) coeftitle2(string) ptitle(
> string) cititle(string) NOMCLEGend noCNSReport FULLCNSReport  cformat(passth
> ru) sformat(passthru) pformat(passthru) NOFirst First SHOWEQns neq(integer -
> 1) NODIPARM NOTEST SEParator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EF
> ORMALL CITYPE(string) eqselect(string) noEFORMNOTE * ]
                - if "`wrap'" != "" {
                = if "" != "" {
                  opts_exclusive `"wrap(`wrap') `fvwrap'"'
                  local fvwrap fvwrap(`wrap')
                  }
                - if "`nolabel'`label'" != "" {
                = if "" != "" {
                  opts_exclusive "`nolabel' `label'"
                  opts_exclusive "`nofvlabel' `fvlabel'"
                  opts_exclusive "`nolabel' `fvlabel'"
                  opts_exclusive "`nofvlabel' `label'"
                  if "`nolabel'" != "" {
                  local fvlabel nofvlabel
                  }
                  else {
                  local fvlabel fvlabel
                  }
                  }
                - else local fvlabel `nofvlabel' `fvlabel'
                = else local fvlabel
                - local type `coeflegend' `selegend'
                = local type
                - opts_exclusive "`type' `standardized'"
                = opts_exclusive " "
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - if (`"`rowmatrix'"'=="" & "`norowci'"!="") {
                = if (`""'=="" & ""!="") {
                  di as err "{bf:norowci} requires {bf:rowmatrix()}"
                  exit 198
                  }
                - if ("`dftable'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`dftable'}"
                  exit 198
                  }
                - if ("`dfonly'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`dfonly'}"
                  exit 198
                  }
                - if ("`noci'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`noci'}"
                  exit 198
                  }
                - if "`standardized'" != "" & "`bstdmatrix'" != "" {
                = if "" != "" & "" != "" {
                  local beta beta
                  local standardized
                  }
                - if `:length local type' == 0 {
                = if 0 == 0 {
                - local type `beta' `noci' `nopvalues' `dftable' `dfonly' `gro
> ups' `dfci' `dfpvalues'
                = local type
                - }
                - opts_exclusive "`type'"
                = opts_exclusive ""
```

```
                  ------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                - opts_exclusive "`first' `nofirst'"
                = opts_exclusive " "
                  ------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                - opts_exclusive "`first' `showeqns'"
                = opts_exclusive " showeqns"
                  ------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts  showeqns
                  - local n 0
                  - while `"`opts'"' != "" {
```

```
                  = while `"showeqns"' != "" {
                  - local ++n
                  - gettoken item`n' opts : opts, bind
                  = gettoken item1 opts : opts, bind
                  - }
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 1 < 2 {
                  - exit
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                - local cnsreport `cnsreport' `fullcnsreport'
                = local cnsreport nocnsreport
                - opts_exclusive "`cnsreport'"
                = opts_exclusive "nocnsreport"
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts nocnsreport
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `"nocnsreport"' != "" {
                  - local ++n
                  - gettoken item`n' opts : opts, bind
                  = gettoken item1 opts : opts, bind
                  - }
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 1 < 2 {
                  - exit
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                - if `"`showeqns'"' != "" {
                = if `"showeqns"' != "" {
                - local nofirst nofirst
                - }
                - if `"`ematrix'`noeqcheck'"' == "" {
                = if `"noeqcheck"' == "" {
                  if `"`e(error)'"' == "matrix" {
                  local ematrix e(error)
                  }
                  }
                - _get_mcompare, `options'
                = _get_mcompare, mcompare(noadjust ) fvwrap(1)
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_mcompare ───────────────
                  - version 11
                  - local cmd `"`e(cmd)'"'
                  = local cmd `"regress"'
                  - syntax [name(name=caller)] [, *]
                  - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") |
> inlist("pwmean", "`cmd'", "`caller'")
                  = local is_pwc = inlist("pwcompare", "regress", "") | inlist
> ("pwmean", "regress", "")
                  - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'", "`
> caller'")
                  = local is_marg = inlist("margins", "regress", "", "")
                  - local OPTIONS NOADJust BONferroni DUNCan DUNNett SCHeffe S
> IDak SNK TUKey ADJustall
                  - if `is_pwc' {
                  = if 0 {
                    syntax [name] [, `OPTIONS' MCOMPare(string) *]
                    }
                  - else {
                  - syntax [name] [, MCOMPare(string) *]
                  - local suboption mcompare()
                  - }
                  - sreturn clear
                  - sreturn local options `"`options'"'
                  = sreturn local options `"fvwrap(1)"'
                  - if `is_pwc' {
                  = if 0 {
                    local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `s
> cheffe' `sidak' `snk' `tukey'
                    local METHOD : list uniq METHOD
                    opts_exclusive "`METHOD'"
                    local ALL `adjustall'
                    opts_exclusive "`noadjust' `ALL'"
                    }
                  - local 0 `", `mcompare'"'
                  = local 0 `", noadjust"'
                  - capture syntax [, `OPTIONS']
                  = capture syntax [, NOADJust BONferroni DUNCan DUNNett SCHef
> fe SIDak SNK TUKey ADJustall]
                  - if c(rc) {
                    di as err "invalid mcompare() option;"
                    di as err "method '`mcompare'' not allowed"
                    error 198
                    }
                  - local METHOD `METHOD' `noadjust' `bonferroni' `duncan' `du
> nnett' `scheffe' `sidak' `snk' `tukey'
                  = local METHOD  noadjust
                  - local METHOD : list uniq METHOD
                  - local ALL `ALL' `adjustall'
                  = local ALL
                  - local ALL : list uniq ALL
                  - opts_exclusive "`METHOD'" `suboption'
                  = opts_exclusive "noadjust" mcompare()
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts noadjust
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `"noadjust"' != "" {
                    - local ++n
                    - gettoken item`n' opts : opts, bind
                    = gettoken item1 opts : opts, bind
                    - }
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 1 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - if "`METHOD'" == "" {
                  = if "noadjust" == "" {
                    if "`ALL'" != "" {
                    di as err "multiple comparison method required with the ad
> justall option"
                    exit 198
                    }
                    local METHOD noadjust
                    local noadjust noadjust
                    }
                  - opts_exclusive "`ALL' `noadjust'" `suboption'
                  = opts_exclusive " noadjust" mcompare()
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts  noadjust
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `"noadjust"' != "" {
                    - local ++n
                    - gettoken item`n' opts : opts, bind
                    = gettoken item1 opts : opts, bind
                    - }
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 1 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local EXCLUDE duncan dunnett snk tukey
                  - if `:list METHOD in EXCLUDE' {
                  = if 0 {
                    if `is_pwc' {
                    local opt : copy local METHOD
                    }
                    else {
                    local opt "mcompare(`METHOD')"
                    }
                    local cmdlist anova manova regress mvreg pwmean
                    if "`cmd'" == "pwcompare" {
                    local cmd `"`e(cmd_est)'"'
                    }
                    if `is_marg' {
                    local cmd margins
                    }
                    if !`:list cmd in cmdlist' | !`is_pwc' {
                    di as err `"method `opt' is not allowed with results from
```

```
> `cmd'"'
                    exit 322
                    }
                    if `"`e(prefix)'"' == "svy" {
                    di as err `"method `opt' is not allowed with results using
>  the svy prefix"'
                    exit 322
                    }
                    local vce `"`e(vce)'"'
                    if !inlist("`vce'", "", "ols") {
                    di as err `"method `opt' is not allowed with results using
>  vce(`vce')"'
                    exit 322
                    }
                    }
                  - local EXCLUDE duncan dunnett snk tukey scheffe
                  - if `:list METHOD in EXCLUDE' {
                  = if 0 {
                    if "`ALL'" != "" {
                    di as err `"option adjustall is not allowed with method `M
> ETHOD'"'
                    exit 198
                    }
                    }
                  - sreturn local method `"`METHOD'"'
                  = sreturn local method `"noadjust"'
                  - sreturn local adjustall `"`ALL'"'
                  = sreturn local adjustall `""'
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _get_mcompare ────────────────
                - local method `"`s(method)'"'
                = local method `"noadjust"'
                - local all `"`s(adjustall)'"'
                = local all `""'
                - local options `"`s(options)'"'
                = local options `"fvwrap(1)"'
                - if "`method'" != "noadjust" {
                = if "noadjust" != "noadjust" {
                  local keepmc 1
                  }
                - opts_exclusive "`all' `groups'"
                = opts_exclusive " "
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - if "`method'" == "dunnett" {
                = if "noadjust" == "dunnett" {
                  opts_exclusive "`method' `groups'"
                  }
                - _get_diopts diopts options, `options' `fvwrap' `fvlabel'
                = _get_diopts diopts options, fvwrap(1)
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options, fvwrap(1)
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
```

```
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
```

```
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
                      local allbaselevels allbaselevels
                      }
                    - else if c(showbaselevels) == "on" {
                      local baselevels baselevels
                      }
                    - }
                    - if "`emptycells'" == "" {
                    = if "" == "" {
                    - if c(showemptycells) == "off" {
                      local emptycells noemptycells
                      }
                    - }
                    - if "`omitted'" == "" {
                    = if "" == "" {
```

```
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
  }
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
```

```
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "fvwrap(1)" != "" {
                    - FVWrap, `fvwrap'
                    = FVWrap, fvwrap(1)
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.FVWrap ───────────────
                      - syntax, fvwrap(integer)
                      - if `fvwrap' < 0 {
                      = if 1 < 0 {
                        di as err "{p}invalid option {bf:fvwrap(`fvwrap')}; "
> "nonnegative integer required{p_end}"
                        exit 198
                        }
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────── end _get_diopts.FVWrap ───────────────
                    - }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts                  fvwrap(1)
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name1' `"`diopts'"'
                  = c_local diopts `"fvwrap(1)"'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_method = s(method)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_options = s(options)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ──────────────────────────────────────────────────────────
```

```
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
```

```
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ----------------------------
> -------------------- end opts_exclusive --------
          - opts_exclusive "`cnsreport' `fullcnsreport'"
          = opts_exclusive " "
           ----------------------------
> ------------------- begin opts_exclusive --------
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ----------------------------
> -------------------- end opts_exclusive --------
          - opts_exclusive "`coeflegend' `selegend'"
          = opts_exclusive " "
           ----------------------------
> ------------------- begin opts_exclusive --------
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ----------------------------
```

```
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
```

```
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
```

```
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                        - capture syntax [, WOrd WIdth]
                        - if c(rc) {
                          di as err "invalid fvwrapon() option;"
                          syntax [, WOrd WIdth]
                          exit 198
                          }
                        - opts_exclusive "`word' `width'" fvwrapon
                        = opts_exclusive " " fvwrapon
                          ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                          - version 8.2
                          - args opts optname errcode optslab
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
                            local ++n
                            gettoken item`n' opts : opts, bind
                            }
                          - if `n' < 2 {
                          = if 0 < 2 {
```

```
                      - exit
                      -----------------------------------------------------
> ---------------------------------------- end opts_exclusive ---------------
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    -------------------------------------------------------
> ------------------------------------ end _get_diopts.Wrapon ---------------
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ---------------------------------------------------------
> --------------------------------- end _get_diopts.GetDiopts ---------------
                - if `"`name2'"' == "" {
                = if `"options"' == "" {
                  GetDiopts DUPS, `options'
                  }
                - else {
                - GetDiopts DUPS options, `options'
                = GetDiopts DUPS options,
                  ---------------------------------------------------------
> ------------------------------- begin _get_diopts.GetDiopts ---------------
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
```

```
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
```

```
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
```

```
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DUPS
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name2' `"`options'"'
                  = c_local options `""'
                  - }
                  - local DUPS : list DUPS - DEFAULT
                  - gettoken DUPS : DUPS
                  - if `"`DUPS'"' != "" {
                  = if `""' != "" {
                    if (strpos(`"`DUPS'"', "(")) {
                    gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local method = `"noadjust"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local options = `"fvwrap(1)"'
                  - }
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _get_diopts ────────────────
                - local legend coeflegend selegend
                - local legend : list legend & diopts
                - local diopts : list diopts - legend
                - local lstretch lstretch nolstretch
                - local lstretch : list lstretch & diopts
                - local diopts : list diopts - lstretch
                - local markdown markdown
                - local markdown : list markdown & diopts
                - local diopts : list diopts - markdown
                - _get_diopts ignore, `diopts' `cformat' `sformat' `pformat'
                = _get_diopts ignore, fvwrap(1)
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ────────────────
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options, fvwrap(1)
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ────────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
```

```
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ───────────────────── end opts_exclusive ────────
          - opts_exclusive "`emptycells' `noemptycells'"
          = opts_exclusive " "
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ───────────────────── end opts_exclusive ────────
          - opts_exclusive "`fvlabel' `nofvlabel'"
          = opts_exclusive " "
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ----------------------------
> --------------------- end opts_exclusive --------
          - opts_exclusive "`omitted' `noomitted'"
          = opts_exclusive " "
           ----------------------------
> -------------------- begin opts_exclusive --------
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ----------------------------
> --------------------- end opts_exclusive --------
          - opts_exclusive "`lstretch' `nolstretch'"
          = opts_exclusive " "
           ----------------------------
> -------------------- begin opts_exclusive --------
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ----------------------------
> --------------------- end opts_exclusive --------
          - opts_exclusive "`cnsreport' `fullcnsreport'"
          = opts_exclusive " "
           ----------------------------
```

```
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
```

```
                                          local ++n
                                          gettoken item`n' opts : opts, bind
                                          }
                                        - if `n' < 2 {
                                        = if 0 < 2 {
                                        - exit
                                        -------------------------------------------------------
  > ----------------------------------------- end opts_exclusive ---------------
                                      - local K : list sizeof namelist
                                      - gettoken c_diopts c_opts : namelist
                                      - opts_exclusive "`coding' `compare'"
                                      = opts_exclusive " "
                                        -------------------------------------------------------
  > --------------------------------------- begin opts_exclusive ---------------
                                        - version 8.2
                                        - args opts optname errcode optslab
                                        - local opts `opts'
                                        = local opts
                                        - local n 0
                                        - while `"`opts'"' != "" {
                                        = while `""' != "" {
                                          local ++n
                                          gettoken item`n' opts : opts, bind
                                          }
                                        - if `n' < 2 {
                                        = if 0 < 2 {
                                        - exit
                                        -------------------------------------------------------
  > ----------------------------------------- end opts_exclusive ---------------
                                      - opts_exclusive "`versus' `compare'"
                                      = opts_exclusive " "
                                        -------------------------------------------------------
  > --------------------------------------- begin opts_exclusive ---------------
                                        - version 8.2
                                        - args opts optname errcode optslab
                                        - local opts `opts'
                                        = local opts
                                        - local n 0
                                        - while `"`opts'"' != "" {
                                        = while `""' != "" {
                                          local ++n
                                          gettoken item`n' opts : opts, bind
                                          }
                                        - if `n' < 2 {
                                        = if 0 < 2 {
                                        - exit
```

```
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
                      local allbaselevels allbaselevels
                      }
                    - else if c(showbaselevels) == "on" {
                      local baselevels baselevels
                      }
                    - }
                    - if "`emptycells'" == "" {
                    = if "" == "" {
```

```
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
  }
```

```
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ---------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ----------------
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        -------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        -------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ---------------------------------------------------------
> ------------------------------------- end _get_diopts.Wrapon ----------------
                    - if "`fvwrap'" != "" {
```

```
                    = if "fvwrap(1)" != "" {
                    - FVWrap, `fvwrap'
                    = FVWrap, fvwrap(1)
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.FVWrap ───────────────
                      - syntax, fvwrap(integer)
                      - if `fvwrap' < 0 {
                      = if 1 < 0 {
                        di as err "{p}invalid option {bf:fvwrap(`fvwrap')}; "
> "nonnegative integer required{p_end}"
                        exit 198
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.FVWrap ───────────────
                    - }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts                  fvwrap(1)
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name1' `"`diopts'"'
                  = c_local ignore `"fvwrap(1)"'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_options = s(options)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_method = s(method)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
```

```
                     = local opts
                     - local n 0
                     - while `"`opts'"' != "" {
                     = while `""' != "" {
                       local ++n
                       gettoken item`n' opts : opts, bind
                       }
                     - if `n' < 2 {
                     = if 0 < 2 {
                     - exit
                     ───────────────────────────────────────────────────────
> ──────────────────────────────────────── end opts_exclusive ───────────────
                   - opts_exclusive "`baselevels' `nobaselevels'"
                   = opts_exclusive " "
                     ───────────────────────────────────────────────────────
> ────────────────────────────────────── begin opts_exclusive ───────────────
                     - version 8.2
                     - args opts optname errcode optslab
                     - local opts `opts'
                     = local opts
                     - local n 0
                     - while `"`opts'"' != "" {
                     = while `""' != "" {
                       local ++n
                       gettoken item`n' opts : opts, bind
                       }
                     - if `n' < 2 {
                     = if 0 < 2 {
                     - exit
                     ───────────────────────────────────────────────────────
> ──────────────────────────────────────── end opts_exclusive ───────────────
                   - opts_exclusive "`emptycells' `noemptycells'"
                   = opts_exclusive " "
                     ───────────────────────────────────────────────────────
> ────────────────────────────────────── begin opts_exclusive ───────────────
                     - version 8.2
                     - args opts optname errcode optslab
                     - local opts `opts'
                     = local opts
                     - local n 0
                     - while `"`opts'"' != "" {
                     = while `""' != "" {
                       local ++n
                       gettoken item`n' opts : opts, bind
                       }
                     - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
```

```
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
```

```
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
```

```
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
```

```
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
```

```
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DEFAULT
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - if `"`name2'"' == "" {
                  = if `""' == "" {
                  - GetDiopts DUPS, `options'
                  = GetDiopts DUPS,
                    ──────────────────────────────────────────────────────────
```

```
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
```

```
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
```

```
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
```

```
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
```

```
                    - exit
                    ---------------------------------------------------
> ---------------------------------------- end opts_exclusive ---------------
                  - local fvwrapon `word' `width'
                  = local fvwrapon
                  - if `:length local fvwrapon' {
                  = if 0 {
                    c_local fvwrapon fvwrapon(`fvwrapon')
                    }
                  -----------------------------------------------------
> ------------------------------------ end _get_diopts.Wrapon ---------------
                - if "`fvwrap'" != "" {
                = if "" != "" {
                  FVWrap, `fvwrap'
                  }
                - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                = c_local DUPS
                - if `K' == 2 {
                = if 1 == 2 {
                  c_local `c_opts' `"`options'"'
                  }
                - sreturn local coding `coding'
                = sreturn local coding
                - sreturn local versus `versus'
                = sreturn local versus
                - sreturn local compare `compare'
                = sreturn local compare
                - sreturn local level `level'
                = sreturn local level 95
                -------------------------------------------------------
> --------------------------------- end _get_diopts.GetDiopts ---------------
              - }
              - else {
                GetDiopts DUPS options, `options'
                c_local `name2' `"`options'"'
                }
              - local DUPS : list DUPS - DEFAULT
              - gettoken DUPS : DUPS
              - if `"`DUPS'"' != "" {
              = if `""' != "" {
                if (strpos(`"`DUPS'"', "(")) {
                gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local options = `"fvwrap(1)"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local method = `"noadjust"'
                  - }
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end _get_diopts ────────────────
                - local cformat `"`s(cformat)'"'
                = local cformat `""'
                - local sformat `"`s(sformat)'"'
                = local sformat `""'
                - local pformat `"`s(pformat)'"'
                = local pformat `""'
                - _get_eformopts , eformopts(`options') allowed(__all__) sopti
> ons
                = _get_eformopts , eformopts() allowed(__all__) soptions
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _get_eformopts ────────────────
                  - version 8.0
                  - syntax [, eformopts(string asis) soptions ALLOWed(string)
> ]
                  - local 0 , `eformopts'
                  = local 0 ,
                  - local EFALL NOHR hr NOSHR shr or IRr RRr tr TRatio
                  - if "`soptions'" != "" {
                  = if "soptions" != "" {
                  - syntax [, EForm1(passthru) EForm `EFALL' * ]
                  = syntax [, EForm1(passthru) EForm NOHR hr NOSHR shr or IRr
> RRr tr TRatio * ]
                  - local opts `"`options'"'
                  = local opts `""'
                  - local 0 , `eform1' `eform' `nohr' `hr' `noshr' `shr' `or'
> `irr' `rrr' `tr' `tratio'
                  = local 0 ,
                  - }
- if "`allowed'" == "__all__" {
= if "__all__" == "__all__" {
- local allowed `EFALL'
= local allowed NOHR hr NOSHR shr or IRr RRr tr TRatio
- }
- foreach ef of local allowed {
- capture confirm name `ef'
= capture confirm name NOHR
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts  nohr
- }
- capture confirm name `ef'
= capture confirm name hr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr
- }
- capture confirm name `ef'
= capture confirm name NOSHR
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr
- }
- capture confirm name `ef'
= capture confirm name shr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr
- }
- capture confirm name `ef'
= capture confirm name or
- if _rc {
  di as err "`ef' is not a valid name"
```

```
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr noshr shr or
                - }
                - capture confirm name `ef'
                = capture confirm name IRr
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr noshr shr or irr
                - }
                - capture confirm name `ef'
                = capture confirm name RRr
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr noshr shr or irr rrr
                - }
                - capture confirm name `ef'
                = capture confirm name tr
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr noshr shr or irr rrr tr
                - }
                - capture confirm name `ef'
                = capture confirm name TRatio
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr noshr shr or irr rrr tr tratio
                - }
                - local efopts : list uniq efopts
                - syntax [, EForm1(string) EForm `allowed' ]
                = syntax [, EForm1(string) EForm NOHR hr NOSHR shr or IRr RR
> r tr TRatio ]
                - foreach ef of local efopts {
```

```
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- if `"`eform1'"'=="Odds ratio" {
= if `""'=="Odds ratio" {
  local eform_cons_ti = "Odds"
  local eform_cons_note = "odds ratios"
  }
- else if `"`eform1'"'=="Haz. ratio" {
= else if `""'=="Haz. ratio" {
  local eform_cons_ti = "Hazard"
  local eform_cons_note = "hazard ratios"
  }
- else if `"`eform1'"'=="Time ratio" {
= else if `""'=="Time ratio" {
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
  }
- else if `"`eform1'"'=="IRR" {
= else if `""'=="IRR" {
  local eform_cons_ti = "Inc. rate"
  local eform_cons_note = "incidence-rate ratios"
  local eform_cons_ti2 = "incidence rate"
  }
- else if `"`eform1'"'=="Risk ratio" {
= else if `""'=="Risk ratio" {
  local eform_cons_ti = "Risk"
  local eform_cons_note = "risk ratios"
  }
- else if `"`eform1'"'=="Hlth ratio" {
= else if `""'=="Hlth ratio" {
  local eform_cons_ti = "Health"
  local eform_cons_note = "health ratios"
  }
- local k : list sizeof eform
- if `k' {
= if 0 {
  opts_exclusive "`eform'"
  if `:length local eform1' {
  opts_exclusive "eform() `eform'"
  }
  }
- if `k' {
= if 0 {
  if ("`eform'"=="eform") local eform1 = "exp(b)"
  else if ("`eform'"=="hr") {
  local eform1 = "Haz. ratio"
  local eform_cons_ti = "Hazard"
  local eform_cons_note = "hazard ratios"
  }
  else if ("`eform'"=="shr") {
  local eform1 = "SHR"
  local eform_cons_ti = "Subhazard"
  local eform_cons_note = "subhazard ratios"
  }
  else if ("`eform'"=="tr") {
  local eform1 = "Time ratio"
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
  }
  else if ("`eform'"=="tratio") {
  local eform1 = "Time ratio"
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
  }
  else if ("`eform'"=="or") {
  local eform1 = "Odds ratio"
  if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(
> cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                    local eform_cons_ti = "Rel. risk"
                    local eform_cons_note = "relative-risk ratios"
                    local eform_cons_ti2 = "relative risk"
                    }
                    else {
                    local eform_cons_ti = "Odds"
                    local eform_cons_note = "odds ratios"
                    }
                    }
                    else if ("`eform'"=="irr") {
                    local eform1 = "IRR"
                    local eform_cons_ti = "Inc. rate"
                    local eform_cons_note = "incidence-rate ratios"
                    local eform_cons_ti2 = "incidence rate"
                    }
                    else if ("`eform'"=="rrr") {
                    local eform1 = "RRR"
                    local eform_cons_ti = "Rel. risk"
                    local eform_cons_note = "relative-risk ratios"
                    local eform_cons_ti2 = "relative risk"
                    }
                    else if ("`eform'"!="nohr") & ("`eform'"!="noshr") {
                    local eform1 = upper("`eform'")
                    }
                    }
                  - sreturn clear
                  - sreturn local options `"`opts'"'
                  = sreturn local options `""'
                  - sreturn local opt `eform'
                  = sreturn local opt
                  - sreturn local str `eform1'
                  = sreturn local str
                  - if `"`eform1'"' != "" {
                  = if `""' != "" {
                    sreturn local eform eform(`"`eform1'"')
                    }
                  - else sreturn local eform ""
                  - sreturn local eform_cons_ti `eform_cons_ti'
                  = sreturn local eform_cons_ti
                  - sreturn local eform_cons_note `eform_cons_note'
                  = sreturn local eform_cons_note
                  - sreturn local eform_cons_ti2 `eform_cons_ti2'
                  = sreturn local eform_cons_ti2
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _get_eformopts ───────────────
```

```
                - local tr_item = `"`s(eform_cons_note)'"'
                = local tr_item = `""'
                - if inlist("`bmatrix'", "", "e(b)") & "`e(k_eform)'" == "0" {
                = if inlist("", "", "e(b)") & "" == "0" {
                  local eform
                  }
                - else local eform `"`s(str)'"'
                = else local eform `""'
                - local eform_cons_ti `"`s(eform_cons_ti)'"'
                = local eform_cons_ti `""'
                - local eform_cons_ti2 `"`s(eform_cons_ti2)'"'
                = local eform_cons_ti2 `""'
                - if ("`e(consonly)'"!="1" | `"`eform_cons_ti'"'=="") {
                = if (""!="1" | `""'=="") {
                - local eformdi `"`s(str)'"'
                = local eformdi `""'
                - }
                - else {
                  local eformdi `"`eform_cons_ti'"'
                  local tr_item = cond(missing("`eform_cons_ti2'"), strlower(`
> "`eform_cons_ti'"'), `"`eform_cons_ti2'"')
                  }
                - local coefttl = cond(`"`eform'"'==`""', `"`coeftitle'"', `"`
> eformdi'"')
                = local coefttl = cond(`""'==`""', `""', `""')
                - local options `"`s(options)'"'
                = local options `""'
                - _get_diparmopts, diparmopts(`options') level(`level')
                = _get_diparmopts, diparmopts() level(95)
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _get_diparmopts ───────────────
                  - if _caller() < 8.2 {
                    _get_diparmopts_8 `0'
                    exit
                    }
                  - version 9
                  - local version : di "version " string(_caller()) ":"
                  - syntax [, diparmopts(string asis) EXECute soptions bottom
> plus SYNTAXonly * ]
                  - local goptions `options'
                  = local goptions level(95)
                  - SpliceGlobals junk , `goptions'
                  = SpliceGlobals junk , level(95)
                    ───────────────────────────────────────────────────────────
> ──────────────────────── begin _get_diparmopts.SpliceGlobals ────────────────
                    - syntax name(id="macro name" name=c_diparm) [, diparm(str
> ing asis) Level(cilevel) dof(passthru) syntaxonly ]
          - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
          = if `""' == "" & `"215"' != "" {
          - capture confirm integer number `e(df_r)'
          = capture confirm integer number 215
          - if !c(rc) {
          - local gdof dof(`e(df_r)')
          = local gdof dof(215)
          - }
          - capture
          - }
          - else local gdof `"`dof'"'
          = else local gdof `""'
          - local glevel `level'
          = local glevel 95
          - local lopt level(`glevel')
          = local lopt level(95)
          - if (`"`diparm'"' == "") exit
          = if (`""' == "") exit
          ─────────────────────────────
> ───────────── end _get_diparmopts.SpliceGlobals ────────
         - local 0 `", `diparmopts'"'
         = local 0 `", "'
         - local diparmopts
         - local k 0
         - syntax [, diparm(string asis) * ]
         - while `"`diparm'"' != "" {
         = while `""' != "" {
           local ++k
           local single 1
           local after
           capture _on_colon_parse `diparm'
           if !c(rc) {
           local single 0
           local diparm `"`s(before)'"'
           local after `"`s(after)'"'
           }
           capture
           SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `gopt
> ions'
           local diparm`k' `"`diparm'"'
           local diparmopts `"`diparmopts' : `diparm'"'
           if `single' | `"`:list retok after'"' == "" {
           local 0 `", `options'"'
           syntax [, diparm(string asis) * ]
           }
          else {
          local diparm `"`after'"'
          }
          }
         - if `"`soptions'"' == "" {
         = if `""' == "" {
         - syntax [, diparm(string asis) ]
         - }
         - if ("`execute'" == "") {
         = if ("" == "") {
         - sreturn clear
         - sreturn local options `"`options'"'
         = sreturn local options `""'
         - sreturn local diparm `"`diparmopts'"'
         = sreturn local diparm `""'
         - forval i = 1/`k' {
         = forval i = 1/0 {
          sreturn local diparm`i' `"`diparm`i''"'
          }
         - sreturn local k `k'
         = sreturn local k 0
         - exit
         ------------------------------
> -------------------- end _get_diparmopts --------
        - local NODIPARM : length local nodiparm
        - if `NODIPARM' {
        = if 8 {
        - local options
        - }
        - local GTOPTS parse(":") bind quotes
        - local k 0
        - if !`NODIPARM' {
        = if !8 {
          if `"`e(diparm)'"' != "" {
          local i 0
          local diparm `"`e(diparm)'"'
          }
          else if `"`e(diparm1)'"' != "" {
          local i 1
          local diparm `"`e(diparm1)'"'
          }
          while `:length local diparm' {
          gettoken diparm rest : diparm, `GTOPTS'
          while `:length local rest' {
          local ++k
          local diparm`k' : copy local diparm
```

```
                  gettoken COLON rest : rest, `GTOPTS'
                  gettoken diparm rest : rest, `GTOPTS'
                  }
                  local ++k
                  local diparm`k' : copy local diparm
                  local ++i
                  local diparm `"`e(diparm`i')'"'
                  }
                  }
                - if `:length local options' {
                = if 0 {
                  local 0 `", `options'"'
                  syntax [, diparm(string asis) *]
                  if `k' & `:length local diparm' {
                  local ++k
                  local diparm`k' __sep__
                  }
                  while `:length local diparm' {
                  gettoken diparm rest : diparm, `GTOPTS'
                  while `:length local rest' {
                  local ++k
                  local diparm`k' : copy local diparm
                  gettoken COLON rest : rest, `GTOPTS'
                  gettoken diparm rest : rest, `GTOPTS'
                  }
                  local ++k
                  local diparm`k' : copy local diparm
                  local 0 `", `options'"'
                  syntax [, diparm(string asis) *]
                  }
                  }
                - if "`markdown'" != "" {
                = if "" != "" {
                  local lsize = c(linesize)
                  set linesize 255
                  }
                - `vv' mata: _coef_table()
                = version 11, missing: mata: _coef_table()
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options, fvwrap(1)
```

```
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
```

```
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
```

```
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
```

```
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
```

```
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "fvwrap(1)" != "" {
                    - FVWrap, `fvwrap'
                    = FVWrap, fvwrap(1)
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.FVWrap ───────────────
                      - syntax, fvwrap(integer)
                      - if `fvwrap' < 0 {
                      = if 1 < 0 {
                        di as err "{p}invalid option {bf:fvwrap(`fvwrap')}; "
> "nonnegative integer required{p_end}"
                        exit 198
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.FVWrap ───────────────
                    - }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts                  fvwrap(1)
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ---------------------------------------------------------------------
> --------------------------------- end _get_diopts.GetDiopts ----------------
                  - c_local `name1' `"`diopts'"'
                  = c_local __00000D `"fvwrap(1)"'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_k = s(k)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ---------------------------------------------------------------------
> ------------------------------- begin _get_diopts.GetDiopts ----------------
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
           - exit
           ────────────────────────────
> ──────────────────── end opts_exclusive ────────
          - opts_exclusive "`allbaselevels' `nobaselevels'"
          = opts_exclusive " "
           ────────────────────────────
> ─────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ──────────────────── end opts_exclusive ────────
          - opts_exclusive "`baselevels' `nobaselevels'"
          = opts_exclusive " "
           ────────────────────────────
> ─────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ──────────────────── end opts_exclusive ────────
          - opts_exclusive "`emptycells' `noemptycells'"
          = opts_exclusive " "
           ────────────────────────────
> ─────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ───────────────────── end opts_exclusive ────────
          - opts_exclusive "`fvlabel' `nofvlabel'"
          = opts_exclusive " "
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ───────────────────── end opts_exclusive ────────
          - opts_exclusive "`omitted' `noomitted'"
          = opts_exclusive " "
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
```

```
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
```

```
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
                      local allbaselevels allbaselevels
                      }
                    - else if c(showbaselevels) == "on" {
                      local baselevels baselevels
                      }
                    - }
                    - if "`emptycells'" == "" {
                    = if "" == "" {
                    - if c(showemptycells) == "off" {
                      local emptycells noemptycells
                      }
                    - }
                    - if "`omitted'" == "" {
                    = if "" == "" {
                    - if c(showomitted) == "off" {
                      local omitted noomitted
                      }
                    - }
                    - if "`lstretch'" == "" {
                    = if "" == "" {
                    - if c(lstretch) == "off" {
                      local lstretch nolstretch
                      }
                    - }
                    - if `:length local cformat' {
                    = if 0 {
                      confirm numeric format `cformat'
                      if fmtwidth(`"`cformat'"') > 9 {
                      local cformat "%9.0g"
                      di "{txt}note: invalid cformat(), using default"
                      }
                      sreturn local cformat `"`cformat'"'
                      local cformat `"cformat(`cformat')"'
                      }
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      --------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ----------------
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DEFAULT
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - if `"`name2'"' == "" {
                  = if `""' == "" {
                  - GetDiopts DUPS, `options'
                  = GetDiopts DUPS,
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
```

```
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
```

```
            local ++n
            gettoken item`n' opts : opts, bind
            }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ────────────────────── end opts_exclusive ────────
          - opts_exclusive "`fvlabel' `nofvlabel'"
          = opts_exclusive " "
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ────────────────────── end opts_exclusive ────────
          - opts_exclusive "`omitted' `noomitted'"
          = opts_exclusive " "
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ────────────────────── end opts_exclusive ────────
```

```
          - opts_exclusive "`lstretch' `nolstretch'"
          = opts_exclusive " "
           ────────────────────────────
>────────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
>─────────────────────── end opts_exclusive ────────
          - opts_exclusive "`cnsreport' `fullcnsreport'"
          = opts_exclusive " "
           ────────────────────────────
>────────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
>─────────────────────── end opts_exclusive ────────
          - opts_exclusive "`coeflegend' `selegend'"
          = opts_exclusive " "
           ────────────────────────────
>────────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
```

```
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
```

```
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
```

```
           local cformat `"cformat(`cformat')"'
           }
          - if `:length local sformat' {
          = if 0 {
           confirm numeric format `sformat'
           if fmtwidth(`"`sformat'"') > 8 {
           local sformat "%8.2f"
           di "{txt}note: invalid sformat(), using default"
           }
           sreturn local sformat `"`sformat'"'
           local sformat `"sformat(`sformat')"'
           }
          - if `:length local pformat' {
          = if 0 {
           confirm numeric format `pformat'
           if fmtwidth(`"`pformat'"') > 5 {
           local pformat "%5.3f"
           di "{txt}note: invalid pformat(), using default"
           }
           sreturn local pformat `"`pformat'"'
           local pformat `"pformat(`pformat')"'
           }
          - if `K' == 1 & `:length local options' {
          = if 1 == 1 & 0 {
           syntax namelist(max=2) [, `DIOPTS']
           }
          - if reldif(`level', c(level)) > 1e-3 {
          = if reldif(95, c(level)) > 1e-3 {
           local levelopt level(`level')
           }
          - Wrapon , `fvwrapon'
          = Wrapon ,
           ────────────────────────────
> ────────────────── begin _get_diopts.Wrapon ────────
           - capture syntax [, WOrd WIdth]
           - if c(rc) {
             di as err "invalid fvwrapon() option;"
             syntax [, WOrd WIdth]
             exit 198
             }
           - opts_exclusive "`word' `width'" fvwrapon
           = opts_exclusive " " fvwrapon
             ───────────────────────────
> ──────────────────── begin opts_exclusive ────────
             - version 8.2
             - args opts optname errcode optslab
```

```
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DUPS
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - }
                  - else {
                    GetDiopts DUPS options, `options'
                    c_local `name2' `"`options'"'
                    }
                  - local DUPS : list DUPS - DEFAULT
                  - gettoken DUPS : DUPS
                  - if `"`DUPS'"' != "" {
                  = if `""' != "" {
                    if (strpos(`"`DUPS'"', "(")) {
                    gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local k = `"0"'
                  - }
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _get_diopts ───────────────
                - if "`markdown'" != "" {
                = if "" != "" {
                  set linesize `lsize'
                  }
                - if "`eqselect'" == "" & "`eformnote'" != "noeformnote" {
                = if "" == "" & "" != "noeformnote" {
                - if `"`eformdi'"'!="" & ("`e(cmd)'"!="gnbreg" | "`e(prefix)'"
> =="svy") {
                = if `""'!="" & ("regress"!="gnbreg" | ""=="svy") {
                  local k_eform `e(k_eform)'
                  if ("`k_eform'"=="") {
                  local k_eform = 1
                  }
                  local k_eq `e(k_eq)'
                  if ("`k_eq'"=="") {
                  local k_eq = 1
                  }
                  if (`k_eform'<`k_eq' & `k_eform') {
                  if ("`e(cmd2)'" == "stintreg" | "`e(cmd2)'" == "streg") & ("
> `e(cmd)'" == "weibull" | "`e(cmd)'" == "gompertz") {
                  }
                  else {
                  _eform_multeq_note efnote : `k_eform' `"`tr_item'"'
                  di as txt "`efnote'"
                  }
                  }
                  }
                - if (`"`eformdi'"'!="" & "`e(noconstant)'"=="0" & `"`eform_co
> ns_ti'"'!="" & "`e(consonly)'"!="1") {
                = if (`""'!="" & ""=="0" & `""'!="" & ""!="1") {
                  if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cm
> d)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                  local asvar = `"`e(ranvars)'`e(fixvars)'`e(indvars)'"' != ""
                  if `"`e(casevars)'"' != "" & `asvar' {
                  local note1 "Exponentiated coefficients represent odds ratio
> s for "
                  local note2 "alternative-specific variables (first equation)
>  and "
                  local note3 "{help j_cmrisk##|_new:relative-risk ratios} "
                  local note4 "for case-specific variables."
                  di as txt "{p 0 6 2}Note: `note1'`note2'`note3'`note4'{p_end
> }"
                  }
                  }
                  if "`eform_cons_ti'" == "Inc. rate" {
                  local eform_cons_note "incidence rate"
                  }
                  else if "`eform_cons_ti'" == "Rel. risk" {
                  local eform_cons_note "relative risk"
                  }
                  else if "`eform_cons_ti'" == "Health" {
                  local eform_cons_note "health (probability of no disease)"
                  }
                  else {
                  local eform_cons_note = strlower(`"`eform_cons_ti'"')
                  }
                  local eform_cons_note "baseline `eform_cons_note'"
                  if ("`e(cmd2)'"=="") {
                  local cmd `e(cmd)'
                  }
                  else {
                  local cmd `e(cmd2)'
                  }
                  local f2 = udsubstr("`cmd'",1,2)
                  local is_re = ("`f2'"=="xt" | "`f2'"=="me")
                  if `is_re' {
                  local extranote " (conditional on zero random effects)"
                  }
                  di as txt "{p 0 6 2}Note: {bf:_cons} estimates " "`eform_con
> s_note'`extranote'" _c
                  if ("`e(cmd)'"=="mlogit" | "`e(cmd)'"=="asclogit" | "`e(cmd)
> '"=="cmclogit" | "`e(cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                  di as txt " for each outcome" _c
                  }
                  di as txt ".{p_end}"
                  }
                - }
                - return add
                - if !`keepmc' {
                = if !0 {
                - return local mcmethod
                - return local mctitle
                - }
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _coef_table ───────────────
              ─────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _ereturn_display ───────────────
            - mat `b2' = e(b)
            = mat __000009 = e(b)
            - drop `xb'
            = drop __000006
            - _predict double `xb' `if'
            = _predict double __000006 if __000002
            - LikePois `y' `xb'`poff' [`weight'`exp'] `if', n(`nobs')
            = LikePois y_timing_max __000006 [] if __000002, n(__000004)
              ─────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin poisson.LikePois ───────────────
              - gettoken y 0 : 0
              - gettoken xb 0 : 0
              - syntax [fw aw pw iw] [if] , Nobs(string)
              - if "`weight'"!="" {
              = if ""!="" {
                if "`weight'"=="fweight" {
                local wt `"[fw`exp']"'
                }
                else if "`weight'"=="iweight" {
                local wt `"[iw`exp']"'
                }
                else local wt `"[aw`exp']"'
                }
              - tempvar lnf
              - qui gen double `lnf' = `y'*(`xb')-exp(`xb')-lngamma(`y'+1) `if
> '
```

```
              = qui gen double __00000D = y_timing_max*(__000006)-exp(__000006
> )-lngamma(y_timing_max+1) if __000002
              - summarize `lnf' `wt' `if', meanonly
              = summarize __00000D  if __000002, meanonly
              - if r(N) != `nobs' { exit }
              = if r(N) != __000004 { exit }
              - if "`weight'"=="aweight" {
              = if ""=="aweight" {
                ret scalar lnf = r(N)*r(mean)
                }
              - else ret scalar lnf = r(sum)
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── end poisson.LikePois ───────────────
            - tempname lnf2
            - scalar `lnf2' = r(lnf)
            = scalar __00000D = r(lnf)
            - }
            - if _rc { local lnf2 . }
            - if `lnf1'>=. & `lnf1c'>=. & `lnf2'>=. { exit }
            = if __00000A>=. & __00000C>=. & __00000D>=. { exit }
            - if `lnf2'<.&(`lnf2'>`lnf1'|`lnf1'>=.)&(`lnf2'>`lnf1c'|`lnf1c'>=.
> ) {
            = if __00000D<.&(__00000D>__00000A|__00000A>=.)&(__00000D>__00000C
> |__00000C>=.) {
            - ret matrix b0 `b2'
            = ret matrix b0 __000009
            - exit
            ──────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end poisson.Ipois ───────────────
          - if "`r(b0)'"!="" {
          = if "matrix"!="" {
          - tempname from
          - mat `from' = r(b0)
          = mat __000006 = r(b0)
          - }
          - }
          - if "`from'"!="" {
          = if "__000006"!="" {
          - local initopt `"init(`from') search(off)"'
          = local initopt `"init(__000006) search(off)"'
          - }
          - else local initopt "search(on) maxfeas(50)"
          - `vv' ml model `mm' `eval' (`yname': `y' = `xvars', `constan' `offo
> pt') [`weight'`exp'] if `touse', collinear missing max nooutput nopreserve `
> mlopts' title(Poisson regression) `scopt' `robust' `clopt' `initopt' `ll0' `
> negh' `moptobj'
```

```
          = version 18, missing: ml model e2 poiss_lf (y_timing_max: y_timing_
> max = wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open,  ) [] if __000002, c
> ollinear missing max nooutput nopreserve  title(Poisson regression)  robust
>  init(__000006) search(off) lf0(1 -437.385284075989) negh
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────────── begin ml ───────────────
            - if _caller()>=11 {
            - mopt `0'
            = mopt model e2 poiss_lf (y_timing_max: y_timing_max = wlth wg_ndx
>  stky_pr_rotemberg stky_pr_calvo open,  ) [] if __000002, collinear missing
> max nooutput nopreserve  title(Poisson regression)  robust  init(__000006) s
> earch(off) lf0(1 -437.385284075989) negh
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── begin mopt ───────────────
              - local vv : di "version " string(_caller()) ":"
              - version 12
              - gettoken subcmd 0 : 0, parse(" ,")
              - local lcmd : length local subcmd
              - if "`subcmd'" == "clear" {
              = if "model" == "clear" {
                Clear
                exit
                }
              - if `"`subcmd'"' == "hold" {
              = if `"model"' == "hold" {
                ml_hold `0'
                exit
                }
              - if `"`subcmd'"' == "unhold" {
              = if `"model"' == "unhold" {
                ml_unhold `0'
                exit
                }
              - if "`subcmd'" == "score" {
              = if "model" == "score" {
                if _caller() > 12 {
                `vv' Score `0'
                }
                else {
                Score `0'
                }
                exit
                }
              - if "`subcmd'" == "count" {
              = if "model" == "count" {
                Count `0'
```

```
  exit
  }
- if "`subcmd'" == "trace" {
= if "model" == "trace" {
  Trace `0'
  exit
  }
- if "`subcmd'" == bsubstr("graph",1,max(2,`lcmd')) {
= if "model" == bsubstr("graph",1,max(2,5)) {
  Graph `0'
  exit
  }
- if "`subcmd'" == "init" {
= if "model" == "init" {
  Interactive 0
  `vv' Init `0'
  exit
  }
- if "`subcmd'" == bsubstr("maximize",1,max(3,`lcmd')) {
= if "model" == bsubstr("maximize",1,max(3,5)) {
  Interactive 1
  `vv' MaxMin maximize `0'
  exit
  }
- if "`subcmd'" == bsubstr("minimize",1,max(3,`lcmd')) {
= if "model" == bsubstr("minimize",1,max(3,5)) {
  Interactive 1
  `vv' MaxMin minimize `0'
  exit
  }
- if "`subcmd'" == bsubstr("display",1,max(2,`lcmd')) {
= if "model" == bsubstr("display",1,max(2,5)) {
  Display `0'
  exit
  }
- if "`subcmd'" == bsubstr("footnote",1,max(4,`lcmd')) {
= if "model" == bsubstr("footnote",1,max(4,5)) {
  ml_footnote `0'
  exit
  }
- if "`subcmd'" == "," {
= if "model" == "," {
  Display, `0'
  exit
  }
- if "`subcmd'" == bsubstr("model",1,max(3,`lcmd')) {
```

```
              = if "model" == bsubstr("model",1,max(3,5)) {
              - `vv' capture noi Model `0'
              = version 18: capture noi Model  e2 poiss_lf (y_timing_max: y_ti
> ming_max = wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open,  ) [] if __0000
> 02, collinear missing max nooutput nopreserve  title(Poisson regression)  ro
> bust  init(__000006) search(off) lf0(1 -437.385284075989) negh
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin mopt.Model ───────────────
                - local version = string(_caller())
                - local vv : di "version `version':"
                = local vv : di "version 18:"
                - version 12
                - syntax anything(id="model" name=spec) [if] [in] [fw aw pw iw
> ] [, BRACKET COLlinear MISSing CONTinue lf0(string) INIT(string) CONSTraints
> (string) noCNSNOTEs VCE(passthru) NEGH NOPREserve TECHnique(string) ITERID(s
> tring) CRITtype(string) OBS(numlist max=1 >0) TItle(string) WALDtest(integer
>  -1) SVY SUBpop(string) SRSsubpop noSVYadjust SCore(passthru) noOUTput noSCV
> ARS GROUP(varname) ITERPROLOG(string) DERIVPROLOG(string) DERIVH(string) DER
> IVSCALE(string) DERIV(string) nrderiv GNWMATrix(string) KAUXiliary(numlist i
> nt >=0) MAXimize MINimize USERinfo(namelist) PUPDATED Robust CLuster(passthr
> u) moptobj(string) USEVIEWS * ]
                - if `"`moptobj'"' == "" {
                = if `""' == "" {
                - Clear
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin mopt.Clear ───────────────
                  - syntax [, NOTANOPTION]
                  - capture drop $ML_w
                  = capture drop
                  - capture drop $ML_samp
                  = capture drop
                  - capture drop $ML_sample
                  = capture drop
                  - capture drop $ML_subv
                  = capture drop
                  - capture drop $ML_grp
                  = capture drop
                  - mata: Mopt_drop_external()
                  - macro drop ML_*
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end mopt.Clear ───────────────
                - }
                - local maxmin `minimize' `maximize'
                = local maxmin  maximize
                - opts_exclusive "`maxmin'"
                = opts_exclusive "maximize"
```

```
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts maximize
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `"maximize"' != "" {
                  - local ++n
                  - gettoken item`n' opts : opts, bind
                  = gettoken item1 opts : opts, bind
                  - }
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 1 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                - if `:length local maxmin' {
                = if 8 {
                - local interactive 0
                - }
                - else local interactive 1
                - _get_diparmopts, diparmopts(`options') soptions syntaxonly
                = _get_diparmopts, diparmopts(search(off)) soptions syntaxonly
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _get_diparmopts ────────────────
                  - if _caller() < 8.2 {
                    _get_diparmopts_8 `0'
                    exit
                    }
                  - version 9
                  - local version : di "version " string(_caller()) ":"
                  - syntax [, diparmopts(string asis) EXECute soptions bottom
> plus SYNTAXonly * ]
                  - local goptions `options'
                  = local goptions
                  - SpliceGlobals junk , `goptions'
                  = SpliceGlobals junk ,
                    ──────────────────────────────────────────────────────────
> ──────────────────────── begin _get_diparmopts.SpliceGlobals ────────────────
```

```
                   - syntax name(id="macro name" name=c_diparm) [, diparm(str
> ing asis) Level(cilevel) dof(passthru) syntaxonly ]
                   - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                   = if `""' == "" & `"215"' != "" {
                   - capture confirm integer number `e(df_r)'
                   = capture confirm integer number 215
                   - if !c(rc) {
                   - local gdof dof(`e(df_r)')
                   = local gdof dof(215)
                   - }
                   - capture
                   - }
                   - else local gdof `"`dof'"'
                   = else local gdof `""'
                   - local glevel `level'
                   = local glevel 95
                   - local lopt level(`glevel')
                   = local lopt level(95)
                   - if (`"`diparm'"' == "") exit
                   = if (`""' == "") exit
                   ---------------------------------------------------------
> ------------------------- end _get_diparmopts.SpliceGlobals ---------------
                 - local 0 `", `diparmopts'"'
                 = local 0 `", search(off)"'
                 - local diparmopts
                 - local k 0
                 - syntax [, diparm(string asis) * ]
                 - while `"`diparm'"' != "" {
                 = while `""' != "" {
                   local ++k
                   local single 1
                   local after
                   capture _on_colon_parse `diparm'
                   if !c(rc) {
                   local single 0
                   local diparm `"`s(before)'"'
                   local after `"`s(after)'"'
                   }
                   capture
                   SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `gopt
> ions'
                   local diparm`k' `"`diparm'"'
                   local diparmopts `"`diparmopts' : `diparm'"'
                   if `single' | `"`:list retok after'"' == "" {
                   local 0 `", `options'"'
                   syntax [, diparm(string asis) * ]
```

```
          }
          else {
          local diparm `"`after'"'
          }
          }
         - if `"`soptions'"' == "" {
         = if `"soptions"' == "" {
          syntax [, diparm(string asis) ]
          }
         - if ("`execute'" == "") {
         = if ("" == "") {
         - sreturn clear
         - sreturn local options `"`options'"'
         = sreturn local options `"search(off)"'
         - sreturn local diparm `"`diparmopts'"'
         = sreturn local diparm `""'
         - forval i = 1/`k' {
         = forval i = 1/0 {
          sreturn local diparm`i' `"`diparm`i''"'
          }
         - sreturn local k `k'
         = sreturn local k 0
         - exit
         ──────────────────────────────
> ──────────────────── end _get_diparmopts ────────
        - forval k = 1/`s(k)' {
        = forval k = 1/0 {
          local diparm`k' `"`s(diparm`k')'"'
          }
        - local ndiparm `s(k)'
        = local ndiparm 0
        - local options `"`s(options)'"'
        = local options `"search(off)"'
        - if `interactive' & `:length local options' {
        = if 0 & 11 {
          local 0 , `options'
          syntax [, NOTANOPTION]
          }
        - if `:length local nopreserve' | `:length local score' {
        = if 10 | 0 {
        - global ML_preserve no
        - }
        - else global ML_preserve yes
        - gettoken evaltype spec : spec
        - confirm name `evaltype'
        = confirm name e2
```

```
                - gettoken evaluator spec : spec
                - global ML_evaltype : copy local evaltype
                - if `:length local srssubpop' {
                = if 0 {
                  local 0 , srssubpop
                  syntax [, NONOPTION]
                  exit 198
                  }
                - if `:length local subpop' {
                = if 0 {
                  local svy svy
                  }
                - if `:length local svy' {
                = if 0 {
                  opts_exclusive "`vce' `svy'" vce
                  if `:length local weight' {
                  di as err "svy option not allowed with weights"
                  exit 198
                  }
                  global ML_noadj : copy local svyadjust
                  }
                - global ML_svy : copy local svy
                - if _caller() >= 15 & c(userversion) >= 15 {
                - local fparm ", freeparm"
                - }
                - local eqspec : copy local spec
                - local ieq 0
                - while `:length local eqspec' {
                = while 86 {
                - local ++ieq
                - gettoken eq eqspec : eqspec, bind
                - if bsubstr(trim("`eq'"),1,1) == "/" {
                = if bsubstr(trim("(y_timing_max: y_timing_max = wlth wg_ndx s
> tky_pr_rotemberg stky_pr_calvo open,  )"),1,1) == "/" {
                  local eq = bsubstr(trim("`eq'"),2,.)
                  local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"
> ', word
                  }
                - else {
                - gettoken p1 p2 : eq, parse("()")
                - local p2 = trim(`"`p2'"')
                = local p2 = trim(`"y_timing_max: y_timing_max = wlth wg_ndx s
> tky_pr_rotemberg stky_pr_calvo open,  )"')
                - if bsubstr("`p2'",1,1) == "," {
                = if bsubstr("y_timing_max: y_timing_max = wlth wg_ndx stky_pr
> _rotemberg stky_pr_calvo open,  )",1,1) == "," {
```

```
                  gettoken comma p2 : p2, parse(",")
                  local p2 = trim(`"`p2'"')
                  }
                - if `"`p1'`p2'"' == "()" {
                = if `"(y_timing_max: y_timing_max = wlth wg_ndx stky_pr_rotem
> berg stky_pr_calvo open,  )"' == "()" {
                  local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
                  }
                - }
                - }
                - while `:length local eqspec' {
                = while 3 {
                - local ++ieq
                - gettoken eq eqspec : eqspec, bind
                - if bsubstr(trim("`eq'"),1,1) == "/" {
                = if bsubstr(trim("[]"),1,1) == "/" {
                  local eq = bsubstr(trim("`eq'"),2,.)
                  local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"
> ', word
                  }
                - else {
                - gettoken p1 p2 : eq, parse("()")
                - local p2 = trim(`"`p2'"')
                = local p2 = trim(`""')
                - if bsubstr("`p2'",1,1) == "," {
                = if bsubstr("",1,1) == "," {
                  gettoken comma p2 : p2, parse(",")
                  local p2 = trim(`"`p2'"')
                  }
                - if `"`p1'`p2'"' == "()" {
                = if `"[]"' == "()" {
                  local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
                  }
                - }
                - }
                - while `:length local eqspec' {
                = while 0 {
                  local ++ieq
                  gettoken eq eqspec : eqspec, bind
                  if bsubstr(trim("`eq'"),1,1) == "/" {
                  local eq = bsubstr(trim("`eq'"),2,.)
                  local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"
> ', word
                  }
                  else {
                  gettoken p1 p2 : eq, parse("()")
```

```
                      local p2 = trim(`"`p2'"')
                      if bsubstr("`p2'",1,1) == "," {
                      gettoken comma p2 : p2, parse(",")
                      local p2 = trim(`"`p2'"')
                      }
                      if `"`p1'`p2'"' == "()" {
                      local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
                      }
                      }
                      }
                    - if `interactive' {
                    = if 0 {
                      SetGlobalVar ML_sample : _MLtua
                      }
                    - else {
                    - global ML_sample : tempvar
                    - if `"`moptobj'"' != "" {
                    = if `""' != "" {
                      global ML_sample `moptobj'$ML_sample
                      }
                    - }
                    - if `"`moptobj'"' != "" {
                    = if `""' != "" {
                      cap drop $ML_sample
                      }
                    - `vv' mark $ML_sample `if' `in' [`weight'`exp'], `zeroweight'
                    = version 18: mark __000007 if __000002  [],
                    - tempname eqlist
                    - .`eqlist' = ._eqlist.new, eqopts(NOCONStant FREEParm) eqargo
> pts(OFFset EXPosure) noneedvarlist numdepvars(0) needequal
                    = .__000008 = ._eqlist.new, eqopts(NOCONStant FREEParm) eqargo
> pts(OFFset EXPosure) noneedvarlist numdepvars(0) needequal
                      -class {
                      -instance:
                      -        array           n_depvars
                      -        string          needequal
                      -        string          noneedvarlist
                      -        string          wtypes
                      -        string          collinear
                      -        string          nocons
                      -        string          nocons_ignore
                      -        double          n_eq
                      -        string          gl_if
                      -        string          gl_in
                      -        string          gl_wgt
                      -        string          gl_options
```

```
                  -         _optlist        eq_opts_allowed
                    -class {
                    -instance:
                    -         array options   = {}
                    -         array names     = {}
                    -}
                  -         array           eq_list
                  -         _optlist        mark_opts
                  -         array           mark_list
                  -         array           mark_name
                  -         _optlist        smark_opts
                  -         array           smark_list
                  -         array           smark_name
                  -         _optlist        rmcoll_opts
                  -         array           rmcoll_list
                  -         array           rmcoll_name
                  -         _optlist        rmdcoll_opts
                  -         array           rmdcoll_list
                  -         array           rmdcoll_name
                  -}
                  ------------------------------------------------------------
> ------------------------------------------ begin _eqlist.new ---------------
                  - version 9.2
                  - ._init
                    ----------------------------------------------------------
> ---------------------------------------- begin _eqlist._init ---------------
                    - version 9.2
                    - .n_eq = 0
                    - .gl_if = ""
                    - .gl_in = ""
                    - .gl_wgt = ""
                    - .gl_options = ""
                    - .eq_list = {}
                    ----------------------------------------------------------
> ------------------------------------------ end _eqlist._init ---------------
                  - ._setup `0'
                  = ._setup , eqopts(NOCONStant FREEParm) eqargopts(OFFset EXP
> osure) noneedvarlist numdepvars(0) needequal
                    ----------------------------------------------------------
> --------------------------------------- begin _eqlist._setup ---------------
                    - version 9.2
                    - .mark_list = {}
                    - .mark_name = {}
                    - .mark_opts.reset
                      --------------------------------------------------------
> --------------------------------------- begin _optlist.reset ---------------
```

```
                      - version 9
                      - .options = {}
                      - .names = {}
                      --------------------------------------------------------
> ----------------------------------------- end _optlist.reset ----------------
                    - .smark_list = {}
                    - .smark_name = {}
                    - .smark_opts.reset
                      --------------------------------------------------------
> --------------------------------------- begin _optlist.reset ----------------
                      - version 9
                      - .options = {}
                      - .names = {}
                      --------------------------------------------------------
> ----------------------------------------- end _optlist.reset ----------------
                    - .rmcoll_list = {}
                    - .rmcoll_name = {}
                    - .rmcoll_opts.reset
                      --------------------------------------------------------
> --------------------------------------- begin _optlist.reset ----------------
                      - version 9
                      - .options = {}
                      - .names = {}
                      --------------------------------------------------------
> ----------------------------------------- end _optlist.reset ----------------
                    - .rmdcoll_list = {}
                    - .rmdcoll_name = {}
                    - .rmdcoll_opts.reset
                      --------------------------------------------------------
> --------------------------------------- begin _optlist.reset ----------------
                      - version 9
                      - .options = {}
                      - .names = {}
                      --------------------------------------------------------
> ----------------------------------------- end _optlist.reset ----------------
                    - syntax [, EQopts(namelist) EQARGopts(namelist) noNEEDVAR
> LIST COMMONopts(string asis) MARKopts(namelist) SMARKopts(namelist) RMCOLLop
> ts(namelist) RMDCOLLopts(namelist) NUMDEPvars(numlist integer >=0) NEEDEQUAL
>  WTYPES(string) IGNORENOCONS ]
                    - .eq_opts_allowed.reset
                      --------------------------------------------------------
> --------------------------------------- begin _optlist.reset ----------------
                      - version 9
                      - .options = {}
                      - .names = {}
                      --------------------------------------------------------
```

```
> ───────────────────────────────────────── end _optlist.reset ────────────────
                    - foreach opt of local eqopts {
                    - .eq_opts_allowed.addopt `opt'
                    = .eq_opts_allowed.addopt NOCONStant
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ────────────────
                      - version 9
                      - syntax name(name=optspec) [, PASSthru]
                      - local mname = lower("`optspec'")
                      = local mname = lower("NOCONStant")
                      - if "`passthru'" != "" {
                      = if "" != "" {
                        local optspec `optspec'(passthru)
                        }
                      - .options.Arrpush "`optspec'"
                      = .options.Arrpush "NOCONStant"
                      - .names.Arrpush "`mname'"
                      = .names.Arrpush "noconstant"
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ────────────────
                    - }
                    - .eq_opts_allowed.addopt `opt'
                    = .eq_opts_allowed.addopt FREEParm
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ────────────────
                      - version 9
                      - syntax name(name=optspec) [, PASSthru]
                      - local mname = lower("`optspec'")
                      = local mname = lower("FREEParm")
                      - if "`passthru'" != "" {
                      = if "" != "" {
                        local optspec `optspec'(passthru)
                        }
                      - .options.Arrpush "`optspec'"
                      = .options.Arrpush "FREEParm"
                      - .names.Arrpush "`mname'"
                      = .names.Arrpush "freeparm"
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ────────────────
                    - }
                    - foreach opt of local eqargopts {
                    - .eq_opts_allowed.addopt `opt', passthru
                    = .eq_opts_allowed.addopt OFFset, passthru
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ────────────────
                      - version 9
                      - syntax name(name=optspec) [, PASSthru]
                      - local mname = lower("`optspec'")
                      = local mname = lower("OFFset")
                      - if "`passthru'" != "" {
                      = if "passthru" != "" {
                      - local optspec `optspec'(passthru)
                      = local optspec OFFset(passthru)
                      - }
                      - .options.Arrpush "`optspec'"
                      = .options.Arrpush "OFFset(passthru)"
                      - .names.Arrpush "`mname'"
                      = .names.Arrpush "offset"
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
                    - }
                    - .eq_opts_allowed.addopt `opt', passthru
                    = .eq_opts_allowed.addopt EXPosure, passthru
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                      - version 9
                      - syntax name(name=optspec) [, PASSthru]
                      - local mname = lower("`optspec'")
                      = local mname = lower("EXPosure")
                      - if "`passthru'" != "" {
                      = if "passthru" != "" {
                      - local optspec `optspec'(passthru)
                      = local optspec EXPosure(passthru)
                      - }
                      - .options.Arrpush "`optspec'"
                      = .options.Arrpush "EXPosure(passthru)"
                      - .names.Arrpush "`mname'"
                      = .names.Arrpush "exposure"
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
                    - }
                    - local i 0
                    - foreach opt of local markopts {
                      .mark_opts.addopt `opt', passthru
                      }
                    - local i 0
                    - foreach opt of local smarkopts {
                      .smark_opts.addopt `opt', passthru
                      }
                    - local i 0
                    - foreach opt of local rmcollopts {
                      .rmcoll_opts.addopt `opt', passthru
                      }
                    - local i 0
                    - foreach opt of local rmdcollopts {
                      .rmdcoll_opts.addopt `opt', passthru
                      }
                    - .n_depvars.Arrdropall
                    - if "`numdepvars'" != "" {
                    = if "0" != "" {
                    - foreach ndep of local numdepvars {
                    - .n_depvars.Arrpush `ndep'
                    = .n_depvars.Arrpush 0
                    - }
                    - }
                    - else .n_depvars.Arrpush 1
                    - .needequal = "`needequal'"
                    = .needequal = "needequal"
                    - .wtypes = "`wtypes'"
                    = .wtypes = ""
                    - .noneedvarlist = "`needvarlist'"
                    = .noneedvarlist = "noneedvarlist"
                    - .nocons_ignore = "`ignorenocons'"
                    = .nocons_ignore = ""
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _eqlist._setup ────────────────
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqlist.new ────────────────
                - .`eqlist'.parse `spec'
                = .__000008.parse  (y_timing_max: y_timing_max = wlth wg_ndx s
> tky_pr_rotemberg stky_pr_calvo open,  ) []
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _eqlist.parse ────────────────
                  - version 9.2
                  - ._init
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _eqlist._init ────────────────
                    - version 9.2
                    - .n_eq = 0
                    - .gl_if = ""
                    - .gl_in = ""
                    - .gl_wgt = ""
                    - .gl_options = ""
                    - .eq_list = {}
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqlist._init ────────────────
                  - local MARKOPTLIST `"`.mark_opts.dumpoptions'"'
                    ───────────────────────────────────────────────────────────
```

```
> ———————————————————————————————————— begin _optlist.dumpoptions ————————————————
                    - version 9
                    - forval i = 1/`.options.arrnels' {
                    = forval i = 1/0 {
                      local optlist `optlist' `.options[`i']'
                      }
                    - local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `""'
                    - class exit `"`optlist'"'
                    = class exit `""'
                    ———————————————————————————————————————————————————————————
> —————————————————————————————————————— end _optlist.dumpoptions ————————————————
                  = local MARKOPTLIST `""'
                  - local SMARKOPTLIST `"`.smark_opts.dumpoptions'"'
                    ———————————————————————————————————————————————————————————
> ———————————————————————————————————— begin _optlist.dumpoptions ————————————————
                    - version 9
                    - forval i = 1/`.options.arrnels' {
                    = forval i = 1/0 {
                      local optlist `optlist' `.options[`i']'
                      }
                    - local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `""'
                    - class exit `"`optlist'"'
                    = class exit `""'
                    ———————————————————————————————————————————————————————————
> —————————————————————————————————————— end _optlist.dumpoptions ————————————————
                  = local SMARKOPTLIST `""'
                  - local RMCOLLOPTLIST `"`.rmcoll_opts.dumpoptions'"'
                    ———————————————————————————————————————————————————————————
> ———————————————————————————————————— begin _optlist.dumpoptions ————————————————
                    - version 9
                    - forval i = 1/`.options.arrnels' {
                    = forval i = 1/0 {
                      local optlist `optlist' `.options[`i']'
                      }
                    - local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `""'
                    - class exit `"`optlist'"'
                    = class exit `""'
                    ———————————————————————————————————————————————————————————
> —————————————————————————————————————— end _optlist.dumpoptions ————————————————
                  = local RMCOLLOPTLIST `""'
                  - local RMDCOLLOPTLIST `"`.rmdcoll_opts.dumpoptions'"'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                    - version 9
                    - forval i = 1/`.options.arrnels' {
                    = forval i = 1/0 {
                      local optlist `optlist' `.options[`i']'
                      }
                    - local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `""'
                    - class exit `"`optlist'"'
                    = class exit `""'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
                  = local RMDCOLLOPTLIST `""'
                  - _parse expand EQ GL : 0, gweight common( `MARKOPTLIST' `SM
> ARKOPTLIST' `RMCOLLOPTLIST' `RMDCOLLOPTLIST' COLlinear )
                  = _parse expand EQ GL : 0, gweight common(     COLlinear )
                  - if `EQ_n' == 0 & "`.noneedvarlist'" == "" {
                  = if 1 == 0 & "noneedvarlist" == "" {
                    syntax varlist
                    }
                  - local rebind = `EQ_n' == 1
                  = local rebind = 1 == 1
                  - if `rebind' {
                  = if 1 {
                  - tokenize `"`0'"', parse(",()[]")
                  = tokenize `"(y_timing_max: y_timing_max = wlth wg_ndx stky_
> pr_rotemberg stky_pr_calvo open,  ) []"', parse(",()[]")
                  - local rebind = `"`1'"' != "(" & `"`2'"' == "("
                  = local rebind = `"("' != "(" & `"y_timing_max: y_timing_max
>  = wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open"' == "("
                  - }
                  - if `rebind' {
                  = if 0 {
                    while `:length local 0' {
                    gettoken tok 0 : 0, parse(" ,") bind match(par)
                    if "`par'" == "(" {
                    gettoken nxt : 0
                    local nxt = substr(`"`nxt'"',1,1)
                    if inlist(`"`nxt'"', "#", "|") {
                    local ZERO `"`ZERO' (`tok')"'
                    }
                    else {
                    local ZERO `"(`ZERO') (`tok') `0'"'
                    local 0
                    }
                    }
                    else if inlist("`tok'", "if", "in", ",") {
                    local ZERO `"(`ZERO') `tok' `0'"'
                    local 0
                    }
                    else if inlist(substr(`"`tok'"',1,1), "#", "|") {
                    local ZERO `"`ZERO'`tok'"'
                    }
                    else {
                    local ZERO `"`ZERO' `tok'"'
                    }
                    }
                    _parse expand EQ GL : ZERO, gweight common( `MARKOPTLIST'
> `SMARKOPTLIST' `RMCOLLOPTLIST' `RMDCOLLOPTLIST' COLlinear )
                    }
                  - forval i = 1/`EQ_n' {
                  = forval i = 1/1 {
                  - if `i' <= `.n_depvars.arrnels' {
                  = if 1 <= 1 {
                  - local ndep = `.n_depvars[`i']'
                  = local ndep = 0
                  - }
                  - .eq_list[`i'] = ._eqspec.new, numdepvars(`ndep') `.neededqu
> al' `.noneedvarlist' wtypes(`.wtypes') `.nocons_ignore'
                  = .eq_list[1] = ._eqspec.new, numdepvars(0) neededqual noneed
> varlist wtypes()
                    -class {
                    -instance:
                    -        double  n_depvars
                    -        double  neededqual
                    -        double  needvarlist
                    -        string  wtypes
                    -        string  name
                    -        string  depvars
                    -        double  hasequal
                    -        string  indepvars
                    -        string  other_markvars
                    -        double  nocons
                    -        double  nocons_ignore
                    -        string  offset
                    -        double  exposure
                    -        double  freeparm
                    -        string  if
                    -        string  in
                    -        string  wgt
                    -        string  options
                    -}
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqspec.new ───────────────
                    - version 9.2
                    - syntax [, NUMDEPvars(numlist integer >=0 max=1) NEEDEQUA
> L noNEEDVARLIST WTYPES(string) IGNORENOCONS ]
                    - .n_depvars = 1
                    - if `:list sizeof numdepvars' {
                    = if 1 {
                    - .n_depvars = `numdepvars'
                    = .n_depvars = 0
                    - }
                    - .needequal = ("`needequal'" != "")
                    = .needequal = ("needequal" != "")
                    - .needvarlist = ("`needvarlist'" == "")
                    = .needvarlist = ("noneedvarlist" == "")
                    - .nocons_ignore = ("`ignorenocons'" != "")
                    = .nocons_ignore = ("" != "")
                    - .wtypes = "`wtypes'"
                    = .wtypes = ""
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqspec.new ───────────────
                  - .eq_list[`i'].parse `.eq_opts_allowed.objkey':`EQ_`i''
                  = .eq_list[1].parse __key(6000028d9c40):y_timing_max: y_timi
> ng_max = wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.parse ───────────────
                    - version 9.2
                    - _on_colon_parse `0'
                    = _on_colon_parse __key(6000028d9c40):y_timing_max: y_timi
> ng_max = wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _on_colon_parse ───────────────
                      - version 8.2
                      - sreturn local before ""
                      - sreturn local after ""
                      - gettoken before after : 0, parse(":") bind match(par)
> quotes
                      - if "`par'" != "" {
                      = if "" != "" {
                        local before `"(`before')"'
                        }
                      - if `"`before'"' == ":" {
                      = if `"__key(6000028d9c40)"' == ":" {
                        sreturn local after `"`after'"'
                        exit
                        }
                      - while `"`COLON'"' != ":" & `"`after'"' != "" {
                      = while `""' != ":" & `":y_timing_max: y_timing_max = wl
> th wg_ndx stky_pr_rotemberg stky_pr_calvo open"' != "" {
                      - gettoken COLON after : after, parse(":") bind match(pa
> r) quotes
                      - if "`par'" != "" {
                      = if "" != "" {
                        local before `before' (`COLON')
                        local COLON
                        }
                      - else if `"`COLON'"' != ":" {
                      = else if `":"' != ":" {
                        local before `"`before' `COLON'"'
                        local COLON
                        }
                      - }
                      - while `"`COLON'"' != ":" & `"`after'"' != "" {
                      = while `":"' != ":" & `"y_timing_max: y_timing_max = wl
> th wg_ndx stky_pr_rotemberg stky_pr_calvo open"' != "" {
                        gettoken COLON after : after, parse(":") bind match(pa
> r) quotes
                        if "`par'" != "" {
                        local before `before' (`COLON')
                        local COLON
                        }
                        else if `"`COLON'"' != ":" {
                        local before `"`before' `COLON'"'
                        local COLON
                        }
                        }
                      - if `"`COLON'"' != ":" {
                      = if `":"' != ":" {
                        di as err "'' found where ':' expected"
                        exit 198
                        }
                      - sreturn local before `"`before'"'
                      = sreturn local before `"__key(6000028d9c40)"'
                      - sreturn local after `"`after'"'
                      = sreturn local after `"y_timing_max: y_timing_max = wlt
> h wg_ndx stky_pr_rotemberg stky_pr_calvo open"'
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
                    - local ol `s(before)'
                    = local ol __key(6000028d9c40)
                    - if `:list sizeof ol' {
                    = if 1 {
                    - local OPTLIST `"`.`ol'.dumpoptions'"'
                      ────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                      - version 9
                      - forval i = 1/`.options.arrnels' {
                      = forval i = 1/4 {
                      - local optlist `optlist' `.options[`i']'
                      = local optlist  NOCONStant
                      - }
                      - local optlist `optlist' `.options[`i']'
                      = local optlist NOCONStant FREEParm
                      - }
                      - local optlist `optlist' `.options[`i']'
                      = local optlist NOCONStant FREEParm OFFset(passthru)
                      - }
                      - local optlist `optlist' `.options[`i']'
                      = local optlist NOCONStant FREEParm OFFset(passthru) EXP
> osure(passthru)
                      - }
                      - local optlist : list uniq optlist
                      - sreturn local optlist `"`optlist'"'
                      = sreturn local optlist `"NOCONStant FREEParm OFFset(pas
> sthru) EXPosure(passthru)"'
                      - class exit `"`optlist'"'
                      = class exit `"NOCONStant FREEParm OFFset(passthru) EXPo
> sure(passthru)"'
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
                    = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXP
> osure(passthru)"'
                    - local OPTNAMES `"`.`ol'.dumpnames'"'
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                      - version 9
                      - forval i = 1/`.names.arrnels' {
                      = forval i = 1/4 {
                      - local namelist `namelist' `.names[`i']'
                      = local namelist  noconstant
                      - }
                      - local namelist `namelist' `.names[`i']'
                      = local namelist noconstant freeparm
                      - }
                      - local namelist `namelist' `.names[`i']'
                      = local namelist noconstant freeparm offset
                      - }
                      - local namelist `namelist' `.names[`i']'
                      = local namelist noconstant freeparm offset exposure
                      - }
                      - local namelist : list uniq namelist
                      - sreturn local namelist `"`namelist'"'
                      = sreturn local namelist `"noconstant freeparm offset ex
> posure"'
                      - class exit `"`namelist'"'
                      = class exit `"noconstant freeparm offset exposure"'
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
                    = local OPTNAMES `"noconstant freeparm offset exposure"'
                    - local NOCONS constant noconstant
                    - if `"`:list NOCONS & OPTNAMES'"' == "" {
                    = if `"noconstant"' == "" {
                      local NOCONS noCONStant
                      }
                    - else local NOCONS
                    - }
                    - local 0 `"`s(after)'"'
                    = local 0 `"y_timing_max: y_timing_max = wlth wg_ndx stky_
> pr_rotemberg stky_pr_calvo open"'
                    - if `"`.wtypes'"' != "" {
                    = if `""' != "" {
                      local wgt "[`.wtypes']"
                      }
                    - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST'
> `NOCONS' *]
                    = syntax [anything(equalok)] [if] [in]  [, NOCONStant FREE
> Parm OFFset(passthru) EXPosure(passthru)  *]
                    - local HOLDIF `"`if'"'
                    = local HOLDIF `""'
                    - local HOLDIN `"`in'"'
                    = local HOLDIN `""'
                    - if "`wgt'" != "" & "`weight'" != "" {
                    = if "" != "" & "" != "" {
                      local HOLDWGT `"[`weight'`exp']"'
                      }
                    - gettoken NAME REST : anything, parse(":")
                    - if trim("`NAME'") == ":" {
                    = if trim("y_timing_max") == ":" {
                      di as err "nothing found where equation name expected"
                      exit 198
                      }
                    - if `:list sizeof REST' {
                    = if 8 {
                    - if strpos(`"`NAME'"', ":") {
                    = if strpos(`"y_timing_max"', ":") {
                      capture _msparse `NAME'
                      if c(rc) {
                      di as err "{bf:`NAME'} invalid equation specification"
                      exit 198
                      }
                      }
                    - else {
                    - ._confirm_eqname `NAME'
                    = ._confirm_eqname y_timing_max
                      ────────────────────────────────────────────────────────
> ────────────────────────────── begin _eqspec._confirm_eqname ───────────────
                      - version 9.2
                      - capture confirm number `0'
                      = capture confirm number y_timing_max
                      - if (! c(rc)) exit
                      - local hasdot = strpos(`"`0'"',".")
                      = local hasdot = strpos(`"y_timing_max"',".")
                      - if `hasdot' {
                      = if 0 {
                        syntax varname(ts)
                        exit
                        }
                      - capture syntax name(id="equation name")
                      - if (! c(rc)) exit
                      ────────────────────────────────────────────────────────
> ──────────────────────────────── end _eqspec._confirm_eqname ───────────────
                    - }
                    - local NAME : list retok NAME
                    - gettoken COLON anything : REST, parse(":")
                    - }
                    - else {
                      local NAME
                      }
                    - gettoken DEPVARS REST : anything, parse("=") bind
                    - if "`DEPVARS'" == "=" {
                    = if "y_timing_max " == "=" {
                      local REST : copy local anything
                      local DEPVARS
                      }
                    - if (`:length local DEPVARS' == 0 & `.n_depvars') {
                    = if (13 == 0 & 0) {
                      di as err "nothing found where depvar expected"
                      exit 198
                      }
                    - if `"`REST'"' == "" {
                    = if `"= wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open"
> ' == "" {
                      if 0`.needequal' {
                      if `.needvarlist' | (`:length local DEPVARS' != 0 & `.n_
> depvars') {
                      di as err "equal sign required to separate depvars from
> indepvars"
                      exit 198
                      }
                      }
                      local DEPVARS
                      local n_deps : list sizeof anything
                      if `n_deps' != 0 | `.needvarlist' {
                      if `n_deps' < `.n_depvars' {
                      error 102
                      }
                      forval j = 1/`.n_depvars' {
                      gettoken YY anything : anything
                      local DEPVARS `DEPVARS' `YY'
                      }
                      local INDEPVARS : list retok anything
                      }
                      loca hasequal 0
                      }
                    - else {
                    - gettoken EQ INDEPVARS : REST, parse("=") bind
                    - local hasequal 1
                    - }
                    - if `:list sizeof DEPVARS' {
                    = if 1 {
                    - _fv_check_depvar `DEPVARS'
                    = _fv_check_depvar y_timing_max
                    - tsunab DEPVARS : `DEPVARS'
                    = tsunab DEPVARS : y_timing_max
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin tsunab ───────────────
                      - version 6
                      - gettoken user 0: 0, parse(" :")
                      - gettoken colon 0: 0, parse(" :")
                      - if `"`colon'"' != ":" { error 198 }
                      = if `":"' != ":" { error 198 }
                      - syntax [varlist(ts default=empty)] [, MIN(integer 1) M
> AX(integer 32000) NAME(string)]
```

```
                      - c_local `user' `varlist'
                      = c_local DEPVARS y_timing_max
                      - local n : word count `varlist'
                      = local n : word count y_timing_max
                      - if `n'>=`min' & `n'<=`max' { exit }
                      = if 1>=1 & 1<=32000 { exit }
                      --------------------------------------------------------
> ------------------------------------------------- end tsunab ---------------
                    - }
                    - if `:list sizeof INDEPVARS' {
                    = if 5 {
                    - fvunab INDEPVARS : `INDEPVARS'
                    = fvunab INDEPVARS :  wlth wg_ndx stky_pr_rotemberg stky_p
> r_calvo open
                      --------------------------------------------------------
> ----------------------------------------------- begin fvunab ---------------
                      - version 11
                      - _on_colon_parse `0'
                      = _on_colon_parse INDEPVARS :  wlth wg_ndx stky_pr_rotem
> berg stky_pr_calvo open
                        ------------------------------------------------------
> -------------------------------------- begin _on_colon_parse ---------------
                        - version 8.2
                        - sreturn local before ""
                        - sreturn local after ""
                        - gettoken before after : 0, parse(":") bind match(par
> ) quotes
                        - if "`par'" != "" {
                        = if "" != "" {
                          local before `"(`before')"'
                          }
                        - if `"`before'"' == ":" {
                        = if `"INDEPVARS "' == ":" {
                          sreturn local after `"`after'"'
                          exit
                          }
                        - while `"`COLON'"' != ":" & `"`after'"' != "" {
                        = while `""' != ":" & `":  wlth wg_ndx stky_pr_rotembe
> rg stky_pr_calvo open"' != "" {
                        - gettoken COLON after : after, parse(":") bind match(
> par) quotes
                        - if "`par'" != "" {
                        = if "" != "" {
                          local before `before' (`COLON')
                          local COLON
                          }
                        - else if `"`COLON'"' != ":" {
                        = else if `":"' != ":" {
                          local before `"`before' `COLON'"'
                          local COLON
                          }
                        - }
                        - while `"`COLON'"' != ":" & `"`after'"' != "" {
                        = while `":"' != ":" & `"  wlth wg_ndx stky_pr_rotembe
> rg stky_pr_calvo open"' != "" {
                          gettoken COLON after : after, parse(":") bind match(
> par) quotes
                          if "`par'" != "" {
                          local before `before' (`COLON')
                          local COLON
                          }
                          else if `"`COLON'"' != ":" {
                          local before `"`before' `COLON'"'
                          local COLON
                          }
                          }
                        - if `"`COLON'"' != ":" {
                        = if `":"' != ":" {
                          di as err "'' found where ':' expected"
                          exit 198
                          }
                        - sreturn local before `"`before'"'
                        = sreturn local before `"INDEPVARS "'
                        - sreturn local after `"`after'"'
                        = sreturn local after `"  wlth wg_ndx stky_pr_rotember
> g stky_pr_calvo open"'
                        ──────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
                      - local 0 `"`s(before)'"'
                      = local 0 `"INDEPVARS "'
                      - syntax name(id="macro name" name=user)
                      - local 0 `"`s(after)'"'
                      = local 0 `"  wlth wg_ndx stky_pr_rotemberg stky_pr_calv
> o open"'
                      - syntax [varlist(ts fv default=none)] [, MIN(integer 1)
>  MAX(integer 32000) NAME(string) ]
                      - c_local `user' `varlist'
                      = c_local INDEPVARS wlth wg_ndx stky_pr_rotemberg stky_p
> r_calvo open
                      - local n : list sizeof varlist
                      - if (`min' <= `n' & `n' <= `max') exit
                      = if (1 <= 5 & 5 <= 32000) exit
```

```
                    ────────────────────────────────────────────────────────
> ──────────────────────────────────────────────────── end fvunab ──────────────
                    - }
                    - if inlist("noconstant", "`noconstant'", "`constant'") {
                    = if inlist("noconstant", "", "") {
                      if "`INDEPVARS'" == "" & ! `.nocons_ignore' {
                      di as err "independent variables are required when optio
> n noconstant is specified"
                      exit 102
                      }
                      if "`NOCONS'" != "" {
                      local options `options' noconstant
                      }
                      local NOCONS 1
                      }
                    - else local NOCONS 0
                    - if `"`offset'`exposure'"' != "" {
                    = if `""' != "" {
                      ._check_offset, `offset' `exposure'
                      local OFFSET "`s(offset)'"
                      local EXPOSURE = ("`exposure'" != "")
                      local OTHER `s(offset)'
                      }
                    - else local EXPOSURE 0
                    - local FREEPARM = `"`freeparm'"' != ""
                    = local FREEPARM = `""' != ""
                    - local OPTIONS
                    - local SPACE
                    - foreach OPTNAME of local OPTNAMES {
                    - if `"``OPTNAME''"' != "" {
                    = if `""' != "" {
                      local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                      local SPACE " "
                      }
                    - }
                    - if `"``OPTNAME''"' != "" {
                    = if `""' != "" {
                      local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                      local SPACE " "
                      }
                    - }
                    - if `"``OPTNAME''"' != "" {
                    = if `""' != "" {
                      local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                      local SPACE " "
                      }
                    - }
                    - if `"``OPTNAME''"' != "" {
                    = if `""' != "" {
                      local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                      local SPACE " "
                      }
                    - }
                    - if `"`options'"' != "" {
                    = if `""' != "" {
                      local OPTIONS `"`OPTIONS'`SPACE'`options'"'
                      }
                    - .name = `"`NAME'"'
                    = .name = `"y_timing_max"'
                    - .depvars = `"`DEPVARS'"'
                    = .depvars = `"y_timing_max"'
                    - .hasequal = `hasequal'
                    = .hasequal = 1
                    - .indepvars = `"`:list retok INDEPVARS'"'
                    = .indepvars = `"wlth wg_ndx stky_pr_rotemberg stky_pr_cal
> vo open"'
                    - .other_markvars = `"`:list retok OTHER'"'
                    = .other_markvars = `""'
                    - .nocons = `NOCONS'
                    = .nocons = 0
                    - .if = `"`HOLDIF'"'
                    = .if = `""'
                    - .in = `"`HOLDIN'"'
                    = .in = `""'
                    - .wgt = `"`HOLDWGT'"'
                    = .wgt = `""'
                    - .offset = `"`OFFSET'"'
                    = .offset = `""'
                    - .exposure = `EXPOSURE'
                    = .exposure = 0
                    - .freeparm = `FREEPARM'
                    = .freeparm = 0
                    - .options = `"`OPTIONS'"'
                    = .options = `""'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.parse ───────────────
                  - }
                  - local MARKOPTLIST `"`.mark_opts.dumpoptions'"'
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────── begin _optlist.dumpoptions ───────────────
                    - version 9
                    - forval i = 1/`.options.arrnels' {
```

```
                    = forval i = 1/0 {
                      local optlist `optlist' `.options[`i']'
                      }
                    - local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `""'
                    - class exit `"`optlist'"'
                    = class exit `""'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
                  = local MARKOPTLIST `""'
                  - local MARKOPTNAMES `"`.mark_opts.dumpnames'"'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                    - version 9
                    - forval i = 1/`.names.arrnels' {
                    = forval i = 1/0 {
                      local namelist `namelist' `.names[`i']'
                      }
                    - local namelist : list uniq namelist
                    - sreturn local namelist `"`namelist'"'
                    = sreturn local namelist `""'
                    - class exit `"`namelist'"'
                    = class exit `""'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
                  = local MARKOPTNAMES `""'
                  - local OPTLIST1 : subinstr local MARKOPTLIST "(passthru)" "
> (string asis)", all
                  - local SMARKOPTLIST `"`.smark_opts.dumpoptions'"'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                    - version 9
                    - forval i = 1/`.options.arrnels' {
                    = forval i = 1/0 {
                      local optlist `optlist' `.options[`i']'
                      }
                    - local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `""'
                    - class exit `"`optlist'"'
                    = class exit `""'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
                  = local SMARKOPTLIST `""'
                  - local SMARKOPTNAMES `"`.smark_opts.dumpnames'"'
```

```
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                    - version 9
                    - forval i = 1/`.names.arrnels' {
                    = forval i = 1/0 {
                      local namelist `namelist' `.names[`i']'
                      }
                    - local namelist : list uniq namelist
                    - sreturn local namelist `"`namelist'"'
                    = sreturn local namelist `""'
                    - class exit `"`namelist'"'
                    = class exit `""'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
                  = local SMARKOPTNAMES `""'
                  - local OPTLIST1s : subinstr local SMARKOPTLIST "(passthru)"
>  "(string asis)", all
                  - local RMCOLLOPTLIST `"`.rmcoll_opts.dumpoptions'"'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                    - version 9
                    - forval i = 1/`.options.arrnels' {
                    = forval i = 1/0 {
                      local optlist `optlist' `.options[`i']'
                      }
                    - local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `""'
                    - class exit `"`optlist'"'
                    = class exit `""'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
                  = local RMCOLLOPTLIST `""'
                  - local RMCOLLOPTNAMES `"`.rmcoll_opts.dumpnames'"'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                    - version 9
                    - forval i = 1/`.names.arrnels' {
                    = forval i = 1/0 {
                      local namelist `namelist' `.names[`i']'
                      }
                    - local namelist : list uniq namelist
                    - sreturn local namelist `"`namelist'"'
                    = sreturn local namelist `""'
                    - class exit `"`namelist'"'
                    = class exit `""'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ────────────────
                  = local RMCOLLOPTNAMES `""'
                  - local OPTLIST2 : subinstr local RMCOLLOPTLIST "(passthru)"
>  "(string asis)", all
                  - local RMDCOLLOPTLIST `"`.rmdcoll_opts.dumpoptions'"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ────────────────
                    - version 9
                    - forval i = 1/`.options.arrnels' {
                    = forval i = 1/0 {
                      local optlist `optlist' `.options[`i']'
                      }
                    - local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `""'
                    - class exit `"`optlist'"'
                    = class exit `""'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ────────────────
                  = local RMDCOLLOPTLIST `""'
                  - local RMDCOLLOPTNAMES `"`.rmdcoll_opts.dumpnames'"'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ────────────────
                    - version 9
                    - forval i = 1/`.names.arrnels' {
                    = forval i = 1/0 {
                      local namelist `namelist' `.names[`i']'
                      }
                    - local namelist : list uniq namelist
                    - sreturn local namelist `"`namelist'"'
                    = sreturn local namelist `""'
                    - class exit `"`namelist'"'
                    = class exit `""'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ────────────────
                  = local RMDCOLLOPTNAMES `""'
                  - local OPTLIST3 : subinstr local RMDCOLLOPTLIST "(passthru)
> " "(string asis)", all
                  - local 0 `", `GL_op'"'
                  = local 0 `", "'
                  - syntax [, `OPTLIST1' `OPTLIST1s' `OPTLIST2' `OPTLIST3' COL
> linear noCONStant * ]
                  = syntax [,     COLlinear noCONStant * ]
                  - local GL_op `"`options'"'
                  = local GL_op `""'
```

```
                    - if `"`collinear'"' != "" {
                    = if `""' != "" {
                      local GL_op `"`GL_op' `collinear'"'
                      .collinear = "`collinear'"
                      }
                    - if `"`constant'"' != "" {
                    = if `""' != "" {
                      local GL_op `"`GL_op' `constant'"'
                      .nocons = "`constant'"
                      }
                    - local I 0
                    - foreach OPT of local MARKOPTNAMES {
                      if `:list sizeof `OPT'' {
                      .mark_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wtype
> s')
                      .mark_list[`I'].parse "" : ``OPT''
                      .mark_name.Arrpush "`OPT'"
                      }
                      }
                    - local I 0
                    - foreach OPT of local SMARKOPTNAMES {
                      if `:list sizeof `OPT'' {
                      .smark_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wtyp
> es')
                      .smark_list[`I'].parse "" : ``OPT''
                      .smark_name.Arrpush "`OPT'"
                      }
                      }
                    - local I 0
                    - foreach OPT of local RMCOLLOPTNAMES {
                      if `:list sizeof `OPT'' {
                      .rmcoll_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wty
> pes')
                      .rmcoll_list[`I'].parse "" : ``OPT''
                      .rmcoll_name.Arrpush "`OPT'"
                      }
                      }
                    - local I 0
                    - foreach OPT of local RMDCOLLOPTNAMES {
                      if `:list sizeof `OPT'' {
                      .rmdcoll_list[`++I'] = ._eqspec.new, wtypes(`.wtypes')
                      .rmdcoll_list[`I'].parse "" : ``OPT''
                      .rmdcoll_name.Arrpush "`OPT'"
                      }
                      }
                    - .n_eq = `EQ_n'
```

```
                  = .n_eq = 1
                  - .gl_if = `"`GL_if'"'
                  = .gl_if = `""'
                  - .gl_in = `"`GL_in'"'
                  = .gl_in = `""'
                  - .gl_wgt = `"`GL_wt'"'
                  = .gl_wgt = `"[]"'
                  - .gl_options = `"`:list retok GL_op'"'
                  = .gl_options = `""'
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqlist.parse ───────────────
                - if "`subpop'" != "" & "`missing'" == "" {
                = if "" != "" & "missing" == "" {
                  if `interactive' {
                  SetGlobalVar ML_samp : _MLtu
                  }
                  else {
                  global ML_samp : tempvar
                  if `"`moptobj'"' != "" {
                  global ML_samp `moptobj'$ML_samp
                  }
                  }
                  tempvar markuse
                  _svy_setup $ML_sample $ML_samp, svy subpop(`subpop')
                  quietly gen byte `markuse' = $ML_samp
                  }
                - else global ML_samp $ML_sample
                = else global ML_samp __000007
                - if "`collinear'" == "" {
                = if "collinear" == "" {
                  .`eqlist'.rmcoll $ML_samp, replace `missing'
                  }
                - else if "`missing'" == "" {
                = else if "missing" == "" {
                  .`eqlist'.markout $ML_samp, replace
                  }
                - if "$ML_samp" != "$ML_sample" {
                = if "__000007" != "__000007" {
                  `vv' quietly replace $ML_sample = 0 if `markuse' & !$ML_samp
                  drop `markuse'
                  }
                - local eq_n = `.`eqlist'.eq count'
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _eqlist.eq ───────────────
                  - version 9.2
                  - args item idx
                  - if "`item'" == "count" {
                  = if "count" == "count" {
                  - sreturn local value `"`.n_eq'"'
                  = sreturn local value `"1"'
                  - class exit `"`s(value)'"'
                  = class exit `"1"'
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
                = local eq_n = 1
                - global ML_n : copy local eq_n
                - global ML_dim = `.`eqlist'.dim'
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqlist.dim ────────────────
                  - version 9.2
                  - syntax
                  - local neq = `.eq count'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
                    - version 9.2
                    - args item idx
                    - if "`item'" == "count" {
                    = if "count" == "count" {
                    - sreturn local value `"`.n_eq'"'
                    = sreturn local value `"1"'
                    - class exit `"`s(value)'"'
                    = class exit `"1"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
                  = local neq = 1
                  - forval i = 1/`neq' {
                  = forval i = 1/1 {
                  - local xvarsi `"`.eq indepvars `i''"'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
                    - version 9.2
                    - args item idx
                    - if "`item'" == "count" {
                    = if "indepvars" == "count" {
                      sreturn local value `"`.n_eq'"'
                      class exit `"`s(value)'"'
                      }
                    - else if 0 < `idx' & `idx' <= `.n_eq' {
                    = else if 0 < 1 & 1 <= 1 {
                    - .eq_list[`idx'].item `item'
                    = .eq_list[1].item indepvars
                      ─────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                      - version 9.2
                      - args item
                      - ._check_eq_item_name item, `item'
                      = ._check_eq_item_name item, indepvars
                        ──────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                        - version 9.2
                        - capture syntax name(name=c_item) [, NAME DEPvars IND
> EPvars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                        - if c(rc) error 198
                        - if `:list sizeof other' {
                        = if 0 {
                          local other other_markvars
                          }
                        - local item `name' `depvars' `indepvars' `if' `in' `w
> gt' `other' `nocons' `offset' `exposure' `freeparm' `options'
                        = local item   indepvars
                        - if `:list sizeof item' != 1 {
                        = if 1 != 1 {
                          error 198
                          }
                        - c_local `c_item' `item'
                        = c_local item indepvars
                        ──────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                      - local value `"`.`item''"'
                      = local value `"wlth wg_ndx stky_pr_rotemberg stky_pr_ca
> lvo open"'
                      - sreturn local value `"`value'"'
                      = sreturn local value `"wlth wg_ndx stky_pr_rotemberg st
> ky_pr_calvo open"'
                      - class exit `"`value'"'
                      = class exit `"wlth wg_ndx stky_pr_rotemberg stky_pr_cal
> vo open"'
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
                    - class exit `"`s(value)'"'
                    = class exit `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo
>  open"'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
                  = local xvarsi `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo
>  open"'
                  - local noconsi `"`.eq nocons `i''"'
                    ──────────────────────────────────────────────────────────
```

```
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                    - version 9.2
                    - args item idx
                    - if "`item'" == "count" {
                    = if "nocons" == "count" {
                      sreturn local value `"`.n_eq'"'
                      class exit `"`s(value)'"'
                      }
                    - else if 0 < `idx' & `idx' <= `.n_eq' {
                    = else if 0 < 1 & 1 <= 1 {
                    - .eq_list[`idx'].item `item'
                    = .eq_list[1].item nocons
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                      - version 9.2
                      - args item
                      - ._check_eq_item_name item, `item'
                      = ._check_eq_item_name item, nocons
                        ──────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                        - version 9.2
                        - capture syntax name(name=c_item) [, NAME DEPvars IND
> EPvars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                        - if c(rc) error 198
                        - if `:list sizeof other' {
                        = if 0 {
                          local other other_markvars
                          }
                        - local item `name' `depvars' `indepvars' `if' `in' `w
> gt' `other' `nocons' `offset' `exposure' `freeparm' `options'
                        = local item        nocons
                        - if `:list sizeof item' != 1 {
                        = if 1 != 1 {
                          error 198
                          }
                        - c_local `c_item' `item'
                        = c_local item nocons
                        ──────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                      - local value `"`.`item''"'
                      = local value `"0"'
                      - sreturn local value `"`value'"'
                      = sreturn local value `"0"'
                      - class exit `"`value'"'
                      = class exit `"0"'
                      ────────────────────────────────────────────────────────
```

```
> ─────────────────────────────────────────── end _eqspec.item ────────────────
                    - class exit `"`s(value)'"'
                    = class exit `"0"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
                  = local noconsi `"0"'
                  - local dim = `dim' + `:list sizeof xvarsi'
                  = local dim =  + 5
                  - if "`noconsi'" == "0" {
                  = if "0" == "0" {
                  - local ++dim
                  - }
                  - }
                  - sreturn local value `"`dim'"'
                  = sreturn local value `"6"'
                  - class exit `"`s(value)'"'
                  = class exit `"6"'
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqlist.dim ────────────────
                = global ML_dim = 6
                - forval i = 1/`eq_n' {
                = forval i = 1/1 {
                - local depvars `.`eqlist'.eq depvars `i''
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
                  - version 9.2
                  - args item idx
                  - if "`item'" == "count" {
                  = if "depvars" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                    }
                  - else if 0 < `idx' & `idx' <= `.n_eq' {
                  = else if 0 < 1 & 1 <= 1 {
                  - .eq_list[`idx'].item `item'
                  = .eq_list[1].item depvars
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                    - version 9.2
                    - args item
                    - ._check_eq_item_name item, `item'
                    = ._check_eq_item_name item, depvars
                      ─────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                      - version 9.2
                      - capture syntax name(name=c_item) [, NAME DEPvars INDEP
```

```
> vars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                      - if c(rc) error 198
                      - if `:list sizeof other' {
                      = if 0 {
                        local other other_markvars
                        }
                      - local item `name' `depvars' `indepvars' `if' `in' `wgt
> ' `other' `nocons' `offset' `exposure' `freeparm' `options'
                      = local item  depvars
                      - if `:list sizeof item' != 1 {
                      = if 1 != 1 {
                        error 198
                        }
                      - c_local `c_item' `item'
                      = c_local item depvars
                      ────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                    - local value `"`.`item''"'
                    = local value `"y_timing_max"'
                    - sreturn local value `"`value'"'
                    = sreturn local value `"y_timing_max"'
                    - class exit `"`value'"'
                    = class exit `"y_timing_max"'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
                  - class exit `"`s(value)'"'
                  = class exit `"y_timing_max"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
                = local depvars y_timing_max
                - local eq `.`eqlist'.eq name `i''
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                  - version 9.2
                  - args item idx
                  - if "`item'" == "count" {
                  = if "name" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                    }
                  - else if 0 < `idx' & `idx' <= `.n_eq' {
                  = else if 0 < 1 & 1 <= 1 {
                  - .eq_list[`idx'].item `item'
                  = .eq_list[1].item name
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
```

```
                    - version 9.2
                    - args item
                    - ._check_eq_item_name item, `item'
                    = ._check_eq_item_name item, name
                      ─────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                      - version 9.2
                      - capture syntax name(name=c_item) [, NAME DEPvars INDEP
> vars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                      - if c(rc) error 198
                      - if `:list sizeof other' {
                      = if 0 {
                        local other other_markvars
                        }
                      - local item `name' `depvars' `indepvars' `if' `in' `wgt
> ' `other' `nocons' `offset' `exposure' `freeparm' `options'
                      = local item name
                      - if `:list sizeof item' != 1 {
                      = if 1 != 1 {
                        error 198
                        }
                      - c_local `c_item' `item'
                      = c_local item name
                      ─────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                    - local value `"`.`item''"'
                    = local value `"y_timing_max"'
                    - sreturn local value `"`value'"'
                    = sreturn local value `"y_timing_max"'
                    - class exit `"`value'"'
                    = class exit `"y_timing_max"'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
                  - class exit `"`s(value)'"'
                  = class exit `"y_timing_max"'
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
                = local eq y_timing_max
                - if !`:length local eq' {
                = if !12 {
                  local eq eq`i'
                  }
                - if `:list eq in eqnames' {
                = if 0 {
                  di as err "equation '`eq'' multiply defined"
                  exit 110
                  }
                - local eqnames `eqnames' `eq'
                = local eqnames  y_timing_max
                - fvexpand `.`eqlist'.eq indepvars `i'' if $ML_samp
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
                  - version 9.2
                  - args item idx
                  - if "`item'" == "count" {
                  = if "indepvars" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                    }
                  - else if 0 < `idx' & `idx' <= `.n_eq' {
                  = else if 0 < 1 & 1 <= 1 {
                  - .eq_list[`idx'].item `item'
                  = .eq_list[1].item indepvars
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                    - version 9.2
                    - args item
                    - ._check_eq_item_name item, `item'
                    = ._check_eq_item_name item, indepvars
                      ─────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                      - version 9.2
                      - capture syntax name(name=c_item) [, NAME DEPvars INDEP
> vars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                      - if c(rc) error 198
                      - if `:list sizeof other' {
                      = if 0 {
                        local other other_markvars
                        }
                      - local item `name' `depvars' `indepvars' `if' `in' `wgt
> ' `other' `nocons' `offset' `exposure' `freeparm' `options'
                      = local item   indepvars
                      - if `:list sizeof item' != 1 {
                      = if 1 != 1 {
                        error 198
                        }
                      - c_local `c_item' `item'
                      = c_local item indepvars
                      ─────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                    - local value `"`.`item''"'
                    = local value `"wlth wg_ndx stky_pr_rotemberg stky_pr_calv
```

```
> o open"'
                    - sreturn local value `"`value'"'
                    = sreturn local value `"wlth wg_ndx stky_pr_rotemberg stky
> _pr_calvo open"'
                    - class exit `"`value'"'
                    = class exit `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo
>  open"'
                    ---------------------------------------------------------
> -------------------------------------------- end _eqspec.item ---------------
                  - class exit `"`s(value)'"'
                  = class exit `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo o
> pen"'
                  -----------------------------------------------------------
> ---------------------------------------------- end _eqlist.eq ---------------
                = fvexpand wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open if
>  __000007
                - if "`r(tsops)'" == "true" {
                = if "" == "true" {
                  global ML_preserve no
                  }
                - local eq_rhs`i' `"`r(varlist)'"'
                = local eq_rhs1 `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo
> open"'
                - local eq_nocons`i' `.`eqlist'.eq nocons `i''
                  -----------------------------------------------------------
> -------------------------------------------- begin _eqlist.eq ---------------
                  - version 9.2
                  - args item idx
                  - if "`item'" == "count" {
                  = if "nocons" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                    }
                  - else if 0 < `idx' & `idx' <= `.n_eq' {
                  = else if 0 < 1 & 1 <= 1 {
                  - .eq_list[`idx'].item `item'
                  = .eq_list[1].item nocons
                    ---------------------------------------------------------
> ------------------------------------------ begin _eqspec.item ---------------
                    - version 9.2
                    - args item
                    - ._check_eq_item_name item, `item'
                    = ._check_eq_item_name item, nocons
                      -------------------------------------------------------
> -------------------------- begin _eqspec._check_eq_item_name ---------------
                      - version 9.2
                      - capture syntax name(name=c_item) [, NAME DEPvars INDEP
> vars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                      - if c(rc) error 198
                      - if `:list sizeof other' {
                      = if 0 {
                        local other other_markvars
                        }
                      - local item `name' `depvars' `indepvars' `if' `in' `wgt
> ' `other' `nocons' `offset' `exposure' `freeparm' `options'
                      = local item        nocons
                      - if `:list sizeof item' != 1 {
                      = if 1 != 1 {
                        error 198
                        }
                      - c_local `c_item' `item'
                      = c_local item nocons
                      ────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                    - local value `"`.`item''"'
                    = local value `"0"'
                    - sreturn local value `"`value'"'
                    = sreturn local value `"0"'
                    - class exit `"`value'"'
                    = class exit `"0"'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
                  - class exit `"`s(value)'"'
                  = class exit `"0"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
                = local eq_nocons1 0
                - local eq_offset`i' `.`eqlist'.eq offset `i''
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                  - version 9.2
                  - args item idx
                  - if "`item'" == "count" {
                  = if "offset" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                    }
                  - else if 0 < `idx' & `idx' <= `.n_eq' {
                  = else if 0 < 1 & 1 <= 1 {
                  - .eq_list[`idx'].item `item'
                  = .eq_list[1].item offset
                    ──────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                    - version 9.2
                    - args item
                    - ._check_eq_item_name item, `item'
                    = ._check_eq_item_name item, offset
                      ─────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                      - version 9.2
                      - capture syntax name(name=c_item) [, NAME DEPvars INDEP
> vars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                      - if c(rc) error 198
                      - if `:list sizeof other' {
                      = if 0 {
                        local other other_markvars
                        }
                      - local item `name' `depvars' `indepvars' `if' `in' `wgt
> ' `other' `nocons' `offset' `exposure' `freeparm' `options'
                      = local item         offset
                      - if `:list sizeof item' != 1 {
                      = if 1 != 1 {
                        error 198
                        }
                      - c_local `c_item' `item'
                      = c_local item offset
                      ─────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                    - local value `"`.`item''"'
                    = local value `""'
                    - sreturn local value `"`value'"'
                    = sreturn local value `""'
                    - class exit `"`value'"'
                    = class exit `""'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
                  - class exit `"`s(value)'"'
                  = class exit `""'
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
                = local eq_offset1
                - local eq_exposure`i' `.`eqlist'.eq exposure `i''
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
                  - version 9.2
                  - args item idx
                  - if "`item'" == "count" {
                  = if "exposure" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                    }
                  - else if 0 < `idx' & `idx' <= `.n_eq' {
                  = else if 0 < 1 & 1 <= 1 {
                  - .eq_list[`idx'].item `item'
                  = .eq_list[1].item exposure
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                    - version 9.2
                    - args item
                    - ._check_eq_item_name item, `item'
                    = ._check_eq_item_name item, exposure
                      ─────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                      - version 9.2
                      - capture syntax name(name=c_item) [, NAME DEPvars INDEP
> vars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                      - if c(rc) error 198
                      - if `:list sizeof other' {
                      = if 0 {
                        local other other_markvars
                        }
                      - local item `name' `depvars' `indepvars' `if' `in' `wgt
> ' `other' `nocons' `offset' `exposure' `freeparm' `options'
                      = local item          exposure
                      - if `:list sizeof item' != 1 {
                      = if 1 != 1 {
                        error 198
                        }
                      - c_local `c_item' `item'
                      = c_local item exposure
                      ─────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                    - local value `"`.`item''"'
                    = local value `"0"'
                    - sreturn local value `"`value'"'
                    = sreturn local value `"0"'
                    - class exit `"`value'"'
                    = class exit `"0"'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
                  - class exit `"`s(value)'"'
                  = class exit `"0"'
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
```

```
                = local eq_exposure1 0
                - local eq_freeparm`i' `.`eqlist'.eq freeparm `i''
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                  - version 9.2
                  - args item idx
                  - if "`item'" == "count" {
                  = if "freeparm" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                    }
                  - else if 0 < `idx' & `idx' <= `.n_eq' {
                  = else if 0 < 1 & 1 <= 1 {
                  - .eq_list[`idx'].item `item'
                  = .eq_list[1].item freeparm
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                    - version 9.2
                    - args item
                    - ._check_eq_item_name item, `item'
                    = ._check_eq_item_name item, freeparm
                      ────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                      - version 9.2
                      - capture syntax name(name=c_item) [, NAME DEPvars INDEP
> vars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                      - if c(rc) error 198
                      - if `:list sizeof other' {
                      = if 0 {
                        local other other_markvars
                        }
                      - local item `name' `depvars' `indepvars' `if' `in' `wgt
> ' `other' `nocons' `offset' `exposure' `freeparm' `options'
                      = local item           freeparm
                      - if `:list sizeof item' != 1 {
                      = if 1 != 1 {
                        error 198
                        }
                      - c_local `c_item' `item'
                      = c_local item freeparm
                      ────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                    - local value `"`.`item''"'
                    = local value `"0"'
                    - sreturn local value `"`value'"'
                    = sreturn local value `"0"'
                    - class exit `"`value'"'
                    = class exit `"0"'
                    ----------------------------------------------------------
> ------------------------------------------- end _eqspec.item ---------------
                  - class exit `"`s(value)'"'
                  = class exit `"0"'
                  ------------------------------------------------------------
> --------------------------------------------- end _eqlist.eq ---------------
                = local eq_freeparm1 0
                - local lhs `lhs' `depvars'
                = local lhs  y_timing_max
                - local eq_names `eq_names' `eq'
                = local eq_names  y_timing_max
                - local nxvars :list sizeof eq_rhs`i'
                = local nxvars :list sizeof eq_rhs1
                - local TMP : copy local eq_rhs`i'
                = local TMP : copy local eq_rhs1
                - forval j = 1/`nxvars' {
                = forval j = 1/5 {
                - gettoken xvar TMP : TMP
                - local colna `"`colna' `eq':`xvar'"'
                = local colna `" y_timing_max:wlth"'
                - }
                - gettoken xvar TMP : TMP
                - local colna `"`colna' `eq':`xvar'"'
                = local colna `" y_timing_max:wlth y_timing_max:wg_ndx"'
                - }
                - gettoken xvar TMP : TMP
                - local colna `"`colna' `eq':`xvar'"'
                = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timin
> g_max:stky_pr_rotemberg"'
                - }
                - gettoken xvar TMP : TMP
                - local colna `"`colna' `eq':`xvar'"'
                = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timin
> g_max:stky_pr_rotemberg y_timing_max:stky_pr_calvo"'
                - }
                - gettoken xvar TMP : TMP
                - local colna `"`colna' `eq':`xvar'"'
                = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timin
> g_max:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open"'
                - }
                - if `eq_freeparm`i'' {
                = if 0 {
                  if `nxvars' {
                  di as err "{it:xvars} not allowed with option {bf:freeparm}"
                  exit 198
                  }
                  if strpos(`"`eq'"', ":") {
                  local colna `"`colna' /`eq'"'
                  }
                  else {
                  local colna `"`colna' /:`eq'"'
                  }
                  }
                - else if !`eq_nocons`i'' {
                = else if !0 {
                - local colna `"`colna' `eq':_cons"'
                = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timin
> g_max:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open y_timin
> g_max:_cons"'
                - }
                - if "`moptobj'" != "" {
                = if "" != "" {
                  if "`eq_offset`i''" != "" {
                  if usubstr("`eq_offset`i''",1,2)=="__" {
                  capture clonevar `moptobj'`eq_offset`i'' = `eq_offset`i''
                  local dropmetoo `dropmetoo' `moptobj'`eq_offset`i''
                  }
                  }
                  }
                - }
                - if "`moptobj'" != "" {
                = if "" != "" {
                  foreach y of local lhs {
                  if usubstr("`y'",1,2)=="__" {
                  capture clonevar `moptobj'`y' = `y'
                  local tmp `tmp' `moptobj'`y'
                  local dropmetoo `dropmetoo' `moptobj'`y'
                  }
                  else {
                  local tmp `tmp' `y'
                  }
                  }
                  local lhs `tmp'
                  }
                - if `waldtest' > 0 & `:length local lf0' {
                = if -1 > 0 & 19 {
                  opts_exclusive "waldtest() lf0()"
                  }
                - if `:length local continue' {
                = if 0 {
                  if !`:length local init' {
                  tempname init
                  local ub0 `init'
                  }
                  else tempname ub0
                  mat `ub0' = e(b)
                  tempname v0 iv0
                  mat `v0' = e(V)
                  mat `iv0' = syminv(`v0')
                  global ML_rank0 = colsof(`v0') - diag0cnt(`iv0')
                  if !`:length local lf0' & !missing(e(ll)) {
                  local lf0 `=colsof(`ub0')' `e(ll)'
                  }
                  local ub0
                  }
                - if `:length local init' {
                = if 8 {
                - tempname b0
                - local dim : list sizeof colna
                - matrix `b0' = J(1,`dim',0)
                = matrix __000009 = J(1,6,0)
                - matrix colna `b0' = `colna'
                = matrix colna __000009 =  y_timing_max:wlth y_timing_max:wg_n
> dx y_timing_max:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:op
> en y_timing_max:_cons
                - `vv' _mkvec `b0', from(`init') update first error("initial v
> ector")
                = version 18: _mkvec __000009, from(__000006) update first err
> or("initial vector")
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin _mkvec ────────────────
                  - local vv : display "version " string(_caller()) ":"
                  - version 6
                  - gettoken matout 0 : 0, parse(", ")
                  - if "`matout'"=="" | "`matout'"=="," {
                  = if "__000009"=="" | "__000009"=="," {
                    error 198
                    }
                  - syntax [, FROM(str) UPdate COLnames(str) ERRor(str) FIRST
> ]
                  - if "`update'"!="" {
                  = if "update"!="" {
                  - if "`colname'"!="" {
                  = if ""!="" {
                    di in red "update and colnames() cannot both be " "specifi
> ed"
```

```
          exit 198
          }
         - capture local colname : colfullnames `matout'
         = capture local colname : colfullnames __000009
         - if _rc {
          di in red "matrix `matout' not found"
          exit 111
          }
         - if rowsof(matrix(`matout')) != 1 {
         = if rowsof(matrix(__000009)) != 1 {
          di in red "`matout' matrix to be updated must be " "a row
> vector"
          exit 503
          }
         - local matin `matout'
         = local matin __000009
         - }
         - if `"`error'"'!="" {
         = if `"initial vector"'!="" {
         - local error `"`error': "'
         = local error `"initial vector: "'
         - }
         - tempname mat
         - if `"`from'"'!="" {
         = if `"__000006"'!="" {
         - From `from'
         = From __000006
          -----------------------------
> ---------------------- begin _mkvec.From --------
            - gettoken from 0 : 0, parse(",") bind
            - sret clear
            - sret local from `from'
            = sret local from __000006
            - if `"`0'"'!="" {
            = if `""'!="" {
              syntax [, COPY SKIP ]
              }
            - sret local copy `copy'
            = sret local copy
            - sret local skip `skip'
            = sret local skip
          -----------------------------
> ----------------------- end _mkvec.From --------
         - local copy `s(copy)'
         = local copy
         - local skip `s(skip)'
```

```
                  = local skip
                  - if "`copy'"!="" {
                  = if ""!="" {
                    CopyMat `mat' `"`error'"' `s(from)'
                    if `"`colname'"'!="" {
                    local dim : list sizeof colname
                    if `dim' != colsof(matrix(`mat')) {
                    di in red `"`error'matrix must "' `"be dimension "' `dim'
                    exit 503
                    }
                    `vv' mat colnames `mat' = `colname'
                    }
                    }
                  - else {
                  - `vv' BuildMat `mat' `"`error'"' "`skip'" `s(from)'
                  = version 18: BuildMat __00000A `"initial vector: "' "" __00
> 0006
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _mkvec.BuildMat ───────────────
                    - local vv : display "version " string(_caller()) ":"
                    - version 6
                    - args matall error skip
                    - macro shift 3
                    - tokenize `"`*'"', parse(" =")
                    = tokenize `"__000006"', parse(" =")
                    - tempname matadd
                    - local i 1
                    - while "``i''"!="" {
                    = while "__000006"!="" {
                    - local k = `i' + 1
                    = local k = 1 + 1
                    - if "``k''"=="=" {
                    = if ""=="=" {
                      local j = `i' + 2
                      `vv' MkMat `matadd' ``i'' ``j'' `skip'
                      local i = `i' + 3
                      }
                    - else {
                    - ChkMat `matadd' ``i'' `"`error'"'
                    = ChkMat __00000B __000006 `"initial vector: "'
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _mkvec.ChkMat ───────────────
                      - args matout matin error
                      - capture di matrix(`matin'[1,1])
                      = capture di matrix(__000006[1,1])
                      - if _rc {
                        capture confirm number `matin'
                        if _rc {
                        di in red `"`error'matrix `matin' not found"'
                        exit 111
                        }
                        di in red `"`error'list of numbers requires copy optio
> n"'
                        exit 198
                        }
                      - if matrix(rowsof(`matin')!=1 & colsof(`matin')!=1) {
                      = if matrix(rowsof(__000006)!=1 & colsof(__000006)!=1) {
                        di in red "`matin' " matrix(rowsof(`matin')) " x " mat
> rix(colsof(`matin')) " is not a vector"
                        exit 503
                        }
                      - if matrix(rowsof(`matin')) == 1 {
                      = if matrix(rowsof(__000006)) == 1 {
                      - mat `matout' = `matin'
                      = mat __00000B = __000006
                      - }
                      - else mat `matout' = `matin''
                      = else mat __00000B = __000006'
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _mkvec.ChkMat ───────────────
                    - local i = `i' + 1
                    = local i = 1 + 1
                    - }
                    - mat `matall' = nullmat(`matall') , `matadd'
                    = mat __00000A = nullmat(__00000A) , __00000B
                    - }
                    - while "``i''"!="" {
                    = while ""!="" {
                      local k = `i' + 1
                      if "``k''"=="=" {
                      local j = `i' + 2
                      `vv' MkMat `matadd' ``i'' ``j'' `skip'
                      local i = `i' + 3
                      }
                      else {
                      ChkMat `matadd' ``i'' `"`error'"'
                      local i = `i' + 1
                      }
                      mat `matall' = nullmat(`matall') , `matadd'
                      }
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _mkvec.BuildMat ───────────────
```

```
                  - if `"`colname'"'!="" {
                  = if `"y_timing_max:wlth y_timing_max:wg_ndx y_timing_max:st
> ky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open y_timing_max:_c
> ons"'!="" {
                  - `vv' ChkNames `mat' "`matin'" `"`colname'"' `"`error'"' "`
> skip'" "`first'"
                  = version 18: ChkNames __00000A "__000009" `"y_timing_max:wl
> th y_timing_max:wg_ndx y_timing_max:stky_pr_rotemberg y_timing_max:stky_pr_c
> alvo y_timing_max:open y_timing_max:_cons"' `"initial vector: "' "" "first"
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _mkvec.ChkNames ───────────────
                    - local vv : display "version " string(_caller()) ":"
                    - version 6
                    - args mat matin names error skip first
                    - local dim = colsof(matrix(`mat'))
                    = local dim = colsof(matrix(__00000A))
                    - if "`first'"!="" {
                    = if "first"!="" {
                    - gettoken name : names
                    - local eq1 = bsubstr(`"`name'"',1,index(`"`name'"',":"))
                    = local eq1 = bsubstr(`"y_timing_max:wlth"',1,index(`"y_ti
> ming_max:wlth"',":"))
                    - }
                    - tempname new fill x
                    - local k : list sizeof names
                    - if "`matin'"!="" {
                    = if "__000009"!="" {
                    - mat `new' = `matin'
                    = mat __00000B = __000009
                    - }
                    - else {
                      mat `new' = J(1,`k',0)
                      `vv' mat colnames `new' = `names'
                      }
                    - mat `fill' = J(1,`k',0)
                    = mat __00000C = J(1,6,0)
                    - local i 1
                    - while `i' <= `dim' {
                    = while 1 <= 6 {
                    - mat `x' = `mat'[1,`i'..`i']
                    = mat __00000D = __00000A[1,1..1]
                    - local eq : coleq `x'
                    = local eq : coleq __00000D
                    - local name : colname `x'
                    = local name : colname __00000D
                    - if "`eq'" == "/" {
```

```
= if "_" == "/" {
  local spec "/`name'"
  }
- else {
- local spec "`eq':`name'"
= local spec "_:wlth"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:wlth"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse wlth, noomit
- if c(rc) == 0 {
- if r(omit) {
  local oname `"`r(stripe)'"'
  local ospec "`eq':`oname'"
  }
- }
- `vv' local j = colnumb(`new',`"`spec'"')
= version 18: local j = colnumb(__00000B,`"_:wlth"')
- if `j' == . & "`oname'" != "" {
= if 1 == . & "" != "" {
  `vv' local j = colnumb(`new',`"`ospec'"')
  }
- if `j' == . & "`sspec'" != "" {
= if 1 == . & "/_:wlth" != "" {
  `vv' local j = colnumb(`new',`"`sspec'"')
  }
- if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
= if 1==. & `"_"'=="_" & `"y_timing_max:"'!="" {
  `vv' local j = colnumb(`new',`"`eq1'`name'"')
  if `j' == . & "`oname'" != "" {
  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
  }
  }
- if `j'!=. {
= if 1!=. {
- if `fill'[1,`j'] {
= if __00000C[1,1] {
  _ms_parse_parts `name'
  if !r(omit) {
  if "`eq'"=="_" {
```

```
                      di in red `"`error'duplicate "' `"entries for `name' fou
> nd"'
                      }
                      else di in red `"`error'"' `"duplicate entries for `eq':
> `name' found"'
                      exit 507
                      }
                      else if !missing(`new'[1,`j']) {
                      matrix `mat'[1,`i'] = `new'[1,`j']
                      }
                      }
                    - else mat `fill'[1,`j'] = 1
                    = else mat __00000C[1,1] = 1
                    - mat `new'[1,`j'] = `mat'[1,`i']
                    = mat __00000B[1,1] = __00000A[1,1]
                    - }
                    - else if "`skip'"=="" {
                    = else if ""=="" {
                      if "`eq'"=="_" {
                      local spec : copy local name
                      }
                      di in red `"`error'extra parameter "' `"`spec' found"' _
> n "specify skip option if necessary"
                      exit 111
                      }
                    - local i = `i' + 1
                    = local i = 1 + 1
                    - }
                    - while `i' <= `dim' {
                    = while 2 <= 6 {
                    - mat `x' = `mat'[1,`i'..`i']
                    = mat __00000D = __00000A[1,2..2]
                    - local eq : coleq `x'
                    = local eq : coleq __00000D
                    - local name : colname `x'
                    = local name : colname __00000D
                    - if "`eq'" == "/" {
                    = if "_" == "/" {
                      local spec "/`name'"
                      }
                    - else {
                    - local spec "`eq':`name'"
                    = local spec "_:wg_ndx"
                    - if (usubstr("`eq'",1,1) != "/") {
                    = if (usubstr("_",1,1) != "/") {
                    - local sspec "/`eq':`name'"
                    = local sspec "/_:wg_ndx"
                    - }
                    - }
                    - local oname
                    - local ospec
                    - capture _msparse `name', noomit
                    = capture _msparse wg_ndx, noomit
                    - if c(rc) == 0 {
                    - if r(omit) {
                      local oname `"`r(stripe)'"'
                      local ospec "`eq':`oname'"
                      }
                    - }
                    - `vv' local j = colnumb(`new',`"`spec'"')
                    = version 18: local j = colnumb(__00000B,`"_:wg_ndx"')
                    - if `j' == . & "`oname'" != "" {
                    = if 2 == . & "" != "" {
                      `vv' local j = colnumb(`new',`"`ospec'"')
                      }
                    - if `j' == . & "`sspec'" != "" {
                    = if 2 == . & "/_:wg_ndx" != "" {
                      `vv' local j = colnumb(`new',`"`sspec'"')
                      }
                    - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                    = if 2==. & `"_"'=="_" & `"y_timing_max:"'!="" {
                      `vv' local j = colnumb(`new',`"`eq1'`name'"')
                      if `j' == . & "`oname'" != "" {
                      `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                      }
                      }
                    - if `j'!=. {
                    = if 2!=. {
                    - if `fill'[1,`j'] {
                    = if __00000C[1,2] {
                      _ms_parse_parts `name'
                      if !r(omit) {
                      if "`eq'"=="_" {
                      di in red `"`error'duplicate "' `"entries for `name' fou
> nd"'

                      }
                      else di in red `"`error'"' `"duplicate entries for `eq':
> `name' found"'

                      exit 507
                      }
                      else if !missing(`new'[1,`j']) {
                      matrix `mat'[1,`i'] = `new'[1,`j']
```

```
                  }
                  }
                - else mat `fill'[1,`j'] = 1
                = else mat __00000C[1,2] = 1
                - mat `new'[1,`j'] = `mat'[1,`i']
                = mat __00000B[1,2] = __00000A[1,2]
                - }
                - else if "`skip'"=="" {
                = else if ""=="" {
                  if "`eq'"=="_" {
                  local spec : copy local name
                  }
                  di in red `"`error'extra parameter "' `"`spec' found"' _
> n "specify skip option if necessary"
                  exit 111
                  }
                - local i = `i' + 1
                = local i = 2 + 1
                - }
                - while `i' <= `dim' {
                = while 3 <= 6 {
                - mat `x' = `mat'[1,`i'..`i']
                = mat __00000D = __00000A[1,3..3]
                - local eq : coleq `x'
                = local eq : coleq __00000D
                - local name : colname `x'
                = local name : colname __00000D
                - if "`eq'" == "/" {
                = if "_" == "/" {
                  local spec "/`name'"
                  }
                - else {
                - local spec "`eq':`name'"
                = local spec "_:stky_pr_rotemberg"
                - if (usubstr("`eq'",1,1) != "/") {
                = if (usubstr("_",1,1) != "/") {
                - local sspec "/`eq':`name'"
                = local sspec "/_:stky_pr_rotemberg"
                - }
                - }
                - local oname
                - local ospec
                - capture _msparse `name', noomit
                = capture _msparse stky_pr_rotemberg, noomit
                - if c(rc) == 0 {
                - if r(omit) {
                      local oname `"`r(stripe)'"'
                      local ospec "`eq':`oname'"
                      }
                    - }
                    - `vv' local j = colnumb(`new',`"`spec'"')
                    = version 18: local j = colnumb(__00000B,`"_:stky_pr_rotem
> berg"')
                    - if `j' == . & "`oname'" != "" {
                    = if 3 == . & "" != "" {
                      `vv' local j = colnumb(`new',`"`ospec'"')
                      }
                    - if `j' == . & "`sspec'" != "" {
                    = if 3 == . & "/_:stky_pr_rotemberg" != "" {
                      `vv' local j = colnumb(`new',`"`sspec'"')
                      }
                    - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                    = if 3==. & `"_"'=="_" & `"y_timing_max:"'!="" {
                      `vv' local j = colnumb(`new',`"`eq1'`name'"')
                      if `j' == . & "`oname'" != "" {
                      `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                      }
                      }
                    - if `j'!=. {
                    = if 3!=. {
                    - if `fill'[1,`j'] {
                    = if __00000C[1,3] {
                      _ms_parse_parts `name'
                      if !r(omit) {
                      if "`eq'"=="_" {
                      di in red `"`error'duplicate "' `"entries for `name' fou
> nd"'

                      }
                      else di in red `"`error'"' `"duplicate entries for `eq':
> `name' found"'

                      exit 507
                      }
                      else if !missing(`new'[1,`j']) {
                      matrix `mat'[1,`i'] = `new'[1,`j']
                      }
                      }
                    - else mat `fill'[1,`j'] = 1
                    = else mat __00000C[1,3] = 1
                    - mat `new'[1,`j'] = `mat'[1,`i']
                    = mat __00000B[1,3] = __00000A[1,3]
                    - }
                    - else if "`skip'"=="" {
```

```
                    = else if ""=="" {
                      if "`eq'"=="_" {
                      local spec : copy local name
                      }
                      di in red `"`error'extra parameter "' `"`spec' found"' _
> n "specify skip option if necessary"
                      exit 111
                      }
                    - local i = `i' + 1
                    = local i = 3 + 1
                    - }
                    - while `i' <= `dim' {
                    = while 4 <= 6 {
                    - mat `x' = `mat'[1,`i'..`i']
                    = mat __00000D = __00000A[1,4..4]
                    - local eq : coleq `x'
                    = local eq : coleq __00000D
                    - local name : colname `x'
                    = local name : colname __00000D
                    - if "`eq'" == "/" {
                    = if "_" == "/" {
                      local spec "/`name'"
                      }
                    - else {
                    - local spec "`eq':`name'"
                    = local spec "_:stky_pr_calvo"
                    - if (usubstr("`eq'",1,1) != "/") {
                    = if (usubstr("_",1,1) != "/") {
                    - local sspec "/`eq':`name'"
                    = local sspec "/_:stky_pr_calvo"
                    - }
                    - }
                    - local oname
                    - local ospec
                    - capture _msparse `name', noomit
                    = capture _msparse stky_pr_calvo, noomit
                    - if c(rc) == 0 {
                    - if r(omit) {
                      local oname `"`r(stripe)'"'
                      local ospec "`eq':`oname'"
                      }
                    - }
                    - `vv' local j = colnumb(`new',`"`spec'"')
                    = version 18: local j = colnumb(__00000B,`"_:stky_pr_calvo
> "')
                    - if `j' == . & "`oname'" != "" {
```

```
                    = if 4 == . & "" != "" {
                      `vv' local j = colnumb(`new',`"`ospec'"')
                      }
                    - if `j' == . & "`sspec'" != "" {
                    = if 4 == . & "/_:stky_pr_calvo" != "" {
                      `vv' local j = colnumb(`new',`"`sspec'"')
                      }
                    - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                    = if 4==. & `"_"'=="_" & `"y_timing_max:"'!="" {
                      `vv' local j = colnumb(`new',`"`eq1'`name'"')
                      if `j' == . & "`oname'" != "" {
                      `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                      }
                      }
                    - if `j'!=. {
                    = if 4!=. {
                    - if `fill'[1,`j'] {
                    = if __00000C[1,4] {
                      _ms_parse_parts `name'
                      if !r(omit) {
                      if "`eq'"=="_" {
                      di in red `"`error'duplicate "' `"entries for `name' fou
> nd"'
                      }
                      else di in red `"`error'"' `"duplicate entries for `eq':
> `name' found"'
                      exit 507
                      }
                      else if !missing(`new'[1,`j']) {
                      matrix `mat'[1,`i'] = `new'[1,`j']
                      }
                      }
                    - else mat `fill'[1,`j'] = 1
                    = else mat __00000C[1,4] = 1
                    - mat `new'[1,`j'] = `mat'[1,`i']
                    = mat __00000B[1,4] = __00000A[1,4]
                    - }
                    - else if "`skip'"=="" {
                    = else if ""=="" {
                      if "`eq'"=="_" {
                      local spec : copy local name
                      }
                      di in red `"`error'extra parameter "' `"`spec' found"' _
> n "specify skip option if necessary"
                      exit 111
                      }
```

```
- local i = `i' + 1
= local i = 4 + 1
- }
- while `i' <= `dim' {
= while 5 <= 6 {
- mat `x' = `mat'[1,`i'..`i']
= mat __00000D = __00000A[1,5..5]
- local eq : coleq `x'
= local eq : coleq __00000D
- local name : colname `x'
= local name : colname __00000D
- if "`eq'" == "/" {
= if "_" == "/" {
  local spec "/`name'"
  }
- else {
- local spec "`eq':`name'"
= local spec "_:open"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:open"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse open, noomit
- if c(rc) == 0 {
- if r(omit) {
  local oname `"`r(stripe)'"'
  local ospec "`eq':`oname'"
  }
- }
- `vv' local j = colnumb(`new',`"`spec'"')
= version 18: local j = colnumb(__00000B,`"_:open"')
- if `j' == . & "`oname'" != "" {
= if 5 == . & "" != "" {
  `vv' local j = colnumb(`new',`"`ospec'"')
  }
- if `j' == . & "`sspec'" != "" {
= if 5 == . & "/_:open" != "" {
  `vv' local j = colnumb(`new',`"`sspec'"')
  }
- if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
= if 5==. & `"_"'=="_" & `"y_timing_max:"'!="" {
```

```
                      `vv' local j = colnumb(`new',`"`eq1'`name'"')
                      if `j' == . & "`oname'" != "" {
                      `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                      }
                      }
                    - if `j'!=. {
                    = if 5!=. {
                    - if `fill'[1,`j'] {
                    = if __00000C[1,5] {
                      _ms_parse_parts `name'
                      if !r(omit) {
                      if "`eq'"=="_" {
                      di in red `"`error'duplicate "' `"entries for `name' fou
> nd"'
                      }
                      else di in red `"`error'"' `"duplicate entries for `eq':
> `name' found"'
                      exit 507
                      }
                      else if !missing(`new'[1,`j']) {
                      matrix `mat'[1,`i'] = `new'[1,`j']
                      }
                      }
                    - else mat `fill'[1,`j'] = 1
                    = else mat __00000C[1,5] = 1
                    - mat `new'[1,`j'] = `mat'[1,`i']
                    = mat __00000B[1,5] = __00000A[1,5]
                    - }
                    - else if "`skip'"=="" {
                    = else if ""=="" {
                      if "`eq'"=="_" {
                      local spec : copy local name
                      }
                      di in red `"`error'extra parameter "' `"`spec' found"' _
> n "specify skip option if necessary"
                      exit 111
                      }
                    - local i = `i' + 1
                    = local i = 5 + 1
                    - }
                    - while `i' <= `dim' {
                    = while 6 <= 6 {
                    - mat `x' = `mat'[1,`i'..`i']
                    = mat __00000D = __00000A[1,6..6]
                    - local eq : coleq `x'
                    = local eq : coleq __00000D
```

```
- local name : colname `x'
= local name : colname __00000D
- if "`eq'" == "/" {
= if "_" == "/" {
  local spec "/`name'"
  }
- else {
- local spec "`eq':`name'"
= local spec "_:_cons"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:_cons"
- }
- }
- local oname
- local ospec
- capture _msparse `name', noomit
= capture _msparse _cons, noomit
- if c(rc) == 0 {
- if r(omit) {
  local oname `"`r(stripe)'"'
  local ospec "`eq':`oname'"
  }
- }
- `vv' local j = colnumb(`new',`"`spec'"')
= version 18: local j = colnumb(__00000B,`"_:_cons"')
- if `j' == . & "`oname'" != "" {
= if 6 == . & "" != "" {
  `vv' local j = colnumb(`new',`"`ospec'"')
  }
- if `j' == . & "`sspec'" != "" {
= if 6 == . & "/_:_cons" != "" {
  `vv' local j = colnumb(`new',`"`sspec'"')
  }
- if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
= if 6==. & `"_"'=="_" & `"y_timing_max:"'!="" {
  `vv' local j = colnumb(`new',`"`eq1'`name'"')
  if `j' == . & "`oname'" != "" {
  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
  }
  }
- if `j'!=. {
= if 6!=. {
- if `fill'[1,`j'] {
= if __00000C[1,6] {
```

```
                      _ms_parse_parts `name'
                      if !r(omit) {
                      if "`eq'"=="_" {
                      di in red `"`error'duplicate "' `"entries for `name' fou
> nd"'
                      }
                      else di in red `"`error'"' `"duplicate entries for `eq':
> `name' found"'
                      exit 507
                      }
                      else if !missing(`new'[1,`j']) {
                      matrix `mat'[1,`i'] = `new'[1,`j']
                      }
                      }
                    - else mat `fill'[1,`j'] = 1
                    = else mat __00000C[1,6] = 1
                    - mat `new'[1,`j'] = `mat'[1,`i']
                    = mat __00000B[1,6] = __00000A[1,6]
                    - }
                    - else if "`skip'"=="" {
                    = else if ""=="" {
                      if "`eq'"=="_" {
                      local spec : copy local name
                      }
                      di in red `"`error'extra parameter "' `"`spec' found"' _
> n "specify skip option if necessary"
                      exit 111
                      }
                    - local i = `i' + 1
                    = local i = 6 + 1
                    - }
                    - while `i' <= `dim' {
                    = while 7 <= 6 {
                      mat `x' = `mat'[1,`i'..`i']
                      local eq : coleq `x'
                      local name : colname `x'
                      if "`eq'" == "/" {
                      local spec "/`name'"
                      }
                      else {
                      local spec "`eq':`name'"
                      if (usubstr("`eq'",1,1) != "/") {
                      local sspec "/`eq':`name'"
                      }
                      }
                      local oname
                      local ospec
                      capture _msparse `name', noomit
                      if c(rc) == 0 {
                      if r(omit) {
                      local oname `"`r(stripe)'"'
                      local ospec "`eq':`oname'"
                      }
                      }
                      `vv' local j = colnumb(`new',`"`spec'"')
                      if `j' == . & "`oname'" != "" {
                      `vv' local j = colnumb(`new',`"`ospec'"')
                      }
                      if `j' == . & "`sspec'" != "" {
                      `vv' local j = colnumb(`new',`"`sspec'"')
                      }
                      if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                      `vv' local j = colnumb(`new',`"`eq1'`name'"')
                      if `j' == . & "`oname'" != "" {
                      `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                      }
                      }
                      if `j'!=. {
                      if `fill'[1,`j'] {
                      _ms_parse_parts `name'
                      if !r(omit) {
                      if "`eq'"=="_" {
                      di in red `"`error'duplicate "' `"entries for `name' fou
> nd"'
                      }
                      else di in red `"`error'"' `"duplicate entries for `eq':
> `name' found"'
                      exit 507
                      }
                      else if !missing(`new'[1,`j']) {
                      matrix `mat'[1,`i'] = `new'[1,`j']
                      }
                      }
                      else mat `fill'[1,`j'] = 1
                      mat `new'[1,`j'] = `mat'[1,`i']
                      }
                      else if "`skip'"=="" {
                      if "`eq'"=="_" {
                      local spec : copy local name
                      }
                      di in red `"`error'extra parameter "' `"`spec' found"' _
> n "specify skip option if necessary"
```

```
                exit 111
                }
                local i = `i' + 1
                }
              - mat `fill' = `fill'*`fill''
              = mat __00000C = __00000C*__00000C'
              - sret clear
              - sret local k_fill = `fill'[1,1]
              = sret local k_fill = __00000C[1,1]
              - mat `mat' = `new'
              = mat __00000A = __00000B
              ---------------------------------------------------------
> ---------------------------------------- end _mkvec.ChkNames ----------
            - local fill `s(k_fill)'
            = local fill 6
            - }
            - }
            - }
            - else {
              local fill 0
              if "`update'"!="" {
              mat `mat' = `matin'
              }
              else if `"`colname'"'!="" {
              local dim : list sizeof colname
              mat `mat' = J(1,`dim',0)
              `vv' mat colnames `mat' = `colname'
              }
              else {
              di in red "from() must be specified"
              exit 198
              }
              }
            - sret clear
            - sret local copy `copy'
            = sret local copy
            - sret local skip `skip'
            = sret local skip
            - sret local k = colsof(matrix(`mat'))
            = sret local k = colsof(matrix(__00000A))
            - if "`fill'"!="" {
            = if "6"!="" {
            - sret local k_fill `fill'
            = sret local k_fill 6
            - }
            - else sret local k_fill = colsof(matrix(`mat'))
```

```
                  = else sret local k_fill = colsof(matrix(__00000A))
                  - matrix rename `mat' `matout', replace
                  = matrix rename __00000A __000009, replace
                  ------------------------------------------------------------
> ------------------------------------------------- end _mkvec ---------------
                - }
                - tempname bomit
                - matrix `bomit' = J(1,`:list sizeof colna',0)
                = matrix __00000A = J(1,6,0)
                - matrix colna `bomit' = `colna'
                = matrix colna __00000A =  y_timing_max:wlth y_timing_max:wg_n
> dx y_timing_max:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:op
> en y_timing_max:_cons
                - _ms_omit_info `bomit'
                = _ms_omit_info __00000A
                - if r(k_omit) | `:length local constraints' {
                = if r(k_omit) | 0 {
                  nobreak {
                  capture noisily break {
                  _b_post0 `colna'
                  local clist : subinstr local constraints "," " ", all
                  `vv' makecns `clist', `cnsnotes'
                  local constraints `"`r(clist)'"'
                  local k_autoCns = e(k_autoCns)
                  tempname C
                  capture matrix `C' = e(Cns)
                  local rcc = c(rc)
                  }
                  local rc = c(rc)
                  ereturn clear
                  }
                  if (`rc') exit `rc'
                  if (`rcc') {
                  local C
                  local k_autoCns
                  }
                  }
                - if `:length local constraints' {
                = if 0 {
                  local lf0
                  }
                - local vce `vce' `robust' `cluster'
                = local vce  robust
                - if `:length local vce' {
                = if 6 {
                - _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old
```

```
> : `wt', `vce'
        = _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old
> : , robust
         ──────────────────────────────
> ───────────────────── begin _vce_parse ────────
         - version 10
         - _on_colon_parse `0'
         = _on_colon_parse , argoptlist(CLuster) optlist(OIM OPG Robu
> st) old : , robust
          ─────────────────────────────
> ─────────────────── begin _on_colon_parse ────────
          - version 8.2
          - sreturn local before ""
          - sreturn local after ""
          - gettoken before after : 0, parse(":") bind match(par) qu
> otes
          - if "`par'" != "" {
          = if "" != "" {
            local before `"(`before')"'
            }
          - if `"`before'"' == ":" {
          = if `", argoptlist(CLuster) optlist(OIM OPG Robust) old "
> ' == ":" {
            sreturn local after `"`after'"'
            exit
            }
          - while `"`COLON'"' != ":" & `"`after'"' != "" {
          = while `""' != ":" & `": , robust"' != "" {
          - gettoken COLON after : after, parse(":") bind match(par)
>  quotes
          - if "`par'" != "" {
          = if "" != "" {
            local before `before' (`COLON')
            local COLON
            }
          - else if `"`COLON'"' != ":" {
          = else if `":"' != ":" {
            local before `"`before' `COLON'"'
            local COLON
            }
          - }
          - while `"`COLON'"' != ":" & `"`after'"' != "" {
          = while `":"' != ":" & `" , robust"' != "" {
            gettoken COLON after : after, parse(":") bind match(par)
>  quotes
            if "`par'" != "" {
```

```
                      local before `before' (`COLON')
                      local COLON
                      }
                      else if `"`COLON'"' != ":" {
                      local before `"`before' `COLON'"'
                      local COLON
                      }
                      }
                    - if `"`COLON'"' != ":" {
                    = if `":"' != ":" {
                      di as err "'' found where ':' expected"
                      exit 198
                      }
                    - sreturn local before `"`before'"'
                    = sreturn local before `", argoptlist(CLuster) optlist(OIM
>  OPG Robust) old "'
                    - sreturn local after `"`after'"'
                    = sreturn local after `" , robust"'
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
                  - local 0 `"`s(before)'"'
                  = local 0 `", argoptlist(CLuster) optlist(OIM OPG Robust) ol
> d "'
                  - local user `"`s(after)'"'
                  = local user `" , robust"'
                  - syntax [varname(default=none)], [ OPTlist(namelist) ARGOPT
> list(namelist) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
                  - local touse `varlist'
                  = local touse
                  - tempname o a
                  - .`o' = ._optlist.new
                  = .__00000B = ._optlist.new
                  - local optlist : list uniq optlist
                  - foreach name of local optlist {
                  - .`o'.addopt `name'
                  = .__00000B.addopt OIM
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                    - version 9
                    - syntax name(name=optspec) [, PASSthru]
                    - local mname = lower("`optspec'")
                    = local mname = lower("OIM")
                    - if "`passthru'" != "" {
                    = if "" != "" {
                      local optspec `optspec'(passthru)
                      }
                    - .options.Arrpush "`optspec'"
                    = .options.Arrpush "OIM"
                    - .names.Arrpush "`mname'"
                    = .names.Arrpush "oim"
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
                  - }
                  - .`o'.addopt `name'
                  = .__00000B.addopt OPG
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                    - version 9
                    - syntax name(name=optspec) [, PASSthru]
                    - local mname = lower("`optspec'")
                    = local mname = lower("OPG")
                    - if "`passthru'" != "" {
                    = if "" != "" {
                      local optspec `optspec'(passthru)
                      }
                    - .options.Arrpush "`optspec'"
                    = .options.Arrpush "OPG"
                    - .names.Arrpush "`mname'"
                    = .names.Arrpush "opg"
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
                  - }
                  - .`o'.addopt `name'
                  = .__00000B.addopt Robust
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                    - version 9
                    - syntax name(name=optspec) [, PASSthru]
                    - local mname = lower("`optspec'")
                    = local mname = lower("Robust")
                    - if "`passthru'" != "" {
                    = if "" != "" {
                      local optspec `optspec'(passthru)
                      }
                    - .options.Arrpush "`optspec'"
                    = .options.Arrpush "Robust"
                    - .names.Arrpush "`mname'"
                    = .names.Arrpush "robust"
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
                  - }
                  - .`a' = ._optlist.new
                  = .__00000C = ._optlist.new
                  - local argoptlist : list uniq argoptlist
                  - foreach name of local argoptlist {
                  - .`a'.addopt `name'
                  = .__00000C.addopt CLuster
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                    - version 9
                    - syntax name(name=optspec) [, PASSthru]
                    - local mname = lower("`optspec'")
                    = local mname = lower("CLuster")
                    - if "`passthru'" != "" {
                    = if "" != "" {
                      local optspec `optspec'(passthru)
                      }
                    - .options.Arrpush "`optspec'"
                    = .options.Arrpush "CLuster"
                    - .names.Arrpush "`mname'"
                    = .names.Arrpush "cluster"
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
                  - }
                  - local OPTNAMES `"`.`o'.dumpnames'"'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                    - version 9
                    - forval i = 1/`.names.arrnels' {
                    = forval i = 1/3 {
                    - local namelist `namelist' `.names[`i']'
                    = local namelist  oim
                    - }
                    - local namelist `namelist' `.names[`i']'
                    = local namelist oim opg
                    - }
                    - local namelist `namelist' `.names[`i']'
                    = local namelist oim opg robust
                    - }
                    - local namelist : list uniq namelist
                    - sreturn local namelist `"`namelist'"'
                    = sreturn local namelist `"oim opg robust"'
                    - class exit `"`namelist'"'
                    = class exit `"oim opg robust"'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
                  = local OPTNAMES `"oim opg robust"'
                  - local ARGOPTNAMES `"`.`a'.dumpnames'"'
```

```
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                    - version 9
                    - forval i = 1/`.names.arrnels' {
                    = forval i = 1/1 {
                    - local namelist `namelist' `.names[`i']'
                    = local namelist  cluster
                    - }
                    - local namelist : list uniq namelist
                    - sreturn local namelist `"`namelist'"'
                    = sreturn local namelist `"cluster"'
                    - class exit `"`namelist'"'
                    = class exit `"cluster"'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
                  = local ARGOPTNAMES `"cluster"'
                  - local AND : list OPTNAMES & ARGOPTNAMES
                  - if `:list sizeof AND' {
                  = if 0 {
                    di as err "vcetype '`:word 1 of `AND''' specified twice"
                    exit 198
                    }
                  - local pwallowed : list uniq pwallowed
                  - local pwlist robust cluster
                  - foreach n of local pwallowed {
                    local lc = lower("`n'")
                    local pwlist `pwlist' `lc'
                    }
                  - if "`old_is_ok'" != "" {
                  = if "old_is_ok" != "" {
                  - local ROBUST robust
                  - if `:list ROBUST in OPTNAMES' {
                  = if 1 {
                  - local robust Robust
                  - }
                  - local CLUSTER cluster
                  - if `:list CLUSTER in ARGOPTNAMES' {
                  = if 1 {
                  - local cluster CLuster(varname)
                  - }
                  - }
                  - local 0 `"`user'"'
                  = local 0 `" , robust"'
                  - syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster
> ' ]
                  = syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(va
> rname) ]
                  - if `"`vce'"' != "" {
                  = if `""' != "" {
                    gettoken name args : vce, parse(" ,")
                    local args : list retok args
                    capture ParseVCE `o' `a' , `name'
                    if c(rc) {
                    di as err "vcetype {bf:`name'} not allowed"
                    exit 198
                    }
                    local name `r(vce)'
                    if "`weight'" == "pweight" & !`:list name in pwlist' {
                    di as err "pweights are not allowed with vce(`name')"
                    exit 198
                    }
                    return add
                    if `"`robust'"' != "" & !inlist("`name'","","robust","eim"
> ,"oim","cluster") {
                    opts_exclusive "`robust' vce(`name')"
                    }
                    if "`name'" == "cluster" {
                    if `"`args'"' == "" {
                    di as err "invalid vce(cluster) option"
                    exit 198
                    }
                    confirm var `args'
                    unab args : `args'
                    local markout `args'
                    if "`cluster'" != "" {
                    if !`:list args == cluster' {
                    di as err "options cluster() and vce(cluster) are in confl
> ict"
                    exit 100
                    }
                    }
                    }
                    else if "`cluster'" != "" & !inlist("`name'","eim","oim")
> {
                    opts_exclusive "cluster() vce(`name')"
                    }
                    if `"`args'"' != "" {
                    if ! `:list name in ARGOPTNAMES' {
                    di as err "invalid vce() option"
                    exit 198
                    }
                    if "`name'" == "hc2" {
                       confirm var `args'
                       unab args : `args'
                       local markout `args'
                       }
                       return local vceargs `"`:list retok args'"'
                       }
                       else if `:list name in ARGOPTNAMES' {
                       if "`noargopt_is_ok'" == "" {
                       di as err "invalid vce() option"
                       exit 198
                       }
                       }
                       }
                     - else {
                     - if "`weight'" == "pweight" | "`robust'" != "" {
                     = if "" == "pweight" | "robust" != "" {
                     - local vce robust
                     - }
                     - if "`cluster'" != "" {
                     = if "" != "" {
                       local vce cluster
                       local args `cluster'
                       local markout `cluster'
                       }
                     - return local vce `"`vce'"'
                     = return local vce `"robust"'
                     - return local vceargs `"`args'"'
                     = return local vceargs `""'
                     - }
                     - if "`return(vce)'" != "" {
                     = if "robust" != "" {
                     - if `"`return(vceargs)'"' != "" {
                     = if `""' != "" {
                       local ss " "
                       }
                     - return local vceopt `"vce(`return(vce)'`ss'`return(vceargs
> )')"'
                     = return local vceopt `"vce(robust)"'
                     - }
                     - if "`return(vce)'" == "cluster" {
                     = if "robust" == "cluster" {
                       return local cluster `return(vceargs)'
                       }
                     - if inlist("`return(vce)'", "robust", "cluster") {
                     = if inlist("robust", "robust", "cluster") {
                     - return local robust robust
```

```
         - }
         - if "`touse'" != "" {
         = if "" != "" {
           if "`markout'" != "" {
           markout `touse' `markout', strok
           }
           }
         ──────────────────────────────
> ──────────────────────── end _vce_parse ────────
        - local vce `r(vce)'
        = local vce robust
        - }
        - else if "`weight'" == "pweight" {
        = else if "" == "pweight" {
          local vce robust
          }
        - if `:length local svy' {
        = if 0 {
          local vce svy
          }
        - if `"`vce'"' == "cluster" {
        = if `"robust"' == "cluster" {
          local cluster `r(cluster)'
          markout $ML_sample `cluster', strok
          }
        - if `:length local group' {
        = if 0 {
          markout $ML_sample `group', strok
          global ML_group : copy local group
          if bsubstr("`:type `group''",1,3) == "str" {
          if `interactive' {
          SetGlobalVar ML_grp : _MLgr
          }
          else {
          global ML_grp : tempvar
          if `"`moptobj'"' != "" {
          global ML_grp `moptobj'$ML_grp
          }
          }
          quietly egen $ML_grp = group(`group')
          if ! `:length local cluster' {
          local cluster : copy global ML_grp
          }
          }
          else {
          if ! `:length local cluster' {
```

```
                    local cluster : copy global ML_group
                    }
                    }
                    }
                  - if "$ML_samp" != "$ML_sample" {
                  = if "__000007" != "__000007" {
                    quietly replace $ML_samp = 0 if $ML_samp & $ML_sample == 0
                    }
                  - if `:length local vce' == 0 {
                  = if 6 == 0 {
                    if `"`technique'"' == "bhhh" {
                    local vce opg
                    }
                    else local vce oim
                    }
                  - if inlist("`vce'", "robust", "cluster") & bsubstr("`evaltype
> '",1,1) == "d" {
                  = if inlist("robust", "robust", "cluster") & bsubstr("e2",1,1)
>  == "d" {
                    local optname = cond("`svy'"=="","vce(`vce')","svy")
                    di as err "option `optname' is not allowed with evaltype `ev
> altype'"
                    exit 198
                    }
                  - if `:length local crittype' == 0 {
                  = if 0 == 0 {
                  - if inlist("`vce'", "cluster", "robust", "svy") {
                  = if inlist("robust", "cluster", "robust", "svy") {
                  - local crittype "log pseudolikelihood"
                  - }
                  - else local crittype "log likelihood"
                  - }
                  - global ML_waldtest `waldtest'
                  = global ML_waldtest -1
                  - if `:length local svy' | `:length local weight' {
                  = if 0 | 0 {
                    if `interactive' {
                    SetGlobalVar ML_w : _MLw
                    }
                    else {
                    global ML_w : tempvar
                    if `"`moptobj'"' != "" {
                    global ML_w `moptobj'$ML_w
                    }
                    }
                    }
```

```
- if `:length local weight' {
= if 0 {
  if `"`moptobj'"' != "" {
  cap drop $ML_w
  }
  quietly gen double $ML_w `exp' if $ML_samp
  local wtype `"`weight'"'
  local wexp `"`exp'"'
  global ML_wtyp : copy local wtype
  global ML_wexp : copy local wexp
  if "`wtype'" == "iweight" | "`svy'" != "" {
  local zeroweight zeroweight
  }
  }
- if inlist("`vce'", "svy", "cluster") {
= if inlist("robust", "svy", "cluster") {
  if `interactive' {
  SetGlobalVar ML_subv : _MLsu
  }
  else {
  global ML_subv : tempvar
  if `"`moptobj'"' != "" {
  global ML_subv `moptobj'$ML_subv
  }
  }
  }
- quietly count if $ML_sample
= quietly count if __000007
- if r(N) == 0 {
  error 2000
  }
- if `"`weight'"' != "" {
= if `""' != "" {
  quietly count if $ML_sample & $ML_w != 0
  if r(N) == 0 {
  di in gr "all observation have zero weights"
  exit 2000
  }
  }
- if `:length local lf0' {
= if 19 {
- if `:list sizeof lf0' != 2 {
= if 2 != 2 {
  di as err "lf0(`lf0') invalid"
  exit 198
  }
```

```
               - global ML_k0 : word 1 of `lf0'
               = global ML_k0 : word 1 of 1 -437.385284075989
               - global ML_ll_0 : word 2 of `lf0'
               = global ML_ll_0 : word 2 of 1 -437.385284075989
               - confirm integer number $ML_k0
               = confirm integer number 1
               - confirm number $ML_ll_0
               = confirm number -437.385284075989
               - if $ML_k0 < 0 {
               = if 1 < 0 {
                 di as err "lf0(`lf0') invalid"
                 exit 198
                 }
               - }
               - if "`obs'" == "" {
               = if "" == "" {
               - if "`wtype'" != "fweight" {
               = if "" != "fweight" {
               - quietly count if $ML_sample
               = quietly count if __000007
               - local obs = r(N)
               - }
               - else {
                 sum $ML_w if $ML_sample, mean
                 local obs = r(sum)
                 }
               - }
               - if `:length local iterid' {
               = if 0 {
                 local iterid = trim(bsubstr(`"`iterid'"',1,32))
                 }
               - if `:length local crittype' {
               = if 20 {
               - local crittype = trim(bsubstr(`"`crittype'"',1,32))
               = local crittype = trim(bsubstr(`"log pseudolikelihood"',1,32)
> )

               - }
               - if `:length local derivscale' {
               = if 0 {
                 confirm matrix `derivscale'
                 }
               - if `:length local derivh' {
               = if 0 {
                 confirm matrix `derivh'
                 }
               - local l : strlen local deriv
```

```
                - ParseUsemin, `deriv' len(`l')
                = ParseUsemin,  len(0)
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────── begin mopt.ParseUsemin ───────────────
                  - syntax [, LEN(integer 0) MIN1(string) NOMIN MIN]
                  - if `"`min1'"' != "" & `"`nomin'"' != "" {
                  = if `""' != "" & `""' != "" {
                    di as err "options min() and nomin are mutually exclusive"
                    exit 198
                    }
                  - if `"`min'"' != "" & `"`nomin'"' != "" {
                  = if `""' != "" & `""' != "" {
                    di as err "options min and nomin are mutually exclusive"
                    exit 198
                    }
                  - if (`"`min1'"' != "") {
                  = if (`""' != "") {
                    confirm matrix `min1'
                    local deriv `min1'
                    }
                  - else if (`"`min'"' != "") {
                  = else if (`""' != "") {
                    if (`len' > length(`"`min'"')) {
                    di as err "must specify a matrix of 2 columns in option mi
> n()"
                    exit 198
                    }
                    local deriv 1
                    }
                  - else {
                  - if (`len' > 0) {
                  = if (0 > 0) {
                    if ("`nomin'" == "") {
                    di as err "must specify a matrix of 2 columns in option mi
> n()"
                    exit 198
                    }
                    else if (`len' > length(`"`nomin'"')) {
                    di as err "options min() and nomin are mutually exclusive"
                    exit 198
                    }
                    else {
                    local deriv 0
                    }
                    }
                  - else {
```

```
                  - local deriv 0
                  - }
                  - }
                  - sreturn local deriv `deriv'
                  = sreturn local deriv 0
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── end mopt.ParseUsemin ───────────────
                - local deriv = s(deriv)
                - if `:length local gnwmatrix' {
                = if 0 {
                  confirm matrix `gnwmatrix'
                  }
                - `vv' mata: Mopt_model()
                = version 18: mata: Mopt_model()
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin mopt_check_program ───────────────
                  - version 10
                  - args name
                  - capture confirm name `name'
                  = capture confirm name poiss_lf
                  - if c(rc) {
                    di as err "unrecognized command:   `name' invalid command
> name"

                    exit 199
                    }
                  - capture which `name'
                  = capture which poiss_lf
                  - if !c(rc) {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────── end mopt_check_program ───────────────
                - global ML_stat model
                - if !`interactive' {
                = if !0 {
                - `vv' MaxMin `maxmin', nooutput `score' `options' moptobj(`mo
> ptobj')
                = version 18: MaxMin maximize, nooutput  search(off) moptobj()
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin mopt.MaxMin ───────────────
                  - local vv : di "version " string(_caller()) ":"
                  - version 12
                  - ChkMacros
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin mopt.ChkMacros ───────────────
                    - if "$ML_stat" != "model" {
                    = if "model" != "model" {
                      di as err "you must issue -ml model- first"
                      exit 198
                      }
                    - capture confirm var $ML_samp $ML_w $ML_subv
                    = capture confirm var __000007 __000007
                    - if c(rc) {
                      di as err "Since issuing the -ml model- statement, you h
> ave done something to drop" _n "temporary variables ml added to your data.
> You must start again."
                      Clear
                      exit 111
                      }
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end mopt.ChkMacros ───────────────
                  - syntax name(name=maxmin) [, NEGH TOLerance(numlist max=1 >
> =0) LTOLerance(numlist max=1 >=0) NONRTOLerance NRTOLerance(numlist max=1 >=
> 0) QTOLerance(numlist max=1 >=0) GTOLerance(numlist max=1 >=0) ITERate(numli
> st max=1 >=0) NOTCONCAVE(numlist max=1 >=0) ndami DIFficult HALFSTEPonly DOO
> PT SEArch(name) Repeat(passthru) Bounds(string) SCore(string) noWARNing noCL
> EAR NOLOg LOg DOTs SHOWTOLerance SHOWNRtolerance SHOWSTEP TRace COEFDIffs GR
> ADient HESSian noSKIPline noOUTput Level(cilevel) moptobj(string) * ]
                  - if `:length local nrtolerance' {
                  = if 0 {
                    opts_exclusive "nrtolerance() `nonrtolerance'"
                    }
                  - if `:length local qtolerance' {
                  = if 0 {
                    opts_exclusive "qtolerance() `nonrtolerance'"
                    }
                  - opts_exclusive "`nonrtolerance' `shownrtolerance'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - if `:length local shownrtolerance' {
                  = if 0 {
                    local showtolerance showtolerance
                    }
                  - if "$ML_preserve" != "no" {
                  = if "no" != "no" {
                    if `:length local score' {
                    di as smcl as err "May not specify {bf:score()} option unl
> ess" _n "     a) estimation subsample is the entire data in memory, or" _n "
>      b) you specify option {bf:nopreserve} on {bf:ml model} statement (meani
> ng" _n "         your evaluation program explicitly restricts itself to obs"
>  _n "         for which {bf:$}" "{bf:ML_samp==1}."
                    exit 198
                    }
                    preserve
                    local N = c(N)
                    quietly keep if $ML_sample
                    if (`N' != c(N)) {
                    mata: Mopt_init_regetviews()
                    }
                    }
                  - if `:length local score' {
                  = if 0 {
                    SetupScore `"$ML_evaltype"' `"`score'"' $ML_n $ML_dim
                    local scores "`s(scores)'"
                    }
                  - _parse_iterlog, `nolog' `log'
                  = _parse_iterlog,
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _parse_iterlog ───────────────
                    - version 16
                    - syntax [, NOLOG LOG]
                    - if "`log'`nolog'" != "" {
                    = if "" != "" {
                      opts_exclusive "`log' `nolog'"
                      }
                    - else if "`c(iterlog)'" == "on" {
                    = else if "on" == "on" {
                    - local log log
                    - }
                    - else {
                      local nolog nolog
                      }
                    - sreturn local log `log'
                    = sreturn local log log
                    - sreturn local nolog `nolog'
                    = sreturn local nolog
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _parse_iterlog ───────────────
                  - local log "`s(nolog)'"
                  = local log ""
                  - local tropts `log' `dots' `showtolerance' `showstep' `trac
> e' `coefdiffs'
                  = local tropts
                  - if "`tropts'" != "nolog" {
                  = if "" != "nolog" {
                  - local tropts `tropts' `gradient' `hessian'
                  = local tropts
                  - if "`skipline'" == "" {
                  = if "" == "" {
                  - if "`iterate'" != "0" | `:length local tropts' {
                  = if "" != "0" | 0 {
                  - di

                  - }
                  - }
                  - }
                  - else {
                    local gradient
                    local hessian
                    local nolog nolog
                    }
                  - if "`search'" != "off" & "`iterate'" != "0" {
                  = if "off" != "off" & "" != "0" {
                    if "`search'" == "quietly" {
                    local sopts nolog
                    }
                    else {
                    if `:length local tropts' {
                    if "`tropts'" != "nolog" {
                    local sopts trace
                    }
                    else local sopts nolog
                    }
                    }
                    if "`search'" == "norescale" {
                    local sopts `sopts' norescale
                    }
                    Search `bounds', nopreserve `sopts' `repeat' `maxmin'
                    }
```

```
         - tempname value b V iV
         - `vv' mata: Mopt_maxmin()
         = version 18: mata: Mopt_maxmin()
          ─────────────────────────────
> ───────────────────────────── begin poiss_lf ───────
          - version 6
          - args todo b lnf g H score
          - tempvar xb
          - mleval `xb' = `b'
          = mleval __00000Q = __00000K
          - mlsum `lnf' = -exp(`xb') + `xb'*$ML_y1 - lngamma($ML_y1+
> 1)
          = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
          - if `todo' == 0 | `lnf'==. {
          = if 2 == 0 | __00000L==. {
            exit
            }
          - qui replace `score' = $ML_y1 - exp(`xb') if $ML_samp
          = qui replace __00000O = y_timing_max - exp(__00000Q) if _
> _000007
          - $ML_ec mlvecsum `lnf' `g' = `score'
          = * mlvecsum __00000L __00000M = __00000O
          - if `todo' == 1 | `lnf'==. {
          = if 2 == 1 | __00000L==. {
            exit
            }
          - mlmatsum `lnf' `H' = exp(`xb')
          = mlmatsum __00000L __00000N = exp(__00000Q)
          ─────────────────────────────
> ────────────────────────────── end poiss_lf ───────
Iteration 0:  Log pseudolikelihood = -382.87074
          ─────────────────────────────
> ───────────────────────────── begin poiss_lf ───────
          - version 6
          - args todo b lnf g H score
          - tempvar xb
          - mleval `xb' = `b'
          = mleval __00000Q = __00000K
          - mlsum `lnf' = -exp(`xb') + `xb'*$ML_y1 - lngamma($ML_y1+
> 1)
          = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
          - if `todo' == 0 | `lnf'==. {
          = if 0 == 0 | __00000L==. {
          - exit
```

```
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end poiss_lf ───────────────
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────────────────── begin poiss_lf ───────────────
                    - version 6
                    - args todo b lnf g H score
                    - tempvar xb
                    - mleval `xb' = `b'
                    = mleval __00000Q = __00000K
                    - mlsum `lnf' = -exp(`xb') + `xb'*$ML_y1 - lngamma($ML_y1+
> 1)
                    = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
                    - if `todo' == 0 | `lnf'==. {
                    = if 0 == 0 | __00000L==. {
                    - exit
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end poiss_lf ───────────────
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────────────────── begin poiss_lf ───────────────
                    - version 6
                    - args todo b lnf g H score
                    - tempvar xb
                    - mleval `xb' = `b'
                    = mleval __00000Q = __00000K
                    - mlsum `lnf' = -exp(`xb') + `xb'*$ML_y1 - lngamma($ML_y1+
> 1)
                    = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
                    - if `todo' == 0 | `lnf'==. {
                    = if 2 == 0 | __00000L==. {
                      exit
                      }
                    - qui replace `score' = $ML_y1 - exp(`xb') if $ML_samp
                    = qui replace __00000O = y_timing_max - exp(__00000Q) if _
> _000007
                    - $ML_ec mlvecsum `lnf' `g' = `score'
                    = * mlvecsum __00000L __00000M = __00000O
                    - if `todo' == 1 | `lnf'==. {
                    = if 2 == 1 | __00000L==. {
                      exit
                      }
                    - mlmatsum `lnf' `H' = exp(`xb')
                    = mlmatsum __00000L __00000N = exp(__00000Q)
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end poiss_lf ───────────────
```

```
Iteration 1:  Log pseudolikelihood = -382.86976
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin poiss_lf ───────────────
                    - version 6
                    - args todo b lnf g H score
                    - tempvar xb
                    - mleval `xb' = `b'
                    = mleval __00000Q = __00000K
                    - mlsum `lnf' = -exp(`xb') + `xb'*$ML_y1 - lngamma($ML_y1+
> 1)
                    = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
                    - if `todo' == 0 | `lnf'==. {
                    = if 0 == 0 | __00000L==. {
                    - exit
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end poiss_lf ───────────────
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin poiss_lf ───────────────
                    - version 6
                    - args todo b lnf g H score
                    - tempvar xb
                    - mleval `xb' = `b'
                    = mleval __00000Q = __00000K
                    - mlsum `lnf' = -exp(`xb') + `xb'*$ML_y1 - lngamma($ML_y1+
> 1)
                    = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
                    - if `todo' == 0 | `lnf'==. {
                    = if 0 == 0 | __00000L==. {
                    - exit
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end poiss_lf ───────────────
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin poiss_lf ───────────────
                    - version 6
                    - args todo b lnf g H score
                    - tempvar xb
                    - mleval `xb' = `b'
                    = mleval __00000Q = __00000K
                    - mlsum `lnf' = -exp(`xb') + `xb'*$ML_y1 - lngamma($ML_y1+
> 1)
                    = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
                    - if `todo' == 0 | `lnf'==. {
                    = if 2 == 0 | __00000L==. {
                      exit
                      }
                    - qui replace `score' = $ML_y1 - exp(`xb') if $ML_samp
                    = qui replace __00000O = y_timing_max - exp(__00000Q) if _
> _000007
                    - $ML_ec mlvecsum `lnf' `g' = `score'
                    = * mlvecsum __00000L __00000M = __00000O
                    - if `todo' == 1 | `lnf'==. {
                    = if 2 == 1 | __00000L==. {
                      exit
                      }
                    - mlmatsum `lnf' `H' = exp(`xb')
                    = mlmatsum __00000L __00000N = exp(__00000Q)
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end poiss_lf ───────────────
Iteration 2:  Log pseudolikelihood = -382.86976
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin mopt_post ───────────────
                    - args b V C wgt touse depvar
                    - if `:length local touse' {
                    = if 8 {
                    - tempname esamp
                    - quietly gen byte `esamp' = `touse'
                    = quietly gen byte __00000S = __000007
                    - }
                    - ereturn post `b' `V' `C' `wgt', esample(`esamp') depname
> (`depvar') buildfvinfo
                    = ereturn post __00000Q __00000R  [], esample(__00000S) de
> pname(y_timing_max) buildfvinfo
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end mopt_post ───────────────
                  - ereturn scalar k_eq_model = abs($ML_waldtest)
                  = ereturn scalar k_eq_model = abs(-1)
                  - if `:length global ML_ll_0' {
                  = if 17 {
                  - ereturn scalar ll_0 = $ML_ll_0
                  = ereturn scalar ll_0 = -437.385284075989
                  - if `:length global ML_rank0' {
                  = if 0 {
                    ereturn scalar rank0 = $ML_rank0
                    ereturn scalar df_m = e(rank) - $ML_rank0
                    }
                  - else ereturn scalar df_m = e(rank) - $ML_k0
                  = else ereturn scalar df_m = e(rank) - 1
                  - }
                  - if !`:length global ML_ll_0' | inlist(e(vce), "robust", "c
> luster", "linearized") {
         = if !17 | inlist(e(vce), "robust", "cluster", "linearized")
>  {
         - if "$ML_svy" == "" {
         = if "" == "" {
         - _prefix_model_test, minimum
          -----------------------------
> ------------------ begin _prefix_model_test --------
          - version 9
          - syntax [name(name=cmd)] [, svy noADJust noSVYadjust MINi
> mum ]
          - if (inlist("`cmd'","asmixlogit","cmmixlogit","cmxtmixlog
> it")) {
          = if (inlist("","asmixlogit","cmmixlogit","cmxtmixlogit"))
>  {
            _asmixtest, `svy' `adjust' `svyadjust'
            exit
            }
          - local K = 1
          - if "`e(k_eq_model)'" != "" {
          = if "1" != "" {
          - capture confirm integer number `e(k_eq_model)'
          = capture confirm integer number 1
          - if ! c(rc) {
          - local K = e(k_eq_model)
          - }
          - }
          - if "`e(k_eq_model_skip)'" != "" {
          = if "" != "" {
            capture confirm integer number `e(k_eq_model_skip)'
            if ! c(rc) {
            local skip = e(k_eq_model_skip)
            }
            }
          - ereturn local df_m
          - ereturn local F
          - ereturn local chi2
          - ereturn local chi2type
          - ereturn local p
          - if (`K' == 0) {
          = if (1 == 0) {
            exit
            }
          - forval i = 1/`K' {
          = forval i = 1/1 {
          - if !`:list i in skip' {
```

```
                    = if !0 {
                    - local spec "`spec' ([#`i'])"
                    = local spec " ([#1])"
                    - }
                    - }
                    - tempname cns omit
                    - capture matrix `cns' = get(Cns)
                    = capture matrix __00000S = get(Cns)
                    - if (c(rc)) local cns
                    - if "`cns'" != "" {
                    = if "" != "" {
                      local k_autoCns = e(k_autoCns)
                      if missing(`k_autoCns') {
                      local k_autoCns 0
                      }
                      if rowsof(`cns') == `k_autoCns' {
                      local cns
                      }
                      }
                    - if "`svy'" != "" & "`adjust'`svyadjust'" != "" {
                    = if "" != "" & "" != "" {
                      local adjust nosvyadjust
                      }
                    - else local adjust
                    - _ms_omit_info e(b), nocons
                    - matrix `omit' = r(omit)
                    = matrix __00000T = r(omit)
                    - capture test `spec', `adjust'
                    = capture test  ([#1]),
                      --------------------------------------------------------
> ------------------------------------------------- begin test ---------------
                      - if "`e(cmd)'" == "anova" | "`e(cmd)'" == "manova" {
                      = if "mopt" == "anova" | "mopt" == "manova" {
                        AnovaTestChooser `0'
                        return add
                        exit
                        }
                      - if "`e(cmd)'" == "mixed" {
                      = if "mopt" == "mixed" {
                        MixedTestChooser `0'
                        return add
                        exit
                        }
                      - if _caller() < 8 {
                        _test `0'
                        return add
                        exit
                        }
                      - is_svy
                        ───────────────────────────────────────────────────────
> ──────────────────────────────────────────────── begin is_svy ───────────────
                        - version 8
                        - syntax [, Regression]
                        - if `"`e(prefix)'"' == "svy" {
                        = if `""' == "svy" {
                          return scalar is_svy = 1
                          }
                        - else if "`regression'" == "" {
                        = else if "" == "" {
                        - return scalar is_svy = ("`e(N_psu)'" != "")
                        = return scalar is_svy = ("" != "")
                        - }
                        - else {
                          capt mat list e(b)
                          local rc = _rc
                          return scalar is_svy = ("`e(N_psu)'" != "") & (`rc'
> == 0)

                          }
                        ───────────────────────────────────────────────────────
> ────────────────────────────────────────────────── end is_svy ───────────────
                      - local is_svy = r(is_svy)
                      - if replay() & `is_svy' == 0 {
                      = if replay() & 0 == 0 {
                        _test `0'
                        return add
                        exit
                        }
                      - version 8
                      - WaldTest `is_svy' `0'
                      = WaldTest 0 ([#1]),
                        ───────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin test.WaldTest ───────────────
                        - gettoken is_svy 0 : 0
                        - if "`is_svy'" == "1" {
                        = if "0" == "1" {
                          if "`e(complete)'" == "available" {
                          di as err `"must run svy command with "complete" "'
> "option before using this command"
                          exit 301
                          }
                          }
                        - gettoken tok : 0, parse(" (,") bind
                        - local single single
                        - local zero `"`0'"'
                        = local zero `" ([#1]), "'
                        - if `"`tok'"' == "(" {
                        = if `"("' == "(" {
                        - local single
                        - while `"`tok'"' == "(" {
                        = while `"("' == "(" {
                        - gettoken tok 0 : 0, parse(" (,") match(paren) bind
                        - local eqns `"`eqns' `"`tok'"'"'
                        = local eqns `" `"[#1]"'"'
                        - gettoken tok : 0, parse(" (,") bind
                        - }
                        - while `"`tok'"' == "(" {
                        = while `","' == "(" {
                          gettoken tok 0 : 0, parse(" (,") match(paren) bind
                          local eqns `"`eqns' `"`tok'"'"'
                          gettoken tok : 0, parse(" (,") bind
                          }
                        - if `"`tok'"' != "," & `"`tok'"' != "" {
                        = if `","' != "," & `","' != "" {
                          local single single
                          }
                        - }
                        - if "`single'"=="single" {
                        = if ""=="single" {
                          local eqns
                          local 0 `"`zero'"'
                          while `"`tok'"' != "" & `"`tok'"' != "," {
                          gettoken tok 0 : 0, parse(" ,") bind
                          local eqns `"`eqns' `tok'"'
                          gettoken tok : 0, parse(" ,") bind
                          }
                          local eqns `"`"`eqns'"'"'
                          }
                        - syntax [, Accumulate noSVYadjust common CONStant MIN
> imum Mtest Mtest2(passthru) noTest COEF matvlc(passthru) DF(numlist max=1 >0
> ) ]
                        - if "`df'" != "" {
                        = if "" != "" {
                          local dof = `df'
                          }
                        - else if "`e(df_r)'" !="" {
                        = else if "" !="" {
                          local dof = e(df_r)
                          }
                        - else {
                        - local dof = .
                        - }
                        - if `"`mtest'`mtest2'"' != "" {
                        = if `""' != "" {
                          if inlist("`e(cmd)'", "svymean", "svytotal", "svyrat
> io") {
                          di as err `"mtest option not allowed after `e(cmd)'"
> '
                          exit 301
                          }
                          _mtest syntax, `mtest' `mtest2'
                          local mtmethod `r(method)'
                          }
                        - if "`mtmethod'" != "" {
                        = if "" != "" {
                          if "`test'" != "" {
                          di as err "options mtest and notest may not be combi
> ned"
                          exit 198
                          }
                          if "`accumulate'" != "" {
                          di as err "options mtest and accumulate may not be c
> ombined"
                          exit 198
                          }
                          }
                        - if `is_svy' {
                        = if 0 {
                          if `"`e(cmd)'"' == "margins" {
                          local vce `"`e(model_vce)'"'
                          }
                          else local vce `"`e(vce)'"'
                          if inlist(`"`vce'"', "bootstrap", "sdr") {
                          if missing(`dof') {
                          local svyadjust nosvyadjust
                          }
                          }
                          }
                        - if !`is_svy' & "`svyadjust'" != "" {
                        = if !0 & "" != "" {
                          di as err "option nosvyadjust is allowed only with s
> vy data"
                          exit 198
                          }
                        - local svy_adjust = `is_svy' & "`svyadjust'" == ""
                        = local svy_adjust = 0 & "" == ""
                        - if `svy_adjust' & missing(`dof') & (missing(e(N_psu)
> ) | missing(e(N_strata))) {
                        = if 0 & missing(.) & (missing(e(N_psu)) | missing(e(N
> _strata))) {
                          di as err "impossible to adjust p-values"
                          exit 198
                          }
                        - if `is_svy' & `"`test'"' == "" {
                        = if 0 & `""' == "" {
                          if "`svyadjust'" == "" {
                          di _n as txt "Adjusted Wald test"
                          }
                          else di _n as txt "Unadjusted Wald test"
                          }
                        - local tmp : subinstr local eqns "===" "", all count(
> local nch)
                        - if `nch' > 0 {
                        = if 0 > 0 {
                          di as err "=== invalid operator"
                          exit 198
                          }
                        - local eqns : subinstr local eqns "==" "=", all
                        - ExpandExpns `"`eqns'"' "`common'" "`constant'"
                        = ExpandExpns `" `"[#1]"'"' "" ""
                          ────────────────────────────────────────────────────
> ───────────────────────────────────── begin test.ExpandExpns ────────────────
                          - args expns common constant
                          - gettoken exp expns : expns
                          - while `"`exp'"' != "" {
                          = while `"[#1]"' != "" {
                          - Expand `"`exp'"' "`common'" "`constant'"
                          = Expand `"[#1]"' "" ""
                            ──────────────────────────────────────────────────
> ────────────────────────────────────────── begin test.Expand ────────────────
                            - args exp common constant
                            - local junk : subinstr local exp "=" "=", count(l
> ocal nch) all

                            - if `nch' <= 1 {
                            = if 0 <= 1 {
                            - return local explist `"`"`exp'"'"'
                            = return local explist `"`"[#1]"'"'
                            - return local nexp 1
                            - exit
                            ──────────────────────────────────────────────────
> ──────────────────────────────────────────── end test.Expand ────────────────
```

```
                          - local explist `"`explist' `r(explist)'"'
                          = local explist `" `"[#1]"'"'
                          - local nexp = `nexp' + `r(nexp)'
                          = local nexp =  + 1
                          - gettoken exp expns : expns
                          - }
                          - while `"`exp'"' != "" {
                          = while `""' != "" {
                            Expand `"`exp'"' "`common'" "`constant'"
                            local explist `"`explist' `r(explist)'"'
                            local nexp = `nexp' + `r(nexp)'
                            gettoken exp expns : expns
                            }
                          - return local explist `"`explist'"'
                          = return local explist `" `"[#1]"'"'
                          - return local nexp `nexp'
                          = return local nexp 1
                          ----------------------------------------------------
> ---------------------------------------- end test.ExpandExpns ---------------
                        - local explist `"`r(explist)'"'
                        = local explist `" `"[#1]"'"'
                        - local nexp `r(nexp)'
                        = local nexp 1
                        - local acc `accumulate'
                        = local acc
                        - foreach exp of local explist {
                        - quietly _test `exp' , `acc' `common' `constant' note
> st
                        = quietly _test [#1] ,    notest
                        - local acc acc
                        - }
                        - if "`test'" == "notest" {
                        = if "" == "notest" {
                          _test , notest
                          exit
                          }
                        - quietly _test , `matvlc'
                        = quietly _test ,
                        - if `dof' < . {
                        = if . < . {
                          local testtype F
                          tempname F df1 df2 p drop
                          if "`r(F)'" != "" {
                          scalar `F' = r(F)
                          }
                          else {
```

```
                          scalar `F' = r(chi2)/r(df)
                          }
                          scalar `df1' = r(df)
                          scalar `df2' = `dof'
                          scalar `p' = Ftail(`df1', `df2', `F')
                          scalar `drop' = r(drop)
                          }
                        - else {
                        - local testtype chi2
                        - tempname chi2 df1 p drop
                        - scalar `chi2' = r(chi2)
                        = scalar __00000U = r(chi2)
                        - scalar `df1' = r(df)
                        = scalar __00000V = r(df)
                        - scalar `p' = r(p)
                        = scalar __00000W = r(p)
                        - scalar `drop' = r(drop)
                        = scalar __00000X = r(drop)
                        - }
                        - local i 1
                        - while "`r(dropped_`i')'" != "" {
                        = while "" != "" {
                          local dropped_`i' `r(dropped_`i')'
                          local ++i
                          }
                        - if `svy_adjust' {
                        = if 0 {
                          if "`df'" != "" {
                          local svy_d = `df'
                          }
                          else if !missing(e(df_r)) {
                          local svy_d = e(df_r)
                          }
                          else local svy_d = e(N_psu)-e(N_strata)
                          if missing(`svy_d') {
                          di as err "internal error in adjustment for svy"
                          exit 10001
                          }
                          if "`testtype'" == "F" {
                          scalar `F' = ((`svy_d'-`df1'+1)/`svy_d') * `F'
                          }
                          else {
                          tempname F df2
                          scalar `F' = ((`svy_d'-`df1'+1)/(`svy_d'*`df1')) * `
> chi2'

                          }
                          scalar `df2' = `svy_d' - `df1' + 1
                          if `df2' < 0 {
                          scalar `F' = .
                          }
                          scalar `p' = Ftail(`df1', `df2', `F')
                          local testtype F
                          }
                        - if "`mtmethod'" != "" {
                        = if "" != "" {
                          tempname R r Rr V b VR tm Wald
                          mat `V' = e(V)
                          mat `b' = e(b)
                          mat `Rr' = get(Rr)
                          local nb = rowsof(`V')
                          local nr = rowsof(`Rr')
                          mat `R' = `Rr'[1...,1..`nb']
                          mat `VR' = `R'*`V'*`R''
                          mat `r' = `R'*`b'' - `Rr'[1...,`=`nb'+1']
                          mat `Wald' = `r''*syminv(`VR')*`r'
                          mat `tm' = J(`nr', 3, .)
                          mat colnames `tm' = `testtype' df p
                          forvalues it = 1 / `nr' {
                          mat `Wald' = `r'[`it',1]^2 / `VR'[`it',`it']
                          mat `tm'[`it',1] = `Wald'[1,1]
                          mat `tm'[`it',2] = 1
                          if `svy_adjust' {
                          mat `tm'[`it',3] = Ftail(1,`svy_d',`tm'[`it',1])
                          }
                          else if "`testtype'" == "chi2" {
                          mat `tm'[`it',3] = chi2tail(1,`tm'[`it',1])
                          }
                          else {
                          mat `tm'[`it',3] = Ftail(1,`df2',`tm'[`it',1])
                          }
                          }
                          if "`mtmethod'" != "noadjust" {
                          _mtest adjust `tm', mtest(`mtmethod') pindex(3) appe
> nd
                          mat `tm' = r(result)
                          local pindex 4
                          }
                          else local pindex 3
                          }
                        - _test, notest
                        - local i 1
                        - while "`dropped_`i''" != "" {
```

```
                        = while "" != "" {
                          di as txt "       Constraint `dropped_`i'' dropped"
                          local ++i
                          }
                        - if "`mtmethod'" == "" {
                        = if "" == "" {
                        - di
                        - if "`testtype'" == "chi2" {
                        = if "chi2" == "chi2" {
                        - di as txt _col(12) "chi2(" %3.0f `df1' ") =" as res
> %8.2f `chi2'
                        = di as txt _col(12) "chi2(" %3.0f __00000V ") =" as r
> es %8.2f __00000U
                        - di as txt _col(10) "Prob > chi2 =  " as res %8.4f `p
> '
                        = di as txt _col(10) "Prob > chi2 =  " as res %8.4f __
> 00000W
                        - }
                        - else {
                          di as txt "       F(" %3.0f `df1' "," %6.0f `df2' ")
>  =" as res %8.2f `F'
                          di as txt _col(13) "Prob > F =" as res %10.4f `p'
                          }
                        - }
                        - else {
                          local nexp = rowsof(`tm')
                          local nc = colsof(`tm')
                          if "`testtype'" == "F" {
                          local d "F(df,`=`df2'')"
                          local dip "p > F"
                          }
                          else {
                          local d chi2
                          local dip "p > chi2"
                          }
                          di
                          di as txt "{hline 7}{c TT}{hline 30}"
                          di as txt "       {c |}{ralign 12:`d'}     df{ralign
>  11:`dip'}"
                          di as txt "{hline 7}{c  +}{hline 30}"
                          forvalues it = 1 / `nexp' {
                          di as txt "   (`it') {c |}" as res _col(12) %9.2f `t
> m'[`it',1] _col(22) %6.0f `tm'[`it',2] _col(33) %6.4f `tm'[`it',`pindex'] as
>  txt "*"
                          }
                          di as txt "{hline 7}{c +}{hline 30}"
                          di as txt "   All {c |}" as res _col(12) %9.2f ``tes
> ttype'' _col(22) %6.0f `df1' _col(33) %6.4f `p'
                          di as txt "{hline 7}{c BT}{hline 30}"
                          _mtest footer 1 "`mtmethod'" "* "
                          }
                        - if "`coef'" != "" {
                        = if "" != "" {
                          Table
                          }
                        - return scalar p = `p'
                        = return scalar p = __00000W
                        - return scalar df = `df1'
                        = return scalar df = __00000V
                        - if "`testtype'" == "F" {
                        = if "chi2" == "F" {
                          return scalar F = `F'
                          return scalar df_r = `df2'
                          }
                        - else return scalar chi2 = `chi2'
                        = else return scalar chi2 = __00000U
                        - return scalar drop = `drop'
                        = return scalar drop = __00000X
                        - local i 1
                        - while "`dropped_`i''" != "" {
                        = while "" != "" {
                          return scalar dropped_`i' = `dropped_`i''
                          local ++i
                          }
                        - if "`mtmethod'" != "" {
                        = if "" != "" {
                          return matrix mtest `tm'
                          return local mtmethod `mtmethod'
                          }
                        ------------------------------------------------------
> ------------------------------------------ end test.WaldTest ---------------
                      - return add
                      --------------------------------------------------------
> --------------------------------------------------- end test ---------------
                    - if !c(rc) {
                    - if `:length local minimum' {
                    = if 7 {
                    - quietly test, min
                      --------------------------------------------------------
> ------------------------------------------------- begin test ---------------
                      - if "`e(cmd)'" == "anova" | "`e(cmd)'" == "manova" {
                      = if "mopt" == "anova" | "mopt" == "manova" {
                        AnovaTestChooser `0'
                        return add
                        exit
                        }
                      - if "`e(cmd)'" == "mixed" {
                      = if "mopt" == "mixed" {
                        MixedTestChooser `0'
                        return add
                        exit
                        }
                      - if _caller() < 8 {
                        _test `0'
                        return add
                        exit
                        }
                      - is_svy
                        ───────────────────────────────────────────────────────
> ──────────────────────────────────────────────── begin is_svy ───────────────
                        - version 8
                        - syntax [, Regression]
                        - if `"`e(prefix)'"' == "svy" {
                        = if `""' == "svy" {
                          return scalar is_svy = 1
                          }
                        - else if "`regression'" == "" {
                        = else if "" == "" {
                        - return scalar is_svy = ("`e(N_psu)'" != "")
                        = return scalar is_svy = ("" != "")
                        - }
                        - else {
                          capt mat list e(b)
                          local rc = _rc
                          return scalar is_svy = ("`e(N_psu)'" != "") & (`rc'
> == 0)

                          }
                        ───────────────────────────────────────────────────────
> ────────────────────────────────────────────────── end is_svy ───────────────
                      - local is_svy = r(is_svy)
                      - if replay() & `is_svy' == 0 {
                      = if replay() & 0 == 0 {
                      - _test `0'
                      = _test , min
                      - return add
                      - exit
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────────────────── end test ───────────────
```

```
- }
- ereturn scalar df_m = r(df)
- local drop = r(drop)
- if `drop' {
= if 0 {
  local drop 0
  local i 1
  local idrop `"`r(dropped_`i')'"'
  while "`idrop'" != "" {
  if !`omit'[1,`idrop'] {
  local ++drop
  }
  local ++i
  local idrop `"`r(dropped_`i')'"'
  }
  }
- if `drop' == 0 | "`cns'" != "" {
= if 0 == 0 | "" != "" {
- if !missing(e(df_r)) {
  ereturn scalar F = r(F)
  }
- else {
- ereturn scalar chi2 = r(chi2)
- ereturn local chi2type Wald
- }
- ereturn scalar p = r(p)
- }
- else {
  if !missing(e(df_r)) {
  ereturn scalar F = .
  }
  else {
  ereturn scalar chi2 = .
  ereturn local chi2type Wald
  }
  ereturn scalar p = .
  }
- }
- else {
  if missing(e(df_r)) {
  ereturn local chi2type Wald
  }
  ereturn scalar df_m = 0
  }
  ------------------------------------------------------------------
> ---------------------------------------- end _prefix_model_test ----------------
```

```
                  - }
                  - else {
                    _prefix_model_test, $ML_svy $ML_noadj
                    }
                  - }
                  - else if `:length global ML_ll_0' {
                  = else if 17 {
                    if `"`maxmin'"' == "minimize" {
                    ereturn scalar chi2 = -2*(e(ll)-e(ll_0))
                    }
                    else {
                    ereturn scalar chi2 = 2*(e(ll)-e(ll_0))
                    }
                    ereturn scalar p = chi2tail(e(df_m), e(chi2))
                    ereturn local chi2type "LR"
                    }
                  - if `:length global ML_wexp' {
                  = if 0 {
                    ereturn local wtype `"$ML_wtyp"'
                    ereturn local wexp `"$ML_wexp"'
                    }
                  - if `:length global ML_group' {
                  = if 0 {
                    ereturn local group `"$ML_group"'
                    if `"`e(clustvar)'"' == "$ML_grp" & "$ML_grp" != "" {
                    ereturn local clustvar `"$ML_group"'
                    }
                    }
                  - ereturn local cmd "ml"
                  - if `:length local score' {
                  = if 0 {
                    mata: Mopt_score(0)
                    ereturn local scorevars `scores'
                    }
                  - if "$ML_preserve" != "no" {
                  = if "no" != "no" {
                    restore
                    if "`e(prefix)'" == "svy" & e(N_strata_omit) {
                    tempname v
                    quietly _svy2 $ML_sample if $ML_sample, type(total) svy v(
> `v') subpop(`e(subpop)') touse($ML_sample)
                    }
                    ereturn repost, esample($ML_sample)
                    }
                  - if `"`moptobj'"' != "" {
                  = if `""' != "" {
                    local clear noclear
                    }
                  - if !`:length local clear' {
                  = if !0 {
                  - Clear
                    -----------------------------------------------------------
> -------------------------------------------- begin mopt.Clear ---------------
                      - syntax [, NOTANOPTION]
                      - capture drop $ML_w
                      = capture drop __000007
                      - capture drop $ML_samp
                      = capture drop __000007
                      - capture drop $ML_sample
                      = capture drop __000007
                      - capture drop $ML_subv
                      = capture drop
                      - capture drop $ML_grp
                      = capture drop
                      - mata: Mopt_drop_external()
                      - macro drop ML_*
                    -----------------------------------------------------------
> ---------------------------------------------- end mopt.Clear ---------------
                  - }
                  - else {
                    capture confirm var $ML_sample
                    if c(rc) {
                    quietly gen byte $ML_sample = e(sample)
                    }
                    }
                  - if `:length local output' == 0 {
                  = if 8 == 0 {
                    Display, level(`level') `options'
                    }
                  -------------------------------------------------------------
> --------------------------------------------- end mopt.MaxMin ---------------
                - }
                ---------------------------------------------------------------
> ---------------------------------------------- end mopt.Model ---------------
              - if c(rc) {
                local rc = c(rc)
                Clear
                exit `rc'
                }
              - exit
              -----------------------------------------------------------------
> ---------------------------------------------------- end mopt ---------------
```

```
            - exit
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────────── end ml ───────────────
          - if "`score'" != "" {
          = if "" != "" {
            label var `scvar' "Score index from poisson"
            rename `scvar' `score'
            est local scorevars `score'
            }
          - est scalar r2_p = 1 - e(ll)/e(ll_0)
          - est hidden local gof "poiss_g"
          - est local offset "`offvar'"
          = est local offset ""
          - est local offset1
          - est local estat_cmd "poisson_estat"
          - est hidden local marginsderiv default N IR
          - est local predict "poisso_p"
          - est local cmd "poisson"
          - global S_E_ll = e(ll)
          - global S_E_ll0 `e(ll_0)'
          = global S_E_ll0 -437.385284075989
          - global S_E_chi2 = e(chi2)
          - global S_E_mdf = e(df_m)
          - global S_E_pr2 `e(r2_p)'
          = global S_E_pr2 .1246395841493576
          - global S_E_nobs = e(N)
          - global S_E_tdf = e(N)
          - global S_E_off `e(offset)'
          = global S_E_off
          - global S_E_depv `e(depvar)'
          = global S_E_depv y_timing_max
          - global S_E_cmd `e(cmd)'
          = global S_E_cmd poisson
          - if "`display'"=="" {
          = if "nodisplay"=="" {
            Display, `irr' level(`level') `diopts'
            }
          - error `e(rc)'
          = error 0
          ────────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── end poisson.Estimate ───────────────
        - version 10: ereturn local cmdline `"poisson `0'"'
        = version 10: ereturn local cmdline `"poisson y_timing_max wlth wg_ndx
>  stky_pr_rotemberg stky_pr_calvo open [] if __000000, nodisplay    robust"'
        ──────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end poisson ───────────────
```

```
      - tempname bp
      - mat `bp' = e(b)
      = mat __000002 = e(b)
      - if "`lrtest'"=="" {
      = if "nolrtest"=="" {
        tempname llp
        scalar `llp' = e(ll)
        }
      - }
      - else if `"`from'"'=="" {
      = else if `""'=="" {
        `vvpoi' capture poisson `y' `xvars' [`weight'`exp'] if `touse', `offop
> t' `constan' iter(1)
        tempname bp
        mat `bp' = e(b)
        }
      - if "`constan'"=="" & `"`from'"'=="" {
      = if ""=="" & `""'=="" {
      - if "`offset'"!="" {
      = if ""!="" {
        SolveC `y' `offset' [`weight'`exp'] if `touse', mean(`mean')
        local c = r(_cons)
        }
      - else local c = ln(`mean')
      = else local c = ln(__000001)
      - tempname b0 ll0
      - if `c'<. {
      = if .8283739677697126<. {
      - mat `b0' = (`c', 0)
      = mat __000003 = (.8283739677697126, 0)
      - }
      - else mat `b0' = (0, 0)
      = else mat __000003 = (0, 0)
      - mat colnames `b0' = `y':_cons ln`parm':_cons
      = mat colnames __000003 = y_timing_max:_cons lnalpha:_cons
      - if "`weight'"=="aweight" {
      = if ""=="aweight" {
        local wt `"[aw`exp']"'
        }
      - else if "`weight'"!="" {
      = else if ""!="" {
        local wt `"[iw`exp']"'
        }
      - `nohead' di in gr _n "Fitting constant-only model:"
      =  di in gr _n "Fitting constant-only model:"
```

```
Fitting constant-only model:
      - `vv' ml model `mm' `prog' (`yname': `y'=, `constan' `offopt') /ln`parm
> ' if `touse' `wt', collinear missing max nooutput nopreserve wald(0) init(`b
> 0', copy) search(off) `mlopts' `robust' nocnsnotes `negh'
      = version 18: ml model e2 nbreg_lf (y_timing_max: y_timing_max=,  ) /lna
> lpha if __000000 , collinear missing max nooutput nopreserve wald(0) init(__
> 000003, copy) search(off)  robust nocnsnotes negh
        ──────────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────────── begin ml ───────────────
        - if _caller()>=11 {
        - mopt `0'
        = mopt model e2 nbreg_lf (y_timing_max: y_timing_max=,  ) /lnalpha if
> __000000 , collinear missing max nooutput nopreserve wald(0) init(__000003,
> copy) search(off)  robust nocnsnotes negh
          ────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── begin mopt ───────────────
          - local vv : di "version " string(_caller()) ":"
          - version 12
          - gettoken subcmd 0 : 0, parse(" ,")
          - local lcmd : length local subcmd
          - if "`subcmd'" == "clear" {
          = if "model" == "clear" {
            Clear
            exit
            }
          - if `"`subcmd'"' == "hold" {
          = if `"model"' == "hold" {
            ml_hold `0'
            exit
            }
          - if `"`subcmd'"' == "unhold" {
          = if `"model"' == "unhold" {
            ml_unhold `0'
            exit
            }
          - if "`subcmd'" == "score" {
          = if "model" == "score" {
            if _caller() > 12 {
            `vv' Score `0'
            }
            else {
            Score `0'
            }
            exit
            }
          - if "`subcmd'" == "count" {
```

```
= if "model" == "count" {
  Count `0'
  exit
  }
- if "`subcmd'" == "trace" {
= if "model" == "trace" {
  Trace `0'
  exit
  }
- if "`subcmd'" == bsubstr("graph",1,max(2,`lcmd')) {
= if "model" == bsubstr("graph",1,max(2,5)) {
  Graph `0'
  exit
  }
- if "`subcmd'" == "init" {
= if "model" == "init" {
  Interactive 0
  `vv' Init `0'
  exit
  }
- if "`subcmd'" == bsubstr("maximize",1,max(3,`lcmd')) {
= if "model" == bsubstr("maximize",1,max(3,5)) {
  Interactive 1
  `vv' MaxMin maximize `0'
  exit
  }
- if "`subcmd'" == bsubstr("minimize",1,max(3,`lcmd')) {
= if "model" == bsubstr("minimize",1,max(3,5)) {
  Interactive 1
  `vv' MaxMin minimize `0'
  exit
  }
- if "`subcmd'" == bsubstr("display",1,max(2,`lcmd')) {
= if "model" == bsubstr("display",1,max(2,5)) {
  Display `0'
  exit
  }
- if "`subcmd'" == bsubstr("footnote",1,max(4,`lcmd')) {
= if "model" == bsubstr("footnote",1,max(4,5)) {
  ml_footnote `0'
  exit
  }
- if "`subcmd'" == "," {
= if "model" == "," {
  Display, `0'
  exit
```

```
            }
          - if "`subcmd'" == bsubstr("model",1,max(3,`lcmd')) {
          = if "model" == bsubstr("model",1,max(3,5)) {
          - `vv' capture noi Model `0'
          = version 18: capture noi Model  e2 nbreg_lf (y_timing_max: y_timing
> _max=,  ) /lnalpha if __000000 , collinear missing max nooutput nopreserve w
> ald(0) init(__000003, copy) search(off)  robust nocnsnotes negh
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin mopt.Model ───────────────
            - local version = string(_caller())
            - local vv : di "version `version':"
            = local vv : di "version 18:"
            - version 12
            - syntax anything(id="model" name=spec) [if] [in] [fw aw pw iw] [,
>  BRACKET COLlinear MISSing CONTinue lf0(string) INIT(string) CONSTraints(str
> ing) noCNSNOTEs VCE(passthru) NEGH NOPREserve TECHnique(string) ITERID(strin
> g) CRITtype(string) OBS(numlist max=1 >0) TItle(string) WALDtest(integer -1)
>  SVY SUBpop(string) SRSsubpop noSVYadjust SCore(passthru) noOUTput noSCVARS
> GROUP(varname) ITERPROLOG(string) DERIVPROLOG(string) DERIVH(string) DERIVSC
> ALE(string) DERIV(string) nrderiv GNWMATrix(string) KAUXiliary(numlist int >
> =0) MAXimize MINimize USERinfo(namelist) PUPDATED Robust CLuster(passthru) m
> optobj(string) USEVIEWS * ]
            - if `"`moptobj'"' == "" {
            = if `""' == "" {
            - Clear
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin mopt.Clear ───────────────
              - syntax [, NOTANOPTION]
              - capture drop $ML_w
              = capture drop
              - capture drop $ML_samp
              = capture drop
              - capture drop $ML_sample
              = capture drop
              - capture drop $ML_subv
              = capture drop
              - capture drop $ML_grp
              = capture drop
              - mata: Mopt_drop_external()
              - macro drop ML_*
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end mopt.Clear ───────────────
            - }
            - local maxmin `minimize' `maximize'
            = local maxmin  maximize
            - opts_exclusive "`maxmin'"
            = opts_exclusive "maximize"
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts maximize
              - local n 0
              - while `"`opts'"' != "" {
              = while `"maximize"' != "" {
              - local ++n
              - gettoken item`n' opts : opts, bind
              = gettoken item1 opts : opts, bind
              - }
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 1 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - if `:length local maxmin' {
            = if 8 {
            - local interactive 0
            - }
            - else local interactive 1
            - _get_diparmopts, diparmopts(`options') soptions syntaxonly
            = _get_diparmopts, diparmopts(search(off)) soptions syntaxonly
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _get_diparmopts ───────────────
              - if _caller() < 8.2 {
                _get_diparmopts_8 `0'
                exit
                }
              - version 9
              - local version : di "version " string(_caller()) ":"
              - syntax [, diparmopts(string asis) EXECute soptions bottom plus
>  SYNTAXonly * ]
              - local goptions `options'
              = local goptions
              - SpliceGlobals junk , `goptions'
              = SpliceGlobals junk ,
                ──────────────────────────────────────────────────────────────
```

```
> ──────────────────────── begin _get_diparmopts.SpliceGlobals ───────────────
                - syntax name(id="macro name" name=c_diparm) [, diparm(string
> asis) Level(cilevel) dof(passthru) syntaxonly ]
                - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                = if `""' == "" & `""' != "" {
                  capture confirm integer number `e(df_r)'
                  if !c(rc) {
                  local gdof dof(`e(df_r)')
                  }
                  capture
                  }
                - else local gdof `"`dof'"'
                = else local gdof `""'
                - local glevel `level'
                = local glevel 95
                - local lopt level(`glevel')
                = local lopt level(95)
                - if (`"`diparm'"' == "") exit
                = if (`""' == "") exit
                ──────────────────────────────────────────────────────────────
> ────────────────────────── end _get_diparmopts.SpliceGlobals ───────────────
              - local 0 `", `diparmopts'"'
              = local 0 `", search(off)"'
              - local diparmopts
              - local k 0
              - syntax [, diparm(string asis) * ]
              - while `"`diparm'"' != "" {
              = while `""' != "" {
                local ++k
                local single 1
                local after
                capture _on_colon_parse `diparm'
                if !c(rc) {
                local single 0
                local diparm `"`s(before)'"'
                local after `"`s(after)'"'
                }
                capture
                SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptions
> '
                local diparm`k' `"`diparm'"'
                local diparmopts `"`diparmopts' : `diparm'"'
                if `single' | `"`:list retok after'"' == "" {
                local 0 `", `options'"'
                syntax [, diparm(string asis) * ]
                }
                else {
                local diparm `"`after'"'
                }
                }
              - if `"`soptions'"' == "" {
              = if `"soptions"' == "" {
                syntax [, diparm(string asis) ]
                }
              - if ("`execute'" == "") {
              = if ("" == "") {
              - sreturn clear
              - sreturn local options `"`options'"'
              = sreturn local options `"search(off)"'
              - sreturn local diparm `"`diparmopts'"'
              = sreturn local diparm `""'
              - forval i = 1/`k' {
              = forval i = 1/0 {
                sreturn local diparm`i' `"`diparm`i''"'
                }
              - sreturn local k `k'
              = sreturn local k 0
              - exit
              ----------------------------------------------------------------
> ---------------------------------------- end _get_diparmopts ---------------
            - forval k = 1/`s(k)' {
            = forval k = 1/0 {
              local diparm`k' `"`s(diparm`k')'"'
              }
            - local ndiparm `s(k)'
            = local ndiparm 0
            - local options `"`s(options)'"'
            = local options `"search(off)"'
            - if `interactive' & `:length local options' {
            = if 0 & 11 {
              local 0 , `options'
              syntax [, NOTANOPTION]
              }
            - if `:length local nopreserve' | `:length local score' {
            = if 10 | 0 {
            - global ML_preserve no
            - }
            - else global ML_preserve yes
            - gettoken evaltype spec : spec
            - confirm name `evaltype'
            = confirm name e2
            - gettoken evaluator spec : spec
            - global ML_evaltype : copy local evaltype
            - if `:length local srssubpop' {
            = if 0 {
              local 0 , srssubpop
              syntax [, NONOPTION]
              exit 198
              }
            - if `:length local subpop' {
            = if 0 {
              local svy svy
              }
            - if `:length local svy' {
            = if 0 {
              opts_exclusive "`vce' `svy'" vce
              if `:length local weight' {
              di as err "svy option not allowed with weights"
              exit 198
              }
              global ML_noadj : copy local svyadjust
              }
            - global ML_svy : copy local svy
            - if _caller() >= 15 & c(userversion) >= 15 {
            - local fparm ", freeparm"
            - }
            - local eqspec : copy local spec
            - local ieq 0
            - while `:length local eqspec' {
            = while 42 {
            - local ++ieq
            - gettoken eq eqspec : eqspec, bind
            - if bsubstr(trim("`eq'"),1,1) == "/" {
            = if bsubstr(trim("(y_timing_max: y_timing_max=,  )"),1,1) == "/"
> {
              local eq = bsubstr(trim("`eq'"),2,.)
              local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', w
> ord
              }
            - else {
            - gettoken p1 p2 : eq, parse("()")
            - local p2 = trim(`"`p2'"')
            = local p2 = trim(`"y_timing_max: y_timing_max=,  )"')
            - if bsubstr("`p2'",1,1) == "," {
            = if bsubstr("y_timing_max: y_timing_max=,  )",1,1) == "," {
              gettoken comma p2 : p2, parse(",")
              local p2 = trim(`"`p2'"')
              }
            - if `"`p1'`p2'"' == "()" {
            = if `"(y_timing_max: y_timing_max=,  )"' == "()" {
              local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
              }
            - }
            - }
            - while `:length local eqspec' {
            = while 9 {
            - local ++ieq
            - gettoken eq eqspec : eqspec, bind
            - if bsubstr(trim("`eq'"),1,1) == "/" {
            = if bsubstr(trim("/lnalpha"),1,1) == "/" {
            - local eq = bsubstr(trim("`eq'"),2,.)
            = local eq = bsubstr(trim("/lnalpha"),2,.)
            - local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', w
> ord
            = local spec : subinstr local spec "/lnalpha" `"("lnalpha":, freep
> arm)"', word
            - }
            - else {
              gettoken p1 p2 : eq, parse("()")
              local p2 = trim(`"`p2'"')
              if bsubstr("`p2'",1,1) == "," {
              gettoken comma p2 : p2, parse(",")
              local p2 = trim(`"`p2'"')
              }
              if `"`p1'`p2'"' == "()" {
              local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
              }
              }
            - }
            - while `:length local eqspec' {
            = while 0 {
              local ++ieq
              gettoken eq eqspec : eqspec, bind
              if bsubstr(trim("`eq'"),1,1) == "/" {
              local eq = bsubstr(trim("`eq'"),2,.)
              local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', w
> ord
              }
              else {
              gettoken p1 p2 : eq, parse("()")
              local p2 = trim(`"`p2'"')
              if bsubstr("`p2'",1,1) == "," {
              gettoken comma p2 : p2, parse(",")
              local p2 = trim(`"`p2'"')
              }
              if `"`p1'`p2'"' == "()" {
              local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
              }
              }
              }
            - if `interactive' {
            = if 0 {
              SetGlobalVar ML_sample : _MLtua
              }
            - else {
            - global ML_sample : tempvar
            - if `"`moptobj'"' != "" {
            = if `""' != "" {
              global ML_sample `moptobj'$ML_sample
              }
            - }
            - if `"`moptobj'"' != "" {
            = if `""' != "" {
              cap drop $ML_sample
              }
            - `vv' mark $ML_sample `if' `in' [`weight'`exp'], `zeroweight'
            = version 18: mark __000005 if __000000   [],
            - tempname eqlist
            - .`eqlist' = ._eqlist.new, eqopts(NOCONStant FREEParm) eqargopts(
> OFFset EXPosure) noneedvarlist numdepvars(0) needequal
            = .__000006 = ._eqlist.new, eqopts(NOCONStant FREEParm) eqargopts(
> OFFset EXPosure) noneedvarlist numdepvars(0) needequal
              -class {
              -instance:
              -        array           n_depvars
              -        string          needequal
              -        string          noneedvarlist
              -        string          wtypes
              -        string          collinear
              -        string          nocons
              -        string          nocons_ignore
              -        double          n_eq
              -        string          gl_if
              -        string          gl_in
              -        string          gl_wgt
              -        string          gl_options
              -        _optlist        eq_opts_allowed
                -class {
                -instance:
                -        array options   = {}
                -        array names     = {}
                -}
              -       array          eq_list
              -       _optlist       mark_opts
              -       array          mark_list
              -       array          mark_name
              -       _optlist       smark_opts
              -       array          smark_list
              -       array          smark_name
              -       _optlist       rmcoll_opts
              -       array          rmcoll_list
              -       array          rmcoll_name
              -       _optlist       rmdcoll_opts
              -       array          rmdcoll_list
              -       array          rmdcoll_name
              -}
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqlist.new ────────────────
              - version 9.2
              - ._init
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _eqlist._init ────────────────
                - version 9.2
                - .n_eq = 0
                - .gl_if = ""
                - .gl_in = ""
                - .gl_wgt = ""
                - .gl_options = ""
                - .eq_list = {}
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqlist._init ────────────────
              - ._setup `0'
              = ._setup , eqopts(NOCONStant FREEParm) eqargopts(OFFset EXPosur
> e) noneedvarlist numdepvars(0) needequal
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _eqlist._setup ────────────────
                - version 9.2
                - .mark_list = {}
                - .mark_name = {}
                - .mark_opts.reset
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _optlist.reset ────────────────
                  - version 9
                  - .options = {}
                  - .names = {}
                  ────────────────────────────────────────────────────────────
```

```
> ----------------------------------------- end _optlist.reset ----------------
                - .smark_list = {}
                - .smark_name = {}
                - .smark_opts.reset
                  -------------------------------------------------------------
> --------------------------------------- begin _optlist.reset ----------------
                  - version 9
                  - .options = {}
                  - .names = {}
                  -------------------------------------------------------------
> ----------------------------------------- end _optlist.reset ----------------
                - .rmcoll_list = {}
                - .rmcoll_name = {}
                - .rmcoll_opts.reset
                  -------------------------------------------------------------
> --------------------------------------- begin _optlist.reset ----------------
                  - version 9
                  - .options = {}
                  - .names = {}
                  -------------------------------------------------------------
> ----------------------------------------- end _optlist.reset ----------------
                - .rmdcoll_list = {}
                - .rmdcoll_name = {}
                - .rmdcoll_opts.reset
                  -------------------------------------------------------------
> --------------------------------------- begin _optlist.reset ----------------
                  - version 9
                  - .options = {}
                  - .names = {}
                  -------------------------------------------------------------
> ----------------------------------------- end _optlist.reset ----------------
                - syntax [, EQopts(namelist) EQARGopts(namelist) noNEEDVARLIST
>  COMMONopts(string asis) MARKopts(namelist) SMARKopts(namelist) RMCOLLopts(n
> amelist) RMDCOLLopts(namelist) NUMDEPvars(numlist integer >=0) NEEDEQUAL WTY
> PES(string) IGNORENOCONS ]
                - .eq_opts_allowed.reset
                  -------------------------------------------------------------
> --------------------------------------- begin _optlist.reset ----------------
                  - version 9
                  - .options = {}
                  - .names = {}
                  -------------------------------------------------------------
> ----------------------------------------- end _optlist.reset ----------------
                - foreach opt of local eqopts {
                - .eq_opts_allowed.addopt `opt'
                = .eq_opts_allowed.addopt NOCONStant
```

```
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _optlist.addopt ────────────────
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("NOCONStant")
                  - if "`passthru'" != "" {
                  = if "" != "" {
                    local optspec `optspec'(passthru)
                    }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "NOCONStant"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "noconstant"
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _optlist.addopt ────────────────
                - }
                - .eq_opts_allowed.addopt `opt'
                = .eq_opts_allowed.addopt FREEParm
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _optlist.addopt ────────────────
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("FREEParm")
                  - if "`passthru'" != "" {
                  = if "" != "" {
                    local optspec `optspec'(passthru)
                    }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "FREEParm"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "freeparm"
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _optlist.addopt ────────────────
                - }
                - foreach opt of local eqargopts {
                - .eq_opts_allowed.addopt `opt', passthru
                = .eq_opts_allowed.addopt OFFset, passthru
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _optlist.addopt ────────────────
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("OFFset")
                  - if "`passthru'" != "" {
```

```
                  = if "passthru" != "" {
                  - local optspec `optspec'(passthru)
                  = local optspec OFFset(passthru)
                  - }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "OFFset(passthru)"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "offset"
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _optlist.addopt ────────────────
                - }
                - .eq_opts_allowed.addopt `opt', passthru
                = .eq_opts_allowed.addopt EXPosure, passthru
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _optlist.addopt ────────────────
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("EXPosure")
                  - if "`passthru'" != "" {
                  = if "passthru" != "" {
                  - local optspec `optspec'(passthru)
                  = local optspec EXPosure(passthru)
                  - }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "EXPosure(passthru)"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "exposure"
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _optlist.addopt ────────────────
                - }
                - local i 0
                - foreach opt of local markopts {
                  .mark_opts.addopt `opt', passthru
                  }
                - local i 0
                - foreach opt of local smarkopts {
                  .smark_opts.addopt `opt', passthru
                  }
                - local i 0
                - foreach opt of local rmcollopts {
                  .rmcoll_opts.addopt `opt', passthru
                  }
                - local i 0
                - foreach opt of local rmdcollopts {
                  .rmdcoll_opts.addopt `opt', passthru
                  }
                - .n_depvars.Arrdropall
                - if "`numdepvars'" != "" {
                = if "0" != "" {
                - foreach ndep of local numdepvars {
                - .n_depvars.Arrpush `ndep'
                = .n_depvars.Arrpush 0
                - }
                - }
                - else .n_depvars.Arrpush 1
                - .needequal = "`needequal'"
                = .needequal = "needequal"
                - .wtypes = "`wtypes'"
                = .wtypes = ""
                - .noneedvarlist = "`needvarlist'"
                = .noneedvarlist = "noneedvarlist"
                - .nocons_ignore = "`ignorenocons'"
                = .nocons_ignore = ""
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _eqlist._setup ───────────────
              ────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqlist.new ───────────────
            - .`eqlist'.parse `spec'
            = .__000006.parse  (y_timing_max: y_timing_max=,  ) ("lnalpha":, f
> reeparm)
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _eqlist.parse ───────────────
              - version 9.2
              - ._init
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _eqlist._init ───────────────
                - version 9.2
                - .n_eq = 0
                - .gl_if = ""
                - .gl_in = ""
                - .gl_wgt = ""
                - .gl_options = ""
                - .eq_list = {}
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _eqlist._init ───────────────
              - local MARKOPTLIST `"`.mark_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ─────────────────────────────────────────────────────────────
> ────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local MARKOPTLIST `""'
              - local SMARKOPTLIST `"`.smark_opts.dumpoptions'"'
                ─────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ─────────────────────────────────────────────────────────────
> ────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local SMARKOPTLIST `""'
              - local RMCOLLOPTLIST `"`.rmcoll_opts.dumpoptions'"'
                ─────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ─────────────────────────────────────────────────────────────
> ────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local RMCOLLOPTLIST `""'
              - local RMDCOLLOPTLIST `"`.rmdcoll_opts.dumpoptions'"'
                ─────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local RMDCOLLOPTLIST `""'
              - _parse expand EQ GL : 0, gweight common( `MARKOPTLIST' `SMARKO
> PTLIST' `RMCOLLOPTLIST' `RMDCOLLOPTLIST' COLlinear )
              = _parse expand EQ GL : 0, gweight common(     COLlinear )
              - if `EQ_n' == 0 & "`.noneedvarlist'" == "" {
              = if 2 == 0 & "noneedvarlist" == "" {
                syntax varlist
                }
              - local rebind = `EQ_n' == 1
              = local rebind = 2 == 1
              - if `rebind' {
              = if 0 {
                tokenize `"`0'"', parse(",()[]")
                local rebind = `"`1'"' != "(" & `"`2'"' == "("
                }
              - if `rebind' {
              = if 0 {
                while `:length local 0' {
                gettoken tok 0 : 0, parse(" ,") bind match(par)
                if "`par'" == "(" {
                gettoken nxt : 0
                local nxt = substr(`"`nxt'"',1,1)
                if inlist(`"`nxt'"', "#", "|") {
                local ZERO `"`ZERO' (`tok')"'
                }
                else {
                local ZERO `"(`ZERO') (`tok') `0'"'
                local 0
                }
                }
                else if inlist("`tok'", "if", "in", ",") {
                local ZERO `"(`ZERO') `tok' `0'"'
                local 0
                }
                else if inlist(substr(`"`tok'"',1,1), "#", "|") {
```

```
                local ZERO `"`ZERO'`tok'"'
                }
                else {
                local ZERO `"`ZERO' `tok'"'
                }
                }
                _parse expand EQ GL : ZERO, gweight common( `MARKOPTLIST' `SMA
> RKOPTLIST' `RMCOLLOPTLIST' `RMDCOLLOPTLIST' COLlinear )
                }
              - forval i = 1/`EQ_n' {
              = forval i = 1/2 {
              - if `i' <= `.n_depvars.arrnels' {
              = if 1 <= 1 {
              - local ndep = `.n_depvars[`i']'
              = local ndep = 0
              - }
              - .eq_list[`i'] = ._eqspec.new, numdepvars(`ndep') `.needequal'
> `.noneedvarlist' wtypes(`.wtypes') `.nocons_ignore'
              = .eq_list[1] = ._eqspec.new, numdepvars(0) needequal noneedvarl
> ist wtypes()
                -class {
                -instance:
                -        double  n_depvars
                -        double  needequal
                -        double  needvarlist
                -        string  wtypes
                -        string  name
                -        string  depvars
                -        double  hasequal
                -        string  indepvars
                -        string  other_markvars
                -        double  nocons
                -        double  nocons_ignore
                -        string  offset
                -        double  exposure
                -        double  freeparm
                -        string  if
                -        string  in
                -        string  wgt
                -        string  options
                -}
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqspec.new ───────────────
                - version 9.2
                - syntax [, NUMDEPvars(numlist integer >=0 max=1) NEEDEQUAL no
> NEEDVARLIST WTYPES(string) IGNORENOCONS ]
```

```
                - .n_depvars = 1
                - if `:list sizeof numdepvars' {
                = if 1 {
                - .n_depvars = `numdepvars'
                = .n_depvars = 0
                - }
                - .needequal = ("`needequal'" != "")
                = .needequal = ("needequal" != "")
                - .needvarlist = ("`needvarlist'" == "")
                = .needvarlist = ("noneedvarlist" == "")
                - .nocons_ignore = ("`ignorenocons'" != "")
                = .nocons_ignore = ("" != "")
                - .wtypes = "`wtypes'"
                = .wtypes = ""
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqspec.new ────────────────
              - .eq_list[`i'].parse `.eq_opts_allowed.objkey':`EQ_`i''
              = .eq_list[1].parse __key(6000025d2780):y_timing_max: y_timing_m
> ax=
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _eqspec.parse ────────────────
                - version 9.2
                - _on_colon_parse `0'
                = _on_colon_parse __key(6000025d2780):y_timing_max: y_timing_m
> ax=
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _on_colon_parse ────────────────
                  - version 8.2
                  - sreturn local before ""
                  - sreturn local after ""
                  - gettoken before after : 0, parse(":") bind match(par) quot
> es
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `"(`before')"'
                    }
                  - if `"`before'"' == ":" {
                  = if `"__key(6000025d2780)"' == ":" {
                    sreturn local after `"`after'"'
                    exit
                    }
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
                  = while `""' != ":" & `":y_timing_max: y_timing_max="' != ""
>  {
                  - gettoken COLON after : after, parse(":") bind match(par) q
> uotes
```

```
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `before' (`COLON')
                    local COLON
                    }
                  - else if `"`COLON'"' != ":" {
                  = else if `":"' != ":" {
                    local before `"`before' `COLON'"'
                    local COLON
                    }
                  - }
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
                  = while `":"' != ":" & `"y_timing_max: y_timing_max="' != ""
>  {
                    gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                    if "`par'" != "" {
                    local before `before' (`COLON')
                    local COLON
                    }
                    else if `"`COLON'"' != ":" {
                    local before `"`before' `COLON'"'
                    local COLON
                    }
                    }
                  - if `"`COLON'"' != ":" {
                  = if `":"' != ":" {
                    di as err "'' found where ':' expected"
                    exit 198
                    }
                  - sreturn local before `"`before'"'
                  = sreturn local before `"__key(6000025d2780)"'
                  - sreturn local after `"`after'"'
                  = sreturn local after `"y_timing_max: y_timing_max="'
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ────────────────
                - local ol `s(before)'
                = local ol __key(6000025d2780)
                - if `:list sizeof ol' {
                = if 1 {
                - local OPTLIST `"`.`ol'.dumpoptions'"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ────────────────
                  - version 9
                  - forval i = 1/`.options.arrnels' {
                  = forval i = 1/4 {
```

```
                  - local optlist `optlist' `.options[`i']'
                  = local optlist  NOCONStant
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm OFFset(passthru)
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm OFFset(passthru) EXPosur
> e(passthru)
                  - }
                  - local optlist : list uniq optlist
                  - sreturn local optlist `"`optlist'"'
                  = sreturn local optlist `"NOCONStant FREEParm OFFset(passthr
> u) EXPosure(passthru)"'
                  - class exit `"`optlist'"'
                  = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosure
> (passthru)"'
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ────────────────
                = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPosur
> e(passthru)"'
                - local OPTNAMES `"`.`ol'.dumpnames'"'
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ────────────────
                  - version 9
                  - forval i = 1/`.names.arrnels' {
                  = forval i = 1/4 {
                  - local namelist `namelist' `.names[`i']'
                  = local namelist  noconstant
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm offset
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm offset exposure
                  - }
                  - local namelist : list uniq namelist
                  - sreturn local namelist `"`namelist'"'
                  = sreturn local namelist `"noconstant freeparm offset exposu
> re"'
```

```
                  - class exit `"`namelist'"'
                  = class exit `"noconstant freeparm offset exposure"'
                  ------------------------------------------------------------
> ------------------------------------- end _optlist.dumpnames ---------------
                = local OPTNAMES `"noconstant freeparm offset exposure"'
                - local NOCONS constant noconstant
                - if `"`:list NOCONS & OPTNAMES'"' == "" {
                = if `"noconstant"' == "" {
                  local NOCONS noCONStant
                  }
                - else local NOCONS
                - }
                - local 0 `"`s(after)'"'
                = local 0 `"y_timing_max: y_timing_max="'
                - if `"`.wtypes'"' != "" {
                = if `""' != "" {
                  local wgt "[`.wtypes']"
                  }
                - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `NOC
> ONS' *]
                = syntax [anything(equalok)] [if] [in]  [, NOCONStant FREEParm
>  OFFset(passthru) EXPosure(passthru)  *]
                - local HOLDIF `"`if'"'
                = local HOLDIF `""'
                - local HOLDIN `"`in'"'
                = local HOLDIN `""'
                - if "`wgt'" != "" & "`weight'" != "" {
                = if "" != "" & "" != "" {
                  local HOLDWGT `"[`weight'`exp']"'
                  }
                - gettoken NAME REST : anything, parse(":")
                - if trim("`NAME'") == ":" {
                = if trim("y_timing_max") == ":" {
                  di as err "nothing found where equation name expected"
                  exit 198
                  }
                - if `:list sizeof REST' {
                = if 2 {
                - if strpos(`"`NAME'"', ":") {
                = if strpos(`"y_timing_max"', ":") {
                  capture _msparse `NAME'
                  if c(rc) {
                  di as err "{bf:`NAME'} invalid equation specification"
                  exit 198
                  }
                  }
                - else {
                - ._confirm_eqname `NAME'
                = ._confirm_eqname y_timing_max
                  ────────────────────────────────────────────────────────────
> ────────────────────────────── begin _eqspec._confirm_eqname ───────────────
                  - version 9.2
                  - capture confirm number `0'
                  = capture confirm number y_timing_max
                  - if (! c(rc)) exit
                  - local hasdot = strpos(`"`0'"',".")
                  = local hasdot = strpos(`"y_timing_max"',".")
                  - if `hasdot' {
                  = if 0 {
                    syntax varname(ts)
                    exit
                    }
                  - capture syntax name(id="equation name")
                  - if (! c(rc)) exit
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────── end _eqspec._confirm_eqname ───────────────
                - }
                - local NAME : list retok NAME
                - gettoken COLON anything : REST, parse(":")
                - }
                - else {
                  local NAME
                  }
                - gettoken DEPVARS REST : anything, parse("=") bind
                - if "`DEPVARS'" == "=" {
                = if "y_timing_max" == "=" {
                  local REST : copy local anything
                  local DEPVARS
                  }
                - if (`:length local DEPVARS' == 0 & `.n_depvars') {
                = if (12 == 0 & 0) {
                  di as err "nothing found where depvar expected"
                  exit 198
                  }
                - if `"`REST'"' == "" {
                = if `"="' == "" {
                  if 0`.needequal' {
                  if `.needvarlist' | (`:length local DEPVARS' != 0 & `.n_depv
> ars') {
                  di as err "equal sign required to separate depvars from inde
> pvars"
                  exit 198
                  }
                  }
                  local DEPVARS
                  local n_deps : list sizeof anything
                  if `n_deps' != 0 | `.needvarlist' {
                  if `n_deps' < `.n_depvars' {
                  error 102
                  }
                  forval j = 1/`.n_depvars' {
                  gettoken YY anything : anything
                  local DEPVARS `DEPVARS' `YY'
                  }
                  local INDEPVARS : list retok anything
                  }
                  loca hasequal 0
                  }
                - else {
                - gettoken EQ INDEPVARS : REST, parse("=") bind
                - local hasequal 1
                - }
                - if `:list sizeof DEPVARS' {
                = if 1 {
                - _fv_check_depvar `DEPVARS'
                = _fv_check_depvar y_timing_max
                - tsunab DEPVARS : `DEPVARS'
                = tsunab DEPVARS : y_timing_max
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin tsunab ───────────────
                  - version 6
                  - gettoken user 0: 0, parse(" :")
                  - gettoken colon 0: 0, parse(" :")
                  - if `"`colon'"' != ":" { error 198 }
                  = if `":"' != ":" { error 198 }
                  - syntax [varlist(ts default=empty)] [, MIN(integer 1) MAX(i
> nteger 32000) NAME(string)]
                  - c_local `user' `varlist'
                  = c_local DEPVARS y_timing_max
                  - local n : word count `varlist'
                  = local n : word count y_timing_max
                  - if `n'>=`min' & `n'<=`max' { exit }
                  = if 1>=1 & 1<=32000 { exit }
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end tsunab ───────────────
                - }
                - if `:list sizeof INDEPVARS' {
                = if 0 {
```

```
          fvunab INDEPVARS : `INDEPVARS'
          }
        - if inlist("noconstant", "`noconstant'", "`constant'") {
        = if inlist("noconstant", "", "") {
          if "`INDEPVARS'" == "" & ! `.nocons_ignore' {
          di as err "independent variables are required when option no
> constant is specified"
          exit 102
          }
          if "`NOCONS'" != "" {
          local options `options' noconstant
          }
          local NOCONS 1
          }
        - else local NOCONS 0
        - if `"`offset'`exposure'"' != "" {
        = if `""' != "" {
          ._check_offset, `offset' `exposure'
          local OFFSET "`s(offset)'"
          local EXPOSURE = ("`exposure'" != "")
          local OTHER `s(offset)'
          }
        - else local EXPOSURE 0
        - local FREEPARM = `"`freeparm'"' != ""
        = local FREEPARM = `""' != ""
        - local OPTIONS
        - local SPACE
        - foreach OPTNAME of local OPTNAMES {
        - if `"``OPTNAME''"' != "" {
        = if `""' != "" {
          local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
          local SPACE " "
          }
        - }
        - if `"``OPTNAME''"' != "" {
        = if `""' != "" {
          local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
          local SPACE " "
          }
        - }
        - if `"``OPTNAME''"' != "" {
        = if `""' != "" {
          local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
          local SPACE " "
          }
        - }
```

```
                - if `"``OPTNAME''"' != "" {
                = if `""' != "" {
                  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                  local SPACE " "
                  }
                - }
                - if `"`options'"' != "" {
                = if `""' != "" {
                  local OPTIONS `"`OPTIONS'`SPACE'`options'"'
                  }
                - .name = `"`NAME'"'
                = .name = `"y_timing_max"'
                - .depvars = `"`DEPVARS'"'
                = .depvars = `"y_timing_max"'
                - .hasequal = `hasequal'
                = .hasequal = 1
                - .indepvars = `"`:list retok INDEPVARS'"'
                = .indepvars = `""'
                - .other_markvars = `"`:list retok OTHER'"'
                = .other_markvars = `""'
                - .nocons = `NOCONS'
                = .nocons = 0
                - .if = `"`HOLDIF'"'
                = .if = `""'
                - .in = `"`HOLDIN'"'
                = .in = `""'
                - .wgt = `"`HOLDWGT'"'
                = .wgt = `""'
                - .offset = `"`OFFSET'"'
                = .offset = `""'
                - .exposure = `EXPOSURE'
                = .exposure = 0
                - .freeparm = `FREEPARM'
                = .freeparm = 0
                - .options = `"`OPTIONS'"'
                = .options = `""'
                --------------------------------------------------------------
> ------------------------------------------ end _eqspec.parse ---------------
              - }
              - if `i' <= `.n_depvars.arrnels' {
              = if 2 <= 1 {
                local ndep = `.n_depvars[`i']'
                }
              - .eq_list[`i'] = ._eqspec.new, numdepvars(`ndep') `.needequal'
> `.noneedvarlist' wtypes(`.wtypes') `.nocons_ignore'
              = .eq_list[2] = ._eqspec.new, numdepvars(0) needequal noneedvarl
```

```
> ist wtypes()
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqspec.new ────────────────
                - version 9.2
                - syntax [, NUMDEPvars(numlist integer >=0 max=1) NEEDEQUAL no
> NEEDVARLIST WTYPES(string) IGNORENOCONS ]
                - .n_depvars = 1
                - if `:list sizeof numdepvars' {
                = if 1 {
                - .n_depvars = `numdepvars'
                = .n_depvars = 0
                - }
                - .needequal = ("`needequal'" != "")
                = .needequal = ("needequal" != "")
                - .needvarlist = ("`needvarlist'" == "")
                = .needvarlist = ("noneedvarlist" == "")
                - .nocons_ignore = ("`ignorenocons'" != "")
                = .nocons_ignore = ("" != "")
                - .wtypes = "`wtypes'"
                = .wtypes = ""
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqspec.new ────────────────
              - .eq_list[`i'].parse `.eq_opts_allowed.objkey':`EQ_`i''
              = .eq_list[2].parse __key(6000025d2780):"lnalpha":, freeparm
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.parse ────────────────
                - version 9.2
                - _on_colon_parse `0'
                = _on_colon_parse __key(6000025d2780):"lnalpha":, freeparm
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _on_colon_parse ────────────────
                  - version 8.2
                  - sreturn local before ""
                  - sreturn local after ""
                  - gettoken before after : 0, parse(":") bind match(par) quot
> es
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `"(`before')"'
                    }
                  - if `"`before'"' == ":" {
                  = if `"__key(6000025d2780)"' == ":" {
                    sreturn local after `"`after'"'
                    exit
                    }
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
```

```
                  = while `""' != ":" & `":"lnalpha":, freeparm"' != "" {
                  - gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `before' (`COLON')
                    local COLON
                    }
                  - else if `"`COLON'"' != ":" {
                  = else if `":"' != ":" {
                    local before `"`before' `COLON'"'
                    local COLON
                    }
                  - }
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
                  = while `":"' != ":" & `""lnalpha":, freeparm"' != "" {
                    gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                    if "`par'" != "" {
                    local before `before' (`COLON')
                    local COLON
                    }
                    else if `"`COLON'"' != ":" {
                    local before `"`before' `COLON'"'
                    local COLON
                    }
                    }
                  - if `"`COLON'"' != ":" {
                  = if `":"' != ":" {
                    di as err "'' found where ':' expected"
                    exit 198
                    }
                  - sreturn local before `"`before'"'
                  = sreturn local before `"__key(6000025d2780)"'
                  - sreturn local after `"`after'"'
                  = sreturn local after `""lnalpha":, freeparm"'
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
                - local ol `s(before)'
                = local ol __key(6000025d2780)
                - if `:list sizeof ol' {
                = if 1 {
                - local OPTLIST `"`.`ol'.dumpoptions'"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                  - version 9
                  - forval i = 1/`.options.arrnels' {
                  = forval i = 1/4 {
                  - local optlist `optlist' `.options[`i']'
                  = local optlist  NOCONStant
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm OFFset(passthru)
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm OFFset(passthru) EXPosur
> e(passthru)
                  - }
                  - local optlist : list uniq optlist
                  - sreturn local optlist `"`optlist'"'
                  = sreturn local optlist `"NOCONStant FREEParm OFFset(passthr
> u) EXPosure(passthru)"'
                  - class exit `"`optlist'"'
                  = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosure
> (passthru)"'
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────── end _optlist.dumpoptions ───────────────
                = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPosur
> e(passthru)"'
                - local OPTNAMES `"`.`ol'.dumpnames'"'
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────── begin _optlist.dumpnames ───────────────
                  - version 9
                  - forval i = 1/`.names.arrnels' {
                  = forval i = 1/4 {
                  - local namelist `namelist' `.names[`i']'
                  = local namelist  noconstant
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm offset
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm offset exposure
                  - }
                  - local namelist : list uniq namelist
                  - sreturn local namelist `"`namelist'"'
                  = sreturn local namelist `"noconstant freeparm offset exposu
> re"'
                  - class exit `"`namelist'"'
                  = class exit `"noconstant freeparm offset exposure"'
                  ------------------------------------------------------------
> ------------------------------------- end _optlist.dumpnames ---------------
                = local OPTNAMES `"noconstant freeparm offset exposure"'
                - local NOCONS constant noconstant
                - if `"`:list NOCONS & OPTNAMES'"' == "" {
                = if `"noconstant"' == "" {
                  local NOCONS noCONStant
                  }
                - else local NOCONS
                - }
                - local 0 `"`s(after)'"'
                = local 0 `""lnalpha":, freeparm"'
                - if `"`.wtypes'"' != "" {
                = if `""' != "" {
                  local wgt "[`.wtypes']"
                  }
                - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `NOC
> ONS' *]
                = syntax [anything(equalok)] [if] [in]  [, NOCONStant FREEParm
>  OFFset(passthru) EXPosure(passthru)  *]
                - local HOLDIF `"`if'"'
                = local HOLDIF `""'
                - local HOLDIN `"`in'"'
                = local HOLDIN `""'
                - if "`wgt'" != "" & "`weight'" != "" {
                = if "" != "" & "" != "" {
                  local HOLDWGT `"[`weight'`exp']"'
                  }
                - gettoken NAME REST : anything, parse(":")
                - if trim("`NAME'") == ":" {
                = if trim("lnalpha") == ":" {
                  di as err "nothing found where equation name expected"
                  exit 198
                  }
                - if `:list sizeof REST' {
                = if 1 {
                - if strpos(`"`NAME'"', ":") {
                = if strpos(`"lnalpha"', ":") {
                  capture _msparse `NAME'
                  if c(rc) {
                  di as err "{bf:`NAME'} invalid equation specification"
                  exit 198
                  }
                  }
                - else {
                - ._confirm_eqname `NAME'
                = ._confirm_eqname lnalpha
                  ────────────────────────────────────────────────────────────
> ────────────────────────────── begin _eqspec._confirm_eqname ───────────────
                  - version 9.2
                  - capture confirm number `0'
                  = capture confirm number lnalpha
                  - if (! c(rc)) exit
                  - local hasdot = strpos(`"`0'"',".")
                  = local hasdot = strpos(`"lnalpha"',".")
                  - if `hasdot' {
                  = if 0 {
                    syntax varname(ts)
                    exit
                    }
                  - capture syntax name(id="equation name")
                  - if (! c(rc)) exit
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────── end _eqspec._confirm_eqname ───────────────
                - }
                - local NAME : list retok NAME
                - gettoken COLON anything : REST, parse(":")
                - }
                - else {
                  local NAME
                  }
                - gettoken DEPVARS REST : anything, parse("=") bind
                - if "`DEPVARS'" == "=" {
                = if "" == "=" {
                  local REST : copy local anything
                  local DEPVARS
                  }
                - if (`:length local DEPVARS' == 0 & `.n_depvars') {
                = if (0 == 0 & 0) {
                  di as err "nothing found where depvar expected"
                  exit 198
                  }
                - if `"`REST'"' == "" {
                = if `""' == "" {
                - if 0`.needequal' {
                = if 01 {
                - if `.needvarlist' | (`:length local DEPVARS' != 0 & `.n_depv
> ars') {
```

```
                = if 0 | (0 != 0 & 0) {
                  di as err "equal sign required to separate depvars from inde
> pvars"
                  exit 198
                  }
                - }
                - local DEPVARS
                - local n_deps : list sizeof anything
                - if `n_deps' != 0 | `.needvarlist' {
                = if 0 != 0 | 0 {
                  if `n_deps' < `.n_depvars' {
                  error 102
                  }
                  forval j = 1/`.n_depvars' {
                  gettoken YY anything : anything
                  local DEPVARS `DEPVARS' `YY'
                  }
                  local INDEPVARS : list retok anything
                  }
                - loca hasequal 0
                - }
                - else {
                  gettoken EQ INDEPVARS : REST, parse("=") bind
                  local hasequal 1
                  }
                - if `:list sizeof DEPVARS' {
                = if 0 {
                  _fv_check_depvar `DEPVARS'
                  tsunab DEPVARS : `DEPVARS'
                  }
                - if `:list sizeof INDEPVARS' {
                = if 0 {
                  fvunab INDEPVARS : `INDEPVARS'
                  }
                - if inlist("noconstant", "`noconstant'", "`constant'") {
                = if inlist("noconstant", "", "") {
                  if "`INDEPVARS'" == "" & ! `.nocons_ignore' {
                  di as err "independent variables are required when option no
> constant is specified"
                  exit 102
                  }
                  if "`NOCONS'" != "" {
                  local options `options' noconstant
                  }
                  local NOCONS 1
                  }
```

```
- else local NOCONS 0
- if `"`offset'`exposure'"' != "" {
= if `""' != "" {
  ._check_offset, `offset' `exposure'
  local OFFSET "`s(offset)'"
  local EXPOSURE = ("`exposure'" != "")
  local OTHER `s(offset)'
  }
- else local EXPOSURE 0
- local FREEPARM = `"`freeparm'"' != ""
= local FREEPARM = `"freeparm"' != ""
- local OPTIONS
- local SPACE
- foreach OPTNAME of local OPTNAMES {
- if `"``OPTNAME''"' != "" {
= if `""' != "" {
  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
  local SPACE " "
  }
- }
- if `"``OPTNAME''"' != "" {
= if `"freeparm"' != "" {
- local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
= local OPTIONS `"freeparm"'
- local SPACE " "
- }
- }
- if `"``OPTNAME''"' != "" {
= if `""' != "" {
  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
  local SPACE " "
  }
- }
- if `"``OPTNAME''"' != "" {
= if `""' != "" {
  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
  local SPACE " "
  }
- }
- if `"`options'"' != "" {
= if `""' != "" {
  local OPTIONS `"`OPTIONS'`SPACE'`options'"'
  }
- .name = `"`NAME'"'
= .name = `"lnalpha"'
- .depvars = `"`DEPVARS'"'
```

```
                = .depvars = `""'
                - .hasequal = `hasequal'
                = .hasequal = 0
                - .indepvars = `"`:list retok INDEPVARS'"'
                = .indepvars = `""'
                - .other_markvars = `"`:list retok OTHER'"'
                = .other_markvars = `""'
                - .nocons = `NOCONS'
                = .nocons = 0
                - .if = `"`HOLDIF'"'
                = .if = `""'
                - .in = `"`HOLDIN'"'
                = .in = `""'
                - .wgt = `"`HOLDWGT'"'
                = .wgt = `""'
                - .offset = `"`OFFSET'"'
                = .offset = `""'
                - .exposure = `EXPOSURE'
                = .exposure = 0
                - .freeparm = `FREEPARM'
                = .freeparm = 1
                - .options = `"`OPTIONS'"'
                = .options = `"freeparm"'
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqspec.parse ───────────────
              - }
              - local MARKOPTLIST `"`.mark_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local MARKOPTLIST `""'
              - local MARKOPTNAMES `"`.mark_opts.dumpnames'"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/0 {
                  local namelist `namelist' `.names[`i']'
                  }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `""'
                - class exit `"`namelist'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local MARKOPTNAMES `""'
              - local OPTLIST1 : subinstr local MARKOPTLIST "(passthru)" "(str
> ing asis)", all
              - local SMARKOPTLIST `"`.smark_opts.dumpoptions'"'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local SMARKOPTLIST `""'
              - local SMARKOPTNAMES `"`.smark_opts.dumpnames'"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/0 {
                  local namelist `namelist' `.names[`i']'
                  }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `""'
                - class exit `"`namelist'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local SMARKOPTNAMES `""'
              - local OPTLIST1s : subinstr local SMARKOPTLIST "(passthru)" "(s
> tring asis)", all
              - local RMCOLLOPTLIST `"`.rmcoll_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local RMCOLLOPTLIST `""'
              - local RMCOLLOPTNAMES `"`.rmcoll_opts.dumpnames'"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/0 {
                  local namelist `namelist' `.names[`i']'
                  }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `""'
                - class exit `"`namelist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local RMCOLLOPTNAMES `""'
              - local OPTLIST2 : subinstr local RMCOLLOPTLIST "(passthru)" "(s
> tring asis)", all
              - local RMDCOLLOPTLIST `"`.rmdcoll_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local RMDCOLLOPTLIST `""'
              - local RMDCOLLOPTNAMES `"`.rmdcoll_opts.dumpnames'"'
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/0 {
                  local namelist `namelist' `.names[`i']'
                  }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `""'
                - class exit `"`namelist'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ────────────────────────────────────── end _optlist.dumpnames ───────────────
              = local RMDCOLLOPTNAMES `""'
              - local OPTLIST3 : subinstr local RMDCOLLOPTLIST "(passthru)" "(
> string asis)", all
              - local 0 `", `GL_op'"'
              = local 0 `", "'
              - syntax [, `OPTLIST1' `OPTLIST1s' `OPTLIST2' `OPTLIST3' COLline
> ar noCONStant * ]
              = syntax [,     COLlinear noCONStant * ]
              - local GL_op `"`options'"'
              = local GL_op `""'
              - if `"`collinear'"' != "" {
              = if `""' != "" {
                local GL_op `"`GL_op' `collinear'"'
                .collinear = "`collinear'"
                }
              - if `"`constant'"' != "" {
              = if `""' != "" {
                local GL_op `"`GL_op' `constant'"'
                .nocons = "`constant'"
                }
              - local I 0
              - foreach OPT of local MARKOPTNAMES {
                if `:list sizeof `OPT'' {
                .mark_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wtypes')
                .mark_list[`I'].parse "" : ``OPT''
                .mark_name.Arrpush "`OPT'"
                }
                }
              - local I 0
              - foreach OPT of local SMARKOPTNAMES {
                if `:list sizeof `OPT'' {
                .smark_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wtypes')
                .smark_list[`I'].parse "" : ``OPT''
                .smark_name.Arrpush "`OPT'"
                }
                }
              - local I 0
              - foreach OPT of local RMCOLLOPTNAMES {
                if `:list sizeof `OPT'' {
                .rmcoll_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wtypes'
> )
                .rmcoll_list[`I'].parse "" : ``OPT''
                .rmcoll_name.Arrpush "`OPT'"
                }
                }
              - local I 0
              - foreach OPT of local RMDCOLLOPTNAMES {
                if `:list sizeof `OPT'' {
                .rmdcoll_list[`++I'] = ._eqspec.new, wtypes(`.wtypes')
                .rmdcoll_list[`I'].parse "" : ``OPT''
                .rmdcoll_name.Arrpush "`OPT'"
                }
                }
              - .n_eq = `EQ_n'
              = .n_eq = 2
              - .gl_if = `"`GL_if'"'
              = .gl_if = `""'
              - .gl_in = `"`GL_in'"'
              = .gl_in = `""'
              - .gl_wgt = `"`GL_wt'"'
              = .gl_wgt = `""'
              - .gl_options = `"`:list retok GL_op'"'
              = .gl_options = `""'
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqlist.parse ───────────────
            - if "`subpop'" != "" & "`missing'" == "" {
            = if "" != "" & "missing" == "" {
              if `interactive' {
              SetGlobalVar ML_samp : _MLtu
              }
              else {
```

```
              global ML_samp : tempvar
              if `"`moptobj'"' != "" {
              global ML_samp `moptobj'$ML_samp
              }
              }
              tempvar markuse
              _svy_setup $ML_sample $ML_samp, svy subpop(`subpop')
              quietly gen byte `markuse' = $ML_samp
              }
            - else global ML_samp $ML_sample
            = else global ML_samp __000005
            - if "`collinear'" == "" {
            = if "collinear" == "" {
              .`eqlist'.rmcoll $ML_samp, replace `missing'
              }
            - else if "`missing'" == "" {
            = else if "missing" == "" {
              .`eqlist'.markout $ML_samp, replace
              }
            - if "$ML_samp" != "$ML_sample" {
            = if "__000005" != "__000005" {
              `vv' quietly replace $ML_sample = 0 if `markuse' & !$ML_samp
              drop `markuse'
              }
            - local eq_n = `.`eqlist'.eq count'
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "count" == "count" {
              - sreturn local value `"`.n_eq'"'
              = sreturn local value `"2"'
              - class exit `"`s(value)'"'
              = class exit `"2"'
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_n = 2
            - global ML_n : copy local eq_n
            - global ML_dim = `.`eqlist'.dim'
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqlist.dim ───────────────
              - version 9.2
              - syntax
              - local neq = `.eq count'
                ──────────────────────────────────────────────────────────────
```

```
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "count" == "count" {
                - sreturn local value `"`.n_eq'"'
                = sreturn local value `"2"'
                - class exit `"`s(value)'"'
                = class exit `"2"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
              = local neq = 2
              - forval i = 1/`neq' {
              = forval i = 1/2 {
              - local xvarsi `"`.eq indepvars `i''"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "indepvars" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                  }
                - else if 0 < `idx' & `idx' <= `.n_eq' {
                = else if 0 < 1 & 1 <= 2 {
                - .eq_list[`idx'].item `item'
                = .eq_list[1].item indepvars
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                  - version 9.2
                  - args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, indepvars
                    ──────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
                    = if 0 {
                      local other other_markvars
                      }
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
```

```
                    = local item   indepvars
                    - if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                      }
                    - c_local `c_item' `item'
                    = c_local item indepvars
                    ──────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                  - local value `"`.`item''"'
                  = local value `""'
                  - sreturn local value `"`value'"'
                  = sreturn local value `""'
                  - class exit `"`value'"'
                  = class exit `""'
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
                - class exit `"`s(value)'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
              = local xvarsi `""'
              - local noconsi `"`.eq nocons `i''"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "nocons" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                  }
                - else if 0 < `idx' & `idx' <= `.n_eq' {
                = else if 0 < 1 & 1 <= 2 {
                - .eq_list[`idx'].item `item'
                = .eq_list[1].item nocons
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                  - version 9.2
                  - args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, nocons
                    ──────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
```

```
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
                    = if 0 {
                      local other other_markvars
                      }
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
                    = local item        nocons
                    - if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                      }
                    - c_local `c_item' `item'
                    = c_local item nocons
                    ----------------------------------------------------------
> ---------------------------- end _eqspec._check_eq_item_name ---------------
                  - local value `"`.`item''"'
                  = local value `"0"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"0"'
                  - class exit `"`value'"'
                  = class exit `"0"'
                  ------------------------------------------------------------
> ------------------------------------------- end _eqspec.item ---------------
                - class exit `"`s(value)'"'
                = class exit `"0"'
                --------------------------------------------------------------
> --------------------------------------------- end _eqlist.eq ---------------
              = local noconsi `"0"'
              - local dim = `dim' + `:list sizeof xvarsi'
              = local dim =  + 0
              - if "`noconsi'" == "0" {
              = if "0" == "0" {
              - local ++dim
              - }
              - }
              - local xvarsi `"`.eq indepvars `i''"'
                --------------------------------------------------------------
> ------------------------------------------- begin _eqlist.eq ---------------
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "indepvars" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                  }
                - else if 0 < `idx' & `idx' <= `.n_eq' {
                = else if 0 < 2 & 2 <= 2 {
                - .eq_list[`idx'].item `item'
                = .eq_list[2].item indepvars
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                  - version 9.2
                  - args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, indepvars
                    ──────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
                    = if 0 {
                      local other other_markvars
                      }
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
                    = local item   indepvars
                    - if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                      }
                    - c_local `c_item' `item'
                    = c_local item indepvars
                    ──────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                  - local value `"`.`item''"'
                  = local value `""'
                  - sreturn local value `"`value'"'
                  = sreturn local value `""'
                  - class exit `"`value'"'
                  = class exit `""'
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
                - class exit `"`s(value)'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
              = local xvarsi `""'
              - local noconsi `"`.eq nocons `i''"'
```

```
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "nocons" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                  }
                - else if 0 < `idx' & `idx' <= `.n_eq' {
                = else if 0 < 2 & 2 <= 2 {
                - .eq_list[`idx'].item `item'
                = .eq_list[2].item nocons
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                  - version 9.2
                  - args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, nocons
                    ──────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
                    = if 0 {
                      local other other_markvars
                      }
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
                    = local item        nocons
                    - if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                      }
                    - c_local `c_item' `item'
                    = c_local item nocons
                    ──────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                  - local value `"`.`item''"'
                  = local value `"0"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"0"'
                  - class exit `"`value'"'
                  = class exit `"0"'
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
                - class exit `"`s(value)'"'
                = class exit `"0"'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
              = local noconsi `"0"'
              - local dim = `dim' + `:list sizeof xvarsi'
              = local dim = 1 + 0
              - if "`noconsi'" == "0" {
              = if "0" == "0" {
              - local ++dim
              - }
              - }
              - sreturn local value `"`dim'"'
              = sreturn local value `"2"'
              - class exit `"`s(value)'"'
              = class exit `"2"'
              ─────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqlist.dim ────────────────
            = global ML_dim = 2
            - forval i = 1/`eq_n' {
            = forval i = 1/2 {
            - local depvars `.`eqlist'.eq depvars `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "depvars" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item depvars
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, depvars
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item  depvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item depvars
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"y_timing_max"'
                - sreturn local value `"`value'"'
                = sreturn local value `"y_timing_max"'
                - class exit `"`value'"'
                = class exit `"y_timing_max"'
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `"y_timing_max"'
              ─────────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end _eqlist.eq ───────────────
            = local depvars y_timing_max
            - local eq `.`eqlist'.eq name `i''
              ─────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "name" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item name
                ───────────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, name
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item name
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item name
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"y_timing_max"'
                - sreturn local value `"`value'"'
                = sreturn local value `"y_timing_max"'
                - class exit `"`value'"'
                = class exit `"y_timing_max"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"y_timing_max"'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq y_timing_max
            - if !`:length local eq' {
            = if !12 {
              local eq eq`i'
              }
            - if `:list eq in eqnames' {
            = if 0 {
              di as err "equation '`eq'' multiply defined"
              exit 110
              }
            - local eqnames `eqnames' `eq'
            = local eqnames  y_timing_max
            - fvexpand `.`eqlist'.eq indepvars `i'' if $ML_samp
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "indepvars" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                  }
                - else if 0 < `idx' & `idx' <= `.n_eq' {
                = else if 0 < 1 & 1 <= 2 {
                - .eq_list[`idx'].item `item'
                = .eq_list[1].item indepvars
                  ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                  - version 9.2
                  - args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, indepvars
                    ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
                    = if 0 {
                      local other other_markvars
                      }
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                    = local item   indepvars
                    - if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                      }
                    - c_local `c_item' `item'
                    = c_local item indepvars
                    ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                  - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = fvexpand  if __000005
            - if "`r(tsops)'" == "true" {
            = if "" == "true" {
              global ML_preserve no
              }
            - local eq_rhs`i' `"`r(varlist)'"'
            = local eq_rhs1 `""'
            - local eq_nocons`i' `.`eqlist'.eq nocons `i''
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "nocons" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item nocons
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, nocons
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item        nocons
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item nocons
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"0"'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq_nocons1 0
            - local eq_offset`i' `.`eqlist'.eq offset `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "offset" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item offset
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, offset
```

```
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item         offset
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item offset
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_offset1
            - local eq_exposure`i' `.`eqlist'.eq exposure `i''
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "exposure" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
```

```
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item exposure
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, exposure
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item          exposure
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item exposure
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"0"'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq_exposure1 0
            - local eq_freeparm`i' `.`eqlist'.eq freeparm `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "freeparm" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item freeparm
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, freeparm
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item           freeparm
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item freeparm
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
```

```
          = class exit `"0"'
          ---------------------------------------------------------------
> ---------------------------------------------- end _eqlist.eq ----------
         = local eq_freeparm1 0
         - local lhs `lhs' `depvars'
         = local lhs  y_timing_max
         - local eq_names `eq_names' `eq'
         = local eq_names  y_timing_max
         - local nxvars :list sizeof eq_rhs`i'
         = local nxvars :list sizeof eq_rhs1
         - local TMP : copy local eq_rhs`i'
         = local TMP : copy local eq_rhs1
         - forval j = 1/`nxvars' {
         = forval j = 1/0 {
           gettoken xvar TMP : TMP
           local colna `"`colna' `eq':`xvar'"'
           }
         - if `eq_freeparm`i'' {
         = if 0 {
           if `nxvars' {
           di as err "{it:xvars} not allowed with option {bf:freeparm}"
           exit 198
           }
           if strpos(`"`eq'"', ":") {
           local colna `"`colna' /`eq'"'
           }
           else {
           local colna `"`colna' /:`eq'"'
           }
           }
         - else if !`eq_nocons`i'' {
         = else if !0 {
         - local colna `"`colna' `eq':_cons"'
         = local colna `" y_timing_max:_cons"'
         - }
         - if "`moptobj'" != "" {
         = if "" != "" {
           if "`eq_offset`i''" != "" {
           if usubstr("`eq_offset`i''",1,2)=="__" {
           capture clonevar `moptobj'`eq_offset`i'' = `eq_offset`i''
           local dropmetoo `dropmetoo' `moptobj'`eq_offset`i''
           }
           }
           }
         - }
         - local depvars `.`eqlist'.eq depvars `i''
```

```
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "depvars" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item depvars
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, depvars
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item  depvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item depvars
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local depvars
            - local eq `.`eqlist'.eq name `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "name" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item name
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, name
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item name
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item name
                  ------------------------------------------------------------
> ---------------------------- end _eqspec._check_eq_item_name ---------------
                - local value `"`.`item''"'
                = local value `"lnalpha"'
                - sreturn local value `"`value'"'
                = sreturn local value `"lnalpha"'
                - class exit `"`value'"'
                = class exit `"lnalpha"'
                --------------------------------------------------------------
> ------------------------------------------- end _eqspec.item ---------------
              - class exit `"`s(value)'"'
              = class exit `"lnalpha"'
              ----------------------------------------------------------------
> --------------------------------------------- end _eqlist.eq ---------------
            = local eq lnalpha
            - if !`:length local eq' {
            = if !7 {
              local eq eq`i'
              }
            - if `:list eq in eqnames' {
            = if 0 {
              di as err "equation '`eq'' multiply defined"
              exit 110
              }
            - local eqnames `eqnames' `eq'
            = local eqnames y_timing_max lnalpha
            - fvexpand `.`eqlist'.eq indepvars `i'' if $ML_samp
              ----------------------------------------------------------------
> ------------------------------------------- begin _eqlist.eq ---------------
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "indepvars" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item indepvars
                --------------------------------------------------------------
> ----------------------------------------- begin _eqspec.item ---------------
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, indepvars
```

```
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item   indepvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item indepvars
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = fvexpand  if __000005
            - if "`r(tsops)'" == "true" {
            = if "" == "true" {
              global ML_preserve no
              }
            - local eq_rhs`i' `"`r(varlist)'"'
            = local eq_rhs2 `""'
            - local eq_nocons`i' `.`eqlist'.eq nocons `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
```

```
          = if "nocons" == "count" {
            sreturn local value `"`.n_eq'"'
            class exit `"`s(value)'"'
            }
          - else if 0 < `idx' & `idx' <= `.n_eq' {
          = else if 0 < 2 & 2 <= 2 {
          - .eq_list[`idx'].item `item'
          = .eq_list[2].item nocons
            ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
            - version 9.2
            - args item
            - ._check_eq_item_name item, `item'
            = ._check_eq_item_name item, nocons
              ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
              - version 9.2
              - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
              - if c(rc) error 198
              - if `:list sizeof other' {
              = if 0 {
                local other other_markvars
                }
              - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
              = local item        nocons
              - if `:list sizeof item' != 1 {
              = if 1 != 1 {
                error 198
                }
              - c_local `c_item' `item'
              = c_local item nocons
              ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
            - local value `"`.`item''"'
            = local value `"0"'
            - sreturn local value `"`value'"'
            = sreturn local value `"0"'
            - class exit `"`value'"'
            = class exit `"0"'
            ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
          - class exit `"`s(value)'"'
          = class exit `"0"'
          ─────────────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_nocons2 0
            - local eq_offset`i' `.`eqlist'.eq offset `i''
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "offset" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item offset
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, offset
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item         offset
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item offset
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_offset2
            - local eq_exposure`i' `.`eqlist'.eq exposure `i''
              ────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "exposure" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item exposure
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, exposure
                  ────────────────────────────────────────────────────────────
> ─────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item          exposure
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item exposure
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `"0"'
              ─────────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_exposure2 0
            - local eq_freeparm`i' `.`eqlist'.eq freeparm `i''
              ─────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "freeparm" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item freeparm
                ───────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, freeparm
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item           freeparm
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item freeparm
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `"1"'
                - sreturn local value `"`value'"'
                = sreturn local value `"1"'
                - class exit `"`value'"'
                = class exit `"1"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `"1"'
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_freeparm2 1
            - local lhs `lhs' `depvars'
            = local lhs y_timing_max
            - local eq_names `eq_names' `eq'
            = local eq_names y_timing_max lnalpha
            - local nxvars :list sizeof eq_rhs`i'
            = local nxvars :list sizeof eq_rhs2
            - local TMP : copy local eq_rhs`i'
            = local TMP : copy local eq_rhs2
            - forval j = 1/`nxvars' {
            = forval j = 1/0 {
              gettoken xvar TMP : TMP
              local colna `"`colna' `eq':`xvar'"'
              }
            - if `eq_freeparm`i'' {
            = if 1 {
            - if `nxvars' {
            = if 0 {
              di as err "{it:xvars} not allowed with option {bf:freeparm}"
              exit 198
              }
```

```
- if strpos(`"`eq'"', ":") {
= if strpos(`"lnalpha"', ":") {
  local colna `"`colna' /`eq'"'
  }
- else {
- local colna `"`colna' /:`eq'"'
= local colna `" y_timing_max:_cons /:lnalpha"'
- }
- }
- else if !`eq_nocons`i'' {
= else if !0 {
  local colna `"`colna' `eq':_cons"'
  }
- if "`moptobj'" != "" {
= if "" != "" {
  if "`eq_offset`i''" != "" {
  if usubstr("`eq_offset`i''",1,2)=="__" {
  capture clonevar `moptobj'`eq_offset`i'' = `eq_offset`i''
  local dropmetoo `dropmetoo' `moptobj'`eq_offset`i''
  }
  }
  }
- }
- if "`moptobj'" != "" {
= if "" != "" {
  foreach y of local lhs {
  if usubstr("`y'",1,2)=="__" {
  capture clonevar `moptobj'`y' = `y'
  local tmp `tmp' `moptobj'`y'
  local dropmetoo `dropmetoo' `moptobj'`y'
  }
  else {
  local tmp `tmp' `y'
  }
  }
  local lhs `tmp'
  }
- if `waldtest' > 0 & `:length local lf0' {
= if 0 > 0 & 0 {
  opts_exclusive "waldtest() lf0()"
  }
- if `:length local continue' {
= if 0 {
  if !`:length local init' {
  tempname init
  local ub0 `init'
```

```
              }
              else tempname ub0
              mat `ub0' = e(b)
              tempname v0 iv0
              mat `v0' = e(V)
              mat `iv0' = syminv(`v0')
              global ML_rank0 = colsof(`v0') - diag0cnt(`iv0')
              if !`:length local lf0' & !missing(e(ll)) {
              local lf0 `=colsof(`ub0')' `e(ll)'
              }
              local ub0
              }
            - if `:length local init' {
            = if 14 {
            - tempname b0
            - local dim : list sizeof colna
            - matrix `b0' = J(1,`dim',0)
            = matrix __000007 = J(1,2,0)
            - matrix colna `b0' = `colna'
            = matrix colna __000007 =  y_timing_max:_cons /:lnalpha
            - `vv' _mkvec `b0', from(`init') update first error("initial vecto
> r")
            = version 18: _mkvec __000007, from(__000003, copy) update first e
> rror("initial vector")
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin _mkvec ───────────────
              - local vv : display "version " string(_caller()) ":"
              - version 6
              - gettoken matout 0 : 0, parse(", ")
              - if "`matout'"=="" | "`matout'"=="," {
              = if "__000007"=="" | "__000007"=="," {
                error 198
                }
              - syntax [, FROM(str) UPdate COLnames(str) ERRor(str) FIRST ]
              - if "`update'"!="" {
              = if "update"!="" {
              - if "`colname'"!="" {
              = if ""!="" {
                di in red "update and colnames() cannot both be " "specified"
                exit 198
                }
              - capture local colname : colfullnames `matout'
              = capture local colname : colfullnames __000007
              - if _rc {
                di in red "matrix `matout' not found"
                exit 111
                }
              - if rowsof(matrix(`matout')) != 1 {
              = if rowsof(matrix(__000007)) != 1 {
                di in red "`matout' matrix to be updated must be " "a row vect
> or"
                exit 503
                }
              - local matin `matout'
              = local matin __000007
              - }
              - if `"`error'"'!="" {
              = if `"initial vector"'!="" {
              - local error `"`error': "'
              = local error `"initial vector: "'
              - }
              - tempname mat
              - if `"`from'"'!="" {
              = if `"__000003, copy"'!="" {
              - From `from'
              = From __000003, copy
                --------------------------------------------------------------
> ------------------------------------------ begin _mkvec.From ---------------
                - gettoken from 0 : 0, parse(",") bind
                - sret clear
                - sret local from `from'
                = sret local from __000003
                - if `"`0'"'!="" {
                = if `", copy"'!="" {
                - syntax [, COPY SKIP ]
                - }
                - sret local copy `copy'
                = sret local copy copy
                - sret local skip `skip'
                = sret local skip
                --------------------------------------------------------------
> -------------------------------------------- end _mkvec.From ---------------
              - local copy `s(copy)'
              = local copy copy
              - local skip `s(skip)'
              = local skip
              - if "`copy'"!="" {
              = if "copy"!="" {
              - CopyMat `mat' `"`error'"' `s(from)'
              = CopyMat __000008 `"initial vector: "' __000003
                --------------------------------------------------------------
> --------------------------------------- begin _mkvec.CopyMat ---------------
```

```
                - args matall error
                - tempname matadd
                - local i 3
                - while "``i''"!="" {
                = while "__000003"!="" {
                - capture di matrix(``i''[1,1])
                = capture di matrix(__000003[1,1])
                - if _rc == 0 {
                - ChkMat `matadd' ``i'' `"`error'"'
                = ChkMat __000009 __000003 `"initial vector: "'
                  ------------------------------------------------------------
> ---------------------------------------- begin _mkvec.ChkMat ---------------
                  - args matout matin error
                  - capture di matrix(`matin'[1,1])
                  = capture di matrix(__000003[1,1])
                  - if _rc {
                    capture confirm number `matin'
                    if _rc {
                    di in red `"`error'matrix `matin' not found"'
                    exit 111
                    }
                    di in red `"`error'list of numbers requires copy option"'
                    exit 198
                    }
                  - if matrix(rowsof(`matin')!=1 & colsof(`matin')!=1) {
                  = if matrix(rowsof(__000003)!=1 & colsof(__000003)!=1) {
                    di in red "`matin' " matrix(rowsof(`matin')) " x " matrix(
> colsof(`matin')) " is not a vector"
                    exit 503
                    }
                  - if matrix(rowsof(`matin')) == 1 {
                  = if matrix(rowsof(__000003)) == 1 {
                  - mat `matout' = `matin'
                  = mat __000009 = __000003
                  - }
                  - else mat `matout' = `matin''
                  = else mat __000009 = __000003'
                  ------------------------------------------------------------
> ------------------------------------------ end _mkvec.ChkMat ---------------
                - }
                - else {
                  capture confirm number ``i''
                  if _rc {
                  di in red `"`error'copy option requires "' "either a matrix
> or a list of numbers"
                  exit 198
                  }
                  mat `matadd' = J(1,1,``i'')
                  }
                - mat `matall' = nullmat(`matall') , `matadd'
                = mat __000008 = nullmat(__000008) , __000009
                - local i = `i' + 1
                = local i = 3 + 1
                - }
                - while "``i''"!="" {
                = while ""!="" {
                  capture di matrix(``i''[1,1])
                  if _rc == 0 {
                  ChkMat `matadd' ``i'' `"`error'"'
                  }
                  else {
                  capture confirm number ``i''
                  if _rc {
                  di in red `"`error'copy option requires "' "either a matrix
> or a list of numbers"
                  exit 198
                  }
                  mat `matadd' = J(1,1,``i'')
                  }
                  mat `matall' = nullmat(`matall') , `matadd'
                  local i = `i' + 1
                  }
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _mkvec.CopyMat ───────────────
              - if `"`colname'"'!="" {
              = if `"y_timing_max:_cons /lnalpha"'!="" {
              - local dim : list sizeof colname
              - if `dim' != colsof(matrix(`mat')) {
              = if 2 != colsof(matrix(__000008)) {
                di in red `"`error'matrix must "' `"be dimension "' `dim'
                exit 503
                }
              - `vv' mat colnames `mat' = `colname'
              = version 18: mat colnames __000008 = y_timing_max:_cons /lnalph
> a
              - }
              - }
              - else {
                `vv' BuildMat `mat' `"`error'"' "`skip'" `s(from)'
                if `"`colname'"'!="" {
                `vv' ChkNames `mat' "`matin'" `"`colname'"' `"`error'"' "`skip
> '" "`first'"
```

```
        local fill `s(k_fill)'
        }
        }
      - }
      - else {
        local fill 0
        if "`update'"!="" {
        mat `mat' = `matin'
        }
        else if `"`colname'"'!="" {
        local dim : list sizeof colname
        mat `mat' = J(1,`dim',0)
        `vv' mat colnames `mat' = `colname'
        }
        else {
        di in red "from() must be specified"
        exit 198
        }
        }
      - sret clear
      - sret local copy `copy'
      = sret local copy copy
      - sret local skip `skip'
      = sret local skip
      - sret local k = colsof(matrix(`mat'))
      = sret local k = colsof(matrix(__000008))
      - if "`fill'"!="" {
      = if ""!="" {
        sret local k_fill `fill'
        }
      - else sret local k_fill = colsof(matrix(`mat'))
      = else sret local k_fill = colsof(matrix(__000008))
      - matrix rename `mat' `matout', replace
      = matrix rename __000008 __000007, replace
      ────────────────────────────────
> ─────────────────────────── end _mkvec ────────
     - }
     - tempname bomit
     - matrix `bomit' = J(1,`:list sizeof colna',0)
     = matrix __000008 = J(1,2,0)
     - matrix colna `bomit' = `colna'
     = matrix colna __000008 =  y_timing_max:_cons /:lnalpha
     - _ms_omit_info `bomit'
     = _ms_omit_info __000008
     - if r(k_omit) | `:length local constraints' {
     = if r(k_omit) | 0 {
```

```
              nobreak {
              capture noisily break {
              _b_post0 `colna'
              local clist : subinstr local constraints "," " ", all
              `vv' makecns `clist', `cnsnotes'
              local constraints `"`r(clist)'"'
              local k_autoCns = e(k_autoCns)
              tempname C
              capture matrix `C' = e(Cns)
              local rcc = c(rc)
              }
              local rc = c(rc)
              ereturn clear
              }
              if (`rc') exit `rc'
              if (`rcc') {
              local C
              local k_autoCns
              }
              }
            - if `:length local constraints' {
            = if 0 {
              local lf0
              }
            - local vce `vce' `robust' `cluster'
            = local vce  robust
            - if `:length local vce' {
            = if 6 {
            - _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old : `w
> t', `vce'
            = _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old : ,
> robust
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _vce_parse ───────────────
              - version 10
              - _on_colon_parse `0'
              = _on_colon_parse , argoptlist(CLuster) optlist(OIM OPG Robust)
> old : , robust
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _on_colon_parse ───────────────
                - version 8.2
                - sreturn local before ""
                - sreturn local after ""
                - gettoken before after : 0, parse(":") bind match(par) quotes
                - if "`par'" != "" {
                = if "" != "" {
                  local before `"(`before')"'
                  }
                - if `"`before'"' == ":" {
                = if `", argoptlist(CLuster) optlist(OIM OPG Robust) old "' ==
>  ":" {
                  sreturn local after `"`after'"'
                  exit
                  }
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `""' != ":" & `": , robust"' != "" {
                - gettoken COLON after : after, parse(":") bind match(par) quo
> tes
                - if "`par'" != "" {
                = if "" != "" {
                  local before `before' (`COLON')
                  local COLON
                  }
                - else if `"`COLON'"' != ":" {
                = else if `":"' != ":" {
                  local before `"`before' `COLON'"'
                  local COLON
                  }
                - }
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `":"' != ":" & `" , robust"' != "" {
                  gettoken COLON after : after, parse(":") bind match(par) quo
> tes
                  if "`par'" != "" {
                  local before `before' (`COLON')
                  local COLON
                  }
                  else if `"`COLON'"' != ":" {
                  local before `"`before' `COLON'"'
                  local COLON
                  }
                  }
                - if `"`COLON'"' != ":" {
                = if `":"' != ":" {
                  di as err "'' found where ':' expected"
                  exit 198
                  }
                - sreturn local before `"`before'"'
                = sreturn local before `", argoptlist(CLuster) optlist(OIM OPG
>  Robust) old "'
                - sreturn local after `"`after'"'
                = sreturn local after `" , robust"'
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
              - local 0 `"`s(before)'"'
              = local 0 `", argoptlist(CLuster) optlist(OIM OPG Robust) old "'
              - local user `"`s(after)'"'
              = local user `" , robust"'
              - syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTlist
> (namelist) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
              - local touse `varlist'
              = local touse
              - tempname o a
              - .`o' = ._optlist.new
              = .__000009 = ._optlist.new
              - local optlist : list uniq optlist
              - foreach name of local optlist {
              - .`o'.addopt `name'
              = .__000009.addopt OIM
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                - version 9
                - syntax name(name=optspec) [, PASSthru]
                - local mname = lower("`optspec'")
                = local mname = lower("OIM")
                - if "`passthru'" != "" {
                = if "" != "" {
                  local optspec `optspec'(passthru)
                  }
                - .options.Arrpush "`optspec'"
                = .options.Arrpush "OIM"
                - .names.Arrpush "`mname'"
                = .names.Arrpush "oim"
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
              - }
              - .`o'.addopt `name'
              = .__000009.addopt OPG
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                - version 9
                - syntax name(name=optspec) [, PASSthru]
                - local mname = lower("`optspec'")
                = local mname = lower("OPG")
                - if "`passthru'" != "" {
                = if "" != "" {
                  local optspec `optspec'(passthru)
                  }
                - .options.Arrpush "`optspec'"
                = .options.Arrpush "OPG"
                - .names.Arrpush "`mname'"
                = .names.Arrpush "opg"
                --------------------------------------------------------------
> ---------------------------------------- end _optlist.addopt ---------------
              - }
              - .`o'.addopt `name'
              = .__000009.addopt Robust
                --------------------------------------------------------------
> -------------------------------------- begin _optlist.addopt ---------------
                - version 9
                - syntax name(name=optspec) [, PASSthru]
                - local mname = lower("`optspec'")
                = local mname = lower("Robust")
                - if "`passthru'" != "" {
                = if "" != "" {
                  local optspec `optspec'(passthru)
                  }
                - .options.Arrpush "`optspec'"
                = .options.Arrpush "Robust"
                - .names.Arrpush "`mname'"
                = .names.Arrpush "robust"
                --------------------------------------------------------------
> ---------------------------------------- end _optlist.addopt ---------------
              - }
              - .`a' = ._optlist.new
              = .__00000A = ._optlist.new
              - local argoptlist : list uniq argoptlist
              - foreach name of local argoptlist {
              - .`a'.addopt `name'
              = .__00000A.addopt CLuster
                --------------------------------------------------------------
> -------------------------------------- begin _optlist.addopt ---------------
                - version 9
                - syntax name(name=optspec) [, PASSthru]
                - local mname = lower("`optspec'")
                = local mname = lower("CLuster")
                - if "`passthru'" != "" {
                = if "" != "" {
                  local optspec `optspec'(passthru)
                  }
                - .options.Arrpush "`optspec'"
                = .options.Arrpush "CLuster"
                - .names.Arrpush "`mname'"
                = .names.Arrpush "cluster"
```

```
                          ───────────────────────────────────────────────────────────────
  > ──────────────────────────────────────── end _optlist.addopt ───────────────
                        - }
                        - local OPTNAMES `"`.`o'.dumpnames'"'
                          ───────────────────────────────────────────────────────────────
  > ───────────────────────────────────── begin _optlist.dumpnames ───────────────
                          - version 9
                          - forval i = 1/`.names.arrnels' {
                          = forval i = 1/3 {
                          - local namelist `namelist' `.names[`i']'
                          = local namelist  oim
                          - }
                          - local namelist `namelist' `.names[`i']'
                          = local namelist oim opg
                          - }
                          - local namelist `namelist' `.names[`i']'
                          = local namelist oim opg robust
                          - }
                          - local namelist : list uniq namelist
                          - sreturn local namelist `"`namelist'"'
                          = sreturn local namelist `"oim opg robust"'
                          - class exit `"`namelist'"'
                          = class exit `"oim opg robust"'
                          ───────────────────────────────────────────────────────────────
  > ─────────────────────────────────────── end _optlist.dumpnames ───────────────
                        = local OPTNAMES `"oim opg robust"'
                        - local ARGOPTNAMES `"`.`a'.dumpnames'"'
                          ───────────────────────────────────────────────────────────────
  > ───────────────────────────────────── begin _optlist.dumpnames ───────────────
                          - version 9
                          - forval i = 1/`.names.arrnels' {
                          = forval i = 1/1 {
                          - local namelist `namelist' `.names[`i']'
                          = local namelist  cluster
                          - }
                          - local namelist : list uniq namelist
                          - sreturn local namelist `"`namelist'"'
                          = sreturn local namelist `"cluster"'
                          - class exit `"`namelist'"'
                          = class exit `"cluster"'
                          ───────────────────────────────────────────────────────────────
  > ─────────────────────────────────────── end _optlist.dumpnames ───────────────
                        = local ARGOPTNAMES `"cluster"'
                        - local AND : list OPTNAMES & ARGOPTNAMES
                        - if `:list sizeof AND' {
                        = if 0 {
```

```
        di as err "vcetype '`:word 1 of `AND''' specified twice"
        exit 198
        }
      - local pwallowed : list uniq pwallowed
      - local pwlist robust cluster
      - foreach n of local pwallowed {
        local lc = lower("`n'")
        local pwlist `pwlist' `lc'
        }
      - if "`old_is_ok'" != "" {
      = if "old_is_ok" != "" {
      - local ROBUST robust
      - if `:list ROBUST in OPTNAMES' {
      = if 1 {
      - local robust Robust
      - }
      - local CLUSTER cluster
      - if `:list CLUSTER in ARGOPTNAMES' {
      = if 1 {
      - local cluster CLuster(varname)
      - }
      - }
      - local 0 `"`user'"'
      = local 0 `" , robust"'
      - syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
      = syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varnam
> e) ]
      - if `"`vce'"' != "" {
      = if `""' != "" {
        gettoken name args : vce, parse(" ,")
        local args : list retok args
        capture ParseVCE `o' `a' , `name'
        if c(rc) {
        di as err "vcetype {bf:`name'} not allowed"
        exit 198
        }
        local name `r(vce)'
        if "`weight'" == "pweight" & !`:list name in pwlist' {
        di as err "pweights are not allowed with vce(`name')"
        exit 198
        }
        return add
        if `"`robust'"' != "" & !inlist("`name'","","robust","eim","oi
> m","cluster") {
        opts_exclusive "`robust' vce(`name')"
        }
```

```
  if "`name'" == "cluster" {
  if `"`args'"' == "" {
  di as err "invalid vce(cluster) option"
  exit 198
  }
  confirm var `args'
  unab args : `args'
  local markout `args'
  if "`cluster'" != "" {
  if !`:list args == cluster' {
  di as err "options cluster() and vce(cluster) are in conflict"
  exit 100
  }
  }
  }
  else if "`cluster'" != "" & !inlist("`name'","eim","oim") {
  opts_exclusive "cluster() vce(`name')"
  }
  if `"`args'"' != "" {
  if ! `:list name in ARGOPTNAMES' {
  di as err "invalid vce() option"
  exit 198
  }
  if "`name'" == "hc2" {
  confirm var `args'
  unab args : `args'
  local markout `args'
  }
  return local vceargs `"`:list retok args'"'
  }
  else if `:list name in ARGOPTNAMES' {
  if "`noargopt_is_ok'" == "" {
  di as err "invalid vce() option"
  exit 198
  }
  }
  }
- else {
- if "`weight'" == "pweight" | "`robust'" != "" {
= if "" == "pweight" | "robust" != "" {
- local vce robust
- }
- if "`cluster'" != "" {
= if "" != "" {
  local vce cluster
  local args `cluster'
```

```
                local markout `cluster'
                }
              - return local vce `"`vce'"'
              = return local vce `"robust"'
              - return local vceargs `"`args'"'
              = return local vceargs `""'
              - }
              - if "`return(vce)'" != "" {
              = if "robust" != "" {
              - if `"`return(vceargs)'"' != "" {
              = if `""' != "" {
                local ss " "
                }
              - return local vceopt `"vce(`return(vce)'`ss'`return(vceargs)')"
> '
              = return local vceopt `"vce(robust)"'
              - }
              - if "`return(vce)'" == "cluster" {
              = if "robust" == "cluster" {
                return local cluster `return(vceargs)'
                }
              - if inlist("`return(vce)'", "robust", "cluster") {
              = if inlist("robust", "robust", "cluster") {
              - return local robust robust
              - }
              - if "`touse'" != "" {
              = if "" != "" {
                if "`markout'" != "" {
                markout `touse' `markout', strok
                }
                }
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _vce_parse ───────────────
            - local vce `r(vce)'
            = local vce robust
            - }
            - else if "`weight'" == "pweight" {
            = else if "" == "pweight" {
              local vce robust
              }
            - if `:length local svy' {
            = if 0 {
              local vce svy
              }
            - if `"`vce'"' == "cluster" {
            = if `"robust"' == "cluster" {
```

```
       local cluster `r(cluster)'
       markout $ML_sample `cluster', strok
       }
     - if `:length local group' {
     = if 0 {
       markout $ML_sample `group', strok
       global ML_group : copy local group
       if bsubstr("`:type `group''",1,3) == "str" {
       if `interactive' {
       SetGlobalVar ML_grp : _MLgr
       }
       else {
       global ML_grp : tempvar
       if `"`moptobj'"' != "" {
       global ML_grp `moptobj'$ML_grp
       }
       }
       quietly egen $ML_grp = group(`group')
       if ! `:length local cluster' {
       local cluster : copy global ML_grp
       }
       }
       else {
       if ! `:length local cluster' {
       local cluster : copy global ML_group
       }
       }
       }
     - if "$ML_samp" != "$ML_sample" {
     = if "__000005" != "__000005" {
       quietly replace $ML_samp = 0 if $ML_samp & $ML_sample == 0
       }
     - if `:length local vce' == 0 {
     = if 6 == 0 {
       if `"`technique'"' == "bhhh" {
       local vce opg
       }
       else local vce oim
       }
     - if inlist("`vce'", "robust", "cluster") & bsubstr("`evaltype'",1
> ,1) == "d" {
     = if inlist("robust", "robust", "cluster") & bsubstr("e2",1,1) ==
> "d" {
       local optname = cond("`svy'"=="","vce(`vce')","svy")
       di as err "option `optname' is not allowed with evaltype `evalty
> pe'"
```

```
  exit 198
  }
- if `:length local crittype' == 0 {
= if 0 == 0 {
- if inlist("`vce'", "cluster", "robust", "svy") {
= if inlist("robust", "cluster", "robust", "svy") {
- local crittype "log pseudolikelihood"
- }
- else local crittype "log likelihood"
- }
- global ML_waldtest `waldtest'
= global ML_waldtest 0
- if `:length local svy' | `:length local weight' {
= if 0 | 0 {
  if `interactive' {
  SetGlobalVar ML_w : _MLw
  }
  else {
  global ML_w : tempvar
  if `"`moptobj'"' != "" {
  global ML_w `moptobj'$ML_w
  }
  }
  }
- if `:length local weight' {
= if 0 {
  if `"`moptobj'"' != "" {
  cap drop $ML_w
  }
  quietly gen double $ML_w `exp' if $ML_samp
  local wtype `"`weight'"'
  local wexp `"`exp'"'
  global ML_wtyp : copy local wtype
  global ML_wexp : copy local wexp
  if "`wtype'" == "iweight" | "`svy'" != "" {
  local zeroweight zeroweight
  }
  }
- if inlist("`vce'", "svy", "cluster") {
= if inlist("robust", "svy", "cluster") {
  if `interactive' {
  SetGlobalVar ML_subv : _MLsu
  }
  else {
  global ML_subv : tempvar
  if `"`moptobj'"' != "" {
```

```
  global ML_subv `moptobj'$ML_subv
  }
  }
  }
- quietly count if $ML_sample
= quietly count if __000005
- if r(N) == 0 {
  error 2000
  }
- if `"`weight'"' != "" {
= if `""' != "" {
  quietly count if $ML_sample & $ML_w != 0
  if r(N) == 0 {
  di in gr "all observation have zero weights"
  exit 2000
  }
  }
- if `:length local lf0' {
= if 0 {
  if `:list sizeof lf0' != 2 {
  di as err "lf0(`lf0') invalid"
  exit 198
  }
  global ML_k0 : word 1 of `lf0'
  global ML_ll_0 : word 2 of `lf0'
  confirm integer number $ML_k0
  confirm number $ML_ll_0
  if $ML_k0 < 0 {
  di as err "lf0(`lf0') invalid"
  exit 198
  }
  }
- if "`obs'" == "" {
= if "" == "" {
- if "`wtype'" != "fweight" {
= if "" != "fweight" {
- quietly count if $ML_sample
= quietly count if __000005
- local obs = r(N)
- }
- else {
  sum $ML_w if $ML_sample, mean
  local obs = r(sum)
  }
- }
- if `:length local iterid' {
      = if 0 {
        local iterid = trim(bsubstr(`"`iterid'"',1,32))
        }
      - if `:length local crittype' {
      = if 20 {
      - local crittype = trim(bsubstr(`"`crittype'"',1,32))
      = local crittype = trim(bsubstr(`"log pseudolikelihood"',1,32))
      - }
      - if `:length local derivscale' {
      = if 0 {
        confirm matrix `derivscale'
        }
      - if `:length local derivh' {
      = if 0 {
        confirm matrix `derivh'
        }
      - local l : strlen local deriv
      - ParseUsemin, `deriv' len(`l')
      = ParseUsemin,  len(0)
       ────────────────────────────────
> ─────────────────── begin mopt.ParseUsemin ────────
       - syntax [, LEN(integer 0) MIN1(string) NOMIN MIN]
       - if `"`min1'"' != "" & `"`nomin'"' != "" {
       = if `""' != "" & `""' != "" {
         di as err "options min() and nomin are mutually exclusive"
         exit 198
         }
       - if `"`min'"' != "" & `"`nomin'"' != "" {
       = if `""' != "" & `""' != "" {
         di as err "options min and nomin are mutually exclusive"
         exit 198
         }
       - if (`"`min1'"' != "") {
       = if (`""' != "") {
         confirm matrix `min1'
         local deriv `min1'
         }
       - else if (`"`min'"' != "") {
       = else if (`""' != "") {
         if (`len' > length(`"`min'"')) {
         di as err "must specify a matrix of 2 columns in option min()"
         exit 198
         }
         local deriv 1
         }
       - else {
              - if (`len' > 0) {
              = if (0 > 0) {
                if ("`nomin'" == "") {
                di as err "must specify a matrix of 2 columns in option min()"
                exit 198
                }
                else if (`len' > length(`"`nomin'"')) {
                di as err "options min() and nomin are mutually exclusive"
                exit 198
                }
                else {
                local deriv 0
                }
                }
              - else {
              - local deriv 0
              - }
              - }
              - sreturn local deriv `deriv'
              = sreturn local deriv 0
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── end mopt.ParseUsemin ───────────────
            - local deriv = s(deriv)
            - if `:length local gnwmatrix' {
            = if 0 {
              confirm matrix `gnwmatrix'
              }
            - `vv' mata: Mopt_model()
            = version 18: mata: Mopt_model()
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin mopt_check_program ───────────────
              - version 10
              - args name
              - capture confirm name `name'
              = capture confirm name nbreg_lf
              - if c(rc) {
                di as err "unrecognized command:   `name' invalid command name
> "
                exit 199
                }
              - capture which `name'
              = capture which nbreg_lf
              - if !c(rc) {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────── end mopt_check_program ───────────────
```

```
      - global ML_stat model
      - if !`interactive' {
      = if !0 {
      - `vv' MaxMin `maxmin', nooutput `score' `options' moptobj(`moptob
> j')
      = version 18: MaxMin maximize, nooutput  search(off) moptobj()
       ────────────────────────────────
> ───────────────────── begin mopt.MaxMin ────────
       - local vv : di "version " string(_caller()) ":"
       - version 12
       - ChkMacros
        ───────────────────────────────
> ──────────────────── begin mopt.ChkMacros ────────
        - if "$ML_stat" != "model" {
        = if "model" != "model" {
          di as err "you must issue -ml model- first"
          exit 198
          }
        - capture confirm var $ML_samp $ML_w $ML_subv
        = capture confirm var __000005 __000005
        - if c(rc) {
          di as err "Since issuing the -ml model- statement, you have
> done something to drop" _n "temporary variables ml added to your data.  You
> must start again."
          Clear
          exit 111
          }
        ───────────────────────────────
> ───────────────────── end mopt.ChkMacros ────────
       - syntax name(name=maxmin) [, NEGH TOLerance(numlist max=1 >=0)
> LTOLerance(numlist max=1 >=0) NONRTOLerance NRTOLerance(numlist max=1 >=0) Q
> TOLerance(numlist max=1 >=0) GTOLerance(numlist max=1 >=0) ITERate(numlist m
> ax=1 >=0) NOTCONCAVE(numlist max=1 >=0) ndami DIFficult HALFSTEPonly DOOPT S
> EArch(name) Repeat(passthru) Bounds(string) SCore(string) noWARNing noCLEAR
> NOLOg LOg DOTs SHOWTOLerance SHOWNRtolerance SHOWSTEP TRace COEFDIffs GRADie
> nt HESSian noSKIPline noOUTput Level(cilevel) moptobj(string) * ]
       - if `:length local nrtolerance' {
       = if 0 {
         opts_exclusive "nrtolerance() `nonrtolerance'"
         }
       - if `:length local qtolerance' {
       = if 0 {
         opts_exclusive "qtolerance() `nonrtolerance'"
         }
       - opts_exclusive "`nonrtolerance' `shownrtolerance'"
       = opts_exclusive " "
```

```
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - if `:length local shownrtolerance' {
              = if 0 {
                local showtolerance showtolerance
                }
              - if "$ML_preserve" != "no" {
              = if "no" != "no" {
                if `:length local score' {
                di as smcl as err "May not specify {bf:score()} option unless"
>  _n "     a) estimation subsample is the entire data in memory, or" _n "
>  b) you specify option {bf:nopreserve} on {bf:ml model} statement (meaning"
> _n "         your evaluation program explicitly restricts itself to obs" _n
> "         for which {bf:$}" "{bf:ML_samp==1}."
                exit 198
                }
                preserve
                local N = c(N)
                quietly keep if $ML_sample
                if (`N' != c(N)) {
                mata: Mopt_init_regetviews()
                }
                }
              - if `:length local score' {
              = if 0 {
                SetupScore `"$ML_evaltype"' `"`score'"' $ML_n $ML_dim
                local scores "`s(scores)'"
                }
              - _parse_iterlog, `nolog' `log'
              = _parse_iterlog,
                ──────────────────────────────────────────────────────────────
```

```
> ——————————————————————————————————————— begin _parse_iterlog ———————————————
                - version 16
                - syntax [, NOLOG LOG]
                - if "`log'`nolog'" != "" {
                = if "" != "" {
                  opts_exclusive "`log' `nolog'"
                  }
                - else if "`c(iterlog)'" == "on" {
                = else if "on" == "on" {
                - local log log
                - }
                - else {
                  local nolog nolog
                  }
                - sreturn local log `log'
                = sreturn local log log
                - sreturn local nolog `nolog'
                = sreturn local nolog
                ______________________________________________________________
> ————————————————————————————————————————— end _parse_iterlog ———————————————
              - local log "`s(nolog)'"
              = local log ""
              - local tropts `log' `dots' `showtolerance' `showstep' `trace' `
> coefdiffs'
              = local tropts
              - if "`tropts'" != "nolog" {
              = if "" != "nolog" {
              - local tropts `tropts' `gradient' `hessian'
              = local tropts
              - if "`skipline'" == "" {
              = if "" == "" {
              - if "`iterate'" != "0" | `:length local tropts' {
              = if "" != "0" | 0 {
              - di
              - }
              - }
              - }
              - else {
                local gradient
                local hessian
                local nolog nolog
                }
              - if "`search'" != "off" & "`iterate'" != "0" {
              = if "off" != "off" & "" != "0" {
                if "`search'" == "quietly" {
                local sopts nolog
                }
                else {
                if `:length local tropts' {
                if "`tropts'" != "nolog" {
                local sopts trace
                }
                else local sopts nolog
                }
                }
                if "`search'" == "norescale" {
                local sopts `sopts' norescale
                }
                Search `bounds', nopreserve `sopts' `repeat' `maxmin'
                }
              - tempname value b V iV
              - `vv' mata: Mopt_maxmin()
              = version 18: mata: Mopt_maxmin()
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 2 == 0 | __00000K==. { exit }
                - tempname alpha
                - tempvar mu p
                - quietly {
                - gen double `mu' = exp(`xb') if $ML_samp
                = gen double __00000U = exp(__00000Q) if __000005
                - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
                = gen double __00000V = 1/(1+exp(__00000Q+__00000R)) if __0000
> 05
                - if `lnalpha'<-20 {
                = if __00000R<-20 {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                  }
                - else {
                - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
                = replace __00000N = __00000V*(y_timing_max-__00000U) if __000
> 005
                - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
                = replace __00000O = __00000S*(digamma(__00000S) - digamma(y_t
> iming_max+__00000S) - ln(__00000V)) + __00000V*(y_timing_max-__00000U) if __
> 000005
                - }
                - }
                - $ML_ec tempname g1 g2
                = * tempname g1 g2
                - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
                = * mlvecsum __00000K  = __00000N, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __00000K  = __00000O, eq(2)
                - $ML_ec matrix `g' = (`g1',`g2')
                = * matrix __00000L = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 | __00000K==. { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __00000W = exp(__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlmatsum `lnf' `d11' = `mu', eq(1)
                  mlmatsum `lnf' `d12' = 0, eq(1,2)
                  mlmatsum `lnf' `d22' = 0, eq(2)
                  }
                - else {
                - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
                = mlmatsum __00000K __00000X = __00000U*__00000V*(__00000W*__0
> 0000V*(y_timing_max-__00000U)+1), eq(1)
                - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
                = mlmatsum __00000K __00000Y = __00000W*__00000U*__00000V^2*(y
> _timing_max-__00000U), eq(1,2)
                - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
                = mlmatsum __00000K __00000Z = __00000S*(digamma(__00000S) - d
> igamma(y_timing_max+__00000S) - ln(__00000V) - __00000S*(trigamma(y_timing_m
> ax+__00000S) - trigamma(__00000S))) + __00000U*__00000V*(__00000W*__00000V*(
> y_timing_max-__00000U)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000M = (__00000X,__00000Y \ __00000Y',__00000Z)
                --------------------------------------------------------------
> ----------------------------------------------- end nbreg_lf ---------------
Iteration 0:  Log pseudolikelihood = -446.52804
                --------------------------------------------------------------
> --------------------------------------------- begin nbreg_lf ---------------
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000K==. { exit }
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end nbreg_lf ───────────────
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000K==. { exit }
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end nbreg_lf ───────────────
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000K==. { exit }
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000K==. { exit }
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ────────────────
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 2 == 0 | __00000K==. { exit }
                - tempname alpha
                - tempvar mu p
                - quietly {
                - gen double `mu' = exp(`xb') if $ML_samp
                = gen double __00000U = exp(__00000Q) if __000005
                - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
                = gen double __00000V = 1/(1+exp(__00000Q+__00000R)) if __0000
> 05
                - if `lnalpha'<-20 {
                = if __00000R<-20 {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                }
              - else {
              - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
              = replace __00000N = __00000V*(y_timing_max-__00000U) if __000
> 005
              - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
              = replace __00000O = __00000S*(digamma(__00000S) - digamma(y_t
> iming_max+__00000S) - ln(__00000V)) + __00000V*(y_timing_max-__00000U) if __
> 000005
              - }
              - }
              - $ML_ec tempname g1 g2
              = * tempname g1 g2
              - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
              = * mlvecsum __00000K  = __00000N, eq(1)
              - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
              = * mlvecsum __00000K  = __00000O, eq(2)
              - $ML_ec matrix `g' = (`g1',`g2')
              = * matrix __00000L = (,)
              - if `todo' == 1 | `lnf'==. { exit }
              = if 2 == 1 | __00000K==. { exit }
              - tempname alpha d11 d12 d22
              - scalar `alpha' = exp(`lnalpha')
              = scalar __00000W = exp(__00000R)
              - if `lnalpha' < -20 {
              = if __00000R < -20 {
                mlmatsum `lnf' `d11' = `mu', eq(1)
                mlmatsum `lnf' `d12' = 0, eq(1,2)
                mlmatsum `lnf' `d22' = 0, eq(2)
                }
              - else {
              - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
              = mlmatsum __00000K __00000X = __00000U*__00000V*(__00000W*__0
> 0000V*(y_timing_max-__00000U)+1), eq(1)
              - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
              = mlmatsum __00000K __00000Y = __00000W*__00000U*__00000V^2*(y
> _timing_max-__00000U), eq(1,2)
              - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
              = mlmatsum __00000K __00000Z = __00000S*(digamma(__00000S) - d
> igamma(y_timing_max+__00000S) - ln(__00000V) - __00000S*(trigamma(y_timing_m
> ax+__00000S) - trigamma(__00000S))) + __00000U*__00000V*(__00000W*__00000V*(
> y_timing_max-__00000U)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000M = (__00000X,__00000Y \ __00000Y',__00000Z)
                ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end nbreg_lf ───────────────
Iteration 1:  Log pseudolikelihood = -414.23222
                ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000K==. { exit }
                ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end nbreg_lf ───────────────
                ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000K==. { exit }
                ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end nbreg_lf ───────────────
                ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 2 == 0 | __00000K==. { exit }
                - tempname alpha
                - tempvar mu p
                - quietly {
                - gen double `mu' = exp(`xb') if $ML_samp
                = gen double __00000U = exp(__00000Q) if __000005
                - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
                = gen double __00000V = 1/(1+exp(__00000Q+__00000R)) if __0000
> 05
                - if `lnalpha'<-20 {
                = if __00000R<-20 {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                  }
                - else {
                - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
                = replace __00000N = __00000V*(y_timing_max-__00000U) if __000
> 005
                - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
                = replace __00000O = __00000S*(digamma(__00000S) - digamma(y_t
> iming_max+__00000S) - ln(__00000V)) + __00000V*(y_timing_max-__00000U) if __
> 000005
                - }
                - }
                - $ML_ec tempname g1 g2
                = * tempname g1 g2
                - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
                = * mlvecsum __00000K  = __00000N, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __00000K  = __00000O, eq(2)
                - $ML_ec matrix `g' = (`g1',`g2')
                = * matrix __00000L = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 | __00000K==. { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __00000W = exp(__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlmatsum `lnf' `d11' = `mu', eq(1)
                  mlmatsum `lnf' `d12' = 0, eq(1,2)
                  mlmatsum `lnf' `d22' = 0, eq(2)
                  }
                - else {
                - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
```

```
                = mlmatsum __00000K __00000X = __00000U*__00000V*(__00000W*__0
> 0000V*(y_timing_max-__00000U)+1), eq(1)
                - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
                = mlmatsum __00000K __00000Y = __00000W*__00000U*__00000V^2*(y
> _timing_max-__00000U), eq(1,2)
                - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
                = mlmatsum __00000K __00000Z = __00000S*(digamma(__00000S) - d
> igamma(y_timing_max+__00000S) - ln(__00000V) - __00000S*(trigamma(y_timing_m
> ax+__00000S) - trigamma(__00000S))) + __00000U*__00000V*(__00000W*__00000V*(
> y_timing_max-__00000U)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000M = (__00000X,__00000Y \ __00000Y',__00000Z)
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ────────────────
Iteration 2:  Log pseudolikelihood = -414.22879
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000K==. { exit }
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000K==. { exit }
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000Q = __00000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {
```

```
        = if __00000R < -20 {
          mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
          }
        - else {
        - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
        = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
        - }
        - if `todo' == 0 | `lnf'==. { exit }
        = if 2 == 0 | __00000K==. { exit }
        - tempname alpha
        - tempvar mu p
        - quietly {
        - gen double `mu' = exp(`xb') if $ML_samp
        = gen double __00000U = exp(__00000Q) if __000005
        - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
        = gen double __00000V = 1/(1+exp(__00000Q+__00000R)) if __0000
> 05
        - if `lnalpha'<-20 {
        = if __00000R<-20 {
          replace `sc1' = `y'-`mu' if $ML_samp
          replace `sc2' = 0 if $ML_samp
          }
        - else {
        - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
        = replace __00000N = __00000V*(y_timing_max-__00000U) if __000
> 005
        - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
        = replace __00000O = __00000S*(digamma(__00000S) - digamma(y_t
> iming_max+__00000S) - ln(__00000V)) + __00000V*(y_timing_max-__00000U) if __
> 000005
        - }
        - }
        - $ML_ec tempname g1 g2
        = * tempname g1 g2
        - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
        = * mlvecsum __00000K  = __00000N, eq(1)
        - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
        = * mlvecsum __00000K  = __00000O, eq(2)
        - $ML_ec matrix `g' = (`g1',`g2')
        = * matrix __00000L = (,)
        - if `todo' == 1 | `lnf'==. { exit }
        = if 2 == 1 | __00000K==. { exit }
```

```
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __00000W = exp(__00000R)
                - if `lnalpha' < -20 {
                = if __00000R < -20 {
                  mlmatsum `lnf' `d11' = `mu', eq(1)
                  mlmatsum `lnf' `d12' = 0, eq(1,2)
                  mlmatsum `lnf' `d22' = 0, eq(2)
                  }
                - else {
                - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
                = mlmatsum __00000K __00000X = __00000U*__00000V*(__00000W*__0
> 0000V*(y_timing_max-__00000U)+1), eq(1)
                - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
                = mlmatsum __00000K __00000Y = __00000W*__00000U*__00000V^2*(y
> _timing_max-__00000U), eq(1,2)
                - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
                = mlmatsum __00000K __00000Z = __00000S*(digamma(__00000S) - d
> igamma(y_timing_max+__00000S) - ln(__00000V) - __00000S*(trigamma(y_timing_m
> ax+__00000S) - trigamma(__00000S))) + __00000U*__00000V*(__00000W*__00000V*(
> y_timing_max-__00000U)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000M = (__00000X,__00000Y \ __00000Y',__00000Z)
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
Iteration 3:  Log pseudolikelihood = -414.22879
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin mopt_post ───────────────
                - args b V C wgt touse depvar
                - if `:length local touse' {
                = if 8 {
                - tempname esamp
                - quietly gen byte `esamp' = `touse'
                = quietly gen byte __00000S = __000005
                - }
                - ereturn post `b' `V' `C' `wgt', esample(`esamp') depname(`de
> pvar') buildfvinfo
                = ereturn post __00000Q __00000R  [], esample(__00000S) depnam
> e(y_timing_max) buildfvinfo
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end mopt_post ───────────────
```

```
              - ereturn scalar k_eq_model = abs($ML_waldtest)
              = ereturn scalar k_eq_model = abs(0)
              - if `:length global ML_ll_0' {
              = if 0 {
                ereturn scalar ll_0 = $ML_ll_0
                if `:length global ML_rank0' {
                ereturn scalar rank0 = $ML_rank0
                ereturn scalar df_m = e(rank) - $ML_rank0
                }
                else ereturn scalar df_m = e(rank) - $ML_k0
                }
              - if !`:length global ML_ll_0' | inlist(e(vce), "robust", "clust
> er", "linearized") {
              = if !0 | inlist(e(vce), "robust", "cluster", "linearized") {
              - if "$ML_svy" == "" {
              = if "" == "" {
              - _prefix_model_test, minimum
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _prefix_model_test ───────────────
                - version 9
                - syntax [name(name=cmd)] [, svy noADJust noSVYadjust MINimum
> ]
                - if (inlist("`cmd'","asmixlogit","cmmixlogit","cmxtmixlogit")
> ) {
                = if (inlist("","asmixlogit","cmmixlogit","cmxtmixlogit")) {
                  _asmixtest, `svy' `adjust' `svyadjust'
                  exit
                  }
                - local K = 1
                - if "`e(k_eq_model)'" != "" {
                = if "0" != "" {
                - capture confirm integer number `e(k_eq_model)'
                = capture confirm integer number 0
                - if ! c(rc) {
                - local K = e(k_eq_model)
                - }
                - }
                - if "`e(k_eq_model_skip)'" != "" {
                = if "" != "" {
                  capture confirm integer number `e(k_eq_model_skip)'
                  if ! c(rc) {
                  local skip = e(k_eq_model_skip)
                  }
                  }
                - ereturn local df_m
                - ereturn local F
                - ereturn local chi2
                - ereturn local chi2type
                - ereturn local p
                - if (`K' == 0) {
                = if (0 == 0) {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _prefix_model_test ───────────────
              - }
              - else {
                _prefix_model_test, $ML_svy $ML_noadj
                }
              - }
              - else if `:length global ML_ll_0' {
              = else if 0 {
                if `"`maxmin'"' == "minimize" {
                ereturn scalar chi2 = -2*(e(ll)-e(ll_0))
                }
                else {
                ereturn scalar chi2 = 2*(e(ll)-e(ll_0))
                }
                ereturn scalar p = chi2tail(e(df_m), e(chi2))
                ereturn local chi2type "LR"
                }
              - if `:length global ML_wexp' {
              = if 0 {
                ereturn local wtype `"$ML_wtyp"'
                ereturn local wexp `"$ML_wexp"'
                }
              - if `:length global ML_group' {
              = if 0 {
                ereturn local group `"$ML_group"'
                if `"`e(clustvar)'"' == "$ML_grp" & "$ML_grp" != "" {
                ereturn local clustvar `"$ML_group"'
                }
                }
              - ereturn local cmd "ml"
              - if `:length local score' {
              = if 0 {
                mata: Mopt_score(0)
                ereturn local scorevars `scores'
                }
              - if "$ML_preserve" != "no" {
              = if "no" != "no" {
                restore
                if "`e(prefix)'" == "svy" & e(N_strata_omit) {
                 tempname v
                 quietly _svy2 $ML_sample if $ML_sample, type(total) svy v(`v')
>  subpop(`e(subpop)') touse($ML_sample)
                 }
                 ereturn repost, esample($ML_sample)
                 }
               - if `"`moptobj'"' != "" {
               = if `""' != "" {
                 local clear noclear
                 }
               - if !`:length local clear' {
               = if !0 {
               - Clear
                 ───────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── begin mopt.Clear ────────────────
                 - syntax [, NOTANOPTION]
                 - capture drop $ML_w
                 = capture drop __000005
                 - capture drop $ML_samp
                 = capture drop __000005
                 - capture drop $ML_sample
                 = capture drop __000005
                 - capture drop $ML_subv
                 = capture drop
                 - capture drop $ML_grp
                 = capture drop
                 - mata: Mopt_drop_external()
                 - macro drop ML_*
                 ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end mopt.Clear ────────────────
               - }
               - else {
                 capture confirm var $ML_sample
                 if c(rc) {
                 quietly gen byte $ML_sample = e(sample)
                 }
                 }
               - if `:length local output' == 0 {
               = if 8 == 0 {
                 Display, level(`level') `options'
                 }
               ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end mopt.MaxMin ────────────────
             - }
             ───────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end mopt.Model ────────────────
```

```
          - if c(rc) {
            local rc = c(rc)
            Clear
            exit `rc'
            }
          - exit
          --------------------------------------------------------------------
> --------------------------------------------------- end mopt ---------------
        - exit
        ----------------------------------------------------------------------
> ----------------------------------------------------- end ml ---------------
      - mat `b0' = e(b)
      = mat __000003 = e(b)
      - scalar `ll0' = e(ll)
      = scalar __000004 = e(ll)
      - local continu "continue"
      - }
      - if `"`from'"'=="" {
      = if `""'=="" {
      - if "`constan'"=="" {
      = if ""=="" {
      - local dim = colsof(`bp')
      = local dim = colsof(__000002)
      - if `dim' > 1 {
      = if 6 > 1 {
      - tempvar xb
      - qui mat score `xb' = `bp' if `touse'
      = qui mat score __000005 = __000002 if __000000
      - if "`weight'"!="" {
      = if ""!="" {
        local wt `"[aw`exp']"'
        }
      - summarize `xb' `wt' if `touse', meanonly
      = summarize __000005  if __000000, meanonly
      - if "`offset'"!="" {
      = if ""!="" {
        qui replace `xb' = `xb' + `b0'[1,1] - r(mean) + `offset'
        }
      - else {
      - qui replace `xb' = `xb' + `b0'[1,1] - r(mean)
      = qui replace __000005 = __000005 + __000003[1,1] - r(mean)
      - }
      - mat `bp'[1,`dim'] = `bp'[1,`dim'] + `b0'[1,1] - r(mean)
      = mat __000002[1,6] = __000002[1,6] + __000003[1,1] - r(mean)
      - mat `bp' = (`bp', `b0'[1,2..2])
      = mat __000002 = (__000002, __000003[1,2..2])
      - `LLprog' `y' `xb' `b0'[1,2] [`weight'`exp'] if `touse', nobs(`r(N)')
      = LLalpha y_timing_max __000005 __000003[1,2] [] if __000000, nobs(221)
        ───────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin nbreg.LLalpha ───────────────
        - gettoken y 0 : 0
        - gettoken z 0 : 0
        - gettoken b0 0 : 0
        - syntax [fw aw pw iw] [if], Nobs(string)
        - if "`weight'"!="" {
        = if ""!="" {
          if "`weight'"=="fweight" {
          local wt `"[fw`exp']"'
          }
          else local wt `"[aw`exp']"'
          }
        - tempname lnalpha m
        - scalar `lnalpha' = `b0'
        = scalar __000006 = __000003[1,2]
        - local bound -20
        - if `lnalpha' < `bound' { scalar `lnalpha' = `bound' }
        = if __000006 < -20 { scalar __000006 = -20 }
        - scalar `m' = exp(-`lnalpha')
        = scalar __000007 = exp(-__000006)
        - qui replace `z' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m') -
>  `m'*ln1p(exp(`z'+`lnalpha')) - `y'*ln1p(exp(-`z'-`lnalpha')) `if'
        = qui replace __000005 = lngamma(__000007+y_timing_max) - lngamma(y_ti
> ming_max+1) - lngamma(__000007) - __000007*ln1p(exp(__000005+__000006)) - y_
> timing_max*ln1p(exp(-__000005-__000006)) if __000000
        - summarize `z' `wt' `if', meanonly
        = summarize __000005  if __000000, meanonly
        - if r(N) != `nobs' { exit }
        = if r(N) != 221 { exit }
        - if "`weight'"=="aweight" {
        = if ""=="aweight" {
          ret scalar lnf = r(N)*r(mean)
          }
        - else ret scalar lnf = r(sum)
        ───────────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end nbreg.LLalpha ───────────────
      - if r(lnf) > `ll0' & r(lnf)<. {
      = if r(lnf) > __000004 & r(lnf)<. {
      - local initopt "init(`bp')"
      = local initopt "init(__000002)"
      - }
      - }
      - if "`initopt'"=="" {
```

```
      = if "init(__000002)"=="" {
        local initopt "init(`b0')"
        }
      - }
      - else {
        tempname b0
        mat `b0' = (0)
        if _caller() < 15 {
        mat colnames `b0' = ln`parm':_cons
        }
        else {
        mat colnames `b0' = /ln`parm'
        }
        mat `bp' = (`bp',`b0')
        local initopt "init(`bp')"
        }
      - `nohead' di in gr _n "Fitting full model:"
      =  di in gr _n "Fitting full model:"

Fitting full model:
      - }
      - else local initopt `"init(`from')"'
      = else local initopt `"init()"'
      - `vv' ml model `mm' `prog' (`yname': `y'=`xvars', `constan' `offopt') /
> ln`parm' if `touse' [`weight'`exp'], collinear missing max nooutput nopreser
> ve `initopt' search(off) `mlopts' `scopt' `robust' `vce' `continu' title(`ti
> tle') diparm(ln`parm', exp label("`parm'")) `negh' `moptobj'
      = version 18: ml model e2 nbreg_lf (y_timing_max: y_timing_max=wlth wg_n
> dx stky_pr_rotemberg stky_pr_calvo open,  ) /lnalpha if __000000 [], colline
> ar missing max nooutput nopreserve init(__000002) search(off)   robust vce(r
> obust) continue title(Negative binomial regression) diparm(lnalpha, exp labe
> l("alpha")) negh
        ──────────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────────── begin ml ───────────────
        - if _caller()>=11 {
        - mopt `0'
        = mopt model e2 nbreg_lf (y_timing_max: y_timing_max=wlth wg_ndx stky_
> pr_rotemberg stky_pr_calvo open,  ) /lnalpha if __000000 [], collinear missi
> ng max nooutput nopreserve init(__000002) search(off)   robust vce(robust) c
> ontinue title(Negative binomial regression) diparm(lnalpha, exp label("alpha
> ")) negh
          ────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── begin mopt ───────────────
          - local vv : di "version " string(_caller()) ":"
          - version 12
          - gettoken subcmd 0 : 0, parse(" ,")
- local lcmd : length local subcmd
- if "`subcmd'" == "clear" {
= if "model" == "clear" {
  Clear
  exit
  }
- if `"`subcmd'"' == "hold" {
= if `"model"' == "hold" {
  ml_hold `0'
  exit
  }
- if `"`subcmd'"' == "unhold" {
= if `"model"' == "unhold" {
  ml_unhold `0'
  exit
  }
- if "`subcmd'" == "score" {
= if "model" == "score" {
  if _caller() > 12 {
  `vv' Score `0'
  }
  else {
  Score `0'
  }
  exit
  }
- if "`subcmd'" == "count" {
= if "model" == "count" {
  Count `0'
  exit
  }
- if "`subcmd'" == "trace" {
= if "model" == "trace" {
  Trace `0'
  exit
  }
- if "`subcmd'" == bsubstr("graph",1,max(2,`lcmd')) {
= if "model" == bsubstr("graph",1,max(2,5)) {
  Graph `0'
  exit
  }
- if "`subcmd'" == "init" {
= if "model" == "init" {
  Interactive 0
  `vv' Init `0'
  exit
```

```
            }
          - if "`subcmd'" == bsubstr("maximize",1,max(3,`lcmd')) {
          = if "model" == bsubstr("maximize",1,max(3,5)) {
            Interactive 1
            `vv' MaxMin maximize `0'
            exit
            }
          - if "`subcmd'" == bsubstr("minimize",1,max(3,`lcmd')) {
          = if "model" == bsubstr("minimize",1,max(3,5)) {
            Interactive 1
            `vv' MaxMin minimize `0'
            exit
            }
          - if "`subcmd'" == bsubstr("display",1,max(2,`lcmd')) {
          = if "model" == bsubstr("display",1,max(2,5)) {
            Display `0'
            exit
            }
          - if "`subcmd'" == bsubstr("footnote",1,max(4,`lcmd')) {
          = if "model" == bsubstr("footnote",1,max(4,5)) {
            ml_footnote `0'
            exit
            }
          - if "`subcmd'" == "," {
          = if "model" == "," {
            Display, `0'
            exit
            }
          - if "`subcmd'" == bsubstr("model",1,max(3,`lcmd')) {
          = if "model" == bsubstr("model",1,max(3,5)) {
          - `vv' capture noi Model `0'
          = version 18: capture noi Model  e2 nbreg_lf (y_timing_max: y_timing
> _max=wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open,  ) /lnalpha if __0000
> 00 [], collinear missing max nooutput nopreserve init(__000002) search(off)
>   robust vce(robust) continue title(Negative binomial regression) diparm(lna
> lpha, exp label("alpha")) negh
            ──────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin mopt.Model ───────────────
            - local version = string(_caller())
            - local vv : di "version `version':"
            = local vv : di "version 18:"
            - version 12
            - syntax anything(id="model" name=spec) [if] [in] [fw aw pw iw] [,
>  BRACKET COLlinear MISSing CONTinue lf0(string) INIT(string) CONSTraints(str
> ing) noCNSNOTEs VCE(passthru) NEGH NOPREserve TECHnique(string) ITERID(strin
> g) CRITtype(string) OBS(numlist max=1 >0) TItle(string) WALDtest(integer -1)
>  SVY SUBpop(string) SRSsubpop noSVYadjust SCore(passthru) noOUTput noSCVARS
> GROUP(varname) ITERPROLOG(string) DERIVPROLOG(string) DERIVH(string) DERIVSC
> ALE(string) DERIV(string) nrderiv GNWMATrix(string) KAUXiliary(numlist int >
> =0) MAXimize MINimize USERinfo(namelist) PUPDATED Robust CLuster(passthru) m
> optobj(string) USEVIEWS * ]
            - if `"`moptobj'"' == "" {
            = if `""' == "" {
            - Clear
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin mopt.Clear ───────────────
              - syntax [, NOTANOPTION]
              - capture drop $ML_w
              = capture drop
              - capture drop $ML_samp
              = capture drop
              - capture drop $ML_sample
              = capture drop
              - capture drop $ML_subv
              = capture drop
              - capture drop $ML_grp
              = capture drop
              - mata: Mopt_drop_external()
              - macro drop ML_*
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end mopt.Clear ───────────────
            - }
            - local maxmin `minimize' `maximize'
            = local maxmin  maximize
            - opts_exclusive "`maxmin'"
            = opts_exclusive "maximize"
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts maximize
              - local n 0
              - while `"`opts'"' != "" {
              = while `"maximize"' != "" {
              - local ++n
              - gettoken item`n' opts : opts, bind
              = gettoken item1 opts : opts, bind
              - }
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 1 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - if `:length local maxmin' {
            = if 8 {
            - local interactive 0
            - }
            - else local interactive 1
            - _get_diparmopts, diparmopts(`options') soptions syntaxonly
            = _get_diparmopts, diparmopts(search(off) diparm(lnalpha, exp labe
> l("alpha"))) soptions syntaxonly
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _get_diparmopts ───────────────
              - if _caller() < 8.2 {
                _get_diparmopts_8 `0'
                exit
                }
              - version 9
              - local version : di "version " string(_caller()) ":"
              - syntax [, diparmopts(string asis) EXECute soptions bottom plus
>  SYNTAXonly * ]
              - local goptions `options'
              = local goptions
              - SpliceGlobals junk , `goptions'
              = SpliceGlobals junk ,
                ──────────────────────────────────────────────────────────────
> ──────────────────────── begin _get_diparmopts.SpliceGlobals ───────────────
                - syntax name(id="macro name" name=c_diparm) [, diparm(string
> asis) Level(cilevel) dof(passthru) syntaxonly ]
                - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                = if `""' == "" & `""' != "" {
                  capture confirm integer number `e(df_r)'
                  if !c(rc) {
                  local gdof dof(`e(df_r)')
                  }
                  capture
                  }
                - else local gdof `"`dof'"'
                = else local gdof `""'
                - local glevel `level'
                = local glevel 95
                - local lopt level(`glevel')
                = local lopt level(95)
                - if (`"`diparm'"' == "") exit
                = if (`""' == "") exit
                ──────────────────────────────────────────────────────────────
> ────────────────────────── end _get_diparmopts.SpliceGlobals ───────────────
              - local 0 `", `diparmopts'"'
              = local 0 `", search(off) diparm(lnalpha, exp label("alpha"))"'
              - local diparmopts
              - local k 0
              - syntax [, diparm(string asis) * ]
              - while `"`diparm'"' != "" {
              = while `"lnalpha, exp label("alpha")"' != "" {
              - local ++k
              - local single 1
              - local after
              - capture _on_colon_parse `diparm'
              = capture _on_colon_parse lnalpha, exp label("alpha")
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _on_colon_parse ───────────────
                - version 8.2
                - sreturn local before ""
                - sreturn local after ""
                - gettoken before after : 0, parse(":") bind match(par) quotes
                - if "`par'" != "" {
                = if "" != "" {
                  local before `"(`before')"'
                  }
                - if `"`before'"' == ":" {
                = if `"lnalpha, exp label("alpha")"' == ":" {
                  sreturn local after `"`after'"'
                  exit
                  }
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `""' != ":" & `""' != "" {
                  gettoken COLON after : after, parse(":") bind match(par) quo
> tes
                  if "`par'" != "" {
                  local before `before' (`COLON')
                  local COLON
                  }
                  else if `"`COLON'"' != ":" {
                  local before `"`before' `COLON'"'
                  local COLON
                  }
                  }
                - if `"`COLON'"' != ":" {
```

```
                = if `""' != ":" {
                - di as err "'' found where ':' expected"
                - exit 198
                  }
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
              - if !c(rc) {
                local single 0
                local diparm `"`s(before)'"'
                local after `"`s(after)'"'
                }
              - capture
              - SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptions
> '
              = SpliceGlobals diparm , diparm(lnalpha, exp label("alpha")) syn
> taxonly
                ──────────────────────────────────────────────────────────────
> ──────────────────────── begin _get_diparmopts.SpliceGlobals ───────────────
                - syntax name(id="macro name" name=c_diparm) [, diparm(string
> asis) Level(cilevel) dof(passthru) syntaxonly ]
                - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                = if `""' == "" & `""' != "" {
                  capture confirm integer number `e(df_r)'
                  if !c(rc) {
                  local gdof dof(`e(df_r)')
                  }
                  capture
                  }
                - else local gdof `"`dof'"'
                = else local gdof `""'
                - local glevel `level'
                = local glevel 95
                - local lopt level(`glevel')
                = local lopt level(95)
                - if (`"`diparm'"' == "") exit
                = if (`"lnalpha, exp label("alpha")"' == "") exit
                - local 0 `diparm'
                = local 0 lnalpha, exp label("alpha")
                - syntax anything(id="eqname(s)" name=eqspecs) [, Level(passth
> ru) dof(passthru) * ]
                - if ("`eqspecs'" == "__sep__") exit
                = if ("lnalpha" == "__sep__") exit
                - if "`level'" == "" {
                = if "" == "" {
                - local lopt level(`glevel')
                = local lopt level(95)
                - }
                - else local lopt `level'
                = else local lopt
                - if `"`dof'"' == "" {
                = if `""' == "" {
                - local dof `"`gdof'"'
                = local dof `""'
                - }
                - if "`syntaxonly'" == "" {
                = if "syntaxonly" == "" {
                  c_local `c_diparm' `"`eqspecs', `options' `lopt' `dof'"'
                  }
                - else {
                - c_local `c_diparm' `"`diparm'"'
                = c_local diparm `"lnalpha, exp label("alpha")"'
                - }
                ──────────────────────────────────────────────────────────────
> ────────────────────────── end _get_diparmopts.SpliceGlobals ───────────────
              - local diparm`k' `"`diparm'"'
              = local diparm1 `"lnalpha, exp label("alpha")"'
              - local diparmopts `"`diparmopts' : `diparm'"'
              = local diparmopts `" : lnalpha, exp label("alpha")"'
              - if `single' | `"`:list retok after'"' == "" {
              = if 1 | `""' == "" {
              - local 0 `", `options'"'
              = local 0 `", search(off)"'
              - syntax [, diparm(string asis) * ]
              - }
              - else {
                local diparm `"`after'"'
                }
              - }
              - while `"`diparm'"' != "" {
              = while `""' != "" {
                local ++k
                local single 1
                local after
                capture _on_colon_parse `diparm'
                if !c(rc) {
                local single 0
                local diparm `"`s(before)'"'
                local after `"`s(after)'"'
                }
                capture
                SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptions
> '
```

```
                local diparm`k' `"`diparm'"'
                local diparmopts `"`diparmopts' : `diparm'"'
                if `single' | `"`:list retok after'"' == "" {
                local 0 `", `options'"'
                syntax [, diparm(string asis) * ]
                }
                else {
                local diparm `"`after'"'
                }
                }
              - if `"`soptions'"' == "" {
              = if `"soptions"' == "" {
                syntax [, diparm(string asis) ]
                }
              - if ("`execute'" == "") {
              = if ("" == "") {
              - sreturn clear
              - sreturn local options `"`options'"'
              = sreturn local options `"search(off)"'
              - sreturn local diparm `"`diparmopts'"'
              = sreturn local diparm `" : lnalpha, exp label("alpha")"'
              - forval i = 1/`k' {
              = forval i = 1/1 {
              - sreturn local diparm`i' `"`diparm`i''"'
              = sreturn local diparm1 `"lnalpha, exp label("alpha")"'
              - }
              - sreturn local k `k'
              = sreturn local k 1
              - exit
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _get_diparmopts ───────────────
            - forval k = 1/`s(k)' {
            = forval k = 1/1 {
            - local diparm`k' `"`s(diparm`k')'"'
            = local diparm1 `"lnalpha, exp label("alpha")"'
            - }
            - local ndiparm `s(k)'
            = local ndiparm 1
            - local options `"`s(options)'"'
            = local options `"search(off)"'
            - if `interactive' & `:length local options' {
            = if 0 & 11 {
              local 0 , `options'
              syntax [, NOTANOPTION]
              }
            - if `:length local nopreserve' | `:length local score' {
```

```
            = if 10 | 0 {
            - global ML_preserve no
            - }
            - else global ML_preserve yes
            - gettoken evaltype spec : spec
            - confirm name `evaltype'
            = confirm name e2
            - gettoken evaluator spec : spec
            - global ML_evaltype : copy local evaltype
            - if `:length local srssubpop' {
            = if 0 {
              local 0 , srssubpop
              syntax [, NONOPTION]
              exit 198
              }
            - if `:length local subpop' {
            = if 0 {
              local svy svy
              }
            - if `:length local svy' {
            = if 0 {
              opts_exclusive "`vce' `svy'" vce
              if `:length local weight' {
              di as err "svy option not allowed with weights"
              exit 198
              }
              global ML_noadj : copy local svyadjust
              }
            - global ML_svy : copy local svy
            - if _caller() >= 15 & c(userversion) >= 15 {
            - local fparm ", freeparm"
            - }
            - local eqspec : copy local spec
            - local ieq 0
            - while `:length local eqspec' {
            = while 90 {
            - local ++ieq
            - gettoken eq eqspec : eqspec, bind
            - if bsubstr(trim("`eq'"),1,1) == "/" {
            = if bsubstr(trim("(y_timing_max: y_timing_max=wlth wg_ndx stky_pr
> _rotemberg stky_pr_calvo open,  )"),1,1) == "/" {
              local eq = bsubstr(trim("`eq'"),2,.)
              local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', w
> ord
              }
            - else {
```

```
            - gettoken p1 p2 : eq, parse("()")
            - local p2 = trim(`"`p2'"')
            = local p2 = trim(`"y_timing_max: y_timing_max=wlth wg_ndx stky_pr
> _rotemberg stky_pr_calvo open,  )"')
            - if bsubstr("`p2'",1,1) == "," {
            = if bsubstr("y_timing_max: y_timing_max=wlth wg_ndx stky_pr_rotem
> berg stky_pr_calvo open,  )",1,1) == "," {
              gettoken comma p2 : p2, parse(",")
              local p2 = trim(`"`p2'"')
              }
            - if `"`p1'`p2'"' == "()" {
            = if `"(y_timing_max: y_timing_max=wlth wg_ndx stky_pr_rotemberg s
> tky_pr_calvo open,  )"' == "()" {
              local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
              }
            - }
            - }
            - while `:length local eqspec' {
            = while 9 {
            - local ++ieq
            - gettoken eq eqspec : eqspec, bind
            - if bsubstr(trim("`eq'"),1,1) == "/" {
            = if bsubstr(trim("/lnalpha"),1,1) == "/" {
            - local eq = bsubstr(trim("`eq'"),2,.)
            = local eq = bsubstr(trim("/lnalpha"),2,.)
            - local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', w
> ord
            = local spec : subinstr local spec "/lnalpha" `"("lnalpha":, freep
> arm)"', word
            - }
            - else {
              gettoken p1 p2 : eq, parse("()")
              local p2 = trim(`"`p2'"')
              if bsubstr("`p2'",1,1) == "," {
              gettoken comma p2 : p2, parse(",")
              local p2 = trim(`"`p2'"')
              }
              if `"`p1'`p2'"' == "()" {
              local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
              }
              }
            - }
            - while `:length local eqspec' {
            = while 0 {
              local ++ieq
              gettoken eq eqspec : eqspec, bind
              if bsubstr(trim("`eq'"),1,1) == "/" {
              local eq = bsubstr(trim("`eq'"),2,.)
              local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', w
> ord
              }
              else {
              gettoken p1 p2 : eq, parse("()")
              local p2 = trim(`"`p2'"')
              if bsubstr("`p2'",1,1) == "," {
              gettoken comma p2 : p2, parse(",")
              local p2 = trim(`"`p2'"')
              }
              if `"`p1'`p2'"' == "()" {
              local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
              }
              }
              }
            - if `interactive' {
            = if 0 {
              SetGlobalVar ML_sample : _MLtua
              }
            - else {
            - global ML_sample : tempvar
            - if `"`moptobj'"' != "" {
            = if `""' != "" {
              global ML_sample `moptobj'$ML_sample
              }
            - }
            - if `"`moptobj'"' != "" {
            = if `""' != "" {
              cap drop $ML_sample
              }
            - `vv' mark $ML_sample `if' `in' [`weight'`exp'], `zeroweight'
            = version 18: mark __000006 if __000000   [],
            - tempname eqlist
            - .`eqlist' = ._eqlist.new, eqopts(NOCONStant FREEParm) eqargopts(
> OFFset EXPosure) noneedvarlist numdepvars(0) needequal
            = .__000007 = ._eqlist.new, eqopts(NOCONStant FREEParm) eqargopts(
> OFFset EXPosure) noneedvarlist numdepvars(0) needequal
              -class {
              -instance:
              -        array          n_depvars
              -        string         needequal
              -        string         noneedvarlist
              -        string         wtypes
              -        string         collinear
              -        string          nocons
              -        string          nocons_ignore
              -        double          n_eq
              -        string          gl_if
              -        string          gl_in
              -        string          gl_wgt
              -        string          gl_options
              -        _optlist        eq_opts_allowed
                -class {
                -instance:
                -        array options   = {}
                -        array names     = {}
                -}
              -        array           eq_list
              -        _optlist        mark_opts
              -        array           mark_list
              -        array           mark_name
              -        _optlist        smark_opts
              -        array           smark_list
              -        array           smark_name
              -        _optlist        rmcoll_opts
              -        array           rmcoll_list
              -        array           rmcoll_name
              -        _optlist        rmdcoll_opts
              -        array           rmdcoll_list
              -        array           rmdcoll_name
              -}
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqlist.new ───────────────
              - version 9.2
              - ._init
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _eqlist._init ───────────────
                - version 9.2
                - .n_eq = 0
                - .gl_if = ""
                - .gl_in = ""
                - .gl_wgt = ""
                - .gl_options = ""
                - .eq_list = {}
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqlist._init ───────────────
              - ._setup `0'
              = ._setup , eqopts(NOCONStant FREEParm) eqargopts(OFFset EXPosur
> e) noneedvarlist numdepvars(0) needequal
                ──────────────────────────────────────────────────────────────
```

```
> ---------------------------------------- begin _eqlist._setup ----------------
              - version 9.2
              - .mark_list = {}
              - .mark_name = {}
              - .mark_opts.reset
                -------------------------------------------------------------
> ---------------------------------------- begin _optlist.reset ----------------
                - version 9
                - .options = {}
                - .names = {}
                -------------------------------------------------------------
> ------------------------------------------ end _optlist.reset ----------------
              - .smark_list = {}
              - .smark_name = {}
              - .smark_opts.reset
                -------------------------------------------------------------
> ---------------------------------------- begin _optlist.reset ----------------
                - version 9
                - .options = {}
                - .names = {}
                -------------------------------------------------------------
> ------------------------------------------ end _optlist.reset ----------------
              - .rmcoll_list = {}
              - .rmcoll_name = {}
              - .rmcoll_opts.reset
                -------------------------------------------------------------
> ---------------------------------------- begin _optlist.reset ----------------
                - version 9
                - .options = {}
                - .names = {}
                -------------------------------------------------------------
> ------------------------------------------ end _optlist.reset ----------------
              - .rmdcoll_list = {}
              - .rmdcoll_name = {}
              - .rmdcoll_opts.reset
                -------------------------------------------------------------
> ---------------------------------------- begin _optlist.reset ----------------
                - version 9
                - .options = {}
                - .names = {}
                -------------------------------------------------------------
> ------------------------------------------ end _optlist.reset ----------------
              - syntax [, EQopts(namelist) EQARGopts(namelist) noNEEDVARLIST
>  COMMONopts(string asis) MARKopts(namelist) SMARKopts(namelist) RMCOLLopts(n
> amelist) RMDCOLLopts(namelist) NUMDEPvars(numlist integer >=0) NEEDEQUAL WTY
> PES(string) IGNORENOCONS ]
```

```
                - .eq_opts_allowed.reset
                  ------------------------------------------------------------
> ---------------------------------------- begin _optlist.reset ---------------
                  - version 9
                  - .options = {}
                  - .names = {}
                  ------------------------------------------------------------
> ------------------------------------------ end _optlist.reset ---------------
                - foreach opt of local eqopts {
                - .eq_opts_allowed.addopt `opt'
                = .eq_opts_allowed.addopt NOCONStant
                  ------------------------------------------------------------
> --------------------------------------- begin _optlist.addopt ---------------
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("NOCONStant")
                  - if "`passthru'" != "" {
                  = if "" != "" {
                    local optspec `optspec'(passthru)
                    }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "NOCONStant"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "noconstant"
                  ------------------------------------------------------------
> ----------------------------------------- end _optlist.addopt ---------------
                - }
                - .eq_opts_allowed.addopt `opt'
                = .eq_opts_allowed.addopt FREEParm
                  ------------------------------------------------------------
> --------------------------------------- begin _optlist.addopt ---------------
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("FREEParm")
                  - if "`passthru'" != "" {
                  = if "" != "" {
                    local optspec `optspec'(passthru)
                    }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "FREEParm"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "freeparm"
                  ------------------------------------------------------------
> ----------------------------------------- end _optlist.addopt ---------------
```

```
                - }
                - foreach opt of local eqargopts {
                - .eq_opts_allowed.addopt `opt', passthru
                = .eq_opts_allowed.addopt OFFset, passthru
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ────────────────
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("OFFset")
                  - if "`passthru'" != "" {
                  = if "passthru" != "" {
                  - local optspec `optspec'(passthru)
                  = local optspec OFFset(passthru)
                  - }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "OFFset(passthru)"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "offset"
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ────────────────
                - }
                - .eq_opts_allowed.addopt `opt', passthru
                = .eq_opts_allowed.addopt EXPosure, passthru
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ────────────────
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("EXPosure")
                  - if "`passthru'" != "" {
                  = if "passthru" != "" {
                  - local optspec `optspec'(passthru)
                  = local optspec EXPosure(passthru)
                  - }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "EXPosure(passthru)"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "exposure"
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ────────────────
                - }
                - local i 0
                - foreach opt of local markopts {
                  .mark_opts.addopt `opt', passthru
                  }
                - local i 0
                - foreach opt of local smarkopts {
                  .smark_opts.addopt `opt', passthru
                  }
                - local i 0
                - foreach opt of local rmcollopts {
                  .rmcoll_opts.addopt `opt', passthru
                  }
                - local i 0
                - foreach opt of local rmdcollopts {
                  .rmdcoll_opts.addopt `opt', passthru
                  }
                - .n_depvars.Arrdropall
                - if "`numdepvars'" != "" {
                = if "0" != "" {
                - foreach ndep of local numdepvars {
                - .n_depvars.Arrpush `ndep'
                = .n_depvars.Arrpush 0
                - }
                - }
                - else .n_depvars.Arrpush 1
                - .needequal = "`needequal'"
                = .needequal = "needequal"
                - .wtypes = "`wtypes'"
                = .wtypes = ""
                - .noneedvarlist = "`needvarlist'"
                = .noneedvarlist = "noneedvarlist"
                - .nocons_ignore = "`ignorenocons'"
                = .nocons_ignore = ""
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _eqlist._setup ────────────────
              ─────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqlist.new ────────────────
            - .`eqlist'.parse `spec'
            = .__000007.parse  (y_timing_max: y_timing_max=wlth wg_ndx stky_pr
> _rotemberg stky_pr_calvo open,  ) ("lnalpha":, freeparm)
              ─────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _eqlist.parse ────────────────
              - version 9.2
              - ._init
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _eqlist._init ────────────────
                - version 9.2
                - .n_eq = 0
                - .gl_if = ""
                - .gl_in = ""
                - .gl_wgt = ""
                - .gl_options = ""
                - .eq_list = {}
                ───────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqlist._init ────────────────
              - local MARKOPTLIST `"`.mark_opts.dumpoptions'"'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ────────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ────────────────
              = local MARKOPTLIST `""'
              - local SMARKOPTLIST `"`.smark_opts.dumpoptions'"'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ────────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ────────────────
              = local SMARKOPTLIST `""'
              - local RMCOLLOPTLIST `"`.rmcoll_opts.dumpoptions'"'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ────────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local RMCOLLOPTLIST `""'
              - local RMDCOLLOPTLIST `"`.rmdcoll_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local RMDCOLLOPTLIST `""'
              - _parse expand EQ GL : 0, gweight common( `MARKOPTLIST' `SMARKO
> PTLIST' `RMCOLLOPTLIST' `RMDCOLLOPTLIST' COLlinear )
              = _parse expand EQ GL : 0, gweight common(     COLlinear )
              - if `EQ_n' == 0 & "`.noneedvarlist'" == "" {
              = if 2 == 0 & "noneedvarlist" == "" {
                syntax varlist
                }
              - local rebind = `EQ_n' == 1
              = local rebind = 2 == 1
              - if `rebind' {
              = if 0 {
                tokenize `"`0'"', parse(",()[]")
                local rebind = `"`1'"' != "(" & `"`2'"' == "("
                }
              - if `rebind' {
              = if 0 {
                while `:length local 0' {
                gettoken tok 0 : 0, parse(" ,") bind match(par)
                if "`par'" == "(" {
                gettoken nxt : 0
                local nxt = substr(`"`nxt'"',1,1)
                if inlist(`"`nxt'"', "#", "|") {
                local ZERO `"`ZERO' (`tok')"'
                }
                else {
                local ZERO `"(`ZERO') (`tok') `0'"'
                local 0
                }
                }
                else if inlist("`tok'", "if", "in", ",") {
                local ZERO `"(`ZERO') `tok' `0'"'
                local 0
                }
                else if inlist(substr(`"`tok'"',1,1), "#", "|") {
                local ZERO `"`ZERO'`tok'"'
                }
                else {
                local ZERO `"`ZERO' `tok'"'
                }
                }
                _parse expand EQ GL : ZERO, gweight common( `MARKOPTLIST' `SMA
> RKOPTLIST' `RMCOLLOPTLIST' `RMDCOLLOPTLIST' COLlinear )
                }
              - forval i = 1/`EQ_n' {
              = forval i = 1/2 {
              - if `i' <= `.n_depvars.arrnels' {
              = if 1 <= 1 {
              - local ndep = `.n_depvars[`i']'
              = local ndep = 0
              - }
              - .eq_list[`i'] = ._eqspec.new, numdepvars(`ndep') `.needequal'
> `.noneedvarlist' wtypes(`.wtypes') `.nocons_ignore'
              = .eq_list[1] = ._eqspec.new, numdepvars(0) needequal noneedvarl
> ist wtypes()
                -class {
                -instance:
                -       double  n_depvars
                -       double  needequal
                -       double  needvarlist
                -       string  wtypes
                -       string  name
                -       string  depvars
                -       double  hasequal
                -       string  indepvars
                -       string  other_markvars
                -       double  nocons
                -       double  nocons_ignore
                -       string  offset
                -       double  exposure
                -        double  freeparm
                -        string  if
                -        string  in
                -        string  wgt
                -        string  options
                -}
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqspec.new ───────────────
                - version 9.2
                - syntax [, NUMDEPvars(numlist integer >=0 max=1) NEEDEQUAL no
> NEEDVARLIST WTYPES(string) IGNORENOCONS ]
                - .n_depvars = 1
                - if `:list sizeof numdepvars' {
                = if 1 {
                - .n_depvars = `numdepvars'
                = .n_depvars = 0
                - }
                - .needequal = ("`needequal'" != "")
                = .needequal = ("needequal" != "")
                - .needvarlist = ("`needvarlist'" == "")
                = .needvarlist = ("noneedvarlist" == "")
                - .nocons_ignore = ("`ignorenocons'" != "")
                = .nocons_ignore = ("" != "")
                - .wtypes = "`wtypes'"
                = .wtypes = ""
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqspec.new ───────────────
              - .eq_list[`i'].parse `.eq_opts_allowed.objkey':`EQ_`i''
              = .eq_list[1].parse __key(600002a363c0):y_timing_max: y_timing_m
> ax=wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.parse ───────────────
                - version 9.2
                - _on_colon_parse `0'
                = _on_colon_parse __key(600002a363c0):y_timing_max: y_timing_m
> ax=wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _on_colon_parse ───────────────
                  - version 8.2
                  - sreturn local before ""
                  - sreturn local after ""
                  - gettoken before after : 0, parse(":") bind match(par) quot
> es
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `"(`before')"'
                    }
                  - if `"`before'"' == ":" {
                  = if `"__key(600002a363c0)"' == ":" {
                    sreturn local after `"`after'"'
                    exit
                    }
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
                  = while `""' != ":" & `":y_timing_max: y_timing_max=wlth wg_
> ndx stky_pr_rotemberg stky_pr_calvo open"' != "" {
                  - gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `before' (`COLON')
                    local COLON
                    }
                  - else if `"`COLON'"' != ":" {
                  = else if `":"' != ":" {
                    local before `"`before' `COLON'"'
                    local COLON
                    }
                  - }
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
                  = while `":"' != ":" & `"y_timing_max: y_timing_max=wlth wg_
> ndx stky_pr_rotemberg stky_pr_calvo open"' != "" {
                    gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                    if "`par'" != "" {
                    local before `before' (`COLON')
                    local COLON
                    }
                    else if `"`COLON'"' != ":" {
                    local before `"`before' `COLON'"'
                    local COLON
                    }
                    }
                  - if `"`COLON'"' != ":" {
                  = if `":"' != ":" {
                    di as err "'' found where ':' expected"
                    exit 198
                    }
                  - sreturn local before `"`before'"'
                  = sreturn local before `"__key(600002a363c0)"'
                  - sreturn local after `"`after'"'
                  = sreturn local after `"y_timing_max: y_timing_max=wlth wg_n
> dx stky_pr_rotemberg stky_pr_calvo open"'
```

```
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
                - local ol `s(before)'
                = local ol __key(600002a363c0)
                - if `:list sizeof ol' {
                = if 1 {
                - local OPTLIST `"`.`ol'.dumpoptions'"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                  - version 9
                  - forval i = 1/`.options.arrnels' {
                  = forval i = 1/4 {
                  - local optlist `optlist' `.options[`i']'
                  = local optlist  NOCONStant
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm OFFset(passthru)
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm OFFset(passthru) EXPosur
> e(passthru)
                  - }
                  - local optlist : list uniq optlist
                  - sreturn local optlist `"`optlist'"'
                  = sreturn local optlist `"NOCONStant FREEParm OFFset(passthr
> u) EXPosure(passthru)"'
                  - class exit `"`optlist'"'
                  = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosure
> (passthru)"'
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
                = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPosur
> e(passthru)"'
                - local OPTNAMES `"`.`ol'.dumpnames'"'
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                  - version 9
                  - forval i = 1/`.names.arrnels' {
                  = forval i = 1/4 {
                  - local namelist `namelist' `.names[`i']'
                  = local namelist  noconstant
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm offset
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm offset exposure
                  - }
                  - local namelist : list uniq namelist
                  - sreturn local namelist `"`namelist'"'
                  = sreturn local namelist `"noconstant freeparm offset exposu
> re"'
                  - class exit `"`namelist'"'
                  = class exit `"noconstant freeparm offset exposure"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
                = local OPTNAMES `"noconstant freeparm offset exposure"'
                - local NOCONS constant noconstant
                - if `"`:list NOCONS & OPTNAMES'"' == "" {
                = if `"noconstant"' == "" {
                  local NOCONS noCONStant
                  }
                - else local NOCONS
                - }
                - local 0 `"`s(after)'"'
                = local 0 `"y_timing_max: y_timing_max=wlth wg_ndx stky_pr_rot
> emberg stky_pr_calvo open"'
                - if `"`.wtypes'"' != "" {
                = if `""' != "" {
                  local wgt "[`.wtypes']"
                  }
                - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `NOC
> ONS' *]
                = syntax [anything(equalok)] [if] [in]  [, NOCONStant FREEParm
>  OFFset(passthru) EXPosure(passthru)  *]
                - local HOLDIF `"`if'"'
                = local HOLDIF `""'
                - local HOLDIN `"`in'"'
                = local HOLDIN `""'
                - if "`wgt'" != "" & "`weight'" != "" {
                = if "" != "" & "" != "" {
                  local HOLDWGT `"[`weight'`exp']"'
                  }
                - gettoken NAME REST : anything, parse(":")
                - if trim("`NAME'") == ":" {
                = if trim("y_timing_max") == ":" {
                  di as err "nothing found where equation name expected"
                  exit 198
                  }
                - if `:list sizeof REST' {
                = if 6 {
                - if strpos(`"`NAME'"', ":") {
                = if strpos(`"y_timing_max"', ":") {
                  capture _msparse `NAME'
                  if c(rc) {
                  di as err "{bf:`NAME'} invalid equation specification"
                  exit 198
                  }
                  }
                - else {
                - ._confirm_eqname `NAME'
                = ._confirm_eqname y_timing_max
                  ------------------------------------------------------------
> ------------------------------ begin _eqspec._confirm_eqname ----------------
                  - version 9.2
                  - capture confirm number `0'
                  = capture confirm number y_timing_max
                  - if (! c(rc)) exit
                  - local hasdot = strpos(`"`0'"',".")
                  = local hasdot = strpos(`"y_timing_max"',".")
                  - if `hasdot' {
                  = if 0 {
                    syntax varname(ts)
                    exit
                    }
                  - capture syntax name(id="equation name")
                  - if (! c(rc)) exit
                  ------------------------------------------------------------
> -------------------------------- end _eqspec._confirm_eqname ----------------
                - }
                - local NAME : list retok NAME
                - gettoken COLON anything : REST, parse(":")
                - }
                - else {
                  local NAME
                  }
                - gettoken DEPVARS REST : anything, parse("=") bind
                - if "`DEPVARS'" == "=" {
                = if "y_timing_max" == "=" {
                  local REST : copy local anything
                  local DEPVARS
                  }
                - if (`:length local DEPVARS' == 0 & `.n_depvars') {
                = if (12 == 0 & 0) {
                  di as err "nothing found where depvar expected"
                  exit 198
                  }
                - if `"`REST'"' == "" {
                = if `"=wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open"' ==
> "" {
                  if 0`.needequal' {
                  if `.needvarlist' | (`:length local DEPVARS' != 0 & `.n_depv
> ars') {
                  di as err "equal sign required to separate depvars from inde
> pvars"
                  exit 198
                  }
                  }
                  local DEPVARS
                  local n_deps : list sizeof anything
                  if `n_deps' != 0 | `.needvarlist' {
                  if `n_deps' < `.n_depvars' {
                  error 102
                  }
                  forval j = 1/`.n_depvars' {
                  gettoken YY anything : anything
                  local DEPVARS `DEPVARS' `YY'
                  }
                  local INDEPVARS : list retok anything
                  }
                  loca hasequal 0
                  }
                - else {
                - gettoken EQ INDEPVARS : REST, parse("=") bind
                - local hasequal 1
                - }
                - if `:list sizeof DEPVARS' {
                = if 1 {
                - _fv_check_depvar `DEPVARS'
                = _fv_check_depvar y_timing_max
                - tsunab DEPVARS : `DEPVARS'
                = tsunab DEPVARS : y_timing_max
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin tsunab ───────────────
                  - version 6
                  - gettoken user 0: 0, parse(" :")
                  - gettoken colon 0: 0, parse(" :")
                  - if `"`colon'"' != ":" { error 198 }
                  = if `":"' != ":" { error 198 }
                  - syntax [varlist(ts default=empty)] [, MIN(integer 1) MAX(i
> nteger 32000) NAME(string)]
                  - c_local `user' `varlist'
                  = c_local DEPVARS y_timing_max
                  - local n : word count `varlist'
                  = local n : word count y_timing_max
                  - if `n'>=`min' & `n'<=`max' { exit }
                  = if 1>=1 & 1<=32000 { exit }
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────────────── end tsunab ───────────────
                - }
                - if `:list sizeof INDEPVARS' {
                = if 5 {
                - fvunab INDEPVARS : `INDEPVARS'
                = fvunab INDEPVARS : wlth wg_ndx stky_pr_rotemberg stky_pr_cal
> vo open
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── begin fvunab ───────────────
                  - version 11
                  - _on_colon_parse `0'
                  = _on_colon_parse INDEPVARS : wlth wg_ndx stky_pr_rotemberg
> stky_pr_calvo open
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _on_colon_parse ───────────────
                    - version 8.2
                    - sreturn local before ""
                    - sreturn local after ""
                    - gettoken before after : 0, parse(":") bind match(par) qu
> otes
                    - if "`par'" != "" {
                    = if "" != "" {
                      local before `"(`before')"'
                      }
                    - if `"`before'"' == ":" {
                    = if `"INDEPVARS "' == ":" {
                      sreturn local after `"`after'"'
                      exit
                      }
                    - while `"`COLON'"' != ":" & `"`after'"' != "" {
                    = while `""' != ":" & `": wlth wg_ndx stky_pr_rotemberg st
> ky_pr_calvo open"' != "" {
                    - gettoken COLON after : after, parse(":") bind match(par)
>  quotes
                    - if "`par'" != "" {
                    = if "" != "" {
                      local before `before' (`COLON')
                      local COLON
                      }
                    - else if `"`COLON'"' != ":" {
                    = else if `":"' != ":" {
                      local before `"`before' `COLON'"'
                      local COLON
                      }
                    - }
                    - while `"`COLON'"' != ":" & `"`after'"' != "" {
                    = while `":"' != ":" & `" wlth wg_ndx stky_pr_rotemberg st
> ky_pr_calvo open"' != "" {
                      gettoken COLON after : after, parse(":") bind match(par)
>  quotes
                      if "`par'" != "" {
                      local before `before' (`COLON')
                      local COLON
                      }
                      else if `"`COLON'"' != ":" {
                      local before `"`before' `COLON'"'
                      local COLON
                      }
                      }
                    - if `"`COLON'"' != ":" {
                    = if `":"' != ":" {
                      di as err "'' found where ':' expected"
                      exit 198
                      }
                    - sreturn local before `"`before'"'
                    = sreturn local before `"INDEPVARS "'
                    - sreturn local after `"`after'"'
                    = sreturn local after `" wlth wg_ndx stky_pr_rotemberg stk
> y_pr_calvo open"'
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
                  - local 0 `"`s(before)'"'
                  = local 0 `"INDEPVARS "'
                  - syntax name(id="macro name" name=user)
                  - local 0 `"`s(after)'"'
                  = local 0 `" wlth wg_ndx stky_pr_rotemberg stky_pr_calvo ope
> n"'
                  - syntax [varlist(ts fv default=none)] [, MIN(integer 1) MAX
> (integer 32000) NAME(string) ]
                  - c_local `user' `varlist'
                  = c_local INDEPVARS wlth wg_ndx stky_pr_rotemberg stky_pr_ca
> lvo open
```

```
                  - local n : list sizeof varlist
                  - if (`min' <= `n' & `n' <= `max') exit
                  = if (1 <= 5 & 5 <= 32000) exit
                  ------------------------------------------------------------
> ------------------------------------------------- end fvunab ---------------
                - }
                - if inlist("noconstant", "`noconstant'", "`constant'") {
                = if inlist("noconstant", "", "") {
                  if "`INDEPVARS'" == "" & ! `.nocons_ignore' {
                  di as err "independent variables are required when option no
> constant is specified"
                  exit 102
                  }
                  if "`NOCONS'" != "" {
                  local options `options' noconstant
                  }
                  local NOCONS 1
                  }
                - else local NOCONS 0
                - if `"`offset'`exposure'"' != "" {
                = if `""' != "" {
                  ._check_offset, `offset' `exposure'
                  local OFFSET "`s(offset)'"
                  local EXPOSURE = ("`exposure'" != "")
                  local OTHER `s(offset)'
                  }
                - else local EXPOSURE 0
                - local FREEPARM = `"`freeparm'"' != ""
                = local FREEPARM = `""' != ""
                - local OPTIONS
                - local SPACE
                - foreach OPTNAME of local OPTNAMES {
                - if `"``OPTNAME''"' != "" {
                = if `""' != "" {
                  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                  local SPACE " "
                  }
                - }
                - if `"``OPTNAME''"' != "" {
                = if `""' != "" {
                  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                  local SPACE " "
                  }
                - }
                - if `"``OPTNAME''"' != "" {
                = if `""' != "" {
                  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                  local SPACE " "
                  }
                - }
                - if `"``OPTNAME''"' != "" {
                = if `""' != "" {
                  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
                  local SPACE " "
                  }
                - }
                - if `"`options'"' != "" {
                = if `""' != "" {
                  local OPTIONS `"`OPTIONS'`SPACE'`options'"'
                  }
                - .name = `"`NAME'"'
                = .name = `"y_timing_max"'
                - .depvars = `"`DEPVARS'"'
                = .depvars = `"y_timing_max"'
                - .hasequal = `hasequal'
                = .hasequal = 1
                - .indepvars = `"`:list retok INDEPVARS'"'
                = .indepvars = `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo o
> pen"'
                - .other_markvars = `"`:list retok OTHER'"'
                = .other_markvars = `""'
                - .nocons = `NOCONS'
                = .nocons = 0
                - .if = `"`HOLDIF'"'
                = .if = `""'
                - .in = `"`HOLDIN'"'
                = .in = `""'
                - .wgt = `"`HOLDWGT'"'
                = .wgt = `""'
                - .offset = `"`OFFSET'"'
                = .offset = `""'
                - .exposure = `EXPOSURE'
                = .exposure = 0
                - .freeparm = `FREEPARM'
                = .freeparm = 0
                - .options = `"`OPTIONS'"'
                = .options = `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.parse ───────────────
              - }
              - if `i' <= `.n_depvars.arrnels' {
              = if 2 <= 1 {
                local ndep = `.n_depvars[`i']'
                }
              - .eq_list[`i'] = ._eqspec.new, numdepvars(`ndep') `.needequal'
> `.noneedvarlist' wtypes(`.wtypes') `.nocons_ignore'
              = .eq_list[2] = ._eqspec.new, numdepvars(0) needequal noneedvarl
> ist wtypes()
                ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqspec.new ────────────────
                - version 9.2
                - syntax [, NUMDEPvars(numlist integer >=0 max=1) NEEDEQUAL no
> NEEDVARLIST WTYPES(string) IGNORENOCONS ]
                - .n_depvars = 1
                - if `:list sizeof numdepvars' {
                = if 1 {
                - .n_depvars = `numdepvars'
                = .n_depvars = 0
                - }
                - .needequal = ("`needequal'" != "")
                = .needequal = ("needequal" != "")
                - .needvarlist = ("`needvarlist'" == "")
                = .needvarlist = ("noneedvarlist" == "")
                - .nocons_ignore = ("`ignorenocons'" != "")
                = .nocons_ignore = ("" != "")
                - .wtypes = "`wtypes'"
                = .wtypes = ""
                ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqspec.new ────────────────
              - .eq_list[`i'].parse `.eq_opts_allowed.objkey':`EQ_`i''
              = .eq_list[2].parse __key(600002a363c0):"lnalpha":, freeparm
                ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.parse ────────────────
                - version 9.2
                - _on_colon_parse `0'
                = _on_colon_parse __key(600002a363c0):"lnalpha":, freeparm
                  ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _on_colon_parse ────────────────
                  - version 8.2
                  - sreturn local before ""
                  - sreturn local after ""
                  - gettoken before after : 0, parse(":") bind match(par) quot
> es
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `"(`before')"'
                    }
                  - if `"`before'"' == ":" {
                         = if `"__key(600002a363c0)"' == ":" {
                           sreturn local after `"`after'"'
                           exit
                           }
                         - while `"`COLON'"' != ":" & `"`after'"' != "" {
                         = while `""' != ":" & `":"lnalpha":, freeparm"' != "" {
                         - gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                         - if "`par'" != "" {
                         = if "" != "" {
                           local before `before' (`COLON')
                           local COLON
                           }
                         - else if `"`COLON'"' != ":" {
                         = else if `":"' != ":" {
                           local before `"`before' `COLON'"'
                           local COLON
                           }
                         - }
                         - while `"`COLON'"' != ":" & `"`after'"' != "" {
                         = while `":"' != ":" & `""lnalpha":, freeparm"' != "" {
                           gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                           if "`par'" != "" {
                           local before `before' (`COLON')
                           local COLON
                           }
                           else if `"`COLON'"' != ":" {
                           local before `"`before' `COLON'"'
                           local COLON
                           }
                           }
                         - if `"`COLON'"' != ":" {
                         = if `":"' != ":" {
                           di as err "'' found where ':' expected"
                           exit 198
                           }
                         - sreturn local before `"`before'"'
                         = sreturn local before `"__key(600002a363c0)"'
                         - sreturn local after `"`after'"'
                         = sreturn local after `""lnalpha":, freeparm"'
                         ---------------------------------------------------------------
> ------------------------------------------ end _on_colon_parse ----------------
                       - local ol `s(before)'
                       = local ol __key(600002a363c0)
                       - if `:list sizeof ol' {
```

```
                = if 1 {
                - local OPTLIST `"`.`ol'.dumpoptions'"'
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────── begin _optlist.dumpoptions ───────────────
                  - version 9
                  - forval i = 1/`.options.arrnels' {
                  = forval i = 1/4 {
                  - local optlist `optlist' `.options[`i']'
                  = local optlist  NOCONStant
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm OFFset(passthru)
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist NOCONStant FREEParm OFFset(passthru) EXPosur
> e(passthru)
                  - }
                  - local optlist : list uniq optlist
                  - sreturn local optlist `"`optlist'"'
                  = sreturn local optlist `"NOCONStant FREEParm OFFset(passthr
> u) EXPosure(passthru)"'
                  - class exit `"`optlist'"'
                  = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosure
> (passthru)"'
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────── end _optlist.dumpoptions ───────────────
                = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPosur
> e(passthru)"'
                - local OPTNAMES `"`.`ol'.dumpnames'"'
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────── begin _optlist.dumpnames ───────────────
                  - version 9
                  - forval i = 1/`.names.arrnels' {
                  = forval i = 1/4 {
                  - local namelist `namelist' `.names[`i']'
                  = local namelist  noconstant
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm offset
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist noconstant freeparm offset exposure
                  - }
                  - local namelist : list uniq namelist
                  - sreturn local namelist `"`namelist'"'
                  = sreturn local namelist `"noconstant freeparm offset exposu
> re"'
                  - class exit `"`namelist'"'
                  = class exit `"noconstant freeparm offset exposure"'
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────── end _optlist.dumpnames ───────────────
                = local OPTNAMES `"noconstant freeparm offset exposure"'
                - local NOCONS constant noconstant
                - if `"`:list NOCONS & OPTNAMES'"' == "" {
                = if `"noconstant"' == "" {
                  local NOCONS noCONStant
                  }
                - else local NOCONS
                - }
                - local 0 `"`s(after)'"'
                = local 0 `""lnalpha":, freeparm"'
                - if `"`.wtypes'"' != "" {
                = if `""' != "" {
                  local wgt "[`.wtypes']"
                  }
                - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `NOC
> ONS' *]
                = syntax [anything(equalok)] [if] [in]  [, NOCONStant FREEParm
>  OFFset(passthru) EXPosure(passthru)  *]
                - local HOLDIF `"`if'"'
                = local HOLDIF `""'
                - local HOLDIN `"`in'"'
                = local HOLDIN `""'
                - if "`wgt'" != "" & "`weight'" != "" {
                = if "" != "" & "" != "" {
                  local HOLDWGT `"[`weight'`exp']"'
                  }
                - gettoken NAME REST : anything, parse(":")
                - if trim("`NAME'") == ":" {
                = if trim("lnalpha") == ":" {
                  di as err "nothing found where equation name expected"
                  exit 198
                  }
                - if `:list sizeof REST' {
                = if 1 {
                - if strpos(`"`NAME'"', ":") {
```

```
        = if strpos(`"lnalpha"', ":") {
          capture _msparse `NAME'
          if c(rc) {
          di as err "{bf:`NAME'} invalid equation specification"
          exit 198
          }
          }
        - else {
        - ._confirm_eqname `NAME'
        = ._confirm_eqname lnalpha
          ──────────────────────────────
> ─────────────── begin _eqspec._confirm_eqname ────────
         - version 9.2
         - capture confirm number `0'
         = capture confirm number lnalpha
         - if (! c(rc)) exit
         - local hasdot = strpos(`"`0'"',".")
         = local hasdot = strpos(`"lnalpha"',".")
         - if `hasdot' {
         = if 0 {
           syntax varname(ts)
           exit
           }
         - capture syntax name(id="equation name")
         - if (! c(rc)) exit
         ──────────────────────────────
> ──────────────── end _eqspec._confirm_eqname ────────
        - }
        - local NAME : list retok NAME
        - gettoken COLON anything : REST, parse(":")
        - }
        - else {
          local NAME
          }
        - gettoken DEPVARS REST : anything, parse("=") bind
        - if "`DEPVARS'" == "=" {
        = if "" == "=" {
          local REST : copy local anything
          local DEPVARS
          }
        - if (`:length local DEPVARS' == 0 & `.n_depvars') {
        = if (0 == 0 & 0) {
          di as err "nothing found where depvar expected"
          exit 198
          }
        - if `"`REST'"' == "" {
                = if `""' == "" {
                - if 0`.needequal' {
                = if 01 {
                - if `.needvarlist' | (`:length local DEPVARS' != 0 & `.n_depv
> ars') {
                = if 0 | (0 != 0 & 0) {
                  di as err "equal sign required to separate depvars from inde
> pvars"
                  exit 198
                  }
                - }
                - local DEPVARS
                - local n_deps : list sizeof anything
                - if `n_deps' != 0 | `.needvarlist' {
                = if 0 != 0 | 0 {
                  if `n_deps' < `.n_depvars' {
                  error 102
                  }
                  forval j = 1/`.n_depvars' {
                  gettoken YY anything : anything
                  local DEPVARS `DEPVARS' `YY'
                  }
                  local INDEPVARS : list retok anything
                  }
                - loca hasequal 0
                - }
                - else {
                  gettoken EQ INDEPVARS : REST, parse("=") bind
                  local hasequal 1
                  }
                - if `:list sizeof DEPVARS' {
                = if 0 {
                  _fv_check_depvar `DEPVARS'
                  tsunab DEPVARS : `DEPVARS'
                  }
                - if `:list sizeof INDEPVARS' {
                = if 0 {
                  fvunab INDEPVARS : `INDEPVARS'
                  }
                - if inlist("noconstant", "`noconstant'", "`constant'") {
                = if inlist("noconstant", "", "") {
                  if "`INDEPVARS'" == "" & ! `.nocons_ignore' {
                  di as err "independent variables are required when option no
> constant is specified"
                  exit 102
                  }
```

```
  if "`NOCONS'" != "" {
  local options `options' noconstant
  }
  local NOCONS 1
  }
- else local NOCONS 0
- if `"`offset'`exposure'"' != "" {
= if `""' != "" {
  ._check_offset, `offset' `exposure'
  local OFFSET "`s(offset)'"
  local EXPOSURE = ("`exposure'" != "")
  local OTHER `s(offset)'
  }
- else local EXPOSURE 0
- local FREEPARM = `"`freeparm'"' != ""
= local FREEPARM = `"freeparm"' != ""
- local OPTIONS
- local SPACE
- foreach OPTNAME of local OPTNAMES {
- if `"``OPTNAME''"' != "" {
= if `""' != "" {
  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
  local SPACE " "
  }
- }
- if `"``OPTNAME''"' != "" {
= if `"freeparm"' != "" {
- local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
= local OPTIONS `"freeparm"'
- local SPACE " "
- }
- }
- if `"``OPTNAME''"' != "" {
= if `""' != "" {
  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
  local SPACE " "
  }
- }
- if `"``OPTNAME''"' != "" {
= if `""' != "" {
  local OPTIONS `"`OPTIONS'`SPACE'``OPTNAME''"'
  local SPACE " "
  }
- }
- if `"`options'"' != "" {
= if `""' != "" {
```

```
                  local OPTIONS `"`OPTIONS'`SPACE'`options'"'
                  }
                - .name = `"`NAME'"'
                = .name = `"lnalpha"'
                - .depvars = `"`DEPVARS'"'
                = .depvars = `""'
                - .hasequal = `hasequal'
                = .hasequal = 0
                - .indepvars = `"`:list retok INDEPVARS'"'
                = .indepvars = `""'
                - .other_markvars = `"`:list retok OTHER'"'
                = .other_markvars = `""'
                - .nocons = `NOCONS'
                = .nocons = 0
                - .if = `"`HOLDIF'"'
                = .if = `""'
                - .in = `"`HOLDIN'"'
                = .in = `""'
                - .wgt = `"`HOLDWGT'"'
                = .wgt = `""'
                - .offset = `"`OFFSET'"'
                = .offset = `""'
                - .exposure = `EXPOSURE'
                = .exposure = 0
                - .freeparm = `FREEPARM'
                = .freeparm = 1
                - .options = `"`OPTIONS'"'
                = .options = `"freeparm"'
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqspec.parse ───────────────
              - }
              - local MARKOPTLIST `"`.mark_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
```

```
              = local MARKOPTLIST `""'
              - local MARKOPTNAMES `"`.mark_opts.dumpnames'"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/0 {
                  local namelist `namelist' `.names[`i']'
                  }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `""'
                - class exit `"`namelist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local MARKOPTNAMES `""'
              - local OPTLIST1 : subinstr local MARKOPTLIST "(passthru)" "(str
> ing asis)", all
              - local SMARKOPTLIST `"`.smark_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local SMARKOPTLIST `""'
              - local SMARKOPTNAMES `"`.smark_opts.dumpnames'"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/0 {
                  local namelist `namelist' `.names[`i']'
                  }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `""'
                - class exit `"`namelist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local SMARKOPTNAMES `""'
              - local OPTLIST1s : subinstr local SMARKOPTLIST "(passthru)" "(s
> tring asis)", all
              - local RMCOLLOPTLIST `"`.rmcoll_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local RMCOLLOPTLIST `""'
              - local RMCOLLOPTNAMES `"`.rmcoll_opts.dumpnames'"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/0 {
                  local namelist `namelist' `.names[`i']'
                  }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `""'
                - class exit `"`namelist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local RMCOLLOPTNAMES `""'
              - local OPTLIST2 : subinstr local RMCOLLOPTLIST "(passthru)" "(s
> tring asis)", all
              - local RMDCOLLOPTLIST `"`.rmdcoll_opts.dumpoptions'"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                - version 9
                - forval i = 1/`.options.arrnels' {
```

```
                = forval i = 1/0 {
                  local optlist `optlist' `.options[`i']'
                  }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `""'
                - class exit `"`optlist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ───────────────
              = local RMDCOLLOPTLIST `""'
              - local RMDCOLLOPTNAMES `"`.rmdcoll_opts.dumpnames'"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/0 {
                  local namelist `namelist' `.names[`i']'
                  }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `""'
                - class exit `"`namelist'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local RMDCOLLOPTNAMES `""'
              - local OPTLIST3 : subinstr local RMDCOLLOPTLIST "(passthru)" "(
> string asis)", all
              - local 0 `", `GL_op'"'
              = local 0 `", "'
              - syntax [, `OPTLIST1' `OPTLIST1s' `OPTLIST2' `OPTLIST3' COLline
> ar noCONStant * ]
              = syntax [,     COLlinear noCONStant * ]
              - local GL_op `"`options'"'
              = local GL_op `""'
              - if `"`collinear'"' != "" {
              = if `""' != "" {
                local GL_op `"`GL_op' `collinear'"'
                .collinear = "`collinear'"
                }
              - if `"`constant'"' != "" {
              = if `""' != "" {
                local GL_op `"`GL_op' `constant'"'
                .nocons = "`constant'"
                }
              - local I 0
              - foreach OPT of local MARKOPTNAMES {
                if `:list sizeof `OPT'' {
                .mark_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wtypes')
                .mark_list[`I'].parse "" : ``OPT''
                .mark_name.Arrpush "`OPT'"
                }
                }
              - local I 0
              - foreach OPT of local SMARKOPTNAMES {
                if `:list sizeof `OPT'' {
                .smark_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wtypes')
                .smark_list[`I'].parse "" : ``OPT''
                .smark_name.Arrpush "`OPT'"
                }
                }
              - local I 0
              - foreach OPT of local RMCOLLOPTNAMES {
                if `:list sizeof `OPT'' {
                .rmcoll_list[`++I'] = ._eqspec.new, numdep(0) wtypes(`.wtypes'
> )
                .rmcoll_list[`I'].parse "" : ``OPT''
                .rmcoll_name.Arrpush "`OPT'"
                }
                }
              - local I 0
              - foreach OPT of local RMDCOLLOPTNAMES {
                if `:list sizeof `OPT'' {
                .rmdcoll_list[`++I'] = ._eqspec.new, wtypes(`.wtypes')
                .rmdcoll_list[`I'].parse "" : ``OPT''
                .rmdcoll_name.Arrpush "`OPT'"
                }
                }
              - .n_eq = `EQ_n'
              = .n_eq = 2
              - .gl_if = `"`GL_if'"'
              = .gl_if = `""'
              - .gl_in = `"`GL_in'"'
              = .gl_in = `""'
              - .gl_wgt = `"`GL_wt'"'
              = .gl_wgt = `""'
              - .gl_options = `"`:list retok GL_op'"'
              = .gl_options = `""'
              ----------------------------------------------------------------
> ------------------------------------------ end _eqlist.parse ---------------
            - if "`subpop'" != "" & "`missing'" == "" {
```

```
          = if "" != "" & "missing" == "" {
            if `interactive' {
            SetGlobalVar ML_samp : _MLtu
            }
            else {
            global ML_samp : tempvar
            if `"`moptobj'"' != "" {
            global ML_samp `moptobj'$ML_samp
            }
            }
            tempvar markuse
            _svy_setup $ML_sample $ML_samp, svy subpop(`subpop')
            quietly gen byte `markuse' = $ML_samp
            }
          - else global ML_samp $ML_sample
          = else global ML_samp __000006
          - if "`collinear'" == "" {
          = if "collinear" == "" {
            .`eqlist'.rmcoll $ML_samp, replace `missing'
            }
          - else if "`missing'" == "" {
          = else if "missing" == "" {
            .`eqlist'.markout $ML_samp, replace
            }
          - if "$ML_samp" != "$ML_sample" {
          = if "__000006" != "__000006" {
            `vv' quietly replace $ML_sample = 0 if `markuse' & !$ML_samp
            drop `markuse'
            }
          - local eq_n = `.`eqlist'.eq count'
            ----------------------------------------------------------------
> -------------------------------------------- begin _eqlist.eq ---------------
            - version 9.2
            - args item idx
            - if "`item'" == "count" {
            = if "count" == "count" {
            - sreturn local value `"`.n_eq'"'
            = sreturn local value `"2"'
            - class exit `"`s(value)'"'
            = class exit `"2"'
            ----------------------------------------------------------------
> ---------------------------------------------- end _eqlist.eq ---------------
          = local eq_n = 2
          - global ML_n : copy local eq_n
          - global ML_dim = `.`eqlist'.dim'
            ----------------------------------------------------------------
```

```
> ─────────────────────────────────────────── begin _eqlist.dim ───────────────
              - version 9.2
              - syntax
              - local neq = `.eq count'
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _eqlist.eq ───────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "count" == "count" {
                - sreturn local value `"`.n_eq'"'
                = sreturn local value `"2"'
                - class exit `"`s(value)'"'
                = class exit `"2"'
                ───────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end _eqlist.eq ───────────────
              = local neq = 2
              - forval i = 1/`neq' {
              = forval i = 1/2 {
              - local xvarsi `"`.eq indepvars `i''"'
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _eqlist.eq ───────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "indepvars" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                  }
                - else if 0 < `idx' & `idx' <= `.n_eq' {
                = else if 0 < 1 & 1 <= 2 {
                - .eq_list[`idx'].item `item'
                = .eq_list[1].item indepvars
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqspec.item ───────────────
                  - version 9.2
                  - args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, indepvars
                    ───────────────────────────────────────────────────────────
> ─────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
```

```
                    = if 0 {
                      local other other_markvars
                      }
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
                    = local item   indepvars
                    - if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                      }
                    - c_local `c_item' `item'
                    = c_local item indepvars
                    ──────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                  - local value `"`.`item''"'
                  = local value `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo
> open"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"wlth wg_ndx stky_pr_rotemberg stky_p
> r_calvo open"'
                  - class exit `"`value'"'
                  = class exit `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo o
> pen"'
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
                - class exit `"`s(value)'"'
                = class exit `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo ope
> n"'
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
              = local xvarsi `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo ope
> n"'
              - local noconsi `"`.eq nocons `i''"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "nocons" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                  }
                - else if 0 < `idx' & `idx' <= `.n_eq' {
                = else if 0 < 1 & 1 <= 2 {
                - .eq_list[`idx'].item `item'
                = .eq_list[1].item nocons
```

```
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                  - version 9.2
                  - args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, nocons
                    ───────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
                    = if 0 {
                      local other other_markvars
                      }
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
                    = local item        nocons
                    - if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                      }
                    - c_local `c_item' `item'
                    = c_local item nocons
                    ───────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                  - local value `"`.`item''"'
                  = local value `"0"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"0"'
                  - class exit `"`value'"'
                  = class exit `"0"'
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
                - class exit `"`s(value)'"'
                = class exit `"0"'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
              = local noconsi `"0"'
              - local dim = `dim' + `:list sizeof xvarsi'
              = local dim =  + 5
              - if "`noconsi'" == "0" {
              = if "0" == "0" {
              - local ++dim
              - }
```

```
            - }
            - local xvarsi `"`.eq indepvars `i''"'
              ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "indepvars" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item indepvars
                ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, indepvars
                  ───────────────────────────────────────────────────────────
> ─────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item   indepvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item indepvars
                  ───────────────────────────────────────────────────────────
> ───────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
```

```
                  - class exit `"`value'"'
                  = class exit `""'
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
                - class exit `"`s(value)'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
              = local xvarsi `""'
              - local noconsi `"`.eq nocons `i''"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
                - version 9.2
                - args item idx
                - if "`item'" == "count" {
                = if "nocons" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                  }
                - else if 0 < `idx' & `idx' <= `.n_eq' {
                = else if 0 < 2 & 2 <= 2 {
                - .eq_list[`idx'].item `item'
                = .eq_list[2].item nocons
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                  - version 9.2
                  - args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, nocons
                    ───────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
                    = if 0 {
                      local other other_markvars
                      }
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
                    = local item        nocons
                    - if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                      }
                    - c_local `c_item' `item'
                    = c_local item nocons
                    ----------------------------------------------------------
> ---------------------------- end _eqspec._check_eq_item_name ---------------
                  - local value `"`.`item''"'
                  = local value `"0"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"0"'
                  - class exit `"`value'"'
                  = class exit `"0"'
                  ------------------------------------------------------------
> ------------------------------------------- end _eqspec.item ---------------
                - class exit `"`s(value)'"'
                = class exit `"0"'
                --------------------------------------------------------------
> --------------------------------------------- end _eqlist.eq ---------------
              = local noconsi `"0"'
              - local dim = `dim' + `:list sizeof xvarsi'
              = local dim = 6 + 0
              - if "`noconsi'" == "0" {
              = if "0" == "0" {
              - local ++dim
              - }
              - }
              - sreturn local value `"`dim'"'
              = sreturn local value `"7"'
              - class exit `"`s(value)'"'
              = class exit `"7"'
              ----------------------------------------------------------------
> -------------------------------------------- end _eqlist.dim ---------------
            = global ML_dim = 7
            - forval i = 1/`eq_n' {
            = forval i = 1/2 {
            - local depvars `.`eqlist'.eq depvars `i''
              ----------------------------------------------------------------
> ------------------------------------------- begin _eqlist.eq ---------------
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "depvars" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item depvars
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, depvars
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item  depvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item depvars
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"y_timing_max"'
                - sreturn local value `"`value'"'
                = sreturn local value `"y_timing_max"'
                - class exit `"`value'"'
                = class exit `"y_timing_max"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"y_timing_max"'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local depvars y_timing_max
            - local eq `.`eqlist'.eq name `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "name" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item name
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, name
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item name
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item name
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `"y_timing_max"'
                - sreturn local value `"`value'"'
                = sreturn local value `"y_timing_max"'
                - class exit `"`value'"'
                = class exit `"y_timing_max"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `"y_timing_max"'
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq y_timing_max
            - if !`:length local eq' {
            = if !12 {
              local eq eq`i'
              }
            - if `:list eq in eqnames' {
            = if 0 {
              di as err "equation '`eq'' multiply defined"
              exit 110
              }
            - local eqnames `eqnames' `eq'
            = local eqnames  y_timing_max
            - fvexpand `.`eqlist'.eq indepvars `i'' if $ML_samp
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "indepvars" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item indepvars
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, indepvars
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
```

```
                  = local item   indepvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item indepvars
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo op
> en"'
                - sreturn local value `"`value'"'
                = sreturn local value `"wlth wg_ndx stky_pr_rotemberg stky_pr_
> calvo open"'
                - class exit `"`value'"'
                = class exit `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo ope
> n"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open"
> '
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = fvexpand wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open if __0
> 00006
            - if "`r(tsops)'" == "true" {
            = if "" == "true" {
              global ML_preserve no
              }
            - local eq_rhs`i' `"`r(varlist)'"'
            = local eq_rhs1 `"wlth wg_ndx stky_pr_rotemberg stky_pr_calvo open
> "'
            - local eq_nocons`i' `.`eqlist'.eq nocons `i''
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "nocons" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
```

```
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item nocons
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, nocons
                  ─────────────────────────────────────────────────────────────
> ───────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item        nocons
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item nocons
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"0"'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq_nocons1 0
            - local eq_offset`i' `.`eqlist'.eq offset `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "offset" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item offset
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, offset
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item         offset
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item offset
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_offset1
            - local eq_exposure`i' `.`eqlist'.eq exposure `i''
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "exposure" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item exposure
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, exposure
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item          exposure
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item exposure
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `"0"'
              ────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_exposure1 0
            - local eq_freeparm`i' `.`eqlist'.eq freeparm `i''
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "freeparm" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[1].item freeparm
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, freeparm
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item           freeparm
                  - if `:list sizeof item' != 1 {
```

```
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item freeparm
                  ────────────────────────────────────────────────────────────
> ─────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"0"'
              ────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq_freeparm1 0
            - local lhs `lhs' `depvars'
            = local lhs  y_timing_max
            - local eq_names `eq_names' `eq'
            = local eq_names  y_timing_max
            - local nxvars :list sizeof eq_rhs`i'
            = local nxvars :list sizeof eq_rhs1
            - local TMP : copy local eq_rhs`i'
            = local TMP : copy local eq_rhs1
            - forval j = 1/`nxvars' {
            = forval j = 1/5 {
            - gettoken xvar TMP : TMP
            - local colna `"`colna' `eq':`xvar'"'
            = local colna `" y_timing_max:wlth"'
            - }
            - gettoken xvar TMP : TMP
            - local colna `"`colna' `eq':`xvar'"'
            = local colna `" y_timing_max:wlth y_timing_max:wg_ndx"'
            - }
            - gettoken xvar TMP : TMP
            - local colna `"`colna' `eq':`xvar'"'
            = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timing_ma
> x:stky_pr_rotemberg"'
            - }
            - gettoken xvar TMP : TMP
            - local colna `"`colna' `eq':`xvar'"'
            = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timing_ma
```

```
> x:stky_pr_rotemberg y_timing_max:stky_pr_calvo"'
      - }
      - gettoken xvar TMP : TMP
      - local colna `"`colna' `eq':`xvar'"'
      = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timing_ma
> x:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open"'
      - }
      - if `eq_freeparm`i'' {
      = if 0 {
        if `nxvars' {
        di as err "{it:xvars} not allowed with option {bf:freeparm}"
        exit 198
        }
        if strpos(`"`eq'"', ":") {
        local colna `"`colna' /`eq'"'
        }
        else {
        local colna `"`colna' /:`eq'"'
        }
        }
      - else if !`eq_nocons`i'' {
      = else if !0 {
      - local colna `"`colna' `eq':_cons"'
      = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timing_ma
> x:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open y_timing_ma
> x:_cons"'
      - }
      - if "`moptobj'" != "" {
      = if "" != "" {
        if "`eq_offset`i''" != "" {
        if usubstr("`eq_offset`i''",1,2)=="__" {
        capture clonevar `moptobj'`eq_offset`i'' = `eq_offset`i''
        local dropmetoo `dropmetoo' `moptobj'`eq_offset`i''
        }
        }
        }
      - }
      - local depvars `.`eqlist'.eq depvars `i''
        ────────────────────────────────
> ──────────────────────── begin _eqlist.eq ────────
         - version 9.2
         - args item idx
         - if "`item'" == "count" {
         = if "depvars" == "count" {
           sreturn local value `"`.n_eq'"'
           class exit `"`s(value)'"'
```

```
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item depvars
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, depvars
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item  depvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item depvars
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ───────────────
            = local depvars
            - local eq `.`eqlist'.eq name `i''
```

```
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ───────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "name" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item name
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ───────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, name
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ───────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item name
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item name
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `"lnalpha"'
                - sreturn local value `"`value'"'
                = sreturn local value `"lnalpha"'
                - class exit `"`value'"'
                = class exit `"lnalpha"'
                ────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"lnalpha"'
              ──────────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq lnalpha
            - if !`:length local eq' {
            = if !7 {
              local eq eq`i'
              }
            - if `:list eq in eqnames' {
            = if 0 {
              di as err "equation '`eq'' multiply defined"
              exit 110
              }
            - local eqnames `eqnames' `eq'
            = local eqnames y_timing_max lnalpha
            - fvexpand `.`eqlist'.eq indepvars `i'' if $ML_samp
              ──────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "indepvars" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item indepvars
                ────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, indepvars
                  ──────────────────────────────────────────────────────────────
> ─────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item   indepvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item indepvars
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = fvexpand  if __000006
            - if "`r(tsops)'" == "true" {
            = if "" == "true" {
              global ML_preserve no
              }
            - local eq_rhs`i' `"`r(varlist)'"'
            = local eq_rhs2 `""'
            - local eq_nocons`i' `.`eqlist'.eq nocons `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "nocons" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item nocons
```

```
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, nocons
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item        nocons
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item nocons
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"0"'
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq_nocons2 0
            - local eq_offset`i' `.`eqlist'.eq offset `i''
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
```

```
              = if "offset" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item offset
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, offset
                  ─────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item         offset
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item offset
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `""'
                - sreturn local value `"`value'"'
                = sreturn local value `""'
                - class exit `"`value'"'
                = class exit `""'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `""'
              ─────────────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq_offset2
            - local eq_exposure`i' `.`eqlist'.eq exposure `i''
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "exposure" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item exposure
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, exposure
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item          exposure
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item exposure
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ────────────────
                - local value `"`.`item''"'
                = local value `"0"'
                - sreturn local value `"`value'"'
                = sreturn local value `"0"'
                - class exit `"`value'"'
                = class exit `"0"'
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _eqspec.item ────────────────
              - class exit `"`s(value)'"'
              = class exit `"0"'
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── end _eqlist.eq ────────────────
            = local eq_exposure2 0
            - local eq_freeparm`i' `.`eqlist'.eq freeparm `i''
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _eqlist.eq ────────────────
              - version 9.2
              - args item idx
              - if "`item'" == "count" {
              = if "freeparm" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
                }
              - else if 0 < `idx' & `idx' <= `.n_eq' {
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item freeparm
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin _eqspec.item ────────────────
                - version 9.2
                - args item
                - ._check_eq_item_name item, `item'
                = ._check_eq_item_name item, freeparm
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _eqspec._check_eq_item_name ────────────────
                  - version 9.2
                  - capture syntax name(name=c_item) [, NAME DEPvars INDEPvars
>  IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                  - if c(rc) error 198
                  - if `:list sizeof other' {
                  = if 0 {
                    local other other_markvars
                    }
                  - local item `name' `depvars' `indepvars' `if' `in' `wgt' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item           freeparm
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                    }
                  - c_local `c_item' `item'
                  = c_local item freeparm
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _eqspec._check_eq_item_name ───────────────
                - local value `"`.`item''"'
                = local value `"1"'
                - sreturn local value `"`value'"'
                = sreturn local value `"1"'
                - class exit `"`value'"'
                = class exit `"1"'
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _eqspec.item ───────────────
              - class exit `"`s(value)'"'
              = class exit `"1"'
              ─────────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end _eqlist.eq ───────────────
            = local eq_freeparm2 1
            - local lhs `lhs' `depvars'
            = local lhs y_timing_max
            - local eq_names `eq_names' `eq'
            = local eq_names y_timing_max lnalpha
            - local nxvars :list sizeof eq_rhs`i'
            = local nxvars :list sizeof eq_rhs2
            - local TMP : copy local eq_rhs`i'
            = local TMP : copy local eq_rhs2
            - forval j = 1/`nxvars' {
            = forval j = 1/0 {
              gettoken xvar TMP : TMP
              local colna `"`colna' `eq':`xvar'"'
              }
            - if `eq_freeparm`i'' {
            = if 1 {
            - if `nxvars' {
            = if 0 {
              di as err "{it:xvars} not allowed with option {bf:freeparm}"
              exit 198
              }
            - if strpos(`"`eq'"', ":") {
            = if strpos(`"lnalpha"', ":") {
              local colna `"`colna' /`eq'"'
              }
            - else {
            - local colna `"`colna' /:`eq'"'
            = local colna `" y_timing_max:wlth y_timing_max:wg_ndx y_timing_ma
> x:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open y_timing_ma
> x:_cons /:lnalpha"'
            - }
            - }
            - else if !`eq_nocons`i'' {
            = else if !0 {
              local colna `"`colna' `eq':_cons"'
              }
            - if "`moptobj'" != "" {
            = if "" != "" {
              if "`eq_offset`i''" != "" {
              if usubstr("`eq_offset`i''",1,2)=="__" {
              capture clonevar `moptobj'`eq_offset`i'' = `eq_offset`i''
              local dropmetoo `dropmetoo' `moptobj'`eq_offset`i''
              }
              }
              }
            - }
            - if "`moptobj'" != "" {
            = if "" != "" {
              foreach y of local lhs {
              if usubstr("`y'",1,2)=="__" {
              capture clonevar `moptobj'`y' = `y'
              local tmp `tmp' `moptobj'`y'
              local dropmetoo `dropmetoo' `moptobj'`y'
              }
              else {
              local tmp `tmp' `y'
              }
              }
              local lhs `tmp'
              }
            - if `waldtest' > 0 & `:length local lf0' {
            = if -1 > 0 & 0 {
              opts_exclusive "waldtest() lf0()"
              }
            - if `:length local continue' {
            = if 8 {
            - if !`:length local init' {
            = if !8 {
              tempname init
              local ub0 `init'
              }
            - else tempname ub0
            - mat `ub0' = e(b)
            = mat __000008 = e(b)
            - tempname v0 iv0
            - mat `v0' = e(V)
            = mat __000009 = e(V)
            - mat `iv0' = syminv(`v0')
            = mat __00000A = syminv(__000009)
            - global ML_rank0 = colsof(`v0') - diag0cnt(`iv0')
            = global ML_rank0 = colsof(__000009) - diag0cnt(__00000A)
            - if !`:length local lf0' & !missing(e(ll)) {
            = if !0 & !missing(e(ll)) {
            - local lf0 `=colsof(`ub0')' `e(ll)'
            = local lf0 2 -414.2287919313009
            - }
            - local ub0
            - }
            - if `:length local init' {
            = if 8 {
            - tempname b0
            - local dim : list sizeof colna
            - matrix `b0' = J(1,`dim',0)
            = matrix __00000B = J(1,7,0)
            - matrix colna `b0' = `colna'
            = matrix colna __00000B =  y_timing_max:wlth y_timing_max:wg_ndx y
> _timing_max:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open y
> _timing_max:_cons /:lnalpha
            - `vv' _mkvec `b0', from(`init') update first error("initial vecto
> r")
            = version 18: _mkvec __00000B, from(__000002) update first error("
> initial vector")
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin _mkvec ───────────────
              - local vv : display "version " string(_caller()) ":"
              - version 6
              - gettoken matout 0 : 0, parse(", ")
              - if "`matout'"=="" | "`matout'"=="," {
              = if "__00000B"=="" | "__00000B"=="," {
                error 198
                }
              - syntax [, FROM(str) UPdate COLnames(str) ERRor(str) FIRST ]
              - if "`update'"!="" {
              = if "update"!="" {
              - if "`colname'"!="" {
              = if ""!="" {
                di in red "update and colnames() cannot both be " "specified"
                exit 198
                }
              - capture local colname : colfullnames `matout'
              = capture local colname : colfullnames __00000B
              - if _rc {
                di in red "matrix `matout' not found"
                exit 111
                }
              - if rowsof(matrix(`matout')) != 1 {
              = if rowsof(matrix(__00000B)) != 1 {
                di in red "`matout' matrix to be updated must be " "a row vect
> or"
                exit 503
                }
              - local matin `matout'
              = local matin __00000B
              - }
              - if `"`error'"'!="" {
              = if `"initial vector"'!="" {
              - local error `"`error': "'
              = local error `"initial vector: "'
              - }
              - tempname mat
              - if `"`from'"'!="" {
              = if `"__000002"'!="" {
              - From `from'
              = From __000002
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _mkvec.From ────────────────
                - gettoken from 0 : 0, parse(",") bind
                - sret clear
                - sret local from `from'
                = sret local from __000002
                - if `"`0'"'!="" {
                = if `""'!="" {
                  syntax [, COPY SKIP ]
                  }
                - sret local copy `copy'
                = sret local copy
                - sret local skip `skip'
                = sret local skip
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _mkvec.From ────────────────
              - local copy `s(copy)'
              = local copy
              - local skip `s(skip)'
              = local skip
              - if "`copy'"!="" {
              = if ""!="" {
                CopyMat `mat' `"`error'"' `s(from)'
                if `"`colname'"'!="" {
                local dim : list sizeof colname
                if `dim' != colsof(matrix(`mat')) {
                di in red `"`error'matrix must "' `"be dimension "' `dim'
                exit 503
                }
                `vv' mat colnames `mat' = `colname'
                }
                }
              - else {
              - `vv' BuildMat `mat' `"`error'"' "`skip'" `s(from)'
              = version 18: BuildMat __00000C `"initial vector: "' "" __000002
                --------------------------------------------------------------
> -------------------------------------- begin _mkvec.BuildMat ---------------
                - local vv : display "version " string(_caller()) ":"
                - version 6
                - args matall error skip
                - macro shift 3
                - tokenize `"`*'"', parse(" =")
                = tokenize `"__000002"', parse(" =")
                - tempname matadd
                - local i 1
                - while "``i''"!="" {
                = while "__000002"!="" {
                - local k = `i' + 1
                = local k = 1 + 1
                - if "``k''"=="=" {
                = if ""=="=" {
                  local j = `i' + 2
                  `vv' MkMat `matadd' ``i'' ``j'' `skip'
                  local i = `i' + 3
                  }
                - else {
                - ChkMat `matadd' ``i'' `"`error'"'
                = ChkMat __00000D __000002 `"initial vector: "'
                  ------------------------------------------------------------
> ---------------------------------------- begin _mkvec.ChkMat ---------------
                  - args matout matin error
                  - capture di matrix(`matin'[1,1])
                  = capture di matrix(__000002[1,1])
                  - if _rc {
                    capture confirm number `matin'
                    if _rc {
                    di in red `"`error'matrix `matin' not found"'
                    exit 111
                    }
                    di in red `"`error'list of numbers requires copy option"'
                    exit 198
                    }
                  - if matrix(rowsof(`matin')!=1 & colsof(`matin')!=1) {
                  = if matrix(rowsof(__000002)!=1 & colsof(__000002)!=1) {
                    di in red "`matin' " matrix(rowsof(`matin')) " x " matrix(
> colsof(`matin')) " is not a vector"
                    exit 503
                    }
                  - if matrix(rowsof(`matin')) == 1 {
                  = if matrix(rowsof(__000002)) == 1 {
                  - mat `matout' = `matin'
                  = mat __00000D = __000002
                  - }
                  - else mat `matout' = `matin''
                  = else mat __00000D = __000002'
                  ------------------------------------------------------------
> ------------------------------------------ end _mkvec.ChkMat ---------------
                - local i = `i' + 1
                = local i = 1 + 1
                - }
                - mat `matall' = nullmat(`matall') , `matadd'
                = mat __00000C = nullmat(__00000C) , __00000D
                - }
                - while "``i''"!="" {
                = while ""!="" {
                  local k = `i' + 1
                  if "``k''"=="=" {
                  local j = `i' + 2
                  `vv' MkMat `matadd' ``i'' ``j'' `skip'
                  local i = `i' + 3
                  }
                  else {
                  ChkMat `matadd' ``i'' `"`error'"'
                  local i = `i' + 1
                  }
                  mat `matall' = nullmat(`matall') , `matadd'
                  }
                --------------------------------------------------------------
> ---------------------------------------- end _mkvec.BuildMat ---------------
              - if `"`colname'"'!="" {
              = if `"y_timing_max:wlth y_timing_max:wg_ndx y_timing_max:stky_p
> r_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open y_timing_max:_cons
> /lnalpha"'!="" {
              - `vv' ChkNames `mat' "`matin'" `"`colname'"' `"`error'"' "`skip
> '" "`first'"
```

```
                = version 18: ChkNames __00000C "__00000B" `"y_timing_max:wlth y
> _timing_max:wg_ndx y_timing_max:stky_pr_rotemberg y_timing_max:stky_pr_calvo
>  y_timing_max:open y_timing_max:_cons /lnalpha"' `"initial vector: "' "" "fi
> rst"
                  ------------------------------------------------------------
> ---------------------------------------- begin _mkvec.ChkNames ----------------
                  - local vv : display "version " string(_caller()) ":"
                  - version 6
                  - args mat matin names error skip first
                  - local dim = colsof(matrix(`mat'))
                  = local dim = colsof(matrix(__00000C))
                  - if "`first'"!="" {
                  = if "first"!="" {
                  - gettoken name : names
                  - local eq1 = bsubstr(`"`name'"',1,index(`"`name'"',":"))
                  = local eq1 = bsubstr(`"y_timing_max:wlth"',1,index(`"y_timing
> _max:wlth"',":"))
                  - }
                  - tempname new fill x
                  - local k : list sizeof names
                  - if "`matin'"!="" {
                  = if "__00000B"!="" {
                  - mat `new' = `matin'
                  = mat __00000D = __00000B
                  - }
                  - else {
                    mat `new' = J(1,`k',0)
                    `vv' mat colnames `new' = `names'
                    }
                  - mat `fill' = J(1,`k',0)
                  = mat __00000E = J(1,7,0)
                  - local i 1
                  - while `i' <= `dim' {
                  = while 1 <= 7 {
                  - mat `x' = `mat'[1,`i'..`i']
                  = mat __00000F = __00000C[1,1..1]
                  - local eq : coleq `x'
                  = local eq : coleq __00000F
                  - local name : colname `x'
                  = local name : colname __00000F
                  - if "`eq'" == "/" {
                  = if "y_timing_max" == "/" {
                    local spec "/`name'"
                    }
                  - else {
                  - local spec "`eq':`name'"
```

```
        = local spec "y_timing_max:wlth"
        - if (usubstr("`eq'",1,1) != "/") {
        = if (usubstr("y_timing_max",1,1) != "/") {
        - local sspec "/`eq':`name'"
        = local sspec "/y_timing_max:wlth"
        - }
        - }
        - local oname
        - local ospec
        - capture _msparse `name', noomit
        = capture _msparse wlth, noomit
        - if c(rc) == 0 {
        - if r(omit) {
          local oname `"`r(stripe)'"'
          local ospec "`eq':`oname'"
          }
        - }
        - `vv' local j = colnumb(`new',`"`spec'"')
        = version 18: local j = colnumb(__00000D,`"y_timing_max:wlth"'
> )
        - if `j' == . & "`oname'" != "" {
        = if 1 == . & "" != "" {
          `vv' local j = colnumb(`new',`"`ospec'"')
          }
        - if `j' == . & "`sspec'" != "" {
        = if 1 == . & "/y_timing_max:wlth" != "" {
          `vv' local j = colnumb(`new',`"`sspec'"')
          }
        - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
        = if 1==. & `"y_timing_max"'=="_" & `"y_timing_max:"'!="" {
          `vv' local j = colnumb(`new',`"`eq1'`name'"')
          if `j' == . & "`oname'" != "" {
          `vv' local j = colnumb(`new',`"`eq1'`oname'"')
          }
          }
        - if `j'!=. {
        = if 1!=. {
        - if `fill'[1,`j'] {
        = if __00000E[1,1] {
          _ms_parse_parts `name'
          if !r(omit) {
          if "`eq'"=="_" {
          di in red `"`error'duplicate "' `"entries for `name' found"'
          }
          else di in red `"`error'"' `"duplicate entries for `eq':`nam
> e' found"'
```

```
                      exit 507
                      }
                      else if !missing(`new'[1,`j']) {
                      matrix `mat'[1,`i'] = `new'[1,`j']
                      }
                      }
                    - else mat `fill'[1,`j'] = 1
                    = else mat __00000E[1,1] = 1
                    - mat `new'[1,`j'] = `mat'[1,`i']
                    = mat __00000D[1,1] = __00000C[1,1]
                    - }
                    - else if "`skip'"=="" {
                    = else if ""=="" {
                      if "`eq'"=="_" {
                      local spec : copy local name
                      }
                      di in red `"`error'extra parameter "' `"`spec' found"' _n "s
> pecify skip option if necessary"
                      exit 111
                      }
                    - local i = `i' + 1
                    = local i = 1 + 1
                    - }
                    - while `i' <= `dim' {
                    = while 2 <= 7 {
                    - mat `x' = `mat'[1,`i'..`i']
                    = mat __00000F = __00000C[1,2..2]
                    - local eq : coleq `x'
                    = local eq : coleq __00000F
                    - local name : colname `x'
                    = local name : colname __00000F
                    - if "`eq'" == "/" {
                    = if "y_timing_max" == "/" {
                      local spec "/`name'"
                      }
                    - else {
                    - local spec "`eq':`name'"
                    = local spec "y_timing_max:wg_ndx"
                    - if (usubstr("`eq'",1,1) != "/") {
                    = if (usubstr("y_timing_max",1,1) != "/") {
                    - local sspec "/`eq':`name'"
                    = local sspec "/y_timing_max:wg_ndx"
                    - }
                    - }
                    - local oname
                    - local ospec
```

```
                - capture _msparse `name', noomit
                = capture _msparse wg_ndx, noomit
                - if c(rc) == 0 {
                - if r(omit) {
                  local oname `"`r(stripe)'"'
                  local ospec "`eq':`oname'"
                  }
                - }
                - `vv' local j = colnumb(`new',`"`spec'"')
                = version 18: local j = colnumb(__00000D,`"y_timing_max:wg_ndx
> "')
                - if `j' == . & "`oname'" != "" {
                = if 2 == . & "" != "" {
                  `vv' local j = colnumb(`new',`"`ospec'"')
                  }
                - if `j' == . & "`sspec'" != "" {
                = if 2 == . & "/y_timing_max:wg_ndx" != "" {
                  `vv' local j = colnumb(`new',`"`sspec'"')
                  }
                - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                = if 2==. & `"y_timing_max"'=="_" & `"y_timing_max:"'!="" {
                  `vv' local j = colnumb(`new',`"`eq1'`name'"')
                  if `j' == . & "`oname'" != "" {
                  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                  }
                  }
                - if `j'!=. {
                = if 2!=. {
                - if `fill'[1,`j'] {
                = if __00000E[1,2] {
                  _ms_parse_parts `name'
                  if !r(omit) {
                  if "`eq'"=="_" {
                  di in red `"`error'duplicate "' `"entries for `name' found"'
                  }
                  else di in red `"`error'"' `"duplicate entries for `eq':`nam
> e' found"'
                  exit 507
                  }
                  else if !missing(`new'[1,`j']) {
                  matrix `mat'[1,`i'] = `new'[1,`j']
                  }
                  }
                - else mat `fill'[1,`j'] = 1
                = else mat __00000E[1,2] = 1
                - mat `new'[1,`j'] = `mat'[1,`i']
                = mat __00000D[1,2] = __00000C[1,2]
                - }
                - else if "`skip'"=="" {
                = else if ""=="" {
                  if "`eq'"=="_" {
                  local spec : copy local name
                  }
                  di in red `"`error'extra parameter "' `"`spec' found"' _n "s
> pecify skip option if necessary"
                  exit 111
                  }
                - local i = `i' + 1
                = local i = 2 + 1
                - }
                - while `i' <= `dim' {
                = while 3 <= 7 {
                - mat `x' = `mat'[1,`i'..`i']
                = mat __00000F = __00000C[1,3..3]
                - local eq : coleq `x'
                = local eq : coleq __00000F
                - local name : colname `x'
                = local name : colname __00000F
                - if "`eq'" == "/" {
                = if "y_timing_max" == "/" {
                  local spec "/`name'"
                  }
                - else {
                - local spec "`eq':`name'"
                = local spec "y_timing_max:stky_pr_rotemberg"
                - if (usubstr("`eq'",1,1) != "/") {
                = if (usubstr("y_timing_max",1,1) != "/") {
                - local sspec "/`eq':`name'"
                = local sspec "/y_timing_max:stky_pr_rotemberg"
                - }
                - }
                - local oname
                - local ospec
                - capture _msparse `name', noomit
                = capture _msparse stky_pr_rotemberg, noomit
                - if c(rc) == 0 {
                - if r(omit) {
                  local oname `"`r(stripe)'"'
                  local ospec "`eq':`oname'"
                  }
                - }
                - `vv' local j = colnumb(`new',`"`spec'"')
                = version 18: local j = colnumb(__00000D,`"y_timing_max:stky_p
> r_rotemberg"')
                - if `j' == . & "`oname'" != "" {
                = if 3 == . & "" != "" {
                  `vv' local j = colnumb(`new',`"`ospec'"')
                  }
                - if `j' == . & "`sspec'" != "" {
                = if 3 == . & "/y_timing_max:stky_pr_rotemberg" != "" {
                  `vv' local j = colnumb(`new',`"`sspec'"')
                  }
                - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                = if 3==. & `"y_timing_max"'=="_" & `"y_timing_max:"'!="" {
                  `vv' local j = colnumb(`new',`"`eq1'`name'"')
                  if `j' == . & "`oname'" != "" {
                  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                  }
                  }
                - if `j'!=. {
                = if 3!=. {
                - if `fill'[1,`j'] {
                = if __00000E[1,3] {
                  _ms_parse_parts `name'
                  if !r(omit) {
                  if "`eq'"=="_" {
                  di in red `"`error'duplicate "' `"entries for `name' found"'
                  }
                  else di in red `"`error'"' `"duplicate entries for `eq':`nam
> e' found"'
                  exit 507
                  }
                  else if !missing(`new'[1,`j']) {
                  matrix `mat'[1,`i'] = `new'[1,`j']
                  }
                  }
                - else mat `fill'[1,`j'] = 1
                = else mat __00000E[1,3] = 1
                - mat `new'[1,`j'] = `mat'[1,`i']
                = mat __00000D[1,3] = __00000C[1,3]
                - }
                - else if "`skip'"=="" {
                = else if ""=="" {
                  if "`eq'"=="_" {
                  local spec : copy local name
                  }
                  di in red `"`error'extra parameter "' `"`spec' found"' _n "s
> pecify skip option if necessary"
```

```
          exit 111
          }
        - local i = `i' + 1
        = local i = 3 + 1
        - }
        - while `i' <= `dim' {
        = while 4 <= 7 {
        - mat `x' = `mat'[1,`i'..`i']
        = mat __00000F = __00000C[1,4..4]
        - local eq : coleq `x'
        = local eq : coleq __00000F
        - local name : colname `x'
        = local name : colname __00000F
        - if "`eq'" == "/" {
        = if "y_timing_max" == "/" {
          local spec "/`name'"
          }
        - else {
        - local spec "`eq':`name'"
        = local spec "y_timing_max:stky_pr_calvo"
        - if (usubstr("`eq'",1,1) != "/") {
        = if (usubstr("y_timing_max",1,1) != "/") {
        - local sspec "/`eq':`name'"
        = local sspec "/y_timing_max:stky_pr_calvo"
        - }
        - }
        - local oname
        - local ospec
        - capture _msparse `name', noomit
        = capture _msparse stky_pr_calvo, noomit
        - if c(rc) == 0 {
        - if r(omit) {
          local oname `"`r(stripe)'"'
          local ospec "`eq':`oname'"
          }
        - }
        - `vv' local j = colnumb(`new',`"`spec'"')
        = version 18: local j = colnumb(__00000D,`"y_timing_max:stky_p
> r_calvo"')
        - if `j' == . & "`oname'" != "" {
        = if 4 == . & "" != "" {
          `vv' local j = colnumb(`new',`"`ospec'"')
          }
        - if `j' == . & "`sspec'" != "" {
        = if 4 == . & "/y_timing_max:stky_pr_calvo" != "" {
          `vv' local j = colnumb(`new',`"`sspec'"')
```

```
                  }
                - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                = if 4==. & `"y_timing_max"'=="_" & `"y_timing_max:"'!="" {
                  `vv' local j = colnumb(`new',`"`eq1'`name'"')
                  if `j' == . & "`oname'" != "" {
                  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                  }
                  }
                - if `j'!=. {
                = if 4!=. {
                - if `fill'[1,`j'] {
                = if __00000E[1,4] {
                  _ms_parse_parts `name'
                  if !r(omit) {
                  if "`eq'"=="_" {
                  di in red `"`error'duplicate "' `"entries for `name' found"'
                  }
                  else di in red `"`error'"' `"duplicate entries for `eq':`nam
> e' found"'
                  exit 507
                  }
                  else if !missing(`new'[1,`j']) {
                  matrix `mat'[1,`i'] = `new'[1,`j']
                  }
                  }
                - else mat `fill'[1,`j'] = 1
                = else mat __00000E[1,4] = 1
                - mat `new'[1,`j'] = `mat'[1,`i']
                = mat __00000D[1,4] = __00000C[1,4]
                - }
                - else if "`skip'"=="" {
                = else if ""=="" {
                  if "`eq'"=="_" {
                  local spec : copy local name
                  }
                  di in red `"`error'extra parameter "' `"`spec' found"' _n "s
> pecify skip option if necessary"
                  exit 111
                  }
                - local i = `i' + 1
                = local i = 4 + 1
                - }
                - while `i' <= `dim' {
                = while 5 <= 7 {
                - mat `x' = `mat'[1,`i'..`i']
                = mat __00000F = __00000C[1,5..5]
```

```
                    - local eq : coleq `x'
                    = local eq : coleq __00000F
                    - local name : colname `x'
                    = local name : colname __00000F
                    - if "`eq'" == "/" {
                    = if "y_timing_max" == "/" {
                      local spec "/`name'"
                      }
                    - else {
                    - local spec "`eq':`name'"
                    = local spec "y_timing_max:open"
                    - if (usubstr("`eq'",1,1) != "/") {
                    = if (usubstr("y_timing_max",1,1) != "/") {
                    - local sspec "/`eq':`name'"
                    = local sspec "/y_timing_max:open"
                    - }
                    - }
                    - local oname
                    - local ospec
                    - capture _msparse `name', noomit
                    = capture _msparse open, noomit
                    - if c(rc) == 0 {
                    - if r(omit) {
                      local oname `"`r(stripe)'"'
                      local ospec "`eq':`oname'"
                      }
                    - }
                    - `vv' local j = colnumb(`new',`"`spec'"')
                    = version 18: local j = colnumb(__00000D,`"y_timing_max:open"'
> )
                    - if `j' == . & "`oname'" != "" {
                    = if 5 == . & "" != "" {
                      `vv' local j = colnumb(`new',`"`ospec'"')
                      }
                    - if `j' == . & "`sspec'" != "" {
                    = if 5 == . & "/y_timing_max:open" != "" {
                      `vv' local j = colnumb(`new',`"`sspec'"')
                      }
                    - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                    = if 5==. & `"y_timing_max"'=="_" & `"y_timing_max:"'!="" {
                      `vv' local j = colnumb(`new',`"`eq1'`name'"')
                      if `j' == . & "`oname'" != "" {
                      `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                      }
                      }
                    - if `j'!=. {
```

```
                = if 5!=. {
                - if `fill'[1,`j'] {
                = if __00000E[1,5] {
                  _ms_parse_parts `name'
                  if !r(omit) {
                  if "`eq'"=="_" {
                  di in red `"`error'duplicate "' `"entries for `name' found"'
                  }
                  else di in red `"`error'"' `"duplicate entries for `eq':`nam
> e' found"'
                  exit 507
                  }
                  else if !missing(`new'[1,`j']) {
                  matrix `mat'[1,`i'] = `new'[1,`j']
                  }
                  }
                - else mat `fill'[1,`j'] = 1
                = else mat __00000E[1,5] = 1
                - mat `new'[1,`j'] = `mat'[1,`i']
                = mat __00000D[1,5] = __00000C[1,5]
                - }
                - else if "`skip'"=="" {
                = else if ""=="" {
                  if "`eq'"=="_" {
                  local spec : copy local name
                  }
                  di in red `"`error'extra parameter "' `"`spec' found"' _n "s
> pecify skip option if necessary"
                  exit 111
                  }
                - local i = `i' + 1
                = local i = 5 + 1
                - }
                - while `i' <= `dim' {
                = while 6 <= 7 {
                - mat `x' = `mat'[1,`i'..`i']
                = mat __00000F = __00000C[1,6..6]
                - local eq : coleq `x'
                = local eq : coleq __00000F
                - local name : colname `x'
                = local name : colname __00000F
                - if "`eq'" == "/" {
                = if "y_timing_max" == "/" {
                  local spec "/`name'"
                  }
                - else {
```

```
                - local spec "`eq':`name'"
                = local spec "y_timing_max:_cons"
                - if (usubstr("`eq'",1,1) != "/") {
                = if (usubstr("y_timing_max",1,1) != "/") {
                - local sspec "/`eq':`name'"
                = local sspec "/y_timing_max:_cons"
                - }
                - }
                - local oname
                - local ospec
                - capture _msparse `name', noomit
                = capture _msparse _cons, noomit
                - if c(rc) == 0 {
                - if r(omit) {
                  local oname `"`r(stripe)'"'
                  local ospec "`eq':`oname'"
                  }
                - }
                - `vv' local j = colnumb(`new',`"`spec'"')
                = version 18: local j = colnumb(__00000D,`"y_timing_max:_cons"
> ')
                - if `j' == . & "`oname'" != "" {
                = if 6 == . & "" != "" {
                  `vv' local j = colnumb(`new',`"`ospec'"')
                  }
                - if `j' == . & "`sspec'" != "" {
                = if 6 == . & "/y_timing_max:_cons" != "" {
                  `vv' local j = colnumb(`new',`"`sspec'"')
                  }
                - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                = if 6==. & `"y_timing_max"'=="_" & `"y_timing_max:"'!="" {
                  `vv' local j = colnumb(`new',`"`eq1'`name'"')
                  if `j' == . & "`oname'" != "" {
                  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                  }
                  }
                - if `j'!=. {
                = if 6!=. {
                - if `fill'[1,`j'] {
                = if __00000E[1,6] {
                  _ms_parse_parts `name'
                  if !r(omit) {
                  if "`eq'"=="_" {
                  di in red `"`error'duplicate "' `"entries for `name' found"'
                  }
                  else di in red `"`error'"' `"duplicate entries for `eq':`nam
```

```
> e' found"'
                  exit 507
                  }
                  else if !missing(`new'[1,`j']) {
                  matrix `mat'[1,`i'] = `new'[1,`j']
                  }
                  }
                - else mat `fill'[1,`j'] = 1
                = else mat __00000E[1,6] = 1
                - mat `new'[1,`j'] = `mat'[1,`i']
                = mat __00000D[1,6] = __00000C[1,6]
                - }
                - else if "`skip'"=="" {
                = else if ""=="" {
                  if "`eq'"=="_" {
                  local spec : copy local name
                  }
                  di in red `"`error'extra parameter "' `"`spec' found"' _n "s
> pecify skip option if necessary"
                  exit 111
                  }
                - local i = `i' + 1
                = local i = 6 + 1
                - }
                - while `i' <= `dim' {
                = while 7 <= 7 {
                - mat `x' = `mat'[1,`i'..`i']
                = mat __00000F = __00000C[1,7..7]
                - local eq : coleq `x'
                = local eq : coleq __00000F
                - local name : colname `x'
                = local name : colname __00000F
                - if "`eq'" == "/" {
                = if "/" == "/" {
                - local spec "/`name'"
                = local spec "/lnalpha"
                - }
                - else {
                  local spec "`eq':`name'"
                  if (usubstr("`eq'",1,1) != "/") {
                  local sspec "/`eq':`name'"
                  }
                  }
                - local oname
                - local ospec
                - capture _msparse `name', noomit
                = capture _msparse lnalpha, noomit
                - if c(rc) == 0 {
                - if r(omit) {
                  local oname `"`r(stripe)'"'
                  local ospec "`eq':`oname'"
                  }
                - }
                - `vv' local j = colnumb(`new',`"`spec'"')
                = version 18: local j = colnumb(__00000D,`"/lnalpha"')
                - if `j' == . & "`oname'" != "" {
                = if 7 == . & "" != "" {
                  `vv' local j = colnumb(`new',`"`ospec'"')
                  }
                - if `j' == . & "`sspec'" != "" {
                = if 7 == . & "/y_timing_max:_cons" != "" {
                  `vv' local j = colnumb(`new',`"`sspec'"')
                  }
                - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                = if 7==. & `"/"'=="_" & `"y_timing_max:"'!="" {
                  `vv' local j = colnumb(`new',`"`eq1'`name'"')
                  if `j' == . & "`oname'" != "" {
                  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                  }
                  }
                - if `j'!=. {
                = if 7!=. {
                - if `fill'[1,`j'] {
                = if __00000E[1,7] {
                  _ms_parse_parts `name'
                  if !r(omit) {
                  if "`eq'"=="_" {
                  di in red `"`error'duplicate "' `"entries for `name' found"'
                  }
                  else di in red `"`error'"' `"duplicate entries for `eq':`nam
> e' found"'
                  exit 507
                  }
                  else if !missing(`new'[1,`j']) {
                  matrix `mat'[1,`i'] = `new'[1,`j']
                  }
                  }
                - else mat `fill'[1,`j'] = 1
                = else mat __00000E[1,7] = 1
                - mat `new'[1,`j'] = `mat'[1,`i']
                = mat __00000D[1,7] = __00000C[1,7]
                - }
                - else if "`skip'"=="" {
                = else if ""=="" {
                  if "`eq'"=="_" {
                  local spec : copy local name
                  }
                  di in red `"`error'extra parameter "' `"`spec' found"' _n "s
> pecify skip option if necessary"
                  exit 111
                  }
                - local i = `i' + 1
                = local i = 7 + 1
                - }
                - while `i' <= `dim' {
                = while 8 <= 7 {
                  mat `x' = `mat'[1,`i'..`i']
                  local eq : coleq `x'
                  local name : colname `x'
                  if "`eq'" == "/" {
                  local spec "/`name'"
                  }
                  else {
                  local spec "`eq':`name'"
                  if (usubstr("`eq'",1,1) != "/") {
                  local sspec "/`eq':`name'"
                  }
                  }
                  local oname
                  local ospec
                  capture _msparse `name', noomit
                  if c(rc) == 0 {
                  if r(omit) {
                  local oname `"`r(stripe)'"'
                  local ospec "`eq':`oname'"
                  }
                  }
                  `vv' local j = colnumb(`new',`"`spec'"')
                  if `j' == . & "`oname'" != "" {
                  `vv' local j = colnumb(`new',`"`ospec'"')
                  }
                  if `j' == . & "`sspec'" != "" {
                  `vv' local j = colnumb(`new',`"`sspec'"')
                  }
                  if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                  `vv' local j = colnumb(`new',`"`eq1'`name'"')
                  if `j' == . & "`oname'" != "" {
                  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                  }
                  }
                  if `j'!=. {
                  if `fill'[1,`j'] {
                  _ms_parse_parts `name'
                  if !r(omit) {
                  if "`eq'"=="_" {
                  di in red `"`error'duplicate "' `"entries for `name' found"'
                  }
                  else di in red `"`error'"' `"duplicate entries for `eq':`nam
> e' found"'
                  exit 507
                  }
                  else if !missing(`new'[1,`j']) {
                  matrix `mat'[1,`i'] = `new'[1,`j']
                  }
                  }
                  else mat `fill'[1,`j'] = 1
                  mat `new'[1,`j'] = `mat'[1,`i']
                  }
                  else if "`skip'"=="" {
                  if "`eq'"=="_" {
                  local spec : copy local name
                  }
                  di in red `"`error'extra parameter "' `"`spec' found"' _n "s
> pecify skip option if necessary"
                  exit 111
                  }
                  local i = `i' + 1
                  }
                - mat `fill' = `fill'*`fill''
                = mat __00000E = __00000E*__00000E'
                - sret clear
                - sret local k_fill = `fill'[1,1]
                = sret local k_fill = __00000E[1,1]
                - mat `mat' = `new'
                = mat __00000C = __00000D
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _mkvec.ChkNames ───────────────
              - local fill `s(k_fill)'
              = local fill 7
              - }
              - }
              - }
              - else {
                local fill 0
                if "`update'"!="" {
                mat `mat' = `matin'
                }
                else if `"`colname'"'!="" {
                local dim : list sizeof colname
                mat `mat' = J(1,`dim',0)
                `vv' mat colnames `mat' = `colname'
                }
                else {
                di in red "from() must be specified"
                exit 198
                }
                }
              - sret clear
              - sret local copy `copy'
              = sret local copy
              - sret local skip `skip'
              = sret local skip
              - sret local k = colsof(matrix(`mat'))
              = sret local k = colsof(matrix(__00000C))
              - if "`fill'"!="" {
              = if "7"!="" {
              - sret local k_fill `fill'
              = sret local k_fill 7
              - }
              - else sret local k_fill = colsof(matrix(`mat'))
              = else sret local k_fill = colsof(matrix(__00000C))
              - matrix rename `mat' `matout', replace
              = matrix rename __00000C __00000B, replace
              -----------------------------------------------------------------
> -------------------------------------------------- end _mkvec ---------------
            - }
            - tempname bomit
            - matrix `bomit' = J(1,`:list sizeof colna',0)
            = matrix __00000C = J(1,7,0)
            - matrix colna `bomit' = `colna'
            = matrix colna __00000C =  y_timing_max:wlth y_timing_max:wg_ndx y
> _timing_max:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open y
> _timing_max:_cons /:lnalpha
            - _ms_omit_info `bomit'
            = _ms_omit_info __00000C
            - if r(k_omit) | `:length local constraints' {
            = if r(k_omit) | 0 {
              nobreak {
              capture noisily break {
              _b_post0 `colna'
              local clist : subinstr local constraints "," " ", all
              `vv' makecns `clist', `cnsnotes'
              local constraints `"`r(clist)'"'
              local k_autoCns = e(k_autoCns)
              tempname C
              capture matrix `C' = e(Cns)
              local rcc = c(rc)
              }
              local rc = c(rc)
              ereturn clear
              }
              if (`rc') exit `rc'
              if (`rcc') {
              local C
              local k_autoCns
              }
              }
            - if `:length local constraints' {
            = if 0 {
              local lf0
              }
            - local vce `vce' `robust' `cluster'
            = local vce vce(robust) robust
            - if `:length local vce' {
            = if 18 {
            - _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old : `w
> t', `vce'
            = _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old : ,
> vce(robust) robust
              ----------------------------------------------------------------
> ------------------------------------------- begin _vce_parse ---------------
              - version 10
              - _on_colon_parse `0'
              = _on_colon_parse , argoptlist(CLuster) optlist(OIM OPG Robust)
> old : , vce(robust) robust
                --------------------------------------------------------------
> -------------------------------------- begin _on_colon_parse ---------------
                - version 8.2
                - sreturn local before ""
                - sreturn local after ""
                - gettoken before after : 0, parse(":") bind match(par) quotes
                - if "`par'" != "" {
                = if "" != "" {
                  local before `"(`before')"'
                  }
                - if `"`before'"' == ":" {
```

```
                = if `", argoptlist(CLuster) optlist(OIM OPG Robust) old "' ==
>  ":" {
                  sreturn local after `"`after'"'
                  exit
                  }
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `""' != ":" & `": , vce(robust) robust"' != "" {
                - gettoken COLON after : after, parse(":") bind match(par) quo
> tes
                - if "`par'" != "" {
                = if "" != "" {
                  local before `before' (`COLON')
                  local COLON
                  }
                - else if `"`COLON'"' != ":" {
                = else if `":"' != ":" {
                  local before `"`before' `COLON'"'
                  local COLON
                  }
                - }
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `":"' != ":" & `" , vce(robust) robust"' != "" {
                  gettoken COLON after : after, parse(":") bind match(par) quo
> tes
                  if "`par'" != "" {
                  local before `before' (`COLON')
                  local COLON
                  }
                  else if `"`COLON'"' != ":" {
                  local before `"`before' `COLON'"'
                  local COLON
                  }
                  }
                - if `"`COLON'"' != ":" {
                = if `":"' != ":" {
                  di as err "'' found where ':' expected"
                  exit 198
                  }
                - sreturn local before `"`before'"'
                = sreturn local before `", argoptlist(CLuster) optlist(OIM OPG
>  Robust) old "'
                - sreturn local after `"`after'"'
                = sreturn local after `" , vce(robust) robust"'
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ───────────────
              - local 0 `"`s(before)'"'
              = local 0 `", argoptlist(CLuster) optlist(OIM OPG Robust) old "'
              - local user `"`s(after)'"'
              = local user `" , vce(robust) robust"'
              - syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTlist
> (namelist) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
              - local touse `varlist'
              = local touse
              - tempname o a
              - .`o' = ._optlist.new
              = .__00000D = ._optlist.new
              - local optlist : list uniq optlist
              - foreach name of local optlist {
              - .`o'.addopt `name'
              = .__00000D.addopt OIM
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                - version 9
                - syntax name(name=optspec) [, PASSthru]
                - local mname = lower("`optspec'")
                = local mname = lower("OIM")
                - if "`passthru'" != "" {
                = if "" != "" {
                  local optspec `optspec'(passthru)
                  }
                - .options.Arrpush "`optspec'"
                = .options.Arrpush "OIM"
                - .names.Arrpush "`mname'"
                = .names.Arrpush "oim"
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _optlist.addopt ───────────────
              - }
              - .`o'.addopt `name'
              = .__00000D.addopt OPG
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _optlist.addopt ───────────────
                - version 9
                - syntax name(name=optspec) [, PASSthru]
                - local mname = lower("`optspec'")
                = local mname = lower("OPG")
                - if "`passthru'" != "" {
                = if "" != "" {
                  local optspec `optspec'(passthru)
                  }
                - .options.Arrpush "`optspec'"
                = .options.Arrpush "OPG"
                - .names.Arrpush "`mname'"
```

```
                  = .names.Arrpush "opg"
                  ---------------------------------------------------------------
> ----------------------------------------- end _optlist.addopt ---------------
                - }
                - .`o'.addopt `name'
                = .__00000D.addopt Robust
                  ---------------------------------------------------------------
> --------------------------------------- begin _optlist.addopt ---------------
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("Robust")
                  - if "`passthru'" != "" {
                  = if "" != "" {
                    local optspec `optspec'(passthru)
                    }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "Robust"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "robust"
                  ---------------------------------------------------------------
> ----------------------------------------- end _optlist.addopt ---------------
                - }
                - .`a' = ._optlist.new
                = .__00000E = ._optlist.new
                - local argoptlist : list uniq argoptlist
                - foreach name of local argoptlist {
                - .`a'.addopt `name'
                = .__00000E.addopt CLuster
                  ---------------------------------------------------------------
> --------------------------------------- begin _optlist.addopt ---------------
                  - version 9
                  - syntax name(name=optspec) [, PASSthru]
                  - local mname = lower("`optspec'")
                  = local mname = lower("CLuster")
                  - if "`passthru'" != "" {
                  = if "" != "" {
                    local optspec `optspec'(passthru)
                    }
                  - .options.Arrpush "`optspec'"
                  = .options.Arrpush "CLuster"
                  - .names.Arrpush "`mname'"
                  = .names.Arrpush "cluster"
                  ---------------------------------------------------------------
> ----------------------------------------- end _optlist.addopt ---------------
                - }
```

```
              - local OPTNAMES `"`.`o'.dumpnames'"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/3 {
                - local namelist `namelist' `.names[`i']'
                = local namelist  oim
                - }
                - local namelist `namelist' `.names[`i']'
                = local namelist oim opg
                - }
                - local namelist `namelist' `.names[`i']'
                = local namelist oim opg robust
                - }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `"oim opg robust"'
                - class exit `"`namelist'"'
                = class exit `"oim opg robust"'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local OPTNAMES `"oim opg robust"'
              - local ARGOPTNAMES `"`.`a'.dumpnames'"'
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                - version 9
                - forval i = 1/`.names.arrnels' {
                = forval i = 1/1 {
                - local namelist `namelist' `.names[`i']'
                = local namelist  cluster
                - }
                - local namelist : list uniq namelist
                - sreturn local namelist `"`namelist'"'
                = sreturn local namelist `"cluster"'
                - class exit `"`namelist'"'
                = class exit `"cluster"'
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
              = local ARGOPTNAMES `"cluster"'
              - local AND : list OPTNAMES & ARGOPTNAMES
              - if `:list sizeof AND' {
              = if 0 {
                di as err "vcetype '`:word 1 of `AND''' specified twice"
                exit 198
                }
              - local pwallowed : list uniq pwallowed
              - local pwlist robust cluster
              - foreach n of local pwallowed {
                local lc = lower("`n'")
                local pwlist `pwlist' `lc'
                }
              - if "`old_is_ok'" != "" {
              = if "old_is_ok" != "" {
              - local ROBUST robust
              - if `:list ROBUST in OPTNAMES' {
              = if 1 {
              - local robust Robust
              - }
              - local CLUSTER cluster
              - if `:list CLUSTER in ARGOPTNAMES' {
              = if 1 {
              - local cluster CLuster(varname)
              - }
              - }
              - local 0 `"`user'"'
              = local 0 `" , vce(robust) robust"'
              - syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
              = syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varnam
> e) ]
              - if `"`vce'"' != "" {
              = if `"robust"' != "" {
              - gettoken name args : vce, parse(" ,")
              - local args : list retok args
              - capture ParseVCE `o' `a' , `name'
              = capture ParseVCE __00000D __00000E , robust
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────── begin _vce_parse.ParseVCE ───────────────
                - gettoken O 0 : 0, parse(" ,")
                - gettoken A 0 : 0, parse(" ,")
                - local OPTSPECS `"`.`O'.dumpoptions' `.`A'.dumpoptions'"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ───────────────
                  - version 9
                  - forval i = 1/`.options.arrnels' {
                  = forval i = 1/3 {
                  - local optlist `optlist' `.options[`i']'
                  = local optlist  OIM
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist OIM OPG
                  - }
                  - local optlist `optlist' `.options[`i']'
                  = local optlist OIM OPG Robust
                  - }
                  - local optlist : list uniq optlist
                  - sreturn local optlist `"`optlist'"'
                  = sreturn local optlist `"OIM OPG Robust"'
                  - class exit `"`optlist'"'
                  = class exit `"OIM OPG Robust"'
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ────────────────
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────────── begin _optlist.dumpoptions ────────────────
                  - version 9
                  - forval i = 1/`.options.arrnels' {
                  = forval i = 1/1 {
                  - local optlist `optlist' `.options[`i']'
                  = local optlist  CLuster
                  - }
                  - local optlist : list uniq optlist
                  - sreturn local optlist `"`optlist'"'
                  = sreturn local optlist `"CLuster"'
                  - class exit `"`optlist'"'
                  = class exit `"CLuster"'
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────── end _optlist.dumpoptions ────────────────
                = local OPTSPECS `"OIM OPG Robust CLuster"'
                - local OPTNAMES `"`.`O'.dumpnames' `.`A'.dumpnames'"'
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ────────────────
                  - version 9
                  - forval i = 1/`.names.arrnels' {
                  = forval i = 1/3 {
                  - local namelist `namelist' `.names[`i']'
                  = local namelist  oim
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist oim opg
                  - }
                  - local namelist `namelist' `.names[`i']'
                  = local namelist oim opg robust
                  - }
                  - local namelist : list uniq namelist
                  - sreturn local namelist `"`namelist'"'
                  = sreturn local namelist `"oim opg robust"'
                  - class exit `"`namelist'"'
                  = class exit `"oim opg robust"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _optlist.dumpnames ───────────────
                  - version 9
                  - forval i = 1/`.names.arrnels' {
                  = forval i = 1/1 {
                  - local namelist `namelist' `.names[`i']'
                  = local namelist  cluster
                  - }
                  - local namelist : list uniq namelist
                  - sreturn local namelist `"`namelist'"'
                  = sreturn local namelist `"cluster"'
                  - class exit `"`namelist'"'
                  = class exit `"cluster"'
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _optlist.dumpnames ───────────────
                = local OPTNAMES `"oim opg robust cluster"'
                - syntax [, `OPTSPECS']
                = syntax [, OIM OPG Robust CLuster]
                - foreach OPT of local OPTNAMES {
                - if `"``OPT''"' != "" {
                = if `""' != "" {
                  return local vce `OPT'
                  continue, break
                  }
                - }
                - if `"``OPT''"' != "" {
                = if `""' != "" {
                  return local vce `OPT'
                  continue, break
                  }
                - }
                - if `"``OPT''"' != "" {
                = if `"robust"' != "" {
                - return local vce `OPT'
                = return local vce robust
                - continue, break
                  }
                  }
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────── end _vce_parse.ParseVCE ───────────────
              - if c(rc) {
                di as err "vcetype {bf:`name'} not allowed"
                exit 198
                }
              - local name `r(vce)'
              = local name robust
              - if "`weight'" == "pweight" & !`:list name in pwlist' {
              = if "" == "pweight" & !1 {
                di as err "pweights are not allowed with vce(`name')"
                exit 198
                }
              - return add
              - if `"`robust'"' != "" & !inlist("`name'","","robust","eim","oi
> m","cluster") {
              = if `"robust"' != "" & !inlist("robust","","robust","eim","oim"
> ,"cluster") {
                opts_exclusive "`robust' vce(`name')"
                }
              - if "`name'" == "cluster" {
              = if "robust" == "cluster" {
                if `"`args'"' == "" {
                di as err "invalid vce(cluster) option"
                exit 198
                }
                confirm var `args'
                unab args : `args'
                local markout `args'
                if "`cluster'" != "" {
                if !`:list args == cluster' {
                di as err "options cluster() and vce(cluster) are in conflict"
                exit 100
                }
                }
                }
              - else if "`cluster'" != "" & !inlist("`name'","eim","oim") {
              = else if "" != "" & !inlist("robust","eim","oim") {
                opts_exclusive "cluster() vce(`name')"
                }
              - if `"`args'"' != "" {
              = if `""' != "" {
                if ! `:list name in ARGOPTNAMES' {
                di as err "invalid vce() option"
                exit 198
                }
                if "`name'" == "hc2" {
                confirm var `args'
                unab args : `args'
                local markout `args'
                }
                return local vceargs `"`:list retok args'"'
```

```
  }
- else if `:list name in ARGOPTNAMES' {
= else if 0 {
  if "`noargopt_is_ok'" == "" {
  di as err "invalid vce() option"
  exit 198
  }
  }
- }
- else {
  if "`weight'" == "pweight" | "`robust'" != "" {
  local vce robust
  }
  if "`cluster'" != "" {
  local vce cluster
  local args `cluster'
  local markout `cluster'
  }
  return local vce `"`vce'"'
  return local vceargs `"`args'"'
  }
- if "`return(vce)'" != "" {
= if "robust" != "" {
- if `"`return(vceargs)'"' != "" {
= if `""' != "" {
  local ss " "
  }
- return local vceopt `"vce(`return(vce)'`ss'`return(vceargs)')"
> '
= return local vceopt `"vce(robust)"'
- }
- if "`return(vce)'" == "cluster" {
= if "robust" == "cluster" {
  return local cluster `return(vceargs)'
  }
- if inlist("`return(vce)'", "robust", "cluster") {
= if inlist("robust", "robust", "cluster") {
- return local robust robust
- }
- if "`touse'" != "" {
= if "" != "" {
  if "`markout'" != "" {
  markout `touse' `markout', strok
  }
  }
```

```
> ───────────────────────────────────────────── end _vce_parse ───────────────
            - local vce `r(vce)'
            = local vce robust
            - }
            - else if "`weight'" == "pweight" {
            = else if "" == "pweight" {
              local vce robust
              }
            - if `:length local svy' {
            = if 0 {
              local vce svy
              }
            - if `"`vce'"' == "cluster" {
            = if `"robust"' == "cluster" {
              local cluster `r(cluster)'
              markout $ML_sample `cluster', strok
              }
            - if `:length local group' {
            = if 0 {
              markout $ML_sample `group', strok
              global ML_group : copy local group
              if bsubstr("`:type `group''",1,3) == "str" {
              if `interactive' {
              SetGlobalVar ML_grp : _MLgr
              }
              else {
              global ML_grp : tempvar
              if `"`moptobj'"' != "" {
              global ML_grp `moptobj'$ML_grp
              }
              }
              quietly egen $ML_grp = group(`group')
              if ! `:length local cluster' {
              local cluster : copy global ML_grp
              }
              }
              else {
              if ! `:length local cluster' {
              local cluster : copy global ML_group
              }
              }
              }
            - if "$ML_samp" != "$ML_sample" {
            = if "__000006" != "__000006" {
              quietly replace $ML_samp = 0 if $ML_samp & $ML_sample == 0
              }
            - if `:length local vce' == 0 {
            = if 6 == 0 {
              if `"`technique'"' == "bhhh" {
              local vce opg
              }
              else local vce oim
              }
            - if inlist("`vce'", "robust", "cluster") & bsubstr("`evaltype'",1
> ,1) == "d" {
            = if inlist("robust", "robust", "cluster") & bsubstr("e2",1,1) ==
> "d" {
              local optname = cond("`svy'"=="","vce(`vce')","svy")
              di as err "option `optname' is not allowed with evaltype `evalty
> pe'"
              exit 198
              }
            - if `:length local crittype' == 0 {
            = if 0 == 0 {
            - if inlist("`vce'", "cluster", "robust", "svy") {
            = if inlist("robust", "cluster", "robust", "svy") {
            - local crittype "log pseudolikelihood"
            - }
            - else local crittype "log likelihood"
            - }
            - global ML_waldtest `waldtest'
            = global ML_waldtest -1
            - if `:length local svy' | `:length local weight' {
            = if 0 | 0 {
              if `interactive' {
              SetGlobalVar ML_w : _MLw
              }
              else {
              global ML_w : tempvar
              if `"`moptobj'"' != "" {
              global ML_w `moptobj'$ML_w
              }
              }
              }
            - if `:length local weight' {
            = if 0 {
              if `"`moptobj'"' != "" {
              cap drop $ML_w
              }
              quietly gen double $ML_w `exp' if $ML_samp
              local wtype `"`weight'"'
              local wexp `"`exp'"'
```

```
  global ML_wtyp : copy local wtype
  global ML_wexp : copy local wexp
  if "`wtype'" == "iweight" | "`svy'" != "" {
  local zeroweight zeroweight
  }
  }
- if inlist("`vce'", "svy", "cluster") {
= if inlist("robust", "svy", "cluster") {
  if `interactive' {
  SetGlobalVar ML_subv : _MLsu
  }
  else {
  global ML_subv : tempvar
  if `"`moptobj'"' != "" {
  global ML_subv `moptobj'$ML_subv
  }
  }
  }
- quietly count if $ML_sample
= quietly count if __000006
- if r(N) == 0 {
  error 2000
  }
- if `"`weight'"' != "" {
= if `""' != "" {
  quietly count if $ML_sample & $ML_w != 0
  if r(N) == 0 {
  di in gr "all observation have zero weights"
  exit 2000
  }
  }
- if `:length local lf0' {
= if 20 {
- if `:list sizeof lf0' != 2 {
= if 2 != 2 {
  di as err "lf0(`lf0') invalid"
  exit 198
  }
- global ML_k0 : word 1 of `lf0'
= global ML_k0 : word 1 of 2 -414.2287919313009
- global ML_ll_0 : word 2 of `lf0'
= global ML_ll_0 : word 2 of 2 -414.2287919313009
- confirm integer number $ML_k0
= confirm integer number 2
- confirm number $ML_ll_0
= confirm number -414.2287919313009
```

```
      - if $ML_k0 < 0 {
      = if 2 < 0 {
        di as err "lf0(`lf0') invalid"
        exit 198
        }
      - }
      - if "`obs'" == "" {
      = if "" == "" {
      - if "`wtype'" != "fweight" {
      = if "" != "fweight" {
      - quietly count if $ML_sample
      = quietly count if __000006
      - local obs = r(N)
      - }
      - else {
        sum $ML_w if $ML_sample, mean
        local obs = r(sum)
        }
      - }
      - if `:length local iterid' {
      = if 0 {
        local iterid = trim(bsubstr(`"`iterid'"',1,32))
        }
      - if `:length local crittype' {
      = if 20 {
      - local crittype = trim(bsubstr(`"`crittype'"',1,32))
      = local crittype = trim(bsubstr(`"log pseudolikelihood"',1,32))
      - }
      - if `:length local derivscale' {
      = if 0 {
        confirm matrix `derivscale'
        }
      - if `:length local derivh' {
      = if 0 {
        confirm matrix `derivh'
        }
      - local l : strlen local deriv
      - ParseUsemin, `deriv' len(`l')
      = ParseUsemin,  len(0)
        ────────────────────────────────────────────────
> ───────────────────────────── begin mopt.ParseUsemin ──────────────
         - syntax [, LEN(integer 0) MIN1(string) NOMIN MIN]
         - if `"`min1'"' != "" & `"`nomin'"' != "" {
         = if `""' != "" & `""' != "" {
           di as err "options min() and nomin are mutually exclusive"
           exit 198
```

```
                }
              - if `"`min'"' != "" & `"`nomin'"' != "" {
              = if `""' != "" & `""' != "" {
                di as err "options min and nomin are mutually exclusive"
                exit 198
                }
              - if (`"`min1'"' != "") {
              = if (`""' != "") {
                confirm matrix `min1'
                local deriv `min1'
                }
              - else if (`"`min'"' != "") {
              = else if (`""' != "") {
                if (`len' > length(`"`min'"')) {
                di as err "must specify a matrix of 2 columns in option min()"
                exit 198
                }
                local deriv 1
                }
              - else {
              - if (`len' > 0) {
              = if (0 > 0) {
                if ("`nomin'" == "") {
                di as err "must specify a matrix of 2 columns in option min()"
                exit 198
                }
                else if (`len' > length(`"`nomin'"')) {
                di as err "options min() and nomin are mutually exclusive"
                exit 198
                }
                else {
                local deriv 0
                }
                }
              - else {
              - local deriv 0
              - }
              - }
              - sreturn local deriv `deriv'
              = sreturn local deriv 0
              ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────── end mopt.ParseUsemin ───────────────
            - local deriv = s(deriv)
            - if `:length local gnwmatrix' {
            = if 0 {
              confirm matrix `gnwmatrix'
              }
            - `vv' mata: Mopt_model()
            = version 18: mata: Mopt_model()
              ----------------------------------------------------------------
> ----------------------------------- begin mopt_check_program ---------------
              - version 10
              - args name
              - capture confirm name `name'
              = capture confirm name nbreg_lf
              - if c(rc) {
                di as err "unrecognized command:   `name' invalid command name
> "
                exit 199
                }
              - capture which `name'
              = capture which nbreg_lf
              - if !c(rc) {
              - exit
              ----------------------------------------------------------------
> ------------------------------------- end mopt_check_program ---------------
            - global ML_stat model
            - if !`interactive' {
            = if !0 {
            - `vv' MaxMin `maxmin', nooutput `score' `options' moptobj(`moptob
> j')
            = version 18: MaxMin maximize, nooutput  search(off) moptobj()
              ----------------------------------------------------------------
> ------------------------------------------ begin mopt.MaxMin ---------------
              - local vv : di "version " string(_caller()) ":"
              - version 12
              - ChkMacros
                --------------------------------------------------------------
> ---------------------------------------- begin mopt.ChkMacros ---------------
                - if "$ML_stat" != "model" {
                = if "model" != "model" {
                  di as err "you must issue -ml model- first"
                  exit 198
                  }
                - capture confirm var $ML_samp $ML_w $ML_subv
                = capture confirm var __000006 __000006
                - if c(rc) {
                  di as err "Since issuing the -ml model- statement, you have
> done something to drop" _n "temporary variables ml added to your data.  You
> must start again."
                  Clear
                  exit 111
                  }
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end mopt.ChkMacros ───────────────
              - syntax name(name=maxmin) [, NEGH TOLerance(numlist max=1 >=0)
> LTOLerance(numlist max=1 >=0) NONRTOLerance NRTOLerance(numlist max=1 >=0) Q
> TOLerance(numlist max=1 >=0) GTOLerance(numlist max=1 >=0) ITERate(numlist m
> ax=1 >=0) NOTCONCAVE(numlist max=1 >=0) ndami DIFficult HALFSTEPonly DOOPT S
> EArch(name) Repeat(passthru) Bounds(string) SCore(string) noWARNing noCLEAR
> NOLOg LOg DOTs SHOWTOLerance SHOWNRtolerance SHOWSTEP TRace COEFDIffs GRADie
> nt HESSian noSKIPline noOUTput Level(cilevel) moptobj(string) * ]
              - if `:length local nrtolerance' {
              = if 0 {
                opts_exclusive "nrtolerance() `nonrtolerance'"
                }
              - if `:length local qtolerance' {
              = if 0 {
                opts_exclusive "qtolerance() `nonrtolerance'"
                }
              - opts_exclusive "`nonrtolerance' `shownrtolerance'"
              = opts_exclusive " "
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - if `:length local shownrtolerance' {
              = if 0 {
                local showtolerance showtolerance
                }
              - if "$ML_preserve" != "no" {
              = if "no" != "no" {
                if `:length local score' {
                di as smcl as err "May not specify {bf:score()} option unless"
>  _n "     a) estimation subsample is the entire data in memory, or" _n "
>  b) you specify option {bf:nopreserve} on {bf:ml model} statement (meaning"
> _n "         your evaluation program explicitly restricts itself to obs" _n
> "         for which {bf:$}" "{bf:ML_samp==1}."
                exit 198
                }
                preserve
                local N = c(N)
                quietly keep if $ML_sample
                if (`N' != c(N)) {
                mata: Mopt_init_regetviews()
                }
                }
              - if `:length local score' {
              = if 0 {
                SetupScore `"$ML_evaltype"' `"`score'"' $ML_n $ML_dim
                local scores "`s(scores)'"
                }
              - _parse_iterlog, `nolog' `log'
              = _parse_iterlog,
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _parse_iterlog ───────────────
                - version 16
                - syntax [, NOLOG LOG]
                - if "`log'`nolog'" != "" {
                = if "" != "" {
                  opts_exclusive "`log' `nolog'"
                  }
                - else if "`c(iterlog)'" == "on" {
                = else if "on" == "on" {
                - local log log
                - }
                - else {
                  local nolog nolog
                  }
                - sreturn local log `log'
                = sreturn local log log
                - sreturn local nolog `nolog'
                = sreturn local nolog
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _parse_iterlog ───────────────
              - local log "`s(nolog)'"
              = local log ""
              - local tropts `log' `dots' `showtolerance' `showstep' `trace' `
> coefdiffs'
              = local tropts
              - if "`tropts'" != "nolog" {
```

```
              = if "" != "nolog" {
              - local tropts `tropts' `gradient' `hessian'
              = local tropts
              - if "`skipline'" == "" {
              = if "" == "" {
              - if "`iterate'" != "0" | `:length local tropts' {
              = if "" != "0" | 0 {
              - di

              - }
              - }
              - }
              - else {
                local gradient
                local hessian
                local nolog nolog
                }
              - if "`search'" != "off" & "`iterate'" != "0" {
              = if "off" != "off" & "" != "0" {
                if "`search'" == "quietly" {
                local sopts nolog
                }
                else {
                if `:length local tropts' {
                if "`tropts'" != "nolog" {
                local sopts trace
                }
                else local sopts nolog
                }
                }
                if "`search'" == "norescale" {
                local sopts `sopts' norescale
                }
                Search `bounds', nopreserve `sopts' `repeat' `maxmin'
                }
              - tempname value b V iV
              - `vv' mata: Mopt_maxmin()
              = version 18: mata: Mopt_maxmin()
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
```

```
        - mleval `lnalpha' = `b', eq(2) scalar
        = mleval __00000V = __00000N, eq(2) scalar
        - local y "$ML_y1"
        = local y "y_timing_max"
        - scalar `m' = exp(-`lnalpha')
        = scalar __00000W = exp(-__00000V)
        - if `lnalpha' < -20 {
        = if __00000V < -20 {
          mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
          }
        - else {
        - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
        = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
        - }
        - if `todo' == 0 | `lnf'==. { exit }
        = if 2 == 0 | __00000O==. { exit }
        - tempname alpha
        - tempvar mu p
        - quietly {
        - gen double `mu' = exp(`xb') if $ML_samp
        = gen double __00000Y = exp(__00000U) if __000006
        - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
        = gen double __00000Z = 1/(1+exp(__00000U+__00000V)) if __0000
> 06
        - if `lnalpha'<-20 {
        = if __00000V<-20 {
          replace `sc1' = `y'-`mu' if $ML_samp
          replace `sc2' = 0 if $ML_samp
          }
        - else {
        - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
        = replace __00000R = __00000Z*(y_timing_max-__00000Y) if __000
> 006
        - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
        = replace __00000S = __00000W*(digamma(__00000W) - digamma(y_t
> iming_max+__00000W) - ln(__00000Z)) + __00000Z*(y_timing_max-__00000Y) if __
> 000006
        - }
        - }
        - $ML_ec tempname g1 g2
        = * tempname g1 g2
        - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
```

```
                = * mlvecsum __00000O  = __00000R, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __00000O  = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1',`g2')
                = * matrix __00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 | __00000O==. { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __000010 = exp(__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlmatsum `lnf' `d11' = `mu', eq(1)
                  mlmatsum `lnf' `d12' = 0, eq(1,2)
                  mlmatsum `lnf' `d22' = 0, eq(2)
                  }
                - else {
                - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
                = mlmatsum __00000O __000011 = __00000Y*__00000Z*(__000010*__0
> 0000Z*(y_timing_max-__00000Y)+1), eq(1)
                - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
                = mlmatsum __00000O __000012 = __000010*__00000Y*__00000Z^2*(y
> _timing_max-__00000Y), eq(1,2)
                - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
                = mlmatsum __00000O __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
> ax+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z*(
> y_timing_max-__00000Y)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end nbreg_lf ────────────────
Iteration 0:  Log pseudolikelihood = -381.64378
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000O==. { exit }
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ────────────────
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000O==. { exit }
                ───────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end nbreg_lf ────────────────
                ───────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 2 == 0 | __00000O==. { exit }
                - tempname alpha
                - tempvar mu p
                - quietly {
                - gen double `mu' = exp(`xb') if $ML_samp
                = gen double __00000Y = exp(__00000U) if __000006
                - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
                = gen double __00000Z = 1/(1+exp(__00000U+__00000V)) if __0000
> 06
                - if `lnalpha'<-20 {
                = if __00000V<-20 {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                  }
                - else {
                - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
                = replace __00000R = __00000Z*(y_timing_max-__00000Y) if __000
> 006
                - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
                = replace __00000S = __00000W*(digamma(__00000W) - digamma(y_t
> iming_max+__00000W) - ln(__00000Z)) + __00000Z*(y_timing_max-__00000Y) if __
> 000006
                - }
                - }
                - $ML_ec tempname g1 g2
                = * tempname g1 g2
                - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
                = * mlvecsum __00000O  = __00000R, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __00000O  = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1',`g2')
                = * matrix __00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 | __00000O==. { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __000010 = exp(__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlmatsum `lnf' `d11' = `mu', eq(1)
                  mlmatsum `lnf' `d12' = 0, eq(1,2)
                  mlmatsum `lnf' `d22' = 0, eq(2)
                  }
                - else {
                - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
                = mlmatsum __00000O __000011 = __00000Y*__00000Z*(__000010*__0
> 0000Z*(y_timing_max-__00000Y)+1), eq(1)
                - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
                = mlmatsum __00000O __000012 = __000010*__00000Y*__00000Z^2*(y
> _timing_max-__00000Y), eq(1,2)
                - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
                = mlmatsum __00000O __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
> ax+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z*(
> y_timing_max-__00000Y)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ────────────────
Iteration 1:  Log pseudolikelihood = -375.63684
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000O==. { exit }
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ────────────────
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000O==. { exit }
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 2 == 0 | __00000O==. { exit }
                - tempname alpha
                - tempvar mu p
                - quietly {
```

```
                - gen double `mu' = exp(`xb') if $ML_samp
                = gen double __00000Y = exp(__00000U) if __000006
                - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
                = gen double __00000Z = 1/(1+exp(__00000U+__00000V)) if __0000
> 06
                - if `lnalpha'<-20 {
                = if __00000V<-20 {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                  }
                - else {
                - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
                = replace __00000R = __00000Z*(y_timing_max-__00000Y) if __000
> 006
                - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
                = replace __00000S = __00000W*(digamma(__00000W) - digamma(y_t
> iming_max+__00000W) - ln(__00000Z)) + __00000Z*(y_timing_max-__00000Y) if __
> 000006
                - }
                - }
                - $ML_ec tempname g1 g2
                = * tempname g1 g2
                - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
                = * mlvecsum __00000O  = __00000R, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __00000O  = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1',`g2')
                = * matrix __00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 | __00000O==. { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __000010 = exp(__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlmatsum `lnf' `d11' = `mu', eq(1)
                  mlmatsum `lnf' `d12' = 0, eq(1,2)
                  mlmatsum `lnf' `d22' = 0, eq(2)
                  }
                - else {
                - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
                = mlmatsum __00000O __000011 = __00000Y*__00000Z*(__000010*__0
> 0000Z*(y_timing_max-__00000Y)+1), eq(1)
                - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
                = mlmatsum __00000O __000012 = __000010*__00000Y*__00000Z^2*(y
> _timing_max-__00000Y), eq(1,2)
                - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
                = mlmatsum __00000O __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
> ax+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z*(
> y_timing_max-__00000Y)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
Iteration 2:  Log pseudolikelihood = -375.25276
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000O==. { exit }
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
                ──────────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000O==. { exit }
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 2 == 0 | __00000O==. { exit }
                - tempname alpha
                - tempvar mu p
                - quietly {
                - gen double `mu' = exp(`xb') if $ML_samp
                = gen double __00000Y = exp(__00000U) if __000006
                - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
                = gen double __00000Z = 1/(1+exp(__00000U+__00000V)) if __0000
> 06
                - if `lnalpha'<-20 {
                = if __00000V<-20 {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                  }
                - else {
                - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
                = replace __00000R = __00000Z*(y_timing_max-__00000Y) if __000
> 006
                - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
                = replace __00000S = __00000W*(digamma(__00000W) - digamma(y_t
> iming_max+__00000W) - ln(__00000Z)) + __00000Z*(y_timing_max-__00000Y) if __
> 000006
                - }
                - }
                - $ML_ec tempname g1 g2
                = * tempname g1 g2
                - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
                = * mlvecsum __00000O  = __00000R, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __00000O  = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1',`g2')
                = * matrix __00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 | __00000O==. { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __000010 = exp(__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlmatsum `lnf' `d11' = `mu', eq(1)
                  mlmatsum `lnf' `d12' = 0, eq(1,2)
                  mlmatsum `lnf' `d22' = 0, eq(2)
                  }
                - else {
                - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
                = mlmatsum __00000O __000011 = __00000Y*__00000Z*(__000010*__0
> 0000Z*(y_timing_max-__00000Y)+1), eq(1)
                - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
                = mlmatsum __00000O __000012 = __000010*__00000Y*__00000Z^2*(y
> _timing_max-__00000Y), eq(1,2)
                - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
                = mlmatsum __00000O __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
> ax+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z*(
> y_timing_max-__00000Y)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ───────────────
Iteration 3:  Log pseudolikelihood = -375.24884
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ───────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000O==. { exit }
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ────────────────
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 | __00000O==. { exit }
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ────────────────
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────────── begin nbreg_lf ────────────────
                - version 6.0
                - args todo b lnf g H sc1 sc2
                - tempvar xb
                - tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000O = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 2 == 0 | __00000O==. { exit }
                - tempname alpha
                - tempvar mu p
                - quietly {
                - gen double `mu' = exp(`xb') if $ML_samp
                = gen double __00000Y = exp(__00000U) if __000006
                - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
                = gen double __00000Z = 1/(1+exp(__00000U+__00000V)) if __0000
> 06
                - if `lnalpha'<-20 {
                = if __00000V<-20 {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                  }
                - else {
                - replace `sc1' = `p'*(`y'-`mu') if $ML_samp
                = replace __00000R = __00000Z*(y_timing_max-__00000Y) if __000
> 006
                - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
                = replace __00000S = __00000W*(digamma(__00000W) - digamma(y_t
> iming_max+__00000W) - ln(__00000Z)) + __00000Z*(y_timing_max-__00000Y) if __
> 000006
                - }
                - }
                - $ML_ec tempname g1 g2
                = * tempname g1 g2
                - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
                = * mlvecsum __00000O  = __00000R, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __00000O  = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1',`g2')
                = * matrix __00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 | __00000O==. { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __000010 = exp(__00000V)
                - if `lnalpha' < -20 {
                = if __00000V < -20 {
                  mlmatsum `lnf' `d11' = `mu', eq(1)
                  mlmatsum `lnf' `d12' = 0, eq(1,2)
                  mlmatsum `lnf' `d22' = 0, eq(2)
                  }
                - else {
                - mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1),
> eq(1)
                = mlmatsum __00000O __000011 = __00000Y*__00000Z*(__000010*__0
> 0000Z*(y_timing_max-__00000Y)+1), eq(1)
                - mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2
> )
                = mlmatsum __00000O __000012 = __000010*__00000Y*__00000Z^2*(y
> _timing_max-__00000Y), eq(1,2)
                - mlmatsum `lnf' `d22' = `m'*(digamma(`m') - digamma(`y'+`m')
> - ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'
> *(`y'-`mu')- 1), eq(2)
                = mlmatsum __00000O __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
> ax+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z*(
> y_timing_max-__00000Y)- 1), eq(2)
                - }
                - matrix `H' = (`d11',`d12' \ `d12'',`d22')
                = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end nbreg_lf ────────────────
Iteration 4:  Log pseudolikelihood = -375.24883
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin mopt_post ────────────────
                - args b V C wgt touse depvar
                - if `:length local touse' {
                = if 8 {
                - tempname esamp
                - quietly gen byte `esamp' = `touse'
                = quietly gen byte __00000W = __000006
                - }
                - ereturn post `b' `V' `C' `wgt', esample(`esamp') depname(`de
> pvar') buildfvinfo
                = ereturn post __00000U __00000V  [], esample(__00000W) depnam
> e(y_timing_max) buildfvinfo
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end mopt_post ───────────────
              - ereturn scalar k_eq_model = abs($ML_waldtest)
              = ereturn scalar k_eq_model = abs(-1)
              - if `:length global ML_ll_0' {
              = if 18 {
              - ereturn scalar ll_0 = $ML_ll_0
              = ereturn scalar ll_0 = -414.2287919313009
              - if `:length global ML_rank0' {
              = if 1 {
              - ereturn scalar rank0 = $ML_rank0
              = ereturn scalar rank0 = 2
              - ereturn scalar df_m = e(rank) - $ML_rank0
              = ereturn scalar df_m = e(rank) - 2
              - }
              - else ereturn scalar df_m = e(rank) - $ML_k0
              = else ereturn scalar df_m = e(rank) - 2
              - }
              - if !`:length global ML_ll_0' | inlist(e(vce), "robust", "clust
> er", "linearized") {
              = if !18 | inlist(e(vce), "robust", "cluster", "linearized") {
              - if "$ML_svy" == "" {
              = if "" == "" {
              - _prefix_model_test, minimum
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _prefix_model_test ───────────────
                - version 9
                - syntax [name(name=cmd)] [, svy noADJust noSVYadjust MINimum
> ]
                - if (inlist("`cmd'","asmixlogit","cmmixlogit","cmxtmixlogit")
> ) {
                = if (inlist("","asmixlogit","cmmixlogit","cmxtmixlogit")) {
                  _asmixtest, `svy' `adjust' `svyadjust'
                  exit
                  }
                - local K = 1
                - if "`e(k_eq_model)'" != "" {
                = if "1" != "" {
                - capture confirm integer number `e(k_eq_model)'
```

```
= capture confirm integer number 1
- if ! c(rc) {
- local K = e(k_eq_model)
- }
- }
- if "`e(k_eq_model_skip)'" != "" {
= if "" != "" {
  capture confirm integer number `e(k_eq_model_skip)'
  if ! c(rc) {
  local skip = e(k_eq_model_skip)
  }
  }
- ereturn local df_m
- ereturn local F
- ereturn local chi2
- ereturn local chi2type
- ereturn local p
- if (`K' == 0) {
= if (1 == 0) {
  exit
  }
- forval i = 1/`K' {
= forval i = 1/1 {
- if !`:list i in skip' {
= if !0 {
- local spec "`spec' ([#`i'])"
= local spec " ([#1])"
- }
- }
- tempname cns omit
- capture matrix `cns' = get(Cns)
= capture matrix __00000W = get(Cns)
- if (c(rc)) local cns
- if "`cns'" != "" {
= if "" != "" {
  local k_autoCns = e(k_autoCns)
  if missing(`k_autoCns') {
  local k_autoCns 0
  }
  if rowsof(`cns') == `k_autoCns' {
  local cns
  }
  }
- if "`svy'" != "" & "`adjust'`svyadjust'" != "" {
= if "" != "" & "" != "" {
  local adjust nosvyadjust
```

```
                    }
                  - else local adjust
                  - _ms_omit_info e(b), nocons
                  - matrix `omit' = r(omit)
                  = matrix __00000X = r(omit)
                  - capture test `spec', `adjust'
                  = capture test  ([#1]),
                    ────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── begin test ───────────────
                    - if "`e(cmd)'" == "anova" | "`e(cmd)'" == "manova" {
                    = if "mopt" == "anova" | "mopt" == "manova" {
                      AnovaTestChooser `0'
                      return add
                      exit
                      }
                    - if "`e(cmd)'" == "mixed" {
                    = if "mopt" == "mixed" {
                      MixedTestChooser `0'
                      return add
                      exit
                      }
                    - if _caller() < 8 {
                      _test `0'
                      return add
                      exit
                      }
                    - is_svy
                      ──────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── begin is_svy ───────────────
                      - version 8
                      - syntax [, Regression]
                      - if `"`e(prefix)'"' == "svy" {
                      = if `""' == "svy" {
                        return scalar is_svy = 1
                        }
                      - else if "`regression'" == "" {
                      = else if "" == "" {
                      - return scalar is_svy = ("`e(N_psu)'" != "")
                      = return scalar is_svy = ("" != "")
                      - }
                      - else {
                        capt mat list e(b)
                        local rc = _rc
                        return scalar is_svy = ("`e(N_psu)'" != "") & (`rc' == 0
> )

                        }
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end is_svy ───────────────
                  - local is_svy = r(is_svy)
                  - if replay() & `is_svy' == 0 {
                  = if replay() & 0 == 0 {
                    _test `0'
                    return add
                    exit
                    }
                  - version 8
                  - WaldTest `is_svy' `0'
                  = WaldTest 0 ([#1]),
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin test.WaldTest ───────────────
                    - gettoken is_svy 0 : 0
                    - if "`is_svy'" == "1" {
                    = if "0" == "1" {
                      if "`e(complete)'" == "available" {
                      di as err `"must run svy command with "complete" "' "opt
> ion before using this command"
                      exit 301
                      }
                      }
                    - gettoken tok : 0, parse(" (,") bind
                    - local single single
                    - local zero `"`0'"'
                    = local zero `" ([#1]), "'
                    - if `"`tok'"' == "(" {
                    = if `"("' == "(" {
                    - local single
                    - while `"`tok'"' == "(" {
                    = while `"("' == "(" {
                    - gettoken tok 0 : 0, parse(" (,") match(paren) bind
                    - local eqns `"`eqns' `"`tok'"'"'
                    = local eqns `" `"[#1]"'"'
                    - gettoken tok : 0, parse(" (,") bind
                    - }
                    - while `"`tok'"' == "(" {
                    = while `","' == "(" {
                      gettoken tok 0 : 0, parse(" (,") match(paren) bind
                      local eqns `"`eqns' `"`tok'"'"'
                      gettoken tok : 0, parse(" (,") bind
                      }
                    - if `"`tok'"' != "," & `"`tok'"' != "" {
                    = if `","' != "," & `","' != "" {
                      local single single
                    }
                  - }
                  - if "`single'"=="single" {
                  = if ""=="single" {
                    local eqns
                    local 0 `"`zero'"'
                    while `"`tok'"' != "" & `"`tok'"' != "," {
                    gettoken tok 0 : 0, parse(" ,") bind
                    local eqns `"`eqns' `tok'"'
                    gettoken tok : 0, parse(" ,") bind
                    }
                    local eqns `"`"`eqns'"'"'
                    }
                  - syntax [, Accumulate noSVYadjust common CONStant MINimum
>  Mtest Mtest2(passthru) noTest COEF matvlc(passthru) DF(numlist max=1 >0) ]
                  - if "`df'" != "" {
                  = if "" != "" {
                    local dof = `df'
                    }
                  - else if "`e(df_r)'" !="" {
                  = else if "" !="" {
                    local dof = e(df_r)
                    }
                  - else {
                  - local dof = .
                  - }
                  - if `"`mtest'`mtest2'"' != "" {
                  = if `""' != "" {
                    if inlist("`e(cmd)'", "svymean", "svytotal", "svyratio")
>  {
                    di as err `"mtest option not allowed after `e(cmd)'"'
                    exit 301
                    }
                    _mtest syntax, `mtest' `mtest2'
                    local mtmethod `r(method)'
                    }
                  - if "`mtmethod'" != "" {
                  = if "" != "" {
                    if "`test'" != "" {
                    di as err "options mtest and notest may not be combined"
                    exit 198
                    }
                    if "`accumulate'" != "" {
                    di as err "options mtest and accumulate may not be combi
> ned"
                    exit 198
```

```
                      }
                      }
                    - if `is_svy' {
                    = if 0 {
                      if `"`e(cmd)'"' == "margins" {
                      local vce `"`e(model_vce)'"'
                      }
                      else local vce `"`e(vce)'"'
                      if inlist(`"`vce'"', "bootstrap", "sdr") {
                      if missing(`dof') {
                      local svyadjust nosvyadjust
                      }
                      }
                      }
                    - if !`is_svy' & "`svyadjust'" != "" {
                    = if !0 & "" != "" {
                      di as err "option nosvyadjust is allowed only with svy d
> ata"
                      exit 198
                      }
                    - local svy_adjust = `is_svy' & "`svyadjust'" == ""
                    = local svy_adjust = 0 & "" == ""
                    - if `svy_adjust' & missing(`dof') & (missing(e(N_psu)) |
> missing(e(N_strata))) {
                    = if 0 & missing(.) & (missing(e(N_psu)) | missing(e(N_str
> ata))) {
                      di as err "impossible to adjust p-values"
                      exit 198
                      }
                    - if `is_svy' & `"`test'"' == "" {
                    = if 0 & `""' == "" {
                      if "`svyadjust'" == "" {
                      di _n as txt "Adjusted Wald test"
                      }
                      else di _n as txt "Unadjusted Wald test"
                      }
                    - local tmp : subinstr local eqns "===" "", all count(loca
> l nch)
                    - if `nch' > 0 {
                    = if 0 > 0 {
                      di as err "=== invalid operator"
                      exit 198
                      }
                    - local eqns : subinstr local eqns "==" "=", all
                    - ExpandExpns `"`eqns'"' "`common'" "`constant'"
                    = ExpandExpns `" `"[#1]"'"' "" ""
```

```
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── begin test.ExpandExpns ───────────────
                      - args expns common constant
                      - gettoken exp expns : expns
                      - while `"`exp'"' != "" {
                      = while `"[#1]"' != "" {
                      - Expand `"`exp'"' "`common'" "`constant'"
                      = Expand `"[#1]"' "" ""
                        ──────────────────────────────────────────────────────
> ────────────────────────────────────────── begin test.Expand ───────────────
                        - args exp common constant
                        - local junk : subinstr local exp "=" "=", count(local
>  nch) all

                        - if `nch' <= 1 {
                        = if 0 <= 1 {
                        - return local explist `"`"`exp'"'"'
                        = return local explist `"`"[#1]"'"'
                        - return local nexp 1
                        - exit
                        ──────────────────────────────────────────────────────
> ──────────────────────────────────────────── end test.Expand ───────────────
                      - local explist `"`explist' `r(explist)'"'
                      = local explist `" `"[#1]"'"'
                      - local nexp = `nexp' + `r(nexp)'
                      = local nexp =  + 1
                      - gettoken exp expns : expns
                      - }
                      - while `"`exp'"' != "" {
                      = while `""' != "" {
                        Expand `"`exp'"' "`common'" "`constant'"
                        local explist `"`explist' `r(explist)'"'
                        local nexp = `nexp' + `r(nexp)'
                        gettoken exp expns : expns
                        }
                      - return local explist `"`explist'"'
                      = return local explist `" `"[#1]"'"'
                      - return local nexp `nexp'
                      = return local nexp 1
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── end test.ExpandExpns ───────────────
                    - local explist `"`r(explist)'"'
                    = local explist `" `"[#1]"'"'
                    - local nexp `r(nexp)'
                    = local nexp 1
                    - local acc `accumulate'
                    = local acc
```

```
- foreach exp of local explist {
- quietly _test `exp' , `acc' `common' `constant' notest
= quietly _test [#1] ,    notest
- local acc acc
- }
- if "`test'" == "notest" {
= if "" == "notest" {
  _test , notest
  exit
  }
- quietly _test , `matvlc'
= quietly _test ,
- if `dof' < . {
= if . < . {
  local testtype F
  tempname F df1 df2 p drop
  if "`r(F)'" != "" {
  scalar `F' = r(F)
  }
  else {
  scalar `F' = r(chi2)/r(df)
  }
  scalar `df1' = r(df)
  scalar `df2' = `dof'
  scalar `p' = Ftail(`df1', `df2', `F')
  scalar `drop' = r(drop)
  }
- else {
- local testtype chi2
- tempname chi2 df1 p drop
- scalar `chi2' = r(chi2)
= scalar __00000Y = r(chi2)
- scalar `df1' = r(df)
= scalar __00000Z = r(df)
- scalar `p' = r(p)
= scalar __000010 = r(p)
- scalar `drop' = r(drop)
= scalar __000011 = r(drop)
- }
- local i 1
- while "`r(dropped_`i')'" != "" {
= while "" != "" {
  local dropped_`i' `r(dropped_`i')'
  local ++i
  }
- if `svy_adjust' {
```

```
                    = if 0 {
                      if "`df'" != "" {
                      local svy_d = `df'
                      }
                      else if !missing(e(df_r)) {
                      local svy_d = e(df_r)
                      }
                      else local svy_d = e(N_psu)-e(N_strata)
                      if missing(`svy_d') {
                      di as err "internal error in adjustment for svy"
                      exit 10001
                      }
                      if "`testtype'" == "F" {
                      scalar `F' = ((`svy_d'-`df1'+1)/`svy_d') * `F'
                      }
                      else {
                      tempname F df2
                      scalar `F' = ((`svy_d'-`df1'+1)/(`svy_d'*`df1')) * `chi2
> '
                      }
                      scalar `df2' = `svy_d' - `df1' + 1
                      if `df2' < 0 {
                      scalar `F' = .
                      }
                      scalar `p' = Ftail(`df1', `df2', `F')
                      local testtype F
                      }
                    - if "`mtmethod'" != "" {
                    = if "" != "" {
                      tempname R r Rr V b VR tm Wald
                      mat `V' = e(V)
                      mat `b' = e(b)
                      mat `Rr' = get(Rr)
                      local nb = rowsof(`V')
                      local nr = rowsof(`Rr')
                      mat `R' = `Rr'[1...,1..`nb']
                      mat `VR' = `R'*`V'*`R''
                      mat `r' = `R'*`b'' - `Rr'[1...,`=`nb'+1']
                      mat `Wald' = `r''*syminv(`VR')*`r'
                      mat `tm' = J(`nr', 3, .)
                      mat colnames `tm' = `testtype' df p
                      forvalues it = 1 / `nr' {
                      mat `Wald' = `r'[`it',1]^2 / `VR'[`it',`it']
                      mat `tm'[`it',1] = `Wald'[1,1]
                      mat `tm'[`it',2] = 1
                      if `svy_adjust' {
```

```
                      mat `tm'[`it',3] = Ftail(1,`svy_d',`tm'[`it',1])
                      }
                      else if "`testtype'" == "chi2" {
                      mat `tm'[`it',3] = chi2tail(1,`tm'[`it',1])
                      }
                      else {
                      mat `tm'[`it',3] = Ftail(1,`df2',`tm'[`it',1])
                      }
                      }
                      if "`mtmethod'" != "noadjust" {
                      _mtest adjust `tm', mtest(`mtmethod') pindex(3) append
                      mat `tm' = r(result)
                      local pindex 4
                      }
                      else local pindex 3
                      }
                    - _test, notest
                    - local i 1
                    - while "`dropped_`i''" != "" {
                    = while "" != "" {
                      di as txt "       Constraint `dropped_`i'' dropped"
                      local ++i
                      }
                    - if "`mtmethod'" == "" {
                    = if "" == "" {
                    - di
                    - if "`testtype'" == "chi2" {
                    = if "chi2" == "chi2" {
                    - di as txt _col(12) "chi2(" %3.0f `df1' ") =" as res %8.2
> f `chi2'
                    = di as txt _col(12) "chi2(" %3.0f __00000Z ") =" as res %
> 8.2f __00000Y
                    - di as txt _col(10) "Prob > chi2 =  " as res %8.4f `p'
                    = di as txt _col(10) "Prob > chi2 =  " as res %8.4f __0000
> 10
                    - }
                    - else {
                      di as txt "       F(" %3.0f `df1' "," %6.0f `df2' ") ="
> as res %8.2f `F'
                      di as txt _col(13) "Prob > F =" as res %10.4f `p'
                      }
                    - }
                    - else {
                      local nexp = rowsof(`tm')
                      local nc = colsof(`tm')
                      if "`testtype'" == "F" {
```

```
                      local d "F(df,`=`df2'')"
                      local dip "p > F"
                      }
                      else {
                      local d chi2
                      local dip "p > chi2"
                      }
                      di
                      di as txt "{hline 7}{c TT}{hline 30}"
                      di as txt "       {c |}{ralign 12:`d'}     df{ralign 11:
> `dip'}"
                      di as txt "{hline 7}{c  +}{hline 30}"
                      forvalues it = 1 / `nexp' {
                      di as txt "   (`it') {c |}" as res _col(12) %9.2f `tm'[`
> it',1] _col(22) %6.0f `tm'[`it',2] _col(33) %6.4f `tm'[`it',`pindex'] as txt
>  "*"
                      }
                      di as txt "{hline 7}{c +}{hline 30}"
                      di as txt "   All {c |}" as res _col(12) %9.2f ``testtyp
> e'' _col(22) %6.0f `df1' _col(33) %6.4f `p'
                      di as txt "{hline 7}{c BT}{hline 30}"
                      _mtest footer 1 "`mtmethod'" "* "
                      }
                    - if "`coef'" != "" {
                    = if "" != "" {
                      Table
                      }
                    - return scalar p = `p'
                    = return scalar p = __000010
                    - return scalar df = `df1'
                    = return scalar df = __00000Z
                    - if "`testtype'" == "F" {
                    = if "chi2" == "F" {
                      return scalar F = `F'
                      return scalar df_r = `df2'
                      }
                    - else return scalar chi2 = `chi2'
                    = else return scalar chi2 = __00000Y
                    - return scalar drop = `drop'
                    = return scalar drop = __000011
                    - local i 1
                    - while "`dropped_`i''" != "" {
                    = while "" != "" {
                      return scalar dropped_`i' = `dropped_`i''
                      local ++i
                      }
                    - if "`mtmethod'" != "" {
                    = if "" != "" {
                      return matrix mtest `tm'
                      return local mtmethod `mtmethod'
                      }
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end test.WaldTest ───────────────
                  - return add
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────────── end test ───────────────
                - if !c(rc) {
                - if `:length local minimum' {
                = if 7 {
                - quietly test, min
                  ─────────────────────────────────────────────────────────────
> ────────────────────────────────────────────────── begin test ───────────────
                  - if "`e(cmd)'" == "anova" | "`e(cmd)'" == "manova" {
                  = if "mopt" == "anova" | "mopt" == "manova" {
                    AnovaTestChooser `0'
                    return add
                    exit
                    }
                  - if "`e(cmd)'" == "mixed" {
                  = if "mopt" == "mixed" {
                    MixedTestChooser `0'
                    return add
                    exit
                    }
                  - if _caller() < 8 {
                    _test `0'
                    return add
                    exit
                    }
                  - is_svy
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── begin is_svy ───────────────
                    - version 8
                    - syntax [, Regression]
                    - if `"`e(prefix)'"' == "svy" {
                    = if `""' == "svy" {
                      return scalar is_svy = 1
                      }
                    - else if "`regression'" == "" {
                    = else if "" == "" {
                    - return scalar is_svy = ("`e(N_psu)'" != "")
                    = return scalar is_svy = ("" != "")
                    - }
                    - else {
                      capt mat list e(b)
                      local rc = _rc
                      return scalar is_svy = ("`e(N_psu)'" != "") & (`rc' == 0
> )
                      }
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end is_svy ────────────────
                  - local is_svy = r(is_svy)
                  - if replay() & `is_svy' == 0 {
                  = if replay() & 0 == 0 {
                  - _test `0'
                  = _test , min
                  - return add
                  - exit
                  ─────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────────── end test ────────────────
                - }
                - ereturn scalar df_m = r(df)
                - local drop = r(drop)
                - if `drop' {
                = if 0 {
                  local drop 0
                  local i 1
                  local idrop `"`r(dropped_`i')'"'
                  while "`idrop'" != "" {
                  if !`omit'[1,`idrop'] {
                  local ++drop
                  }
                  local ++i
                  local idrop `"`r(dropped_`i')'"'
                  }
                  }
                - if `drop' == 0 | "`cns'" != "" {
                = if 0 == 0 | "" != "" {
                - if !missing(e(df_r)) {
                  ereturn scalar F = r(F)
                  }
                - else {
                - ereturn scalar chi2 = r(chi2)
                - ereturn local chi2type Wald
                - }
                - ereturn scalar p = r(p)
                - }
                - else {
                  if !missing(e(df_r)) {
                  ereturn scalar F = .
                  }
                  else {
                  ereturn scalar chi2 = .
                  ereturn local chi2type Wald
                  }
                  ereturn scalar p = .
                  }
                - }
                - else {
                  if missing(e(df_r)) {
                  ereturn local chi2type Wald
                  }
                  ereturn scalar df_m = 0
                  }
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _prefix_model_test ───────────────
              - }
              - else {
                _prefix_model_test, $ML_svy $ML_noadj
                }
              - }
              - else if `:length global ML_ll_0' {
              = else if 18 {
                if `"`maxmin'"' == "minimize" {
                ereturn scalar chi2 = -2*(e(ll)-e(ll_0))
                }
                else {
                ereturn scalar chi2 = 2*(e(ll)-e(ll_0))
                }
                ereturn scalar p = chi2tail(e(df_m), e(chi2))
                ereturn local chi2type "LR"
                }
              - if `:length global ML_wexp' {
              = if 0 {
                ereturn local wtype `"$ML_wtyp"'
                ereturn local wexp `"$ML_wexp"'
                }
              - if `:length global ML_group' {
              = if 0 {
                ereturn local group `"$ML_group"'
                if `"`e(clustvar)'"' == "$ML_grp" & "$ML_grp" != "" {
                ereturn local clustvar `"$ML_group"'
                }
                }
              - ereturn local cmd "ml"
              - if `:length local score' {
              = if 0 {
                mata: Mopt_score(0)
                ereturn local scorevars `scores'
                }
              - if "$ML_preserve" != "no" {
              = if "no" != "no" {
                restore
                if "`e(prefix)'" == "svy" & e(N_strata_omit) {
                tempname v
                quietly _svy2 $ML_sample if $ML_sample, type(total) svy v(`v')
>  subpop(`e(subpop)') touse($ML_sample)
                }
                ereturn repost, esample($ML_sample)
                }
              - if `"`moptobj'"' != "" {
              = if `""' != "" {
                local clear noclear
                }
              - if !`:length local clear' {
              = if !0 {
              - Clear
                --------------------------------------------------------------
> ------------------------------------------- begin mopt.Clear ---------------
                - syntax [, NOTANOPTION]
                - capture drop $ML_w
                = capture drop __000006
                - capture drop $ML_samp
                = capture drop __000006
                - capture drop $ML_sample
                = capture drop __000006
                - capture drop $ML_subv
                = capture drop
                - capture drop $ML_grp
                = capture drop
                - mata: Mopt_drop_external()
                - macro drop ML_*
                --------------------------------------------------------------
> --------------------------------------------- end mopt.Clear ---------------
              - }
              - else {
                capture confirm var $ML_sample
                if c(rc) {
                quietly gen byte $ML_sample = e(sample)
                }
                }
              - if `:length local output' == 0 {
              = if 8 == 0 {
                Display, level(`level') `options'
                }
              ----------------------------------------------------------------
> -------------------------------------------- end mopt.MaxMin ----------------
            - }
            -------------------------------------------------------------------
> --------------------------------------------- end mopt.Model ----------------
          - if c(rc) {
            local rc = c(rc)
            Clear
            exit `rc'
            }
          - exit
          ---------------------------------------------------------------------
> --------------------------------------------------- end mopt ----------------
        - exit
        -----------------------------------------------------------------------
> ----------------------------------------------------- end ml ----------------
      - est local cmd
      - if "`score'"!="" {
      = if ""!="" {
        label var `scvar1' "Score index for x*b from nbreg"
        rename `scvar1' `scname1'
        label var `scvar2' "Score index for /ln`parm' from nbreg"
        rename `scvar2' `scname2'
        est local scorevars `scname1' `scname2'
        }
      - _b_pclass PCDEF : default
        -----------------------------------------------------------------------
> -------------------------------------------- begin _b_pclass ----------------
        - version 15
        - args c_value COLON key
        - _on_colon_parse `0'
        = _on_colon_parse PCDEF : default
          ---------------------------------------------------------------------
> -------------------------------------- begin _on_colon_parse ----------------
          - version 8.2
          - sreturn local before ""
          - sreturn local after ""
          - gettoken before after : 0, parse(":") bind match(par) quotes
          - if "`par'" != "" {
          = if "" != "" {
            local before `"(`before')"'
      }
     - if `"`before'"' == ":" {
     = if `"PCDEF "' == ":" {
       sreturn local after `"`after'"'
       exit
       }
     - while `"`COLON'"' != ":" & `"`after'"' != "" {
     = while `""' != ":" & `": default"' != "" {
     - gettoken COLON after : after, parse(":") bind match(par) quotes
     - if "`par'" != "" {
     = if "" != "" {
       local before `before' (`COLON')
       local COLON
       }
     - else if `"`COLON'"' != ":" {
     = else if `":"' != ":" {
       local before `"`before' `COLON'"'
       local COLON
       }
     - }
     - while `"`COLON'"' != ":" & `"`after'"' != "" {
     = while `":"' != ":" & `" default"' != "" {
       gettoken COLON after : after, parse(":") bind match(par) quotes
       if "`par'" != "" {
       local before `before' (`COLON')
       local COLON
       }
       else if `"`COLON'"' != ":" {
       local before `"`before' `COLON'"'
       local COLON
       }
       }
     - if `"`COLON'"' != ":" {
     = if `":"' != ":" {
       di as err "'' found where ':' expected"
       exit 198
       }
     - sreturn local before `"`before'"'
     = sreturn local before `"PCDEF "'
     - sreturn local after `"`after'"'
     = sreturn local after `" default"'
     ──────────────────────────────────
> ──────────────────── end _on_colon_parse ────────
    - local c_value `"`s(before)'"'
    = local c_value `"PCDEF "'
    - local key `"`s(after)'"'
```

```
        = local key `" default"'
        - confirm name `c_value'
        = confirm name PCDEF
        - mata: st_b_pclass("`:list retok key'")
        = mata: st_b_pclass("default")
        - c_local `c_value' `value'
        = c_local PCDEF  0
        ───────────────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end _b_pclass ────────────────
      - _b_pclass PCAUX : aux
        ───────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin _b_pclass ────────────────
        - version 15
        - args c_value COLON key
        - _on_colon_parse `0'
        = _on_colon_parse PCAUX : aux
          ─────────────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _on_colon_parse ────────────────
          - version 8.2
          - sreturn local before ""
          - sreturn local after ""
          - gettoken before after : 0, parse(":") bind match(par) quotes
          - if "`par'" != "" {
          = if "" != "" {
            local before `"(`before')"'
            }
          - if `"`before'"' == ":" {
          = if `"PCAUX "' == ":" {
            sreturn local after `"`after'"'
            exit
            }
          - while `"`COLON'"' != ":" & `"`after'"' != "" {
          = while `""' != ":" & `": aux"' != "" {
          - gettoken COLON after : after, parse(":") bind match(par) quotes
          - if "`par'" != "" {
          = if "" != "" {
            local before `before' (`COLON')
            local COLON
            }
          - else if `"`COLON'"' != ":" {
          = else if `":"' != ":" {
            local before `"`before' `COLON'"'
            local COLON
            }
          - }
          - while `"`COLON'"' != ":" & `"`after'"' != "" {
```

```
          = while `":"' != ":" & `" aux"' != "" {
            gettoken COLON after : after, parse(":") bind match(par) quotes
            if "`par'" != "" {
            local before `before' (`COLON')
            local COLON
            }
            else if `"`COLON'"' != ":" {
            local before `"`before' `COLON'"'
            local COLON
            }
            }
          - if `"`COLON'"' != ":" {
          = if `":"' != ":" {
            di as err "'' found where ':' expected"
            exit 198
            }
          - sreturn local before `"`before'"'
          = sreturn local before `"PCAUX "'
          - sreturn local after `"`after'"'
          = sreturn local after `" aux"'
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _on_colon_parse ────────────────
        - local c_value `"`s(before)'"'
        = local c_value `"PCAUX "'
        - local key `"`s(after)'"'
        = local key `" aux"'
        - confirm name `c_value'
        = confirm name PCAUX
        - mata: st_b_pclass("`:list retok key'")
        = mata: st_b_pclass("aux")
        - c_local `c_value' `value'
        = c_local PCAUX  2
        ──────────────────────────────────────────────────────────────────────
> ─────────────────────────────────────────────── end _b_pclass ────────────────
      - tempname pclass
      - matrix `pclass' = e(b)
      = matrix __000006 = e(b)
      - local dim = colsof(`pclass')
      = local dim = colsof(__000006)
      - matrix `pclass'[1,1] = J(1,`dim',`PCDEF')
      = matrix __000006[1,1] = J(1,7,0)
      - matrix `pclass'[1,`dim'] = `PCAUX'
      = matrix __000006[1,7] = 2
      - est hidden matrix b_pclass `pclass'
      = est hidden matrix b_pclass __000006
      - if "`llp'"!="" {
```

```
= if ""!="" {
  est local chi2_ct "LR"
  est scalar ll_c = `llp'
  if (e(ll) < e(ll_c)) | (_b[/ln`parm'] < -20) {
  est scalar chi2_c = 0
  }
  else est scalar chi2_c = 2*(e(ll)-e(ll_c))
  }
- est scalar r2_p = 1 - e(ll)/e(ll_0)
- est scalar k_aux = 1
- est hidden local diparm_opt2 noprob
- est scalar `parm' = exp(_b[/ln`parm'])
= est scalar alpha = exp(_b[/lnalpha])
- est local dispers "`dispers'"
= est local dispers "mean"
- est local offset "`offvar'"
= est local offset ""
- est local offset1
- est hidden local marginsderiv default N IR
- est local predict "nbreg_p"
- est local cmd "nbreg"
- global S_E_ll = e(ll)
- global S_E_ll0 `e(ll_0)'
= global S_E_ll0 -414.2287919313009
- global S_E_llc `e(ll_c)'
= global S_E_llc
- global S_1 `e(chi2_c)'
= global S_1
- global S_E_chi2 = e(chi2)
- global S_E_mdf = e(df_m)
- global S_E_pr2 `e(r2_p)'
= global S_E_pr2 .0941024810221033
- global S_E_nobs = e(N)
- global S_E_tdf = e(N)
- global S_E_off `e(offset)'
= global S_E_off
- global S_E_depv `e(depvar)'
= global S_E_depv y_timing_max
- global S_E_cmd `e(cmd)'
= global S_E_cmd nbreg
- if "`display'"=="" {
= if ""=="" {
- Display, `irr' level(`level') `diopts'
= Display,  level(95)
  ----------------------------------------------------------------------
> ---------------------------------------- begin nbreg.Display ---------------
```

```
        - syntax [, Level(cilevel) IRr *]
        - _get_diopts diopts, `options'
        = _get_diopts diopts,
          ────────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
          - version 11
          - syntax namelist(max=2) [, *]
          - gettoken name1 namelist : namelist
          - gettoken name2 namelist : namelist
          - GetDiopts diopts options, `options'
          = GetDiopts diopts options,
            ──────────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
            - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPO
> N(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
            - syntax namelist(max=2) [, `DIOPTS' *]
            = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
>  ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
            - opts_exclusive "`allbaselevels' `noallbaselevels'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`allbaselevels' `nobaselevels'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`baselevels' `nobaselevels'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`emptycells' `noemptycells'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ----------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
            - opts_exclusive "`fvlabel' `nofvlabel'"
            = opts_exclusive " "
              ----------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ----------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
            - opts_exclusive "`omitted' `noomitted'"
            = opts_exclusive " "
              ----------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
            ---------------------------------------------------------------
> --------------------------------------------- end opts_exclusive ----------------
          - opts_exclusive "`lstretch' `nolstretch'"
          = opts_exclusive " "
            ---------------------------------------------------------------
> ------------------------------------------- begin opts_exclusive ----------------
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ---------------------------------------------------------------
> --------------------------------------------- end opts_exclusive ----------------
          - opts_exclusive "`cnsreport' `fullcnsreport'"
          = opts_exclusive " "
            ---------------------------------------------------------------
> ------------------------------------------- begin opts_exclusive ----------------
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
            ---------------------------------------------------------------
> --------------------------------------------- end opts_exclusive ----------------
          - opts_exclusive "`coeflegend' `selegend'"
          = opts_exclusive " "
            ---------------------------------------------------------------
> ------------------------------------------- begin opts_exclusive ----------------
            - version 8.2
            - args opts optname errcode optslab
```

```
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`noci' `nopvalues'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - local K : list sizeof namelist
            - gettoken c_diopts c_opts : namelist
            - opts_exclusive "`coding' `compare'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ----------------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
            - opts_exclusive "`versus' `compare'"
            = opts_exclusive " "
              ----------------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ----------------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
            - opts_exclusive "`abbrev' `noabbrev'"
            = opts_exclusive " "
              ----------------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ----------------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
            - local allbaselevels `allbaselevels' `noallbaselevels'
```

```
= local allbaselevels
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
```

```
              }
              sreturn local cformat `"`cformat'"'
              local cformat `"cformat(`cformat')"'
              }
            - if `:length local sformat' {
            = if 0 {
              confirm numeric format `sformat'
              if fmtwidth(`"`sformat'"') > 8 {
              local sformat "%8.2f"
              di "{txt}note: invalid sformat(), using default"
              }
              sreturn local sformat `"`sformat'"'
              local sformat `"sformat(`sformat')"'
              }
            - if `:length local pformat' {
            = if 0 {
              confirm numeric format `pformat'
              if fmtwidth(`"`pformat'"') > 5 {
              local pformat "%5.3f"
              di "{txt}note: invalid pformat(), using default"
              }
              sreturn local pformat `"`pformat'"'
              local pformat `"pformat(`pformat')"'
              }
            - if `K' == 1 & `:length local options' {
            = if 2 == 1 & 0 {
              syntax namelist(max=2) [, `DIOPTS']
              }
            - if reldif(`level', c(level)) > 1e-3 {
            = if reldif(95, c(level)) > 1e-3 {
              local levelopt level(`level')
              }
            - Wrapon , `fvwrapon'
            = Wrapon ,
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
              - capture syntax [, WOrd WIdth]
              - if c(rc) {
                di as err "invalid fvwrapon() option;"
                syntax [, WOrd WIdth]
                exit 198
                }
              - opts_exclusive "`word' `width'" fvwrapon
              = opts_exclusive " " fvwrapon
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
```

```
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
              - local fvwrapon `word' `width'
              = local fvwrapon
              - if `:length local fvwrapon' {
              = if 0 {
                c_local fvwrapon fvwrapon(`fvwrapon')
                }
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
            - if "`fvwrap'" != "" {
            = if "" != "" {
              FVWrap, `fvwrap'
              }
            - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
            = c_local diopts
            - if `K' == 2 {
            = if 2 == 2 {
            - c_local `c_opts' `"`options'"'
            = c_local  options `""'
            - }
            - sreturn local coding `coding'
            = sreturn local coding
            - sreturn local versus `versus'
            = sreturn local versus
            - sreturn local compare `compare'
            = sreturn local compare
            - sreturn local level `level'
            = sreturn local level 95
            ──────────────────────────────────────────────────────────────────
> ---------------------------------- end _get_diopts.GetDiopts ----------------
          - c_local `name1' `"`diopts'"'
          = c_local diopts `""'
          - local snames : s(macros)
          - foreach sname of local snames {
          - local S_`sname' = s(`sname')
          = local S_level = s(level)
          - }
          - local S_`sname' = s(`sname')
          = local S_after = s(after)
          - }
          - local S_`sname' = s(`sname')
          = local S_before = s(before)
          - }
          - local S_`sname' = s(`sname')
          = local S_log = s(log)
          - }
          - local S_`sname' = s(`sname')
          = local S_deriv = s(deriv)
          - }
          - local S_`sname' = s(`sname')
          = local S_namelist = s(namelist)
          - }
          - local S_`sname' = s(`sname')
          = local S_optlist = s(optlist)
          - }
          - local S_`sname' = s(`sname')
          = local S_k_fill = s(k_fill)
          - }
          - local S_`sname' = s(`sname')
          = local S_k = s(k)
          - }
          - sreturn clear
          - GetDiopts DEFAULT
            -------------------------------------------------------------------
> -------------------------------- begin _get_diopts.GetDiopts ----------------
            - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells 
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPO
> N(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
            - syntax namelist(max=2) [, `DIOPTS' *]
            = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
>  ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
      - opts_exclusive "`allbaselevels' `noallbaselevels'"
      = opts_exclusive " "
       --------------------------------
> ------------------- begin opts_exclusive -------
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
       --------------------------------
> -------------------- end opts_exclusive -------
      - opts_exclusive "`allbaselevels' `nobaselevels'"
      = opts_exclusive " "
       --------------------------------
> ------------------- begin opts_exclusive -------
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
       --------------------------------
> -------------------- end opts_exclusive -------
      - opts_exclusive "`baselevels' `nobaselevels'"
      = opts_exclusive " "
       --------------------------------
> ------------------- begin opts_exclusive -------
        - version 8.2
```

```
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`emptycells' `noemptycells'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`fvlabel' `nofvlabel'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
```

```
        }
       - if `n' < 2 {
       = if 0 < 2 {
       - exit
       ────────────────────────────────
> ────────────────────── end opts_exclusive ────────
      - opts_exclusive "`omitted' `noomitted'"
      = opts_exclusive " "
       ────────────────────────────────
> ───────────────────── begin opts_exclusive ────────
       - version 8.2
       - args opts optname errcode optslab
       - local opts `opts'
       = local opts
       - local n 0
       - while `"`opts'"' != "" {
       = while `""' != "" {
         local ++n
         gettoken item`n' opts : opts, bind
         }
       - if `n' < 2 {
       = if 0 < 2 {
       - exit
       ────────────────────────────────
> ────────────────────── end opts_exclusive ────────
      - opts_exclusive "`lstretch' `nolstretch'"
      = opts_exclusive " "
       ────────────────────────────────
> ───────────────────── begin opts_exclusive ────────
       - version 8.2
       - args opts optname errcode optslab
       - local opts `opts'
       = local opts
       - local n 0
       - while `"`opts'"' != "" {
       = while `""' != "" {
         local ++n
         gettoken item`n' opts : opts, bind
         }
       - if `n' < 2 {
       = if 0 < 2 {
       - exit
       ────────────────────────────────
> ────────────────────── end opts_exclusive ────────
      - opts_exclusive "`cnsreport' `fullcnsreport'"
      = opts_exclusive " "
```

```
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`coeflegend' `selegend'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`noci' `nopvalues'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
```

```
       = while `""' != "" {
         local ++n
         gettoken item`n' opts : opts, bind
         }
       - if `n' < 2 {
       = if 0 < 2 {
       - exit
       ────────────────────────────────
> ──────────────────── end opts_exclusive ───────
      - local K : list sizeof namelist
      - gettoken c_diopts c_opts : namelist
      - opts_exclusive "`coding' `compare'"
      = opts_exclusive " "
       ────────────────────────────────
> ─────────────────── begin opts_exclusive ───────
       - version 8.2
       - args opts optname errcode optslab
       - local opts `opts'
       = local opts
       - local n 0
       - while `"`opts'"' != "" {
       = while `""' != "" {
         local ++n
         gettoken item`n' opts : opts, bind
         }
       - if `n' < 2 {
       = if 0 < 2 {
       - exit
       ────────────────────────────────
> ──────────────────── end opts_exclusive ───────
      - opts_exclusive "`versus' `compare'"
      = opts_exclusive " "
       ────────────────────────────────
> ─────────────────── begin opts_exclusive ───────
       - version 8.2
       - args opts optname errcode optslab
       - local opts `opts'
       = local opts
       - local n 0
       - while `"`opts'"' != "" {
       = while `""' != "" {
         local ++n
         gettoken item`n' opts : opts, bind
         }
       - if `n' < 2 {
       = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`abbrev' `noabbrev'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - local allbaselevels `allbaselevels' `noallbaselevels'
            = local allbaselevels
            - local baselevels `baselevels' `nobaselevels'
            = local baselevels
            - local emptycells `emptycells' `noemptycells'
            = local emptycells
            - local omitted `omitted' `noomitted'
            = local omitted
            - local lstretch `lstretch' `nolstretch'
            = local lstretch
            - local fvlabel `fvlabel' `nofvlabel'
            = local fvlabel
            - local abbrev `abbrev' `noabbrev'
            = local abbrev
            - if "`allbaselevels'`baselevels'" == "" {
            = if "" == "" {
            - if c(showbaselevels) == "all" {
              local allbaselevels allbaselevels
              }
            - else if c(showbaselevels) == "on" {
              local baselevels baselevels
              }
            - }
            - if "`emptycells'" == "" {
```

```
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
```

```
              }
            - if `K' == 1 & `:length local options' {
            = if 1 == 1 & 0 {
              syntax namelist(max=2) [, `DIOPTS']
              }
            - if reldif(`level', c(level)) > 1e-3 {
            = if reldif(95, c(level)) > 1e-3 {
              local levelopt level(`level')
              }
            - Wrapon , `fvwrapon'
            = Wrapon ,
              ----------------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ---------------
              - capture syntax [, WOrd WIdth]
              - if c(rc) {
                di as err "invalid fvwrapon() option;"
                syntax [, WOrd WIdth]
                exit 198
                }
              - opts_exclusive "`word' `width'" fvwrapon
              = opts_exclusive " " fvwrapon
                --------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                --------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
              - local fvwrapon `word' `width'
              = local fvwrapon
              - if `:length local fvwrapon' {
              = if 0 {
                c_local fvwrapon fvwrapon(`fvwrapon')
                }
              ----------------------------------------------------------------
> ------------------------------------- end _get_diopts.Wrapon ---------------
```

```
            - if "`fvwrap'" != "" {
            = if "" != "" {
              FVWrap, `fvwrap'
              }
            - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
            = c_local DEFAULT
            - if `K' == 2 {
            = if 1 == 2 {
              c_local `c_opts' `"`options'"'
              }
            - sreturn local coding `coding'
            = sreturn local coding
            - sreturn local versus `versus'
            = sreturn local versus
            - sreturn local compare `compare'
            = sreturn local compare
            - sreturn local level `level'
            = sreturn local level 95
            ──────────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
          - if `"`name2'"' == "" {
          = if `""' == "" {
          - GetDiopts DUPS, `options'
          = GetDiopts DUPS,
            ──────────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
            - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel
> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPO
> N(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
            - syntax namelist(max=2) [, `DIOPTS' *]
            = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
>  ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
            - opts_exclusive "`allbaselevels' `noallbaselevels'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
```

```
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`allbaselevels' `nobaselevels'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`baselevels' `nobaselevels'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`emptycells' `noemptycells'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`fvlabel' `nofvlabel'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`omitted' `noomitted'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`lstretch' `nolstretch'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`cnsreport' `fullcnsreport'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
```

```
       - while `"`opts'"' != "" {
       = while `""' != "" {
         local ++n
         gettoken item`n' opts : opts, bind
         }
       - if `n' < 2 {
       = if 0 < 2 {
       - exit
       --------------------------------------------------------------------------------
> ----------------------------------------------------- end opts_exclusive ---------------
      - opts_exclusive "`coeflegend' `selegend'"
      = opts_exclusive " "
       --------------------------------------------------------------------------------
> --------------------------------------------------- begin opts_exclusive ---------------
       - version 8.2
       - args opts optname errcode optslab
       - local opts `opts'
       = local opts
       - local n 0
       - while `"`opts'"' != "" {
       = while `""' != "" {
         local ++n
         gettoken item`n' opts : opts, bind
         }
       - if `n' < 2 {
       = if 0 < 2 {
       - exit
       --------------------------------------------------------------------------------
> ----------------------------------------------------- end opts_exclusive ---------------
      - opts_exclusive "`noci' `nopvalues'"
      = opts_exclusive " "
       --------------------------------------------------------------------------------
> --------------------------------------------------- begin opts_exclusive ---------------
       - version 8.2
       - args opts optname errcode optslab
       - local opts `opts'
       = local opts
       - local n 0
       - while `"`opts'"' != "" {
       = while `""' != "" {
         local ++n
         gettoken item`n' opts : opts, bind
         }
       - if `n' < 2 {
       = if 0 < 2 {
       - exit
```

```
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - local K : list sizeof namelist
            - gettoken c_diopts c_opts : namelist
            - opts_exclusive "`coding' `compare'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`versus' `compare'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - opts_exclusive "`abbrev' `noabbrev'"
            = opts_exclusive " "
              ────────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
```

```
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
              ────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
            - local allbaselevels `allbaselevels' `noallbaselevels'
            = local allbaselevels
            - local baselevels `baselevels' `nobaselevels'
            = local baselevels
            - local emptycells `emptycells' `noemptycells'
            = local emptycells
            - local omitted `omitted' `noomitted'
            = local omitted
            - local lstretch `lstretch' `nolstretch'
            = local lstretch
            - local fvlabel `fvlabel' `nofvlabel'
            = local fvlabel
            - local abbrev `abbrev' `noabbrev'
            = local abbrev
            - if "`allbaselevels'`baselevels'" == "" {
            = if "" == "" {
            - if c(showbaselevels) == "all" {
              local allbaselevels allbaselevels
              }
            - else if c(showbaselevels) == "on" {
              local baselevels baselevels
              }
            - }
            - if "`emptycells'" == "" {
            = if "" == "" {
            - if c(showemptycells) == "off" {
              local emptycells noemptycells
              }
            - }
            - if "`omitted'" == "" {
            = if "" == "" {
```

```
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
  }
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
```

```
              local levelopt level(`level')
              }
            - Wrapon , `fvwrapon'
            = Wrapon ,
              ─────────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ────────────────
              - capture syntax [, WOrd WIdth]
              - if c(rc) {
                di as err "invalid fvwrapon() option;"
                syntax [, WOrd WIdth]
                exit 198
                }
              - opts_exclusive "`word' `width'" fvwrapon
              = opts_exclusive " " fvwrapon
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                - version 8.2
                - args opts optname errcode optslab
                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                  local ++n
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
                = if 0 < 2 {
                - exit
                ───────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
              - local fvwrapon `word' `width'
              = local fvwrapon
              - if `:length local fvwrapon' {
              = if 0 {
                c_local fvwrapon fvwrapon(`fvwrapon')
                }
              ─────────────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ────────────────
            - if "`fvwrap'" != "" {
            = if "" != "" {
              FVWrap, `fvwrap'
              }
            - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
            = c_local DUPS
            - if `K' == 2 {
            = if 1 == 2 {
              c_local `c_opts' `"`options'"'
              }
            - sreturn local coding `coding'
            = sreturn local coding
            - sreturn local versus `versus'
            = sreturn local versus
            - sreturn local compare `compare'
            = sreturn local compare
            - sreturn local level `level'
            = sreturn local level 95
            ------------------------------------------------------------------
> ---------------------------------- end _get_diopts.GetDiopts ---------------
          - }
          - else {
            GetDiopts DUPS options, `options'
            c_local `name2' `"`options'"'
            }
          - local DUPS : list DUPS - DEFAULT
          - gettoken DUPS : DUPS
          - if `"`DUPS'"' != "" {
          = if `""' != "" {
            if (strpos(`"`DUPS'"', "(")) {
            gettoken DUPS : DUPS, parse("(")
            local DUPS `"`DUPS'()"'
            }
            di as err "duplicate {bf:`DUPS'} option not allowed"
            exit 198
            }
          - sreturn clear
          - foreach sname of local snames {
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local level = `"95"'
          - }
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local after = `"aux"'
          - }
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local before = `"PCAUX "'
          - }
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local log = `"log"'
          - }
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local deriv = `"0"'
          - }
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local namelist = `"cluster"'
          - }
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local optlist = `"CLuster"'
          - }
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local k_fill = `"7"'
          - }
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local k = `"7"'
          - }
          ----------------------------------------------------------------------
> --------------------------------------------- end _get_diopts ---------------
        - if "`irr'"!="" {
        = if ""!="" {
          local eopt "eform(IRR)"
          }
        - if "`e(dispers)'"=="mean" {
        = if "mean"=="mean" {
        - local parm alpha
        - }
        - else local parm delta
        - version 9: ml di, level(`level') `eopt' nofootnote `diopts'
        = version 9: ml di, level(95)  nofootnote
          ----------------------------------------------------------------------
> ---------------------------------------------------- begin ml ---------------
          - if _caller()>=11 {
            mopt `0'
            exit
            }
          - version 8.2, missing
          - version 6, missing
          - if _caller()<6 {
            ml_5 `0'
            exit
            }
          - local caller : display string(_caller())
          - gettoken cmd 0: 0, parse(" ,")
          - local l = length(`"`cmd'"')
          = local l = length(`"di"')
          - if `"`cmd'"' == "technique" {
          = if `"di"' == "technique" {
```

```
  ml_technique `0'
  exit
  }
- if `"`cmd'"' == "clear" {
= if `"di"' == "clear" {
  ml_clear `0'
  exit
  }
- if `"`cmd'"' == "hold" {
= if `"di"' == "hold" {
  ml_hold `0'
  exit
  }
- if `"`cmd'"' == "unhold" {
= if `"di"' == "unhold" {
  ml_unhold `0'
  exit
  }
- if `"`cmd'"' == "score" {
= if `"di"' == "score" {
  if "`e(opt)'" == "moptimize" {
  mopt score `0'
  exit
  }
  ml_score `0'
  exit
  }
- if `"`cmd'"'=="count" {
= if `"di"'=="count" {
  ml_c_d count `0'
  exit
  }
- if `"`cmd'"' == "trace" {
= if `"di"' == "trace" {
  ml_c_d trace `0'
  exit
  }
- if `"`cmd'"'==bsubstr("graph",1,max(2,`l')) {
= if `"di"'==bsubstr("graph",1,max(2,2)) {
  ml_graph `0'
  exit
  }
- if `"`cmd'"' == "init" {
= if `"di"' == "init" {
  ml_init `0'
  exit
```

```
            }
          - if `"`cmd'"' == bsubstr("maximize",1,max(3,`l')) {
          = if `"di"' == bsubstr("maximize",1,max(3,2)) {
            version `caller', missing: AllowEv ml_max `0'
            exit
            }
          - if `"`cmd'"' == bsubstr("display",1,max(2,`l')) | `"`cmd'"' == bsu
> bstr("mlout", 1,max(3,`l')) {
          = if `"di"' == bsubstr("display",1,max(2,2)) | `"di"' == bsubstr("ml
> out", 1,max(3,2)) {
          - if "`e(opt)'" == "moptimize" {
          = if "moptimize" == "moptimize" {
          - mopt display `0'
          = mopt display , level(95)  nofootnote
            ──────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── begin mopt ───────────────
            - local vv : di "version " string(_caller()) ":"
            - version 12
            - gettoken subcmd 0 : 0, parse(" ,")
            - local lcmd : length local subcmd
            - if "`subcmd'" == "clear" {
            = if "display" == "clear" {
              Clear
              exit
              }
            - if `"`subcmd'"' == "hold" {
            = if `"display"' == "hold" {
              ml_hold `0'
              exit
              }
            - if `"`subcmd'"' == "unhold" {
            = if `"display"' == "unhold" {
              ml_unhold `0'
              exit
              }
            - if "`subcmd'" == "score" {
            = if "display" == "score" {
              if _caller() > 12 {
              `vv' Score `0'
              }
              else {
              Score `0'
              }
              exit
              }
            - if "`subcmd'" == "count" {
```

```
            = if "display" == "count" {
              Count `0'
              exit
              }
            - if "`subcmd'" == "trace" {
            = if "display" == "trace" {
              Trace `0'
              exit
              }
            - if "`subcmd'" == bsubstr("graph",1,max(2,`lcmd')) {
            = if "display" == bsubstr("graph",1,max(2,7)) {
              Graph `0'
              exit
              }
            - if "`subcmd'" == "init" {
            = if "display" == "init" {
              Interactive 0
              `vv' Init `0'
              exit
              }
            - if "`subcmd'" == bsubstr("maximize",1,max(3,`lcmd')) {
            = if "display" == bsubstr("maximize",1,max(3,7)) {
              Interactive 1
              `vv' MaxMin maximize `0'
              exit
              }
            - if "`subcmd'" == bsubstr("minimize",1,max(3,`lcmd')) {
            = if "display" == bsubstr("minimize",1,max(3,7)) {
              Interactive 1
              `vv' MaxMin minimize `0'
              exit
              }
            - if "`subcmd'" == bsubstr("display",1,max(2,`lcmd')) {
            = if "display" == bsubstr("display",1,max(2,7)) {
            - Display `0'
            = Display  , level(95)  nofootnote
              ----------------------------------------------------------------
> ----------------------------------------- begin mopt.Display ---------------
              - if !inlist("`e(opt)'", "ml", "moptimize") {
              = if !inlist("moptimize", "ml", "moptimize") {
                error 301
                }
              - if "`e(svyml)'" != "" | "`e(prefix)'" == "svy" {
              = if "" != "" | "" == "svy" {
                _prefix_display `0'
                exit
                }
              - syntax [, Level(cilevel) PLus noHeader First SHOWEQns NEQ(inte
> ger -1) noFOOTnote NOSKIP TItle(passthru) NOTEST * ]
              - if "`plus'" != "" {
              = if "" != "" {
                local footnote nofootnote
                }
              - if `neq' >= 0 {
              = if -1 >= 0 {
                local neqopt neq(`neq')
                }
              - _get_diopts diopts options, `options'
              = _get_diopts diopts options,
                ───────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
                - version 11
                - syntax namelist(max=2) [, *]
                - gettoken name1 namelist : namelist
                - gettoken name2 namelist : namelist
                - GetDiopts diopts options, `options'
                = GetDiopts diopts options,
                  ─────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
```

```
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                  - opts_exclusive "`allbaselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                  - opts_exclusive "`baselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
```

```
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`lstretch' `nolstretch'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`cnsreport' `fullcnsreport'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
```

```
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                  - opts_exclusive "`coeflegend' `selegend'"
                  = opts_exclusive " "
                    ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                  - opts_exclusive "`noci' `nopvalues'"
                  = opts_exclusive " "
                    ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                  - local K : list sizeof namelist
                  - gettoken c_diopts c_opts : namelist
                  - opts_exclusive "`coding' `compare'"
                  = opts_exclusive " "
```

```
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`versus' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
```

```
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
                  = local baselevels
                  - local emptycells `emptycells' `noemptycells'
                  = local emptycells
                  - local omitted `omitted' `noomitted'
                  = local omitted
                  - local lstretch `lstretch' `nolstretch'
                  = local lstretch
                  - local fvlabel `fvlabel' `nofvlabel'
                  = local fvlabel
                  - local abbrev `abbrev' `noabbrev'
                  = local abbrev
                  - if "`allbaselevels'`baselevels'" == "" {
                  = if "" == "" {
                  - if c(showbaselevels) == "all" {
                    local allbaselevels allbaselevels
                    }
                  - else if c(showbaselevels) == "on" {
                    local baselevels baselevels
                    }
                  - }
                  - if "`emptycells'" == "" {
                  = if "" == "" {
                  - if c(showemptycells) == "off" {
                    local emptycells noemptycells
                    }
                  - }
                  - if "`omitted'" == "" {
                  = if "" == "" {
                  - if c(showomitted) == "off" {
                    local omitted noomitted
                    }
                  - }
                  - if "`lstretch'" == "" {
                  = if "" == "" {
                    - if c(lstretch) == "off" {
                      local lstretch nolstretch
                      }
                    - }
                    - if `:length local cformat' {
                    = if 0 {
                      confirm numeric format `cformat'
                      if fmtwidth(`"`cformat'"') > 9 {
                      local cformat "%9.0g"
                      di "{txt}note: invalid cformat(), using default"
                      }
                      sreturn local cformat `"`cformat'"'
                      local cformat `"cformat(`cformat')"'
                      }
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ---------------------------------------------------------
> ------------------------------------ begin _get_diopts.Wrapon ---------------
```

```
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ----------------------------------------------------------
> ------------------------------------- end _get_diopts.Wrapon ---------------
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local diopts
                  - if `K' == 2 {
                  = if 2 == 2 {
                  - c_local `c_opts' `"`options'"'
```

```
                 = c_local  options `""'
                 - }
                 - sreturn local coding `coding'
                 = sreturn local coding
                 - sreturn local versus `versus'
                 = sreturn local versus
                 - sreturn local compare `compare'
                 = sreturn local compare
                 - sreturn local level `level'
                 = sreturn local level 95
                 ------------------------------------------------------------
> ---------------------------------- end _get_diopts.GetDiopts ---------------
               - c_local `name1' `"`diopts'"'
               = c_local diopts `""'
               - local snames : s(macros)
               - foreach sname of local snames {
               - local S_`sname' = s(`sname')
               = local S_level = s(level)
               - }
               - local S_`sname' = s(`sname')
               = local S_k = s(k)
               - }
               - local S_`sname' = s(`sname')
               = local S_k_fill = s(k_fill)
               - }
               - local S_`sname' = s(`sname')
               = local S_optlist = s(optlist)
               - }
               - local S_`sname' = s(`sname')
               = local S_namelist = s(namelist)
               - }
               - local S_`sname' = s(`sname')
               = local S_deriv = s(deriv)
               - }
               - local S_`sname' = s(`sname')
               = local S_log = s(log)
               - }
               - local S_`sname' = s(`sname')
               = local S_before = s(before)
               - }
               - local S_`sname' = s(`sname')
               = local S_after = s(after)
               - }
               - sreturn clear
               - GetDiopts DEFAULT
                 ------------------------------------------------------------
```

```
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`allbaselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`baselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ----------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
```

```
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`lstretch' `nolstretch'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
```

```
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ──────────────────── end opts_exclusive ────────
         - opts_exclusive "`cnsreport' `fullcnsreport'"
         = opts_exclusive " "
          ─────────────────────────────
> ─────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ──────────────────── end opts_exclusive ────────
         - opts_exclusive "`coeflegend' `selegend'"
         = opts_exclusive " "
          ─────────────────────────────
> ─────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
```

```
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`noci' `nopvalues'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local K : list sizeof namelist
                  - gettoken c_diopts c_opts : namelist
                  - opts_exclusive "`coding' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`versus' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
                  = local baselevels
                  - local emptycells `emptycells' `noemptycells'
                  = local emptycells
                  - local omitted `omitted' `noomitted'
                  = local omitted
                  - local lstretch `lstretch' `nolstretch'
                  = local lstretch
                  - local fvlabel `fvlabel' `nofvlabel'
                  = local fvlabel
                  - local abbrev `abbrev' `noabbrev'
```

```
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
```

```
                    local sformat `"sformat(`sformat')"'
                    }
                  - if `:length local pformat' {
                  = if 0 {
                    confirm numeric format `pformat'
                    if fmtwidth(`"`pformat'"') > 5 {
                    local pformat "%5.3f"
                    di "{txt}note: invalid pformat(), using default"
                    }
                    sreturn local pformat `"`pformat'"'
                    local pformat `"pformat(`pformat')"'
                    }
                  - if `K' == 1 & `:length local options' {
                  = if 1 == 1 & 0 {
                    syntax namelist(max=2) [, `DIOPTS']
                    }
                  - if reldif(`level', c(level)) > 1e-3 {
                  = if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                    }
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                - if `"`name2'"' == "" {
                = if `"options"' == "" {
                  GetDiopts DUPS, `options'
                  }
                - else {
                - GetDiopts DUPS options, `options'
                = GetDiopts DUPS options,
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
>  cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`allbaselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
```

```
                    - exit
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`baselevels' `nobaselevels'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`omitted' `noomitted'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`lstretch' `nolstretch'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
```

```
           }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ───────────────────── end opts_exclusive ────────
         - opts_exclusive "`cnsreport' `fullcnsreport'"
         = opts_exclusive " "
          ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ───────────────────── end opts_exclusive ────────
         - opts_exclusive "`coeflegend' `selegend'"
         = opts_exclusive " "
          ─────────────────────────────
> ──────────────────── begin opts_exclusive ────────
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
            }
          - if `n' < 2 {
          = if 0 < 2 {
          - exit
          ─────────────────────────────
> ───────────────────── end opts_exclusive ────────
         - opts_exclusive "`noci' `nopvalues'"
         = opts_exclusive " "
```

```
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local K : list sizeof namelist
                  - gettoken c_diopts c_opts : namelist
                  - opts_exclusive "`coding' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`versus' `compare'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - opts_exclusive "`abbrev' `noabbrev'"
                  = opts_exclusive " "
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local allbaselevels `allbaselevels' `noallbaselevels'
                  = local allbaselevels
                  - local baselevels `baselevels' `nobaselevels'
                  = local baselevels
                  - local emptycells `emptycells' `noemptycells'
                  = local emptycells
                  - local omitted `omitted' `noomitted'
                  = local omitted
                  - local lstretch `lstretch' `nolstretch'
                  = local lstretch
                  - local fvlabel `fvlabel' `nofvlabel'
                  = local fvlabel
                  - local abbrev `abbrev' `noabbrev'
                  = local abbrev
                  - if "`allbaselevels'`baselevels'" == "" {
                  = if "" == "" {
```

```
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
```

```
                  = if 0 {
                    confirm numeric format `pformat'
                    if fmtwidth(`"`pformat'"') > 5 {
                    local pformat "%5.3f"
                    di "{txt}note: invalid pformat(), using default"
                    }
                    sreturn local pformat `"`pformat'"'
                    local pformat `"pformat(`pformat')"'
                    }
                  - if `K' == 1 & `:length local options' {
                  = if 2 == 1 & 0 {
                    syntax namelist(max=2) [, `DIOPTS']
                    }
                  - if reldif(`level', c(level)) > 1e-3 {
                  = if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                    }
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                    ----------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ---------------
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
```

```
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 2 == 2 {
                  - c_local `c_opts' `"`options'"'
                  = c_local  options `""'
                  - }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                - c_local `name2' `"`options'"'
                = c_local options `""'
                - }
                - local DUPS : list DUPS - DEFAULT
                - gettoken DUPS : DUPS
                - if `"`DUPS'"' != "" {
                = if `""' != "" {
                  if (strpos(`"`DUPS'"', "(")) {
                  gettoken DUPS : DUPS, parse("(")
                  local DUPS `"`DUPS'()"'
                  }
                  di as err "duplicate {bf:`DUPS'} option not allowed"
                  exit 198
                  }
                - sreturn clear
                - foreach sname of local snames {
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local level = `"95"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local k = `"7"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local k_fill = `"7"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local optlist = `"CLuster"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local namelist = `"cluster"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local deriv = `"0"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local log = `"log"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local before = `"PCAUX "'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local after = `"aux"'
                - }
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _get_diopts ───────────────
              - _get_eformopts , eformopts(`options') soptions allowed(__all__
> )
              = _get_eformopts , eformopts() soptions allowed(__all__)
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin _get_eformopts ───────────────
                - version 8.0
                - syntax [, eformopts(string asis) soptions ALLOWed(string) ]
                - local 0 , `eformopts'
                = local 0 ,
                - local EFALL NOHR hr NOSHR shr or IRr RRr tr TRatio
                - if "`soptions'" != "" {
                = if "soptions" != "" {
                - syntax [, EForm1(passthru) EForm `EFALL' * ]
                = syntax [, EForm1(passthru) EForm NOHR hr NOSHR shr or IRr RR
```

```
> r tr TRatio * ]
                - local opts `"`options'"'
                = local opts `""'
                - local 0 , `eform1' `eform' `nohr' `hr' `noshr' `shr' `or' `i
> rr' `rrr' `tr' `tratio'
                = local 0 ,
                - }
                - if "`allowed'" == "__all__" {
                = if "__all__" == "__all__" {
                - local allowed `EFALL'
                = local allowed NOHR hr NOSHR shr or IRr RRr tr TRatio
                - }
                - foreach ef of local allowed {
                - capture confirm name `ef'
                = capture confirm name NOHR
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts  nohr
                - }
                - capture confirm name `ef'
                = capture confirm name hr
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr
                - }
                - capture confirm name `ef'
                = capture confirm name NOSHR
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr noshr
                - }
                - capture confirm name `ef'
                = capture confirm name shr
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
```

```
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr
- }
- capture confirm name `ef'
= capture confirm name or
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or
- }
- capture confirm name `ef'
= capture confirm name IRr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr
- }
- capture confirm name `ef'
= capture confirm name RRr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr rrr
- }
- capture confirm name `ef'
= capture confirm name tr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr rrr tr
- }
- capture confirm name `ef'
= capture confirm name TRatio
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
```

```
        = local efopts nohr hr noshr shr or irr rrr tr tratio
        - }
        - local efopts : list uniq efopts
        - syntax [, EForm1(string) EForm `allowed' ]
        = syntax [, EForm1(string) EForm NOHR hr NOSHR shr or IRr RRr
> tr TRatio ]
        - foreach ef of local efopts {
        - local eform `eform' ``ef''
        = local eform
        - }
        - local eform `eform' ``ef''
        = local eform
        - }
        - local eform `eform' ``ef''
        = local eform
        - }
        - local eform `eform' ``ef''
        = local eform
        - }
        - local eform `eform' ``ef''
        = local eform
        - }
        - local eform `eform' ``ef''
        = local eform
        - }
        - local eform `eform' ``ef''
        = local eform
        - }
        - local eform `eform' ``ef''
        = local eform
        - }
        - local eform `eform' ``ef''
        = local eform
        - }
        - if `"`eform1'"'=="Odds ratio" {
        = if `""'=="Odds ratio" {
          local eform_cons_ti = "Odds"
          local eform_cons_note = "odds ratios"
          }
        - else if `"`eform1'"'=="Haz. ratio" {
        = else if `""'=="Haz. ratio" {
          local eform_cons_ti = "Hazard"
          local eform_cons_note = "hazard ratios"
          }
        - else if `"`eform1'"'=="Time ratio" {
        = else if `""'=="Time ratio" {
```

```
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
  }
- else if `"`eform1'"'=="IRR" {
= else if `""'=="IRR" {
  local eform_cons_ti = "Inc. rate"
  local eform_cons_note = "incidence-rate ratios"
  local eform_cons_ti2 = "incidence rate"
  }
- else if `"`eform1'"'=="Risk ratio" {
= else if `""'=="Risk ratio" {
  local eform_cons_ti = "Risk"
  local eform_cons_note = "risk ratios"
  }
- else if `"`eform1'"'=="Hlth ratio" {
= else if `""'=="Hlth ratio" {
  local eform_cons_ti = "Health"
  local eform_cons_note = "health ratios"
  }
- local k : list sizeof eform
- if `k' {
= if 0 {
  opts_exclusive "`eform'"
  if `:length local eform1' {
  opts_exclusive "eform() `eform'"
  }
  }
- if `k' {
= if 0 {
  if ("`eform'"=="eform") local eform1 = "exp(b)"
  else if ("`eform'"=="hr") {
  local eform1 = "Haz. ratio"
  local eform_cons_ti = "Hazard"
  local eform_cons_note = "hazard ratios"
  }
  else if ("`eform'"=="shr") {
  local eform1 = "SHR"
  local eform_cons_ti = "Subhazard"
  local eform_cons_note = "subhazard ratios"
  }
  else if ("`eform'"=="tr") {
  local eform1 = "Time ratio"
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
  }
  else if ("`eform'"=="tratio") {
```

```
                  local eform1 = "Time ratio"
                  local eform_cons_ti = "Time"
                  local eform_cons_note = "time ratios"
                  }
                  else if ("`eform'"=="or") {
                  local eform1 = "Odds ratio"
                  if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cm
> d)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                  local eform_cons_ti = "Rel. risk"
                  local eform_cons_note = "relative-risk ratios"
                  local eform_cons_ti2 = "relative risk"
                  }
                  else {
                  local eform_cons_ti = "Odds"
                  local eform_cons_note = "odds ratios"
                  }
                  }
                  else if ("`eform'"=="irr") {
                  local eform1 = "IRR"
                  local eform_cons_ti = "Inc. rate"
                  local eform_cons_note = "incidence-rate ratios"
                  local eform_cons_ti2 = "incidence rate"
                  }
                  else if ("`eform'"=="rrr") {
                  local eform1 = "RRR"
                  local eform_cons_ti = "Rel. risk"
                  local eform_cons_note = "relative-risk ratios"
                  local eform_cons_ti2 = "relative risk"
                  }
                  else if ("`eform'"!="nohr") & ("`eform'"!="noshr") {
                  local eform1 = upper("`eform'")
                  }
                  }
                - sreturn clear
                - sreturn local options `"`opts'"'
                = sreturn local options `""'
                - sreturn local opt `eform'
                = sreturn local opt
                - sreturn local str `eform1'
                = sreturn local str
                - if `"`eform1'"' != "" {
                = if `""' != "" {
                  sreturn local eform eform(`"`eform1'"')
                  }
                - else sreturn local eform ""
                - sreturn local eform_cons_ti `eform_cons_ti'
                = sreturn local eform_cons_ti
                - sreturn local eform_cons_note `eform_cons_note'
                = sreturn local eform_cons_note
                - sreturn local eform_cons_ti2 `eform_cons_ti2'
                = sreturn local eform_cons_ti2
                ──────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _get_eformopts ───────────────
              - local eform `s(eform)'
              = local eform
              - local diparm `s(options)'
              = local diparm
              - _get_diparmopts , diparmopts(`diparm') level(`level')
              = _get_diparmopts , diparmopts() level(95)
                ──────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _get_diparmopts ───────────────
                - if _caller() < 8.2 {
                  _get_diparmopts_8 `0'
                  exit
                  }
                - version 9
                - local version : di "version " string(_caller()) ":"
                - syntax [, diparmopts(string asis) EXECute soptions bottom pl
> us SYNTAXonly * ]
                - local goptions `options'
                = local goptions level(95)
                - SpliceGlobals junk , `goptions'
                = SpliceGlobals junk , level(95)
                  ────────────────────────────────────────────────────────────
> ──────────────────────── begin _get_diparmopts.SpliceGlobals ───────────────
                  - syntax name(id="macro name" name=c_diparm) [, diparm(strin
> g asis) Level(cilevel) dof(passthru) syntaxonly ]
                  - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                  = if `""' == "" & `""' != "" {
                    capture confirm integer number `e(df_r)'
                    if !c(rc) {
                    local gdof dof(`e(df_r)')
                    }
                    capture
                    }
                  - else local gdof `"`dof'"'
                  = else local gdof `""'
                  - local glevel `level'
                  = local glevel 95
                  - local lopt level(`glevel')
                  = local lopt level(95)
                  - if (`"`diparm'"' == "") exit
                  = if (`""' == "") exit
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── end _get_diparmopts.SpliceGlobals ───────────────
                - local 0 `", `diparmopts'"'
                = local 0 `", "'
                - local diparmopts
                - local k 0
                - syntax [, diparm(string asis) * ]
                - while `"`diparm'"' != "" {
                = while `""' != "" {
                  local ++k
                  local single 1
                  local after
                  capture _on_colon_parse `diparm'
                  if !c(rc) {
                  local single 0
                  local diparm `"`s(before)'"'
                  local after `"`s(after)'"'
                  }
                  capture
                  SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptio
> ns'
                  local diparm`k' `"`diparm'"'
                  local diparmopts `"`diparmopts' : `diparm'"'
                  if `single' | `"`:list retok after'"' == "" {
                  local 0 `", `options'"'
                  syntax [, diparm(string asis) * ]
                  }
                  else {
                  local diparm `"`after'"'
                  }
                  }
                - if `"`soptions'"' == "" {
                = if `""' == "" {
                - syntax [, diparm(string asis) ]
                - }
                - if ("`execute'" == "") {
                = if ("" == "") {
                - sreturn clear
                - sreturn local options `"`options'"'
                = sreturn local options `""'
                - sreturn local diparm `"`diparmopts'"'
                = sreturn local diparm `""'
                - forval i = 1/`k' {
                = forval i = 1/0 {
                  sreturn local diparm`i' `"`diparm`i''"'
                  }
                - sreturn local k `k'
                = sreturn local k 0
                - exit
                ──────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _get_diparmopts ───────────────
              - if "`header'"=="" {
              = if ""=="" {
              - _coef_table_header, `title'
              = _coef_table_header,
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _coef_table_header ───────────────
                - version 9
                - if !c(noisily) {
                  exit
                  }
                - syntax [, rclass noHeader obj(string) head1left(numlist max=
> 1 integer >=0) head1right(numlist max=1 integer >=0) head2left(numlist max=1
>  integer >=0) head2right(numlist max=1 integer >=0) head2start(numlist max=1
>  integer >=1) width(numlist max=1 integer >=1) * ]
                - if ("`header'" != "") exit
                = if ("" != "") exit
                - if ("`head2start'" != "" & "`width'" != "") {
                = if ("" != "" & "" != "") {
                  opts_exclusive "head2start() width()"
                  exit 198
                  }
                - local has_obj = (`"`obj'"' != "")
                = local has_obj = (`""' != "")
                - if (`has_obj' == 0) {
                = if (0 == 0) {
                - tempname obj
                - }
                - if ("`rclass'" != "") {
                = if ("" != "") {
                  tempname rhold
                  _return hold `rhold'
                  }
                - .`obj' = ._coef_table__header.new, `rclass' `options'
                = .__000007 = ._coef_table__header.new,
                  -class _coef_table__header {
                  -        string  result          = "e"
                  -        string  newline         = "display"
                  -        double  opt_dvheader    = 0
                  -        double  opt_modeltest   = 0
                  -        double  opt_cluster     = 0
-        double  opt_rules       = 0
-        double  opt_tvar        = 0
-        double  opt_septitle    = 0
-        double  linesize        = 0
-        string  title           = ""
-        string  title2          = ""
-        string  groupvar        = ""
-        string  intmethod       = ""
-        double  intpoints       = -1
-        string  cmd             = ""
-        string  cmd2            = ""
-        string  prefix          = ""
-        double  is_prefix       = 0
-        double  is_svy          = 0
-        double  is_margins      = 0
-        double  is_gsem         = 0
-        double  is_gsem_group   = 0
-        double  is_sem          = 0
-        double  is_areg         = 0
-        double  is_demand       = 0
-        double  is_demandn      = 0
-        double  is_bacon        = 0
-        double  is_htedid       = 0
-        double  is_sum          = 0
-        double  is_tab          = 0
-        double  is_r2_p         = 1
-        double  is_multclust    = 0
-        double  is_stintcox     = 0
-        double  is_bmareg       = 0
-        double  prop_pushtitle  = 0
-        double  prop_groupvar   = 0
-        double  prop_censlimits = 0
-        double  prop_censored   = 0
-        double  prop_nouncensored        = 0
-        double  prop_iselected  = 0
-        double  prop_selected   = 0
-        double  prop_groups     = 0
-        double  prop_balance    = 0
-        double  ablen           = 16
-        double  width           = 78
-        double  c1              = 1
-        double  c2              = 16
-        double  c2a             = 16
-        double  c3              = 49
-        double  c4              = 67
-        double  c2wfmt          = 10
```

```
                  -        double  c4wfmt          = 10
                  -        string  scheme          = "ml"
                  -        double lalignr          = 0
                  -        double ralignr          = 0
                  -        double lalignl          = 0
                  -        double ralignl          = 0
                  -        double lalignla         = 0
                  -        double ralignla         = 0
                  -        array   left
                  -        array   right
                  -}
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────── begin _coef_table__header.new ───────────────
                  - version 16
                  - syntax [, rclass noDVHeader noMODELtest TItle(string asis)
>  nocluster noRULES noTVAR SEPTITLE linesize(int 0) ]
                  - if "`rclass'" != "" {
                  = if "" != "" {
                    .result = "r"
                    }
                  - if "`dvheader'" == "" {
                  = if "" == "" {
                  - .opt_dvheader = 1
                  - }
                  - if "`modeltest'" == "" {
                  = if "" == "" {
                  - .opt_modeltest = 1
                  - }
                  - if "`cluster'" == "" {
                  = if "" == "" {
                  - .opt_cluster = 1
                  - }
                  - if "`rules'" == "" {
                  = if "" == "" {
                  - .opt_rules = 1
                  - }
                  - if "`tvar'" == "" {
                  = if "" == "" {
                  - .opt_tvar = 1
                  - }
                  - if "`septitle'" != "" {
                  = if "" != "" {
                    .opt_septitle = 1
                    }
                  - .linesize = `linesize'
                  = .linesize = 0
```

```
                    - .title = `"`title'"'
                    = .title = `""'
                    - if `"`.result'"' == "e" {
                    = if `"e"' == "e" {
                    - .New4e
                      ---------------------------------------------------------
> ---------------------------- begin _coef_table__header.New4e ---------------
                      - version 16
                      - .cmd = "`e(cmd)'"
                      = .cmd = "nbreg"
                      - .cmd2 = "`e(cmd2)'"
                      = .cmd2 = ""
                      - .prefix = "`e(prefix)'"
                      = .prefix = ""
                      - if `"`.prefix'"' != "" {
                      = if `""' != "" {
                        .is_prefix = 1
                        }
                      - if "`.prefix'" == "svy" {
                      = if "" == "svy" {
                        .is_svy = 1
                        }
                      - if "`.cmd'" == "margins" {
                      = if "nbreg" == "margins" {
                        .is_margins = 1
                        }
                      - if inlist("`.cmd'", "contrast", "pwcompare") {
                      = if inlist("nbreg", "contrast", "pwcompare") {
                        if "`.cmd2'" == "margins" {
                        .is_margins = 1
                        }
                        }
                      - if "`.cmd'" == "gsem" | "`.cmd2'" == "gsem" {
                      = if "nbreg" == "gsem" | "" == "gsem" {
                        .is_gsem = 1
                        }
                      - if "`.cmd'" == "sem" {
                      = if "nbreg" == "sem" {
                        .is_sem = 1
                        }
                      - if "`.cmd'" == "areg" {
                      = if "nbreg" == "areg" {
                        .is_areg = 1
                        }
                      - if ("`.cmd'" == "demandsys" & `"`e(doheader)'"'=="yes")
> {
```

```
                    = if ("nbreg" == "demandsys" & `""'=="yes") {
                      .is_demand = 1
                      }
                    - if ("`.cmd'" == "demandsys") {
                    = if ("nbreg" == "demandsys") {
                      .is_demandn = 1
                      }
                    - if ("`.cmd'" == "xthdidregress" & "`e(inestat)'"=="") {
                    = if ("nbreg" == "xthdidregress" & ""=="") {
                      .is_htedid = 1
                      }
                    - if "`.cmd'" == "stintcox" {
                    = if "nbreg" == "stintcox" {
                      .is_stintcox = 1
                      }
                    - if "`.cmd'" == "bdecomp" {
                    = if "nbreg" == "bdecomp" {
                      .is_bacon = 1
                      }
                    - if "`.cmd'" == "bmaregress" {
                    = if "nbreg" == "bmaregress" {
                      .is_bmareg = 1
                      }
                    - is_svysum `.cmd'
                    = is_svysum nbreg
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────────── begin is_svysum ───────────────
                      - version 9
                      - local SvySum mean prop proportion ratio total
                      - if `"`0'"' != "" & `:list 0 in SvySum' {
                      = if `"nbreg"' != "" & 0 {
                        return scalar is_svysum = 1
                        }
                      - else return scalar is_svysum = 0
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────────────── end is_svysum ───────────────
                    - .is_sum = r(is_svysum)
                    - if `.is_svy' {
                    = if 0 {
                      if "`.cmd'" == "tabulate" {
                      .is_tab = 1
                      }
                      }
                    - if `.is_gsem' {
                    = if 0 {
                      if `"`e(groupvar)'"' != "" & "`.cmd2'" == "" {
                          .is_gsem_group = 1
                          }
                          }
                        - local clustvars `e(clustvar)'
                        = local clustvars
                        - local kclvar : list sizeof clustvars
                        - .is_multclust = ((`kclvar'>1) & ("`e(kcluster)'"=="matri
> x"))
                        = .is_multclust = ((0>1) & (""=="matrix"))
                        - if `.is_multclust' {
                        = if 0 {
                          .prop_pushtitle = 1
                          }
                        - local c2pfix 20
                        - if `.is_sem' | `.is_gsem_group' {
                        = if 0 | 0 {
                          local crlen `"`e(crittype)'"'
                          local crlen : smcllength local crlen
                          if `crlen' >= `c2pfix' {
                          local c2pfix = `crlen' + 2
                          }
                          }
                        - if `.is_sum' {
                        = if 0 {
                          if `.linesize' > 62 {
                          local offset = `.linesize' - 62
                          }
                          else local offset 0
                          .width = 62 + `offset'
                          .c2 = 18
                          .c3 = 35 + `offset'
                          .c4 = 51 + `offset'
                          .c2wfmt = 7
                          .c4wfmt = 10
                          .scheme = "compact"
                          }
                        - else if `.is_prefix' | `.is_sem' | `.is_gsem_group' {
                        = else if 0 | 0 | 0 {
                          .width = 78
                          .c2 = `c2pfix'
                          .c3 = 49
                          .c4 = 67
                          .c2wfmt = 9
                          .c4wfmt = 10
                          .scheme = "svy"
                          }
```

```
                    - if `.is_svy' {
                    = if 0 {
                      local maxlen = `.width'-`.c2'-(`.c2wfmt'+2)-2-(`.c4'-`.c
> 3')-2
                      if `maxlen' > 19 {
                      local maxlen 19
                      }
                      local len : display %`maxlen'.0fc e(N_pop)
                      local len : list retok len
                      local len : length local len
                      local ++maxlen
                      local ++len
                      if `.c4wfmt' <= `len' & `len' <= `maxlen' {
                      .c3 = `.c3' + `.c4wfmt' - `len'
                      .c4 = `.c4' + `.c4wfmt' - `len'
                      .c4wfmt = `len'
                      }
                      }
                    ───────────────────────────────────────────────────────────
> ────────────────────────────── end _coef_table__header.New4e ────────────────
                  - }
                  - else {
                    .New4r
                    }
                  - local props `"`.Macro _coef_table_props'"'
                    ───────────────────────────────────────────────────────────
> ──────────────────────────── begin _coef_table__header.Macro ────────────────
                    - version 16
                    - class exit `"``.result'(`0')'"'
                    = class exit `""'
                    ───────────────────────────────────────────────────────────
> ────────────────────────────── end _coef_table__header.Macro ────────────────
                  = local props `""'
                  - if `.is_sem' | `.is_gsem_group' | `:list posof "pushtitle"
>  in props' {
                  = if 0 | 0 | 0 {
                    .prop_pushtitle = 1
                    }
                  - if (`.is_demand'| `.is_htedid') {
                  = if (0| 0) {
                    .prop_pushtitle = 1
                    }
                  - if (`.is_bmareg') {
                  = if (0) {
                    .prop_pushtitle = 1
                    }
                  - if `.is_sem' | `.is_gsem_group' | `:list posof "groupvar"
> in props' {
                  = if 0 | 0 | 0 {
                    .prop_groupvar = 1
                    }
                  - local list tobit cpoisson ivtobit metobit xttobit
                  - local list2 metobit
                  - if `:list posof "`.cmd'" in list' | `:list posof "`.cmd2'"
>  in list2' | `:list posof "censlimits" in props' {
                  = if 0 | 0 | 0 {
                    .prop_censlimits = !missing(e(N_unc))
                    }
                  - local list intreg tobit cpoisson ivtobit eintreg xtintreg
> xttobit
                  - local list2 meintreg metobit stintreg
                  - if `:list posof "`.cmd'" in list' | `:list posof "`.cmd2'"
>  in list2' | `:list posof "censored" in props' {
                  = if 0 | 0 | 0 {
                    .prop_censored = !missing(e(N_unc))
                    }
                  - if `:list posof "nouncensored" in props' {
                  = if 0 {
                    .prop_nouncensored = 1
                    }
                  - local list eintreg
                  - if `:list posof "`.cmd'" in list' | `:list posof "iselecte
> d" in props' {
                  = if 0 | 0 {
                    .prop_iselected = 1
                    }
                  - local list eregress eprobit eoprobit
                  - if `:list posof "`.cmd'" in list' | `:list posof "selected
> " in props' {
                  = if 0 | 0 {
                    .prop_selected = 1
                    }
                  - if `:list posof "groups" in props' {
                  = if 0 {
                    .prop_groups = 1
                    .groupvar = "`e(repanvar)'"
                    .intmethod = "`e(reintmethod)'"
                    .intpoints = e(reintpoints)
                    }
                  - local list xtreg xtprobit xtlogit xtcloglog xtfrontier xti
> ntreg xtnbreg
                  - local list `list' xtpoisson xttobit xtmlogit xtrc
```

```
                 = local list xtreg xtprobit xtlogit xtcloglog xtfrontier xti
> ntreg xtnbreg xtpoisson xttobit xtmlogit xtrc
                 - local list2 xtlogit xtoprobit xtologit xtmlogit
                 - if `:list posof "`.cmd'" in list' | `:list posof "`.cmd2'"
>  in list2' {
                 = if 0 | 0 {
                   .prop_groups = 1
                   .groupvar = "`e(ivar)'"
                   .intmethod = "`e(intmethod)'"
                   .intpoints = e(n_quad)
                   }
                 - if "`.cmd'" == "xtreg" | "`.cmd2'" == "xtlogit" {
                 = if "nbreg" == "xtreg" | "" == "xtlogit" {
                   .is_r2_p = 0
                   }
                 - if `:list posof "balance" in props' {
                 = if 0 {
                   .prop_balance = 1
                   }
                 - .left = {}
                 - .right = {}
                 ------------------------------------------------------------
> -------------------------------- end _coef_table__header.new ---------------
               - if ("`rclass'" != "") {
               = if ("" != "") {
                 _return restore `rhold'
                 .`obj'.New4r
                 }
               - if ("`head1left'" != "") {
               = if ("" != "") {
                 .`obj'.lalignla = `head1left'
                 }
               - if ("`head1right'" != "") {
               = if ("" != "") {
                 .`obj'.ralignla = `head1right'
                 }
               - if ("`head2left'" != "") {
               = if ("" != "") {
                 .`obj'.lalignr = `head2left'
                 }
               - if ("`head2right'" != "") {
               = if ("" != "") {
                 .`obj'.ralignr = `head2right'
                 }
               - if ("`width'" != "") {
               = if ("" != "") {
                  .`obj'.width = `width'
                  }
                - .`obj'.build
                = .__000007.build
                  ────────────────────────────────────────────────────────────
> ──────────────────────────── begin _coef_table__header.build ───────────────
                  - version 16
                  - if `"`.title'"' == "" {
                  = if `""' == "" {
                  - .title = `"`.Macro title'"'
                    ──────────────────────────────────────────────────────────
> ──────────────────────────── begin _coef_table__header.Macro ───────────────
                    - version 16
                    - class exit `"``.result'(`0')'"'
                    = class exit `"Negative binomial regression"'
                    ──────────────────────────────────────────────────────────
> ────────────────────────────── end _coef_table__header.Macro ───────────────
                  = .title = `"Negative binomial regression"'
                  - .title2 = `"`.Macro title2'"'
                    ──────────────────────────────────────────────────────────
> ──────────────────────────── begin _coef_table__header.Macro ───────────────
                    - version 16
                    - class exit `"``.result'(`0')'"'
                    = class exit `""'
                    ──────────────────────────────────────────────────────────
> ────────────────────────────── end _coef_table__header.Macro ───────────────
                  = .title2 = `""'
                  - }
                  - if `.is_areg' {
                  = if 0 {
                    local absvar = abbrev("`e(absvar)'", 22)
                    .title2 = "Absorbed variable: {res:`absvar'}"
                    }
                  - if `.prop_pushtitle' {
                  = if 0 {
                    if `.is_svy' & ("`.cmd'" == "clogit" | "`.cmd'" == "xtmlog
> it" | "`.cmd2'" == "xtmlogit") {
                    }
                    else if `.is_stintcox' | `.is_bmareg' {
                    .PushLeft `"`.title'"'
                    .PushLeft `"`.title2'"'
                    .title = ""
                    .title2 = ""
                    }
                    else {
                    .PushLeft `"`.title'"'
```

```
  if `.is_areg' {
  .PushLeft `"`.title2'"'
  }
  .title = ""
  .title2 = ""
  }
  }
- if `.prop_groupvar' | `.is_gsem_group' {
= if 0 | 0 {
  local groupvar `"`.Macro groupvar'"'
  if (`"`groupvar'"' != "" & `.is_stintcox') {
  local s = cond(`:word count `groupvar''>1, "s","")
  local grpvar = abbrev("`groupvar'",`.ablen')
  .PushLeft "Strata variable`s': {res}`grpvar'"
  }
  else if `"`groupvar'"' != "" {
  local grpvar = abbrev("`groupvar'",`.ablen')
  .PushLeft "Grouping variable: {res}`grpvar'"
  }
  }
- if (`.is_stintcox') {
= if (0) {
  .PushLeft ""
  local ndep = e(k_dv)
  if (`ndep'==2) {
  tokenize `e(depvar)'
  local ltime `1'
  local rtime `2'
  .PushLeft "Event-time interval:"
  .PushLeft "  Lower endpoint: {res}`ltime'"
  .PushLeft "  Upper endpoint: {res}`rtime'"
  if "`e(strata)'" != "" {
  .PushLeft ""
  }
  }
  else {
  .PushLeft "ID variable: {res}`e(id)'"
  .PushLeft "Examination time: {res}`e(depvar)'"
  .PushLeft "Status indicator: {res}`e(status)'"
  }
  }
- if `.is_svy' {
= if 0 {
  .BuildLeft4svy
  }
- else if `.is_prefix' {
```

```
         = else if 0 {
           if !`.is_margins' {
           .Build4strata
           }
           }
         - if (`.is_tab' | `.is_sum') & !missing(`.result'(N_stdize))
>  {
         = if (0 | 0) & !missing(e(N_stdize)) {
           .PushLeft "N. of std strata" " = " "as res" %`.c2wfmt'.0fc
>  `.result'(N_stdize)
           }
         - .Build4tvar
           -----------------------------
> ------------ begin _coef_table__header.Build4tvar --------
           - version 16
           - if `.opt_tvar' == 0 {
           = if 1 == 0 {
             exit
             }
           - if "`.Macro tvar'" == "" {
             ----------------------------
> --------------- begin _coef_table__header.Macro --------
             - version 16
             - class exit `"``.result'(`0')'"'
             = class exit `""'
             ----------------------------
> ---------------- end _coef_table__header.Macro --------
           = if "" == "" {
           - exit
           -----------------------------
> ------------- end _coef_table__header.Build4tvar --------
         - if (!missing(`.Scalar N') & `.is_demandn'==0 & !`.is_bmare
> g') {
           -----------------------------
> -------------- begin _coef_table__header.Scalar --------
           - version 16
           - class exit `"`= `.result'(`0')'"'
           = class exit `"221"'
           -----------------------------
> ---------------- end _coef_table__header.Scalar --------
         = if (!missing(221) & 0==0 & !0) {
         - .PushRight "Number of obs" " = " "as res" %`.c4wfmt'.0fc `
> .Scalar N'
           -----------------------------
> -------------- begin _coef_table__header.Scalar --------
           - version 16
```

```
                    - class exit `"`= `.result'(`0')'"'
                    = class exit `"221"'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────── end _coef_table__header.Scalar ───────────────
                  = .PushRight "Number of obs" " = " "as res" %10.0fc 221
                    ──────────────────────────────────────────────────────────
> ────────────────────────── begin _coef_table__header.PushRight ───────────────
                    - version 16
                    - gettoken tok rest : 0
                    - gettoken eq rest : rest
                    - gettoken dias rest : rest
                    - if `:length local rest' {
                    = if 12 {
                    - local direst = ustrltrim("`: di `rest''")
                    = local direst = ustrltrim("       221")
                    - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                    = .ralignr = max(0, udstrlen("221"))
                    - local len : di `"`tok'"'
                    = local len : di `"Number of obs"'
                    - local len : smcllength local len
                    - .lalignr = max(`.lalignr', `len')
                    = .lalignr = max(0, 13)
                    - .right.Arrpush \`.C3' `"{lalign \`.lalignr':`tok'}"' \`.
> C4' "`eq'" `dias' "{ralign \`.ralignr':`direst'}"
                    = .right.Arrpush `.C3' `"{lalign `.lalignr':Number of obs}
> "' `.C4' " = " as res "{ralign `.ralignr':221}"
                    - }
                    - else if `:length local tok' {
                    = else if 13 {
                      .right.Arrpush \`.C3' `"`tok'"'
                      }
                    - else {
                      .right.Arrpush
                      }
                    ──────────────────────────────────────────────────────────
> ──────────────────────────── end _coef_table__header.PushRight ───────────────
                  - }
                  - if `.is_demandn' {
                  = if 0 {
                    if (e(N_estat_dsys)==.|"`e(N_estat_dsys)'"=="") {
                    .PushRight "Number of obs" " = " "as res" %`.c4wfmt'.0fc `
> .Scalar N'
                    }
                    else {
                    .PushRight "Number of obs" " = " "as res" %`.c4wfmt'.0fc e
> (N_estat_dsys)
```

```
                    }
                    }
                  - if `.is_demand' {
                  = if 0 {
                    .PushRight "Number of goods" " = " "as res" %`.c4wfmt'.0fc
>  e(n_goods)
                    .PushLeft "Expenditure variable: {result:`e(expenditures)'
> }"
                    }
                  - if `.is_demand' {
                  = if 0 {
                    if (`"`e(piconstant)'"'!="") {
                    .PushRight "Price index constant" " = " "as res" %`.c2wfmt
> '.4gc e(piconstant)
                    .PushLeft ""
                    }
                    if (e(n_demos)>0) {
                    local scaling = strproper("`e(demo_type)'")
                    .PushLeft `"Demographic method: {text:`scaling'}"'
                    .PushRight "Number of demographics" " = " "as res" %`.c2wf
> mt'.0fc e(n_demos)
                    }
                    .PushLeft ""
                    local rsquare = strproper("`e(r2_type)'")
                    .PushLeft `"`rsquare' R2 of model for"'
                    local kdem = e(k_eq_old) + 1
                    local labels `"`e(labels)'"'
                    forvalues i=1/`kdem' {
                    if (`"`labels'"'=="") {
                    .PushLeft "  Good `i'" " = " "as res" %`.c2wfmt'.4f e(r2_`
> i')
                    }
                    else {
                    local xdm: word `i' of `labels'
                    .PushLeft "  `xdm'" " = " "as res" %`.c2wfmt'.4f e(r2_`i')
                    }
                    }
                    .PushLeft ""
                    }
                  - if `.is_bacon' {
                  = if 0 {
                    .PushLeft "ATET" " = " "as res" %`.c2wfmt'.0g `e(atet)'
                    .PushRight "Number of groups" " = " "as res" %`.c4wfmt'.0f
> c `e(N_groups)'
                    .PushRight "Number of cohorts" " = " "as res" %`.c4wfmt'.0
> fc `e(N_timing)'
```

```
                    }
                  - if `.is_bmareg' {
                  = if 0 {
                    local heredlab = proper("`e(heredity)'")
                    .PushLeft "`e(sampling_lab)'"
                    if "`heredlab'" != "" {
                    .PushLeft "Heredity: {txt}`heredlab'"
                    if !missing(e(burnin)) {
                    .PushLeft ""
                    }
                    }
                    else if !missing(e(burnin)) {
                    .PushLeft ""
                    .PushLeft ""
                    }
                    .PushLeft ""
                    .PushLeft "Priors:"
                    .PushLeft "  Models: {txt}`e(mprior_lab)'"
                    .PushLeft "   Cons.: Noninformative"
                    .PushLeft "   Coef.: Zellner's g"
                    .PushLeft "       g: {txt}`e(gprior_lab)'"
                    .PushLeft "  sigma2: Noninformative"
                    if !missing(e(burnin)) {
                    .PushLeft
                    .PushLeftRalign "{help j_bmaregress_sampcorr:Sampling corr
> elation}" " = " "as res" %`.c4wfmt'.4f e(sampcorr)
                    }
                    .PushRight "No. of obs" " = " "as res" %`.c4wfmt'.0fc `.Sc
> alar N'
                    .PushRight "No. of predictors" " = " "as res" %`.c4wfmt'.0
> fc e(p)
                    .PushRightRalign "Groups" " = " "as res" %`.c4wfmt'.0fc e(
> p_groups)
                    .PushRightRalign "Always" " = " "as res" %`.c4wfmt'.0fc e(
> p_always)
                    .PushRight "No. of models" " = " "as res" %`.c4wfmt'.0fc e
> (k_models)
                    .PushRightRalign "For CPMP >= .9" " = " "as res" %`.c4wfmt
> '.0fc e(k_models_cpmp)
                    .PushRight "Mean model size" " = " "as res" %`.c4wfmt'.3f
> e(msize_mean)
                    if !missing(e(burnin)) {
                    .PushRight "Burn-in" " = " "as res" %`.c4wfmt'.0fc e(burni
> n)
                    .PushRight "MCMC sample size" " = " "as res" %`.c4wfmt'.0f
> c e(mcmcsize)
```

```
                    .PushRight "Acceptance rate" " = " "as res" %`.c4wfmt'.4f
> e(arate)
                    }
                    else {
                    if "`heredlab'" != "" {
                    .PushRight
                    }
                    .PushRight
                    }
                    if !missing(e(shrinkage)) {
                    .PushRight "Shrinkage, g/(1+g)" " = " "as res" %`.c4wfmt'.
> 4f e(shrinkage)
                    }
                    else {
                    .PushRight ""
                    }
                    if (e(sigma2) < 1e-3) {
                    local sigfmt 8.4g
                    }
                    else {
                    local sigfmt `.c4wfmt'.3f
                    }
                    .PushRight "Mean sigma2" " = " "as res" %`sigfmt' e(sigma2
> )
                    }
                  - if `.is_htedid' {
                  = if 0 {
                    .PushRight "Number of panels" " = " "as res" %`.c4wfmt'.0f
> c e(N_panels)
                    }
                  - if !missing(`.Scalar N_sub') & `.is_stintcox' {
                    ──────────────────────────────────────────────────────────
> ─────────────────────────── begin _coef_table__header.Scalar ───────────────
                    - version 16
                    - class exit `"`= `.result'(`0')'"'
                    = class exit `"."'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────── end _coef_table__header.Scalar ───────────────
                  = if !missing(.) & 0 {
                    .PushRight "Number of subjects" " = " "as res" %`.c4wfmt'.
> 0fc `.Scalar N_sub'
                    }
                  - if `.is_areg' {
                  = if 0 {
                    .PushRight "No. of categories" " = " "as res" %`.c4wfmt'.0
> fc e(k_absorb)
```

```
                    }
                  - if `.is_sem' | `.is_gsem_group' {
                  = if 0 | 0 {
                    if `"`.Macro groupvar'"' != "" {
                    .PushRight "Number of groups" " = " "as res" %`.c4wfmt'.0f
> c `.Scalar N_groups'
                    }
                    }
                  - if `.is_sem' & !`.is_svy' {
                  = if 0 & !0 {
                    .PushLeft `"Estimation method: {res:`.Macro method'}"'
                    }
                  - if `.prop_selected' {
                  = if 0 {
                    .Build4selected
                    }
                  - if `.is_svy' {
                  = if 0 {
                    .BuildRight4svy
                    if `.prop_censored' {
                    .PushRight
                    .Build4censobs "header"
                    .PushRight
                    }
                    }
                  - else {
                  - if `.is_margins' {
                  = if 0 {
                    .Build4subpop
                    }
                  - if `.prop_iselected' {
                  = if 0 {
                    .Build4title
                    .Build4iselected
                    }
                  - if `.prop_censored' {
                  = if 0 {
                    .Build4title
                    .Build4censobs
                    if !`.is_prefix' {
                    .PushRight
                    }
                    }
                  - .Build4cluster
                    ──────────────────────────────────────────────────────────
> ──────────────────── begin _coef_table__header.Build4cluster ───────────────
```

```
                         - version 16
                         - if `.is_multclust' {
                         = if 0 {
                           .Build4mclust
                           exit
                           }
                         - if missing(`.Scalar N_clust') {
                           ---------------------------------------------------------
> --------------------------- begin _coef_table__header.Scalar ---------------
                           - version 16
                           - class exit `"`= `.result'(`0')'"'
                           = class exit `"."'
                           ---------------------------------------------------------
> ----------------------------- end _coef_table__header.Scalar ---------------
                         = if missing(.) {
                         - exit
                         -----------------------------------------------------------
> ---------------------- end _coef_table__header.Build4cluster ---------------
                       - .Build4reps
                         -----------------------------------------------------------
> ----------------------- begin _coef_table__header.Build4reps ---------------
                         - version 16
                         - if !missing(`.Scalar N_reps') {
                           ---------------------------------------------------------
> --------------------------- begin _coef_table__header.Scalar ---------------
                           - version 16
                           - class exit `"`= `.result'(`0')'"'
                           = class exit `"."'
                           ---------------------------------------------------------
> ----------------------------- end _coef_table__header.Scalar ---------------
                         = if !missing(.) {
                           .PushRight "Replications" " = " "as res" %`.c4wfmt'.0fc
> `.Scalar N_reps'
                           if `.prop_censored' & !`.is_svy' {
                           .PushRight
                           }
                           }
                         -----------------------------------------------------------
> ------------------------- end _coef_table__header.Build4reps ---------------
                       - }
                       - if `.prop_groups' {
                       = if 0 {
                         .Build4groups
                         }
                       - if `.is_stintcox' & "`e(strata)'" != "" {
                       = if 0 & "" != "" {
```

```
                    if `ndep' == 2 {
                    .PushRight
                    }
                    }
                  - .Build4modeltest
                    ───────────────────────────────────────────────────────────
> ────────────────── begin _coef_table__header.Build4modeltest ────────────────
                    - version 16
                    - if "`.result'" != "e" {
                    = if "e" != "e" {
                      exit
                      }
                    - if `.opt_modeltest' == 0 {
                    = if 1 == 0 {
                      exit
                      }
                    - if `"`.Macro k_eq_model'"' == "0" {
                      ─────────────────────────────────────────────────────────
> ──────────────────────────── begin _coef_table__header.Macro ────────────────
                      - version 16
                      - class exit `"``.result'(`0')'"'
                      = class exit `"1"'
                      ─────────────────────────────────────────────────────────
> ────────────────────────────── end _coef_table__header.Macro ────────────────
                    = if `"1"' == "0" {
                      exit
                      }
                    - if missing(`.Scalar df_m') {
                      ─────────────────────────────────────────────────────────
> ─────────────────────────── begin _coef_table__header.Scalar ────────────────
                      - version 16
                      - class exit `"`= `.result'(`0')'"'
                      = class exit `"5"'
                      ─────────────────────────────────────────────────────────
> ───────────────────────────── end _coef_table__header.Scalar ────────────────
                    = if missing(5) {
                      exit
                      }
                    - if `"`.Macro chi2'"' != "" | `"`.Macro df_r'"' == "" {
                      ─────────────────────────────────────────────────────────
> ──────────────────────────── begin _coef_table__header.Macro ────────────────
                      - version 16
                      - class exit `"``.result'(`0')'"'
                      = class exit `"207.7161490415197"'
                      ─────────────────────────────────────────────────────────
> ────────────────────────────── end _coef_table__header.Macro ────────────────
```

```
                      ────────────────────────────────────────────────────────
> ──────────────────────────── begin _coef_table__header.Macro ────────────────
                      - version 16
                      - class exit `"``.result'(`0')'"'
                      = class exit `""'
                      ────────────────────────────────────────────────────────
> ────────────────────────────── end _coef_table__header.Macro ────────────────
                    = if `"207.7161490415197"' != "" | `""' == "" {
                    - .Build4chi2test
                      ────────────────────────────────────────────────────────
> ─────────────────── begin _coef_table__header.Build4chi2test ────────────────
                      - version 16
                      - local type `e(chi2type)'
                      = local type Wald
                      - if `"`type'"' == "" {
                      = if `"Wald"' == "" {
                        local type Wald
                        }
                      - local didf = strtrim("`: di e(df_m)'")
                      = local didf = strtrim("5")
                      - if !missing(e(chi2)) {
                      - .PushRight "`type' chi2({res:`didf'})" " = " "as res"
> %`.c4wfmt'.2f e(chi2)
                      = .PushRight "Wald chi2({res:5})" " = " "as res" %10.2f
> e(chi2)
                        ──────────────────────────────────────────────────────
> ──────────────────────── begin _coef_table__header.PushRight ────────────────
                        - version 16
                        - gettoken tok rest : 0
                        - gettoken eq rest : rest
                        - gettoken dias rest : rest
                        - if `:length local rest' {
                        = if 15 {
                        - local direst = ustrltrim("`: di `rest''")
                        = local direst = ustrltrim("    207.72")
                        - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                        = .ralignr = max(3, udstrlen("207.72"))
                        - local len : di `"`tok'"'
                        = local len : di `"Wald chi2({res:5})"'
                        - local len : smcllength local len
                        - .lalignr = max(`.lalignr', `len')
                        = .lalignr = max(13, 12)
                        - .right.Arrpush \`.C3' `"{lalign \`.lalignr':`tok'}"'
>  \`.C4' "`eq'" `dias' "{ralign \`.ralignr':`direst'}"
                        = .right.Arrpush `.C3' `"{lalign `.lalignr':Wald chi2(
> {res:5})}"' `.C4' " = " as res "{ralign `.ralignr':207.72}"
```

```
                        - }
                        - else if `:length local tok' {
                        = else if 18 {
                          .right.Arrpush \`.C3' `"`tok'"'
                          }
                        - else {
                          .right.Arrpush
                          }
                        ──────────────────────────────────────────────────────
> ────────────────────────── end _coef_table__header.PushRight ───────────────
                      - .PushRight "Prob > chi2" " = " "as res" %`.c4wfmt'.4f
> chi2tail(e(df_m),e(chi2))
                      = .PushRight "Prob > chi2" " = " "as res" %10.4f chi2tai
> l(e(df_m),e(chi2))
                        ──────────────────────────────────────────────────────
> ──────────────────────── begin _coef_table__header.PushRight ───────────────
                        - version 16
                        - gettoken tok rest : 0
                        - gettoken eq rest : rest
                        - gettoken dias rest : rest
                        - if `:length local rest' {
                        = if 33 {
                        - local direst = ustrltrim("`: di `rest''")
                        = local direst = ustrltrim("    0.0000")
                        - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                        = .ralignr = max(6, udstrlen("0.0000"))
                        - local len : di `"`tok'"'
                        = local len : di `"Prob > chi2"'
                        - local len : smcllength local len
                        - .lalignr = max(`.lalignr', `len')
                        = .lalignr = max(13, 11)
                        - .right.Arrpush \`.C3' `"{lalign \`.lalignr':`tok'}"'
>  \`.C4' "`eq'" `dias' "{ralign \`.ralignr':`direst'}"
                        = .right.Arrpush `.C3' `"{lalign `.lalignr':Prob > chi
> 2}"' `.C4' " = " as res "{ralign `.ralignr':0.0000}"
                        - }
                        - else if `:length local tok' {
                        = else if 11 {
                          .right.Arrpush \`.C3' `"`tok'"'
                          }
                        - else {
                          .right.Arrpush
                          }
                        ──────────────────────────────────────────────────────
> ────────────────────────── end _coef_table__header.PushRight ───────────────
                      - }
                      - else {
                        local j_robust "{help j_robustsingular##|_new:`type' c
> hi2(`didf')}"
                        .PushRight "`j_robust'" " = " "as res" %`.c4wfmt's "."
                        .PushRight "Prob > chi2" " = " "as res" %`.c4wfmt's ".
> "
                        }
                      ─────────────────────────────────────────────────────────
> ────────────────────── end _coef_table__header.Build4chi2test ────────────────
                    - }
                    - else {
                      .Build4Ftest
                      }
                    ───────────────────────────────────────────────────────────
> ───────────────────── end _coef_table__header.Build4modeltest ────────────────
                  - .Build4r2
                    ───────────────────────────────────────────────────────────
> ────────────────────────── begin _coef_table__header.Build4r2 ────────────────
                    - version 16
                    - if "`.result'" != "e" {
                    = if "e" != "e" {
                      exit
                      }
                    - if !missing(e(r2)) {
                      .PushRight "R-squared" " = " "as res" %`.c4wfmt'.4f e(r2
> )
                      }
                    - if !missing(e(r2_p)) & `.is_r2_p' {
                    = if !missing(e(r2_p)) & 1 {
                    - .PushRight "Pseudo R2" " = " "as res" %`.c4wfmt'.4f e(r2
> _p)
                    = .PushRight "Pseudo R2" " = " "as res" %10.4f e(r2_p)
                      ─────────────────────────────────────────────────────────
> ───────────────────────── begin _coef_table__header.PushRight ────────────────
                      - version 16
                      - gettoken tok rest : 0
                      - gettoken eq rest : rest
                      - gettoken dias rest : rest
                      - if `:length local rest' {
                      = if 15 {
                      - local direst = ustrltrim("`: di `rest''")
                      = local direst = ustrltrim("    0.0941")
                      - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                      = .ralignr = max(6, udstrlen("0.0941"))
                      - local len : di `"`tok'"'
                      = local len : di `"Pseudo R2"'
                      - local len : smcllength local len
                      - .lalignr = max(`.lalignr', `len')
                      = .lalignr = max(13, 9)
                      - .right.Arrpush \`.C3' `"{lalign \`.lalignr':`tok'}"' \
> `.C4' "`eq'" `dias' "{ralign \`.ralignr':`direst'}"
                      = .right.Arrpush `.C3' `"{lalign `.lalignr':Pseudo R2}"'
>  `.C4' " = " as res "{ralign `.ralignr':0.0941}"
                      - }
                      - else if `:length local tok' {
                      = else if 9 {
                        .right.Arrpush \`.C3' `"`tok'"'
                        }
                      - else {
                        .right.Arrpush
                        }
                      ────────────────────────────────────────────────────────
> ────────────────────────── end _coef_table__header.PushRight ───────────────
                    - }
                    - if !missing(e(r2_a)) {
                      .PushRight "Adj R-squared" " = " "as res" %`.c4wfmt'.4f
> e(r2_a)
                      }
                    - if !missing(e(rmse)) {
                      .PushRight "Root MSE" " = " "as res" %`.c4wfmt'.4f e(rms
> e)
                      }
                    ──────────────────────────────────────────────────────────
> ─────────────────────────── end _coef_table__header.Build4r2 ───────────────
                  - .Build4title
                    ──────────────────────────────────────────────────────────
> ────────────────────── begin _coef_table__header.Build4title ───────────────
                    - version 16
                    - if `.opt_septitle' {
                    = if 0 {
                      exit
                      }
                    - if `"`.title'"' == "" {
                    = if `"Negative binomial regression"' == "" {
                      exit
                      }
                    - if `.left.arrnels' {
                    = if 0 {
                      exit
                      }
                    - local title `.title'
                    = local title Negative binomial regression
                    - local title2 `.title2'
                    = local title2 
                    - local len : smcllength local title
                    - local len2 : smcllength local title2
                    - if `len2' > `len' {
                    = if 0 > 28 {
                      local len = `len2'
                      }
                    - if `len' < (`.c3' - 2) - (`.c1' - 1) {
                    = if 28 < (49 - 2) - (1 - 1) {
                    - PushLeft `"`.title'"'
                    = PushLeft `"Negative binomial regression"'
                      ─────────────────────────────────────────────────────────
> ───────────────────────── begin _coef_table__header.PushLeft ───────────────
                      - version 16
                      - gettoken tok rest : 0
                      - gettoken eq rest : rest
                      - gettoken dias rest : rest
                      - if `:length local rest' {
                      = if 0 {
                        local direst : di `rest'
                        local direst = strtrim("`direst'")
                        local len : smcllength local direst
                        .ralignl = max(`.ralignl', `len')
                        local len : di `"`tok'"'
                        local len : smcllength local len
                        .lalignl = max(`.lalignl', `len')
                        .left.Arrpush \`.C1' `"{lalign \`.lalignl':`tok'}"' \`
> .C2' "`eq'" `dias' "{ralign \`.ralignl':`direst'}"
                        }
                      - else if `:length local tok' {
                      = else if 28 {
                      - .left.Arrpush \`.C1' `"`tok'"'
                      = .left.Arrpush `.C1' `"Negative binomial regression"'
                      - }
                      - else {
                        .left.Arrpush
                        }
                      ─────────────────────────────────────────────────────────
> ─────────────────────────── end _coef_table__header.PushLeft ───────────────
                    - .title = ""
                    - if `len2' {
                    = if 0 {
                      PushLeft `"`.title2'"'
                      .title2 = ""
                      }
                    - }
                    - .opt_septitle = 1
                    ──────────────────────────────────────────────────────────
> ──────────────────────── end _coef_table__header.Build4title ───────────────
                  - if `.prop_censlimits' {
                  = if 0 {
                    .Build4censlimits 1
                    }
                  - .c2 = `.lalignl' + 1
                  = .c2 = 0 + 1
                  - .c3 = `.width'-`.lalignr'-`.ralignr'-3+1
                  = .c3 = 78-13-6-3+1
                  - .c4 = `.c3' + `.lalignr'
                  = .c4 = 57 + 13
                  - if `.is_gsem' {
                  = if 0 {
                    if `.opt_dvheader' {
                    gsem_depvar_header, left(`.left.objkey') right(`.right.obj
> key') c3(`.c3') c4(`.c4') c4wfmt(`.c4wfmt')
                    }
                    }
                  - .Build4crit
                    ──────────────────────────────────────────────────────────
> ─────────────────────── begin _coef_table__header.Build4crit ───────────────
                    - version 16
                    - if "`.result'" != "e" {
                    = if "e" != "e" {
                      exit
                      }
                    - local offset 1
                    - local hascrit = !missing(`"`e(ll)'"') & !missing(`"`e(cr
> ittype)'"')
                    = local hascrit = !missing(`"-375.2488348997769"') & !miss
> ing(`"log pseudolikelihood"')
                    - if inlist("`e(dispers)'", "mean", "constant") {
                    = if inlist("mean", "mean", "constant") {
                    - if `hascrit' {
                    = if 1 {
                    - local ++offset
                    - local crtype `"`e(crittype)'"'
                    = local crtype `"log pseudolikelihood"'
                    - local clen : length local crtype
                    - .c2 = `clen' + 2
                    = .c2 = 20 + 2
                    - }
                    - local didisp = strtrim("`: di e(dispers)'")
                    = local didisp = strtrim("mean")
                    - local DISPERS `""Dispersion: {res:`didisp'}""'
                    = local DISPERS `""Dispersion: {res:mean}""'
                    - }
                    - .FillLeft `offset'
                    = .FillLeft 2
                      ─────────────────────────────────────────────────────────
> ───────────────────────── begin _coef_table__header.FillLeft ────────────────
                      - version 16
                      - args offset
                      - local kr = `.right.arrnels'
                      = local kr = 4
                      - local kl = `.left.arrnels'
                      = local kl = 1
                      - local diff = `kr' - `kl' - 0`offset'
                      = local diff = 4 - 1 - 02
                      - forval i = 1/`diff' {
                      = forval i = 1/1 {
                      - .left.Arrpush ""
                      - }
                      ─────────────────────────────────────────────────────────
> ─────────────────────────── end _coef_table__header.FillLeft ────────────────
                    - if `"`DISPERS'"' != "" {
                    = if `""Dispersion: {res:mean}""' != "" {
                    - .PushLeft `DISPERS'
                    = .PushLeft "Dispersion: {res:mean}"
                      ─────────────────────────────────────────────────────────
> ───────────────────────── begin _coef_table__header.PushLeft ────────────────
                      - version 16
                      - gettoken tok rest : 0
                      - gettoken eq rest : rest
                      - gettoken dias rest : rest
                      - if `:length local rest' {
                      = if 0 {
                        local direst : di `rest'
                        local direst = strtrim("`direst'")
                        local len : smcllength local direst
                        .ralignl = max(`.ralignl', `len')
                        local len : di `"`tok'"'
                        local len : smcllength local len
                        .lalignl = max(`.lalignl', `len')
                        .left.Arrpush \`.C1' `"{lalign \`.lalignl':`tok'}"' \`
> .C2' "`eq'" `dias' "{ralign \`.ralignl':`direst'}"
                        }
                      - else if `:length local tok' {
                      = else if 22 {
```

```
                      - .left.Arrpush \`.C1' `"`tok'"'
                      = .left.Arrpush `.C1' `"Dispersion: {res:mean}"'
                      - }
                      - else {
                        .left.Arrpush
                        }
                      ─────────────────────────────────────────────────────────
> ─────────────────────────── end _coef_table__header.PushLeft ────────────────
                    - }
                    - local crtype = upper(bsubstr(`"`e(crittype)'"',1,1)) + b
> substr(`"`e(crittype)'"',2,.)
                    = local crtype = upper(bsubstr(`"log pseudolikelihood"',1,
> 1)) + bsubstr(`"log pseudolikelihood"',2,.)
                    - if `.is_sem' & `"`e(critvalue)'"' != "" & !`.is_svy' {
                    = if 0 & `""' != "" & !0 {
                      .PushLeft
                      .PushLeftRalign "`crtype'" " = " "as res" %10.0g e(critv
> alue)

                      }
                    - else if `hascrit' {
                    = else if 1 {
                    - if `.is_gsem_group' {
                    = if 0 {
                      local dill = strtrim("`: di %10.0g e(ll)'")
                      .PushLeft "`crtype' = {res:`dill'}"
                      }
                    - else {
                    - .PushLeftRalign "`crtype'" " = " "as res" %10.0g e(ll)
                    = .PushLeftRalign "Log pseudolikelihood" " = " "as res" %1
> 0.0g e(ll)
                      ─────────────────────────────────────────────────────────
> ─────────────────── begin _coef_table__header.PushLeftRalign ────────────────
                      - version 16
                      - gettoken tok rest : 0
                      - gettoken eq rest : rest
                      - gettoken dias rest : rest
                      - if `:length local rest' {
                      = if 13 {
                      - local direst : di `rest'
                      = local direst : di  %10.0g e(ll)
                      - local direst = strtrim("`direst'")
                      = local direst = strtrim("-375.24883")
                      - local len : smcllength local direst
                      - .ralignla = max(`.ralignla', `len')
                      = .ralignla = max(0, 10)
                      - local len : di `"`tok'"'
                      = local len : di `"Log pseudolikelihood"'
                      - local len : smcllength local len
                      - .lalignla = max(`.lalignla', `len')
                      = .lalignla = max(0, 20)
                      - .left.Arrpush \`.C1' `"{lalign \`.lalignla':`tok'}"' \
> `.C2a' "`eq'" `dias' "{ralign \`.ralignla':`direst'}"
                      = .left.Arrpush `.C1' `"{lalign `.lalignla':Log pseudoli
> kelihood}"' `.C2a' " = " as res "{ralign `.ralignla':-375.24883}"
                      - }
                      - else if `:length local tok' {
                      = else if 20 {
                        .left.Arrpush \`.C1' `"`tok'"'
                        }
                      - else {
                        .left.Arrpush
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────── end _coef_table__header.PushLeftRalign ───────────────
                    - }
                    - }
                    ──────────────────────────────────────────────────────────
> ───────────────────────── end _coef_table__header.Build4crit ───────────────
                  - .c2 = `.lalignl' + 1
                  = .c2 = 0 + 1
                  - .c2a = `.lalignla' + 1
                  = .c2a = 20 + 1
                  - .c3 = `.width'-`.lalignr'-`.ralignr'-3+1
                  = .c3 = 78-13-6-3+1
                  - .c4 = `.c3' + `.lalignr'
                  = .c4 = 57 + 13
                  ────────────────────────────────────────────────────────────
> ────────────────────────────── end _coef_table__header.build ───────────────
                - if ("`head2start'" != "") {
                = if ("" != "") {
                  .`obj'.c3 = `head2start'
                  .`obj'.c4 = `head2start' + `.`obj'.lalignr'
                  .`obj'.width = `head2start' + `.`obj'.lalignr' + `.`obj'.ral
> ignr' + 2
                  }
                - if (`has_obj' == 0) {
                = if (0 == 0) {
                - .`obj'.display
                = .__000007.display
                  ────────────────────────────────────────────────────────────
> ────────────────────────── begin _coef_table__header.display ───────────────
                  - version 16
                  - .ShowRules
                    ──────────────────────────────────────────────────────────
> ──────────────────────── begin _coef_table__header.ShowRules ───────────────
                    - version 16
                    - if "`.result'" != "e" {
                    = if "e" != "e" {
                      exit
                      }
                    - if `.opt_rules' == 0 {
                    = if 1 == 0 {
                      exit
                      }
                    - if !inlist("`.cmd'", "logistic", "logit", "probit") {
                    = if !inlist("nbreg", "logistic", "logit", "probit") {
                    - exit
                    ──────────────────────────────────────────────────────────
> ────────────────────────── end _coef_table__header.ShowRules ───────────────
                  - local nl = `.left.arrnels'
                  = local nl = 4
                  - local nr = `.right.arrnels'
                  = local nr = 4
                  - local K = max(`nl',`nr')
                  = local K = max(4,4)
                  - `.newline'
                  = display

                  - if `"`.title'"' != "" {
                  = if `""' != "" {
                    display as txt `"`.title'"'
                    if `"`.title2'"' != "" {
                    display as txt `"`.title2'"'
                    }
                    if `K' {
                    display
                    }
                    }
                  - forval i = 1/`K' {
                  = forval i = 1/4 {
                  - display as smcl as txt `.left[`i']' as txt `.right[`i']'
                    ──────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C1 ───────────────
                    - version 16
                    - class exit `"_col(`.c1')"'
                    = class exit `"_col(1)"'
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C1 ───────────────
```

```
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C3 ────────────────
                    - version 16
                    - class exit `"_col(`.c3')"'
                    = class exit `"_col(57)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C3 ────────────────
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C4 ────────────────
                    - version 16
                    - class exit `"_col(`.c4')"'
                    = class exit `"_col(70)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C4 ────────────────
                  = display as smcl as txt _col(1) `"Negative binomial regress
> ion"' as txt _col(57) `"{lalign 13:Number of obs}"' _col(70) " = " as res "{
> ralign 6:221}"
Negative binomial regression                            Number of obs =    221
                  - }
                  - display as smcl as txt `.left[`i']' as txt `.right[`i']'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C3 ────────────────
                    - version 16
                    - class exit `"_col(`.c3')"'
                    = class exit `"_col(57)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C3 ────────────────
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C4 ────────────────
                    - version 16
                    - class exit `"_col(`.c4')"'
                    = class exit `"_col(70)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C4 ────────────────
                  = display as smcl as txt  as txt _col(57) `"{lalign 13:Wald 
> chi2({res:5})}"' _col(70) " = " as res "{ralign 6:207.72}"
                                                        Wald chi2(5)  = 207.72
                  - }
                  - display as smcl as txt `.left[`i']' as txt `.right[`i']'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C1 ────────────────
                    - version 16
                    - class exit `"_col(`.c1')"'
                    = class exit `"_col(1)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C1 ────────────────
```

```
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C3 ────────────────
                    - version 16
                    - class exit `"_col(`.c3')"'
                    = class exit `"_col(57)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C3 ────────────────
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C4 ────────────────
                    - version 16
                    - class exit `"_col(`.c4')"'
                    = class exit `"_col(70)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C4 ────────────────
                  = display as smcl as txt _col(1) `"Dispersion: {res:mean}"'
> as txt _col(57) `"{lalign 13:Prob > chi2}"' _col(70) " = " as res "{ralign 6
> :0.0000}"
Dispersion: mean                                        Prob > chi2   = 0.0000
                  - }
                  - display as smcl as txt `.left[`i']' as txt `.right[`i']'
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C1 ────────────────
                    - version 16
                    - class exit `"_col(`.c1')"'
                    = class exit `"_col(1)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C1 ────────────────
                    ───────────────────────────────────────────────────────────
> ────────────────────────────── begin _coef_table__header.C2a ────────────────
                    - version 16
                    - class exit `"_col(`.c2a')"'
                    = class exit `"_col(21)"'
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────── end _coef_table__header.C2a ────────────────
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C3 ────────────────
                    - version 16
                    - class exit `"_col(`.c3')"'
                    = class exit `"_col(57)"'
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── end _coef_table__header.C3 ────────────────
                    ───────────────────────────────────────────────────────────
> ─────────────────────────────── begin _coef_table__header.C4 ────────────────
                    - version 16
                    - class exit `"_col(`.c4')"'
                    = class exit `"_col(70)"'
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────── end _coef_table__header.C4 ───────────────
                  = display as smcl as txt _col(1) `"{lalign 20:Log pseudolike
> lihood}"' _col(21) " = " as res "{ralign 10:-375.24883}" as txt _col(57) `"{
> lalign 13:Pseudo R2}"' _col(70) " = " as res "{ralign 6:0.0941}"
Log pseudolikelihood = -375.24883                       Pseudo R2     = 0.0941
                  - }
                  ─────────────────────────────────────────────────────────────
> ───────────────────────────── end _coef_table__header.display ───────────────
                - }
                - sreturn local width_header `.`obj'.width'
                = sreturn local width_header 78
                - sreturn local head2_right `.`obj'.ralignr'
                = sreturn local head2_right 6
                - sreturn local head2_left `.`obj'.lalignr'
                = sreturn local head2_left 13
                - sreturn local head2_start `.`obj'.c3'
                = sreturn local head2_start 57
                - sreturn local head1_right `.`obj'.ralignla'
                = sreturn local head1_right 10
                - sreturn local head1_left `.`obj'.lalignla'
                = sreturn local head1_left 20
                - sreturn local head1_start `.`obj'.c1'
                = sreturn local head1_start 1
                ───────────────────────────────────────────────────────────────
> ────────────────────────────────────── end _coef_table_header ───────────────
              - di

              - }
              - _coef_table, `first' level(`level') `neqopt' `plus' `noskip' `
> showeqns' `diopts' `options' `notest'
              = _coef_table,  level(95)
                ───────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── begin _coef_table ───────────────
                - version 11
                - local vv : di "version " string(max(11,_caller())) ", missin
> g:"
                - if (!c(noisily) & c(coeftabresults) == "off") {
                  exit
                  }
                - _check_eclass
                - syntax [, BMATrix(passthru) VMATrix(passthru) * ]
                - if "`e(b)'" == "" & "`e(V)'" == "" & "`bmatrix'`vmatrix'"=="
> " {
                = if "matrix" == "" & "matrix" == "" & ""=="" {
                  exit
                  }
                - local mc_cmds contrast margins pwcompare pwmean
                - local cmd "`e(cmd)'"
                = local cmd "nbreg"
                - local keepmc : list cmd in mc_cmds
                - if inlist("`cmd'", "pwcompare", "pwmean") {
                = if inlist("nbreg", "pwcompare", "pwmean") {
                  local groups GROUPS
                  }
                - if "`cmd'" == "regress" {
                = if "nbreg" == "regress" {
                  local beta Beta
                  }
                - if "`cmd'" == "gsem" {
                = if "nbreg" == "gsem" {
                  local fvignore fvignore(int 0)
                  local flignore flignore
                  }
                - if "`cmd'" == "sem" {
                = if "nbreg" == "sem" {
                  local standardized STANDARDIZED
                  local showginvariant SHOWGINVariant
                  local nolabel NOLABel LABel NOFVLABel FVLABel
                  local nofootnote NOFOOTnote
                  local wrap wrap(numlist max=1) fvwrap(passthru)
                  }
                - if "`e(mi)'"=="mi" {
                = if ""=="mi" {
                  local dftable DFTable
                  local dfonly DFONLY
                  local noclustreport NOCLUSTReport
                  local pisematrix PISEMATrix(string)
                  }
                - syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(
> string) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string)
>  ROWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(st
> ring) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string)
>  PCLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(st
> ring asis) `beta' `standardized' NOCI NOPValues `dftable' `dfonly' dfci DFPV
> alues dfmissing `groups' COEFLegend selegend `fvignore' `flignore' `showginv
> ariant' `nolabel' `nofootnote' `wrap' sort `pisematrix' depname(string) COEF
> Title(string) coeftitle2(string) ptitle(string) cititle(string) NOMCLEGend n
> oCNSReport FULLCNSReport `noclustreport' cformat(passthru) sformat(passthru)
>  pformat(passthru) NOFirst First SHOWEQns neq(integer -1) NODIPARM NOTEST SE
> Parator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFORMALL CITYPE(string)
>  eqselect(string) noEFORMNOTE * ]
```

```
        = syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(
> string) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string)
>  ROWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(st
> ring) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string)
>  PCLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(st
> ring asis)   NOCI NOPValues   dfci DFPValues dfmissing  COEFLegend selegend
>    sort  depname(string) COEFTitle(string) coeftitle2(string) ptitle(stri
> ng) cititle(string) NOMCLEGend noCNSReport FULLCNSReport  cformat(passthru)
> sformat(passthru) pformat(passthru) NOFirst First SHOWEQns neq(integer -1) N
> ODIPARM NOTEST SEParator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFORMA
> LL CITYPE(string) eqselect(string) noEFORMNOTE * ]
        - if "`wrap'" != "" {
        = if "" != "" {
          opts_exclusive `"wrap(`wrap') `fvwrap'"'
          local fvwrap fvwrap(`wrap')
          }
        - if "`nolabel'`label'" != "" {
        = if "" != "" {
          opts_exclusive "`nolabel' `label'"
          opts_exclusive "`nofvlabel' `fvlabel'"
          opts_exclusive "`nolabel' `fvlabel'"
          opts_exclusive "`nofvlabel' `label'"
          if "`nolabel'" != "" {
          local fvlabel nofvlabel
          }
          else {
          local fvlabel fvlabel
          }
          }
        - else local fvlabel `nofvlabel' `fvlabel'
        = else local fvlabel
        - local type `coeflegend' `selegend'
        = local type
        - opts_exclusive "`type' `standardized'"
        = opts_exclusive " "
          ------------------------------
> -------------------- begin opts_exclusive --------
          - version 8.2
          - args opts optname errcode optslab
          - local opts `opts'
          = local opts
          - local n 0
          - while `"`opts'"' != "" {
          = while `""' != "" {
            local ++n
            gettoken item`n' opts : opts, bind
```

```
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - if (`"`rowmatrix'"'=="" & "`norowci'"!="") {
                = if (`""'=="" & ""!="") {
                  di as err "{bf:norowci} requires {bf:rowmatrix()}"
                  exit 198
                  }
                - if ("`dftable'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`dftable'}"
                  exit 198
                  }
                - if ("`dfonly'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`dfonly'}"
                  exit 198
                  }
                - if ("`noci'"!="" & "`norowci'"!="") {
                = if (""!="" & ""!="") {
                  di as err "{bf:norowci} is not allowed with {bf:`noci'}"
                  exit 198
                  }
                - if "`standardized'" != "" & "`bstdmatrix'" != "" {
                = if "" != "" & "" != "" {
                  local beta beta
                  local standardized
                  }
                - if `:length local type' == 0 {
                = if 0 == 0 {
                - local type `beta' `noci' `nopvalues' `dftable' `dfonly' `gro
> ups' `dfci' `dfpvalues'
                = local type
                - }
                - opts_exclusive "`type'"
                = opts_exclusive ""
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - opts_exclusive "`first' `nofirst'"
                = opts_exclusive " "
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - opts_exclusive "`first' `showeqns'"
                = opts_exclusive " "
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - local cnsreport `cnsreport' `fullcnsreport'
                = local cnsreport
                - opts_exclusive "`cnsreport'"
                = opts_exclusive ""
                  ────────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                - if `"`showeqns'"' != "" {
                = if `""' != "" {
                  local nofirst nofirst
                  }
                - if `"`ematrix'`noeqcheck'"' == "" {
                = if `""' == "" {
                - if `"`e(error)'"' == "matrix" {
                = if `""' == "matrix" {
                  local ematrix e(error)
                  }
                - }
                - _get_mcompare, `options'
                = _get_mcompare,
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _get_mcompare ───────────────
                  - version 11
                  - local cmd `"`e(cmd)'"'
                  = local cmd `"nbreg"'
                  - syntax [name(name=caller)] [, *]
                  - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") |
> inlist("pwmean", "`cmd'", "`caller'")
                  = local is_pwc = inlist("pwcompare", "nbreg", "") | inlist("
> pwmean", "nbreg", "")
```

```
                  - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'", "`
> caller'")
                  = local is_marg = inlist("margins", "nbreg", "", "")
                  - local OPTIONS NOADJust BONferroni DUNCan DUNNett SCHeffe S
> IDak SNK TUKey ADJustall
                  - if `is_pwc' {
                  = if 0 {
                    syntax [name] [, `OPTIONS' MCOMPare(string) *]
                    }
                  - else {
                  - syntax [name] [, MCOMPare(string) *]
                  - local suboption mcompare()
                  - }
                  - sreturn clear
                  - sreturn local options `"`options'"'
                  = sreturn local options `""'
                  - if `is_pwc' {
                  = if 0 {
                    local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `s
> cheffe' `sidak' `snk' `tukey'
                    local METHOD : list uniq METHOD
                    opts_exclusive "`METHOD'"
                    local ALL `adjustall'
                    opts_exclusive "`noadjust' `ALL'"
                    }
                  - local 0 `", `mcompare'"'
                  = local 0 `", "'
                  - capture syntax [, `OPTIONS']
                  = capture syntax [, NOADJust BONferroni DUNCan DUNNett SCHef
> fe SIDak SNK TUKey ADJustall]
                  - if c(rc) {
                    di as err "invalid mcompare() option;"
                    di as err "method '`mcompare'' not allowed"
                    error 198
                    }
                  - local METHOD `METHOD' `noadjust' `bonferroni' `duncan' `du
> nnett' `scheffe' `sidak' `snk' `tukey'
                  = local METHOD
                  - local METHOD : list uniq METHOD
                  - local ALL `ALL' `adjustall'
                  = local ALL
                  - local ALL : list uniq ALL
                  - opts_exclusive "`METHOD'" `suboption'
                  = opts_exclusive "" mcompare()
                    ----------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
```

```
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - if "`METHOD'" == "" {
                  = if "" == "" {
                  - if "`ALL'" != "" {
                  = if "" != "" {
                    di as err "multiple comparison method required with the ad
> justall option"
                    exit 198
                    }
                  - local METHOD noadjust
                  - local noadjust noadjust
                  - }
                  - opts_exclusive "`ALL' `noadjust'" `suboption'
                  = opts_exclusive " noadjust" mcompare()
                    ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts  noadjust
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `"noadjust"' != "" {
                    - local ++n
                    - gettoken item`n' opts : opts, bind
                    = gettoken item1 opts : opts, bind
                    - }
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 1 < 2 {
                    - exit
                    ──────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                  - local EXCLUDE duncan dunnett snk tukey
                  - if `:list METHOD in EXCLUDE' {
                  = if 0 {
                    if `is_pwc' {
                    local opt : copy local METHOD
                    }
                    else {
                    local opt "mcompare(`METHOD')"
                    }
                    local cmdlist anova manova regress mvreg pwmean
                    if "`cmd'" == "pwcompare" {
                    local cmd `"`e(cmd_est)'"'
                    }
                    if `is_marg' {
                    local cmd margins
                    }
                    if !`:list cmd in cmdlist' | !`is_pwc' {
                    di as err `"method `opt' is not allowed with results from
> `cmd'"'
                    exit 322
                    }
                    if `"`e(prefix)'"' == "svy" {
                    di as err `"method `opt' is not allowed with results using
>  the svy prefix"'
                    exit 322
                    }
                    local vce `"`e(vce)'"'
                    if !inlist("`vce'", "", "ols") {
                    di as err `"method `opt' is not allowed with results using
>  vce(`vce')"'
                    exit 322
                    }
                    }
                  - local EXCLUDE duncan dunnett snk tukey scheffe
                  - if `:list METHOD in EXCLUDE' {
                  = if 0 {
                    if "`ALL'" != "" {
                    di as err `"option adjustall is not allowed with method `M
> ETHOD'"'
                    exit 198
                    }
                    }
                  - sreturn local method `"`METHOD'"'
                  = sreturn local method `"noadjust"'
                  - sreturn local adjustall `"`ALL'"'
                  = sreturn local adjustall `""'
                  -------------------------------------------------------------
> ------------------------------------------ end _get_mcompare ----------------
                - local method `"`s(method)'"'
                = local method `"noadjust"'
                - local all `"`s(adjustall)'"'
                = local all `""'
                - local options `"`s(options)'"'
                = local options `""'
                - if "`method'" != "noadjust" {
                = if "noadjust" != "noadjust" {
                  local keepmc 1
                  }
                - opts_exclusive "`all' `groups'"
                = opts_exclusive " "
                  -------------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                  - version 8.2
                  - args opts optname errcode optslab
                  - local opts `opts'
                  = local opts
                  - local n 0
                  - while `"`opts'"' != "" {
                  = while `""' != "" {
                    local ++n
                    gettoken item`n' opts : opts, bind
                    }
                  - if `n' < 2 {
                  = if 0 < 2 {
                  - exit
                  -------------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                - if "`method'" == "dunnett" {
                = if "noadjust" == "dunnett" {
                  opts_exclusive "`method' `groups'"
                  }
                - _get_diopts diopts options, `options' `fvwrap' `fvlabel'
                = _get_diopts diopts options,
                  -------------------------------------------------------------
> ------------------------------------------ begin _get_diopts ----------------
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options,
                    ───────────────────────────────────────────────────────────
> ───────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
```

```
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
```

```
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
```

```
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ────────────────
                        - capture syntax [, WOrd WIdth]
                        - if c(rc) {
                          di as err "invalid fvwrapon() option;"
                          syntax [, WOrd WIdth]
                          exit 198
                          }
                        - opts_exclusive "`word' `width'" fvwrapon
                        = opts_exclusive " " fvwrapon
                          ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                          - version 8.2
                          - args opts optname errcode optslab
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
```

```
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name1' `"`diopts'"'
                  = c_local diopts `""'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_method = s(method)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
```

```
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ───────────────────── end opts_exclusive ────────
          - opts_exclusive "`cnsreport' `fullcnsreport'"
          = opts_exclusive " "
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ───────────────────── end opts_exclusive ────────
          - opts_exclusive "`coeflegend' `selegend'"
          = opts_exclusive " "
           ────────────────────────────
> ──────────────────── begin opts_exclusive ────────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
```

```
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
```

```
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
```

```
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DEFAULT
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - if `"`name2'"' == "" {
                  = if `"options"' == "" {
                    GetDiopts DUPS, `options'
                    }
                  - else {
                  - GetDiopts DUPS options, `options'
                  = GetDiopts DUPS options,
                    ------------------------------------------------------------
> --------------------------------- begin _get_diopts.GetDiopts ----------------
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ----------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ----------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ----------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
```

```
                                 - args opts optname errcode optslab
                                 - local opts `opts'
                                 = local opts
                                 - local n 0
                                 - while `"`opts'"' != "" {
                                 = while `""' != "" {
                                   local ++n
                                   gettoken item`n' opts : opts, bind
                                   }
                                 - if `n' < 2 {
                                 = if 0 < 2 {
                                 - exit
                                 ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ---------------
                               - opts_exclusive "`cnsreport' `fullcnsreport'"
                               = opts_exclusive " "
                                 ---------------------------------------------------------
  > ---------------------------------------- begin opts_exclusive ---------------
                                 - version 8.2
                                 - args opts optname errcode optslab
                                 - local opts `opts'
                                 = local opts
                                 - local n 0
                                 - while `"`opts'"' != "" {
                                 = while `""' != "" {
                                   local ++n
                                   gettoken item`n' opts : opts, bind
                                   }
                                 - if `n' < 2 {
                                 = if 0 < 2 {
                                 - exit
                                 ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ---------------
                               - opts_exclusive "`coeflegend' `selegend'"
                               = opts_exclusive " "
                                 ---------------------------------------------------------
  > ---------------------------------------- begin opts_exclusive ---------------
                                 - version 8.2
                                 - args opts optname errcode optslab
                                 - local opts `opts'
                                 = local opts
                                 - local n 0
                                 - while `"`opts'"' != "" {
                                 = while `""' != "" {
                                   local ++n
                                   gettoken item`n' opts : opts, bind
```

```
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
```

```
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
```

```
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
```

```
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                        - capture syntax [, WOrd WIdth]
                        - if c(rc) {
                          di as err "invalid fvwrapon() option;"
                          syntax [, WOrd WIdth]
                          exit 198
                          }
                        - opts_exclusive "`word' `width'" fvwrapon
                        = opts_exclusive " " fvwrapon
                          ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                          - version 8.2
                          - args opts optname errcode optslab
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
```

```
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DUPS
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name2' `"`options'"'
                  = c_local options `""'
                  - }
                  - local DUPS : list DUPS - DEFAULT
                  - gettoken DUPS : DUPS
                  - if `"`DUPS'"' != "" {
                  = if `""' != "" {
                    if (strpos(`"`DUPS'"', "(")) {
                    gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local method = `"noadjust"'
                  - }
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _get_diopts ───────────────
                - local legend coeflegend selegend
                - local legend : list legend & diopts
                - local diopts : list diopts - legend
                - local lstretch lstretch nolstretch
                - local lstretch : list lstretch & diopts
                - local diopts : list diopts - lstretch
                - local markdown markdown
                - local markdown : list markdown & diopts
                - local diopts : list diopts - markdown
                - _get_diopts ignore, `diopts' `cformat' `sformat' `pformat'
                = _get_diopts ignore,
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────── begin _get_diopts ───────────────
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options,
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
```

```
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ----------------
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ----------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
```

```
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
                            local ++n
                            gettoken item`n' opts : opts, bind
                            }
                          - if `n' < 2 {
                          = if 0 < 2 {
                          - exit
                          ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                        - local K : list sizeof namelist
                        - gettoken c_diopts c_opts : namelist
                        - opts_exclusive "`coding' `compare'"
                        = opts_exclusive " "
                          ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                          - version 8.2
                          - args opts optname errcode optslab
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
                            local ++n
                            gettoken item`n' opts : opts, bind
                            }
                          - if `n' < 2 {
                          = if 0 < 2 {
                          - exit
                          ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                        - opts_exclusive "`versus' `compare'"
                        = opts_exclusive " "
                          ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                          - version 8.2
                          - args opts optname errcode optslab
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
                            local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end opts_exclusive ────────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
                      local allbaselevels allbaselevels
                      }
                    - else if c(showbaselevels) == "on" {
```

```
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
```

```
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - c_local `name1' `"`diopts'"'
                  = c_local ignore `""'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_method = s(method)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
```

```
                                 ───────────────────────────────────────────────────────
> ──────────────────────────────────────── end opts_exclusive ───────────────
                               - opts_exclusive "`baselevels' `nobaselevels'"
                               = opts_exclusive " "
                                 ───────────────────────────────────────────────────────
> ────────────────────────────────────── begin opts_exclusive ───────────────
                                 - version 8.2
                                 - args opts optname errcode optslab
                                 - local opts `opts'
                                 = local opts
                                 - local n 0
                                 - while `"`opts'"' != "" {
                                 = while `""' != "" {
                                   local ++n
                                   gettoken item`n' opts : opts, bind
                                   }
                                 - if `n' < 2 {
                                 = if 0 < 2 {
                                 - exit
                                 ───────────────────────────────────────────────────────
> ──────────────────────────────────────── end opts_exclusive ───────────────
                               - opts_exclusive "`emptycells' `noemptycells'"
                               = opts_exclusive " "
                                 ───────────────────────────────────────────────────────
> ────────────────────────────────────── begin opts_exclusive ───────────────
                                 - version 8.2
                                 - args opts optname errcode optslab
                                 - local opts `opts'
                                 = local opts
                                 - local n 0
                                 - while `"`opts'"' != "" {
                                 = while `""' != "" {
                                   local ++n
                                   gettoken item`n' opts : opts, bind
                                   }
                                 - if `n' < 2 {
                                 = if 0 < 2 {
                                 - exit
                                 ───────────────────────────────────────────────────────
> ──────────────────────────────────────── end opts_exclusive ───────────────
                               - opts_exclusive "`fvlabel' `nofvlabel'"
                               = opts_exclusive " "
                                 ───────────────────────────────────────────────────────
> ────────────────────────────────────── begin opts_exclusive ───────────────
                                 - version 8.2
                                 - args opts optname errcode optslab
```

```
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
```

```
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ──────────────────── end opts_exclusive ───────
          - opts_exclusive "`cnsreport' `fullcnsreport'"
          = opts_exclusive " "
           ────────────────────────────
> ─────────────────── begin opts_exclusive ───────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ──────────────────── end opts_exclusive ───────
          - opts_exclusive "`coeflegend' `selegend'"
          = opts_exclusive " "
           ────────────────────────────
> ─────────────────── begin opts_exclusive ───────
           - version 8.2
           - args opts optname errcode optslab
           - local opts `opts'
           = local opts
           - local n 0
           - while `"`opts'"' != "" {
           = while `""' != "" {
             local ++n
             gettoken item`n' opts : opts, bind
             }
           - if `n' < 2 {
           = if 0 < 2 {
           - exit
           ────────────────────────────
> ──────────────────── end opts_exclusive ───────
          - opts_exclusive "`noci' `nopvalues'"
          = opts_exclusive " "
           ────────────────────────────
```

```
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
```

```
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
```

```
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      --------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ---------------
                        - capture syntax [, WOrd WIdth]
                        - if c(rc) {
                          di as err "invalid fvwrapon() option;"
                          syntax [, WOrd WIdth]
                          exit 198
                          }
                        - opts_exclusive "`word' `width'" fvwrapon
                        = opts_exclusive " " fvwrapon
                          ------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                            - version 8.2
                            - args opts optname errcode optslab
                            - local opts `opts'
                            = local opts
                            - local n 0
                            - while `"`opts'"' != "" {
                            = while `""' != "" {
                              local ++n
                              gettoken item`n' opts : opts, bind
                              }
                            - if `n' < 2 {
                            = if 0 < 2 {
                            - exit
                            ----------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                          - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DEFAULT
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - if `"`name2'"' == "" {
                  = if `""' == "" {
                  - GetDiopts DUPS, `options'
                  = GetDiopts DUPS,
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
```

```
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`emptycells' `noemptycells'"
                  = opts_exclusive " "
                    ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ----------------
                  - opts_exclusive "`fvlabel' `nofvlabel'"
                  = opts_exclusive " "
                    ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ----------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
```

```
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
      - opts_exclusive "`omitted' `noomitted'"
      = opts_exclusive " "
        ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
      - opts_exclusive "`lstretch' `nolstretch'"
      = opts_exclusive " "
        ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
        - version 8.2
        - args opts optname errcode optslab
        - local opts `opts'
        = local opts
        - local n 0
        - while `"`opts'"' != "" {
        = while `""' != "" {
          local ++n
          gettoken item`n' opts : opts, bind
          }
        - if `n' < 2 {
        = if 0 < 2 {
        - exit
        ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
      - opts_exclusive "`cnsreport' `fullcnsreport'"
```

```
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
```

```
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
                    - local lstretch `lstretch' `nolstretch'
                    = local lstretch
                    - local fvlabel `fvlabel' `nofvlabel'
                    = local fvlabel
                    - local abbrev `abbrev' `noabbrev'
                    = local abbrev
                    - if "`allbaselevels'`baselevels'" == "" {
                    = if "" == "" {
                    - if c(showbaselevels) == "all" {
                      local allbaselevels allbaselevels
                      }
                    - else if c(showbaselevels) == "on" {
                      local baselevels baselevels
                      }
                    - }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
  }
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
```

```
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────── begin _get_diopts.Wrapon ────────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ───────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ────────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ───────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ────────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ─────────────────────────────────────────────────────────
```

```
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DUPS
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - }
                  - else {
                    GetDiopts DUPS options, `options'
                    c_local `name2' `"`options'"'
                    }
                  - local DUPS : list DUPS - DEFAULT
                  - gettoken DUPS : DUPS
                  - if `"`DUPS'"' != "" {
                  = if `""' != "" {
                    if (strpos(`"`DUPS'"', "(")) {
                    gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
```

```
         - sreturn local `sname' = `"`S_`sname''"'
         = sreturn local method = `"noadjust"'
         - }
         ------------------------------------------------------------
> ----------------------------------------------- end _get_diopts ---------------
        - local cformat `"`s(cformat)'"'
        = local cformat `""'
        - local sformat `"`s(sformat)'"'
        = local sformat `""'
        - local pformat `"`s(pformat)'"'
        = local pformat `""'
        - _get_eformopts , eformopts(`options') allowed(__all__) sopti
> ons
        = _get_eformopts , eformopts() allowed(__all__) soptions
         ------------------------------------------------------------
> ------------------------------------------ begin _get_eformopts ---------------
         - version 8.0
         - syntax [, eformopts(string asis) soptions ALLOWed(string)
> ]
         - local 0 , `eformopts'
         = local 0 ,
         - local EFALL NOHR hr NOSHR shr or IRr RRr tr TRatio
         - if "`soptions'" != "" {
         = if "soptions" != "" {
         - syntax [, EForm1(passthru) EForm `EFALL' * ]
         = syntax [, EForm1(passthru) EForm NOHR hr NOSHR shr or IRr
> RRr tr TRatio * ]
         - local opts `"`options'"'
         = local opts `""'
         - local 0 , `eform1' `eform' `nohr' `hr' `noshr' `shr' `or'
> `irr' `rrr' `tr' `tratio'
         = local 0 ,
         - }
         - if "`allowed'" == "__all__" {
         = if "__all__" == "__all__" {
         - local allowed `EFALL'
         = local allowed NOHR hr NOSHR shr or IRr RRr tr TRatio
         - }
         - foreach ef of local allowed {
         - capture confirm name `ef'
         = capture confirm name NOHR
         - if _rc {
           di as err "`ef' is not a valid name"
           exit 198
           }
         - local efopts `efopts' `=lower("`ef'")'
= local efopts  nohr
- }
- capture confirm name `ef'
= capture confirm name hr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr
- }
- capture confirm name `ef'
= capture confirm name NOSHR
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr
- }
- capture confirm name `ef'
= capture confirm name shr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr
- }
- capture confirm name `ef'
= capture confirm name or
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or
- }
- capture confirm name `ef'
= capture confirm name IRr
- if _rc {
  di as err "`ef' is not a valid name"
  exit 198
  }
- local efopts `efopts' `=lower("`ef'")'
= local efopts nohr hr noshr shr or irr
```

```
                  - }
                  - capture confirm name `ef'
                  = capture confirm name RRr
                  - if _rc {
                    di as err "`ef' is not a valid name"
                    exit 198
                    }
                  - local efopts `efopts' `=lower("`ef'")'
                  = local efopts nohr hr noshr shr or irr rrr
                  - }
                  - capture confirm name `ef'
                  = capture confirm name tr
                  - if _rc {
                    di as err "`ef' is not a valid name"
                    exit 198
                    }
                  - local efopts `efopts' `=lower("`ef'")'
                  = local efopts nohr hr noshr shr or irr rrr tr
                  - }
                  - capture confirm name `ef'
                  = capture confirm name TRatio
                  - if _rc {
                    di as err "`ef' is not a valid name"
                    exit 198
                    }
                  - local efopts `efopts' `=lower("`ef'")'
                  = local efopts nohr hr noshr shr or irr rrr tr tratio
                  - }
                  - local efopts : list uniq efopts
                  - syntax [, EForm1(string) EForm `allowed' ]
                  = syntax [, EForm1(string) EForm NOHR hr NOSHR shr or IRr RR
> r tr TRatio ]
                  - foreach ef of local efopts {
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
                  = local eform
                  - }
                  - local eform `eform' ``ef''
```

```
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- local eform `eform' ``ef''
= local eform
- }
- if `"`eform1'"'=="Odds ratio" {
= if `""'=="Odds ratio" {
  local eform_cons_ti = "Odds"
  local eform_cons_note = "odds ratios"
  }
- else if `"`eform1'"'=="Haz. ratio" {
= else if `""'=="Haz. ratio" {
  local eform_cons_ti = "Hazard"
  local eform_cons_note = "hazard ratios"
  }
- else if `"`eform1'"'=="Time ratio" {
= else if `""'=="Time ratio" {
  local eform_cons_ti = "Time"
  local eform_cons_note = "time ratios"
  }
- else if `"`eform1'"'=="IRR" {
= else if `""'=="IRR" {
  local eform_cons_ti = "Inc. rate"
  local eform_cons_note = "incidence-rate ratios"
  local eform_cons_ti2 = "incidence rate"
  }
- else if `"`eform1'"'=="Risk ratio" {
= else if `""'=="Risk ratio" {
  local eform_cons_ti = "Risk"
  local eform_cons_note = "risk ratios"
  }
- else if `"`eform1'"'=="Hlth ratio" {
= else if `""'=="Hlth ratio" {
  local eform_cons_ti = "Health"
  local eform_cons_note = "health ratios"
  }
- local k : list sizeof eform
```

```
                    - if `k' {
                    = if 0 {
                      opts_exclusive "`eform'"
                      if `:length local eform1' {
                      opts_exclusive "eform() `eform'"
                      }
                      }
                    - if `k' {
                    = if 0 {
                      if ("`eform'"=="eform") local eform1 = "exp(b)"
                      else if ("`eform'"=="hr") {
                      local eform1 = "Haz. ratio"
                      local eform_cons_ti = "Hazard"
                      local eform_cons_note = "hazard ratios"
                      }
                      else if ("`eform'"=="shr") {
                      local eform1 = "SHR"
                      local eform_cons_ti = "Subhazard"
                      local eform_cons_note = "subhazard ratios"
                      }
                      else if ("`eform'"=="tr") {
                      local eform1 = "Time ratio"
                      local eform_cons_ti = "Time"
                      local eform_cons_note = "time ratios"
                      }
                      else if ("`eform'"=="tratio") {
                      local eform1 = "Time ratio"
                      local eform_cons_ti = "Time"
                      local eform_cons_note = "time ratios"
                      }
                      else if ("`eform'"=="or") {
                      local eform1 = "Odds ratio"
                      if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(
> cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                      local eform_cons_ti = "Rel. risk"
                      local eform_cons_note = "relative-risk ratios"
                      local eform_cons_ti2 = "relative risk"
                      }
                      else {
                      local eform_cons_ti = "Odds"
                      local eform_cons_note = "odds ratios"
                      }
                      }
                      else if ("`eform'"=="irr") {
                      local eform1 = "IRR"
                      local eform_cons_ti = "Inc. rate"
                    local eform_cons_note = "incidence-rate ratios"
                    local eform_cons_ti2 = "incidence rate"
                    }
                    else if ("`eform'"=="rrr") {
                    local eform1 = "RRR"
                    local eform_cons_ti = "Rel. risk"
                    local eform_cons_note = "relative-risk ratios"
                    local eform_cons_ti2 = "relative risk"
                    }
                    else if ("`eform'"!="nohr") & ("`eform'"!="noshr") {
                    local eform1 = upper("`eform'")
                    }
                    }
                  - sreturn clear
                  - sreturn local options `"`opts'"'
                  = sreturn local options `""'
                  - sreturn local opt `eform'
                  = sreturn local opt
                  - sreturn local str `eform1'
                  = sreturn local str
                  - if `"`eform1'"' != "" {
                  = if `""' != "" {
                    sreturn local eform eform(`"`eform1'"')
                    }
                  - else sreturn local eform ""
                  - sreturn local eform_cons_ti `eform_cons_ti'
                  = sreturn local eform_cons_ti
                  - sreturn local eform_cons_note `eform_cons_note'
                  = sreturn local eform_cons_note
                  - sreturn local eform_cons_ti2 `eform_cons_ti2'
                  = sreturn local eform_cons_ti2
                  ────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end _get_eformopts ───────────────
                - local tr_item = `"`s(eform_cons_note)'"'
                = local tr_item = `""'
                - if inlist("`bmatrix'", "", "e(b)") & "`e(k_eform)'" == "0" {
                = if inlist("", "", "e(b)") & "" == "0" {
                  local eform
                  }
                - else local eform `"`s(str)'"'
                = else local eform `""'
                - local eform_cons_ti `"`s(eform_cons_ti)'"'
                = local eform_cons_ti `""'
                - local eform_cons_ti2 `"`s(eform_cons_ti2)'"'
                = local eform_cons_ti2 `""'
                - if ("`e(consonly)'"!="1" | `"`eform_cons_ti'"'=="") {
```

```
                = if ("0"!="1" | `""'=="") {
                - local eformdi `"`s(str)'"'
                = local eformdi `""'
                - }
                - else {
                  local eformdi `"`eform_cons_ti'"'
                  local tr_item = cond(missing("`eform_cons_ti2'"), strlower(`
> "`eform_cons_ti'"'), `"`eform_cons_ti2'"')
                  }
                - local coefttl = cond(`"`eform'"'==`""', `"`coeftitle'"', `"`
> eformdi'"')
                = local coefttl = cond(`""'==`""', `""', `""')
                - local options `"`s(options)'"'
                = local options `""'
                - _get_diparmopts, diparmopts(`options') level(`level')
                = _get_diparmopts, diparmopts() level(95)
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────── begin _get_diparmopts ───────────────
                  - if _caller() < 8.2 {
                    _get_diparmopts_8 `0'
                    exit
                    }
                  - version 9
                  - local version : di "version " string(_caller()) ":"
                  - syntax [, diparmopts(string asis) EXECute soptions bottom
> plus SYNTAXonly * ]
                  - local goptions `options'
                  = local goptions level(95)
                  - SpliceGlobals junk , `goptions'
                  = SpliceGlobals junk , level(95)
                    ──────────────────────────────────────────────────────────
> ──────────────────────── begin _get_diparmopts.SpliceGlobals ───────────────
                    - syntax name(id="macro name" name=c_diparm) [, diparm(str
> ing asis) Level(cilevel) dof(passthru) syntaxonly ]
                    - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                    = if `""' == "" & `""' != "" {
                      capture confirm integer number `e(df_r)'
                      if !c(rc) {
                      local gdof dof(`e(df_r)')
                      }
                      capture
                      }
                    - else local gdof `"`dof'"'
                    = else local gdof `""'
                    - local glevel `level'
                    = local glevel 95
                    - local lopt level(`glevel')
                    = local lopt level(95)
                    - if (`"`diparm'"' == "") exit
                    = if (`""' == "") exit
                    ──────────────────────────────────────────────────────────
> ────────────────────────── end _get_diparmopts.SpliceGlobals ───────────────
                  - local 0 `", `diparmopts'"'
                  = local 0 `", "'
                  - local diparmopts
                  - local k 0
                  - syntax [, diparm(string asis) * ]
                  - while `"`diparm'"' != "" {
                  = while `""' != "" {
                    local ++k
                    local single 1
                    local after
                    capture _on_colon_parse `diparm'
                    if !c(rc) {
                    local single 0
                    local diparm `"`s(before)'"'
                    local after `"`s(after)'"'
                    }
                    capture
                    SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `gopt
> ions'
                    local diparm`k' `"`diparm'"'
                    local diparmopts `"`diparmopts' : `diparm'"'
                    if `single' | `"`:list retok after'"' == "" {
                    local 0 `", `options'"'
                    syntax [, diparm(string asis) * ]
                    }
                    else {
                    local diparm `"`after'"'
                    }
                    }
                  - if `"`soptions'"' == "" {
                  = if `""' == "" {
                  - syntax [, diparm(string asis) ]
                  - }
                  - if ("`execute'" == "") {
                  = if ("" == "") {
                  - sreturn clear
                  - sreturn local options `"`options'"'
                  = sreturn local options `""'
                  - sreturn local diparm `"`diparmopts'"'
                  = sreturn local diparm `""'
                  - forval i = 1/`k' {
                  = forval i = 1/0 {
                    sreturn local diparm`i' `"`diparm`i''"'
                    }
                  - sreturn local k `k'
                  = sreturn local k 0
                  - exit
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end _get_diparmopts ───────────────
                - local NODIPARM : length local nodiparm
                - if `NODIPARM' {
                = if 0 {
                  local options
                  }
                - local GTOPTS parse(":") bind quotes
                - local k 0
                - if !`NODIPARM' {
                = if !0 {
                - if `"`e(diparm)'"' != "" {
                = if `""' != "" {
                  local i 0
                  local diparm `"`e(diparm)'"'
                  }
                - else if `"`e(diparm1)'"' != "" {
                = else if `"lnalpha, exp label("alpha")"' != "" {
                - local i 1
                - local diparm `"`e(diparm1)'"'
                = local diparm `"lnalpha, exp label("alpha")"'
                - }
                - while `:length local diparm' {
                = while 27 {
                - gettoken diparm rest : diparm, `GTOPTS'
                = gettoken diparm rest : diparm, parse(":") bind quotes
                - while `:length local rest' {
                = while 0 {
                  local ++k
                  local diparm`k' : copy local diparm
                  gettoken COLON rest : rest, `GTOPTS'
                  gettoken diparm rest : rest, `GTOPTS'
                  }
                - local ++k
                - local diparm`k' : copy local diparm
                = local diparm1 : copy local diparm
                - local ++i
                - local diparm `"`e(diparm`i')'"'
                = local diparm `""'
```

```
- }
- while `:length local diparm' {
= while 0 {
  gettoken diparm rest : diparm, `GTOPTS'
  while `:length local rest' {
  local ++k
  local diparm`k' : copy local diparm
  gettoken COLON rest : rest, `GTOPTS'
  gettoken diparm rest : rest, `GTOPTS'
  }
  local ++k
  local diparm`k' : copy local diparm
  local ++i
  local diparm `"`e(diparm`i')'"'
  }
- }
- if `:length local options' {
= if 0 {
  local 0 `", `options'"'
  syntax [, diparm(string asis) *]
  if `k' & `:length local diparm' {
  local ++k
  local diparm`k' __sep__
  }
  while `:length local diparm' {
  gettoken diparm rest : diparm, `GTOPTS'
  while `:length local rest' {
  local ++k
  local diparm`k' : copy local diparm
  gettoken COLON rest : rest, `GTOPTS'
  gettoken diparm rest : rest, `GTOPTS'
  }
  local ++k
  local diparm`k' : copy local diparm
  local 0 `", `options'"'
  syntax [, diparm(string asis) *]
  }
  }
- if "`markdown'" != "" {
= if "" != "" {
  local lsize = c(linesize)
  set linesize 255
  }
- `vv' mata: _coef_table()
= version 12, missing: mata: _coef_table()
```

```
> ──────────────────────────────────────────── begin _get_diopts ───────────────
                  - version 11
                  - syntax namelist(max=2) [, *]
                  - gettoken name1 namelist : namelist
                  - gettoken name2 namelist : namelist
                  - GetDiopts diopts options, `options'
                  = GetDiopts diopts options,
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
>──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
>────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
>──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
>────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
>──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
```

```
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
```

```
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
```

```
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 2 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      --------------------------------------------------------
> ----------------------------------- begin _get_diopts.Wrapon ---------------
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      --------------------------------------------------------
> ------------------------------------- end _get_diopts.Wrapon ---------------
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local diopts
                    - if `K' == 2 {
                    = if 2 == 2 {
                    - c_local `c_opts' `"`options'"'
                    = c_local  options `""'
                    - }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ----------------------------------------------------------
> ---------------------------------- end _get_diopts.GetDiopts ---------------
                  - c_local `name1' `"`diopts'"'
                  = c_local __000007 `""'
                  - local snames : s(macros)
                  - foreach sname of local snames {
                  - local S_`sname' = s(`sname')
                  = local S_level = s(level)
                  - }
                  - local S_`sname' = s(`sname')
                  = local S_k = s(k)
                  - }
                  - sreturn clear
                  - GetDiopts DEFAULT
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ───────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
```

```
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
```

```
                                = while `""' != "" {
                                  local ++n
                                  gettoken item`n' opts : opts, bind
                                  }
                                - if `n' < 2 {
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ---------------
                              - opts_exclusive "`fvlabel' `nofvlabel'"
                              = opts_exclusive " "
                                ---------------------------------------------------------
  > ---------------------------------------- begin opts_exclusive ---------------
                                - version 8.2
                                - args opts optname errcode optslab
                                - local opts `opts'
                                = local opts
                                - local n 0
                                - while `"`opts'"' != "" {
                                = while `""' != "" {
                                  local ++n
                                  gettoken item`n' opts : opts, bind
                                  }
                                - if `n' < 2 {
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
  > ------------------------------------------ end opts_exclusive ---------------
                              - opts_exclusive "`omitted' `noomitted'"
                              = opts_exclusive " "
                                ---------------------------------------------------------
  > ---------------------------------------- begin opts_exclusive ---------------
                                - version 8.2
                                - args opts optname errcode optslab
                                - local opts `opts'
                                = local opts
                                - local n 0
                                - while `"`opts'"' != "" {
                                = while `""' != "" {
                                  local ++n
                                  gettoken item`n' opts : opts, bind
                                  }
                                - if `n' < 2 {
                                = if 0 < 2 {
                                - exit
                                ---------------------------------------------------------
```

```
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`cnsreport' `fullcnsreport'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ────────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`coeflegend' `selegend'"
                    = opts_exclusive " "
                      ─────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
```

```
- local baselevels `baselevels' `nobaselevels'
= local baselevels
- local emptycells `emptycells' `noemptycells'
= local emptycells
- local omitted `omitted' `noomitted'
= local omitted
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
```

```
                      sreturn local cformat `"`cformat'"'
                      local cformat `"cformat(`cformat')"'
                      }
                    - if `:length local sformat' {
                    = if 0 {
                      confirm numeric format `sformat'
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ────────────────
                      - capture syntax [, WOrd WIdth]
                      - if c(rc) {
                        di as err "invalid fvwrapon() option;"
                        syntax [, WOrd WIdth]
                        exit 198
                        }
                      - opts_exclusive "`word' `width'" fvwrapon
                      = opts_exclusive " " fvwrapon
                        ───────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DEFAULT
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
```

```
                  - if `"`name2'"' == "" {
                  = if `""' == "" {
                  - GetDiopts DUPS, `options'
                  = GetDiopts DUPS,
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────── begin _get_diopts.GetDiopts ────────────────
                    - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLB
> ASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMP
> TYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(st
> ring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru)
>  FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru)
>  NOABBREV ABBREV
                    - syntax namelist(max=2) [, `DIOPTS' *]
                    = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBA
> SElevels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOE
> MPTYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGE
> ND cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVW
> RAP(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CIT
> YPE(passthru) NOABBREV ABBREV *]
                    - opts_exclusive "`allbaselevels' `noallbaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - opts_exclusive "`allbaselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`baselevels' `nobaselevels'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`emptycells' `noemptycells'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
```

```
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`fvlabel' `nofvlabel'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`omitted' `noomitted'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                    - opts_exclusive "`lstretch' `nolstretch'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                      - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                  - opts_exclusive "`cnsreport' `fullcnsreport'"
                  = opts_exclusive " "
                    ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
                    ---------------------------------------------------------
> ------------------------------------------ end opts_exclusive ---------------
                  - opts_exclusive "`coeflegend' `selegend'"
                  = opts_exclusive " "
                    ---------------------------------------------------------
> ---------------------------------------- begin opts_exclusive ---------------
                    - version 8.2
                    - args opts optname errcode optslab
                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
                      gettoken item`n' opts : opts, bind
```

```
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`noci' `nopvalues'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - local K : list sizeof namelist
                    - gettoken c_diopts c_opts : namelist
                    - opts_exclusive "`coding' `compare'"
                    = opts_exclusive " "
                      --------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      --------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
```

```
                    - opts_exclusive "`versus' `compare'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - opts_exclusive "`abbrev' `noabbrev'"
                    = opts_exclusive " "
                      ---------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ---------------------------------------------------------
> ----------------------------------------- end opts_exclusive ---------------
                    - local allbaselevels `allbaselevels' `noallbaselevels'
                    = local allbaselevels
                    - local baselevels `baselevels' `nobaselevels'
                    = local baselevels
                    - local emptycells `emptycells' `noemptycells'
                    = local emptycells
                    - local omitted `omitted' `noomitted'
                    = local omitted
```

```
- local lstretch `lstretch' `nolstretch'
= local lstretch
- local fvlabel `fvlabel' `nofvlabel'
= local fvlabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'`baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- }
- if "`emptycells'" == "" {
= if "" == "" {
- if c(showemptycells) == "off" {
  local emptycells noemptycells
  }
- }
- if "`omitted'" == "" {
= if "" == "" {
- if c(showomitted) == "off" {
  local omitted noomitted
  }
- }
- if "`lstretch'" == "" {
= if "" == "" {
- if c(lstretch) == "off" {
  local lstretch nolstretch
  }
- }
- if `:length local cformat' {
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  }
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
  }
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
```

```
                      if fmtwidth(`"`sformat'"') > 8 {
                      local sformat "%8.2f"
                      di "{txt}note: invalid sformat(), using default"
                      }
                      sreturn local sformat `"`sformat'"'
                      local sformat `"sformat(`sformat')"'
                      }
                    - if `:length local pformat' {
                    = if 0 {
                      confirm numeric format `pformat'
                      if fmtwidth(`"`pformat'"') > 5 {
                      local pformat "%5.3f"
                      di "{txt}note: invalid pformat(), using default"
                      }
                      sreturn local pformat `"`pformat'"'
                      local pformat `"pformat(`pformat')"'
                      }
                    - if `K' == 1 & `:length local options' {
                    = if 1 == 1 & 0 {
                      syntax namelist(max=2) [, `DIOPTS']
                      }
                    - if reldif(`level', c(level)) > 1e-3 {
                    = if reldif(95, c(level)) > 1e-3 {
                      local levelopt level(`level')
                      }
                    - Wrapon , `fvwrapon'
                    = Wrapon ,
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────── begin _get_diopts.Wrapon ───────────────
                        - capture syntax [, WOrd WIdth]
                        - if c(rc) {
                          di as err "invalid fvwrapon() option;"
                          syntax [, WOrd WIdth]
                          exit 198
                          }
                        - opts_exclusive "`word' `width'" fvwrapon
                        = opts_exclusive " " fvwrapon
                          ──────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ───────────────
                          - version 8.2
                          - args opts optname errcode optslab
                          - local opts `opts'
                          = local opts
                          - local n 0
                          - while `"`opts'"' != "" {
                          = while `""' != "" {
```

```
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ──────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ───────────────
                      - local fvwrapon `word' `width'
                      = local fvwrapon
                      - if `:length local fvwrapon' {
                      = if 0 {
                        c_local fvwrapon fvwrapon(`fvwrapon')
                        }
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────── end _get_diopts.Wrapon ───────────────
                    - if "`fvwrap'" != "" {
                    = if "" != "" {
                      FVWrap, `fvwrap'
                      }
                    - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels'
> `baselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `
> coeflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `comp
> are' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `a
> bbrev'
                    = c_local DUPS
                    - if `K' == 2 {
                    = if 1 == 2 {
                      c_local `c_opts' `"`options'"'
                      }
                    - sreturn local coding `coding'
                    = sreturn local coding
                    - sreturn local versus `versus'
                    = sreturn local versus
                    - sreturn local compare `compare'
                    = sreturn local compare
                    - sreturn local level `level'
                    = sreturn local level 95
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────── end _get_diopts.GetDiopts ───────────────
                  - }
                  - else {
                    GetDiopts DUPS options, `options'
                    c_local `name2' `"`options'"'
                    }
                  - local DUPS : list DUPS - DEFAULT
                  - gettoken DUPS : DUPS
                  - if `"`DUPS'"' != "" {
                  = if `""' != "" {
                    if (strpos(`"`DUPS'"', "(")) {
                    gettoken DUPS : DUPS, parse("(")
                    local DUPS `"`DUPS'()"'
                    }
                    di as err "duplicate {bf:`DUPS'} option not allowed"
                    exit 198
                    }
                  - sreturn clear
                  - foreach sname of local snames {
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local level = `"95"'
                  - }
                  - sreturn local `sname' = `"`S_`sname''"'
                  = sreturn local k = `"0"'
                  - }
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────────── end _get_diopts ───────────────
                  ────────────────────────────────────────────────────────────
> ────────────────────────────────────────────── begin _diparm ───────────────
                  - version 11
                  - if _caller() < 8.2 {
                    _diparm_8 `0'
                    exit
                    }
                  - syntax anything(name=eqs) [, Level(cilevel) NOTAB DOF(pass
> thru) BMATrix(passthru) VMATrix(passthru) DFMATrix(passthru) COEFLegend SELE
> GEND * ]
                  - tempname T
                  - if `:length local notab' {
                  = if 5 {
                  - .`T' = ._b_diparm.new, level(`level') `dof' `bmatrix' `vma
> trix' `dfmatrix' `coeflegend' `selegend'
                  = .__000008 = ._b_diparm.new, level(95)
                    -class _b_diparm {
                    -        string  LEVEL   = ""
                    -        double  IS_MI   = 0
                    -        string  BMAT    = ""
                    -        string  COLNA   = ""
                    -        string  VMAT    = ""
                    -        string  DFMAT   = ""
                    -        string  COLFUL  = ""
                    -        double  DF      = 0
                    -        double  DF_HOLD = 0
                    -       double  EXTRA   = 1
                    -       string  METHOD  = ""
                    -       double  has_b   = 0
                    -       double  has_v   = 0
                    -       double  has_df  = 0
                    -       double  has_Cns = 0
                    -}
                    ──────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _b_diparm.new ───────────────
                    - version 11
                    - .IS_MI = `"`e(mi)'"' == "mi" & `"`e(df_mi)'"' == "matrix
> "
                    = .IS_MI = `""' == "mi" & `""' == "matrix"
                    - if `.IS_MI' {
                    = if 0 {
                      local ALTOPT DFMATrix(string)
                      }
                    - syntax [, Level(cilevel) DOF(real -1) BMATrix(string) VM
> ATrix(string) EXTRA(real 1) MCOMPARE(passthru) `ALTOPT' ]
                    = syntax [, Level(cilevel) DOF(real -1) BMATrix(string) VM
> ATrix(string) EXTRA(real 1) MCOMPARE(passthru)  ]
                    - _get_mcompare, `mcompare'
                    = _get_mcompare,
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────────── begin _get_mcompare ───────────────
                      - version 11
                      - local cmd `"`e(cmd)'"'
                      = local cmd `"nbreg"'
                      - syntax [name(name=caller)] [, *]
                      - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'"
> ) | inlist("pwmean", "`cmd'", "`caller'")
                      = local is_pwc = inlist("pwcompare", "nbreg", "") | inli
> st("pwmean", "nbreg", "")
                      - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'"
> , "`caller'")
                      = local is_marg = inlist("margins", "nbreg", "", "")
                      - local OPTIONS NOADJust BONferroni DUNCan DUNNett SCHef
> fe SIDak SNK TUKey ADJustall
                      - if `is_pwc' {
                      = if 0 {
                        syntax [name] [, `OPTIONS' MCOMPare(string) *]
                        }
                      - else {
                      - syntax [name] [, MCOMPare(string) *]
                      - local suboption mcompare()
                      - }
                      - sreturn clear
                      - sreturn local options `"`options'"'
                      = sreturn local options `""'
                      - if `is_pwc' {
                      = if 0 {
                        local METHOD `noadjust' `bonferroni' `duncan' `dunnett
> ' `scheffe' `sidak' `snk' `tukey'
                        local METHOD : list uniq METHOD
                        opts_exclusive "`METHOD'"
                        local ALL `adjustall'
                        opts_exclusive "`noadjust' `ALL'"
                        }
                      - local 0 `", `mcompare'"'
                      = local 0 `", "'
                      - capture syntax [, `OPTIONS']
                      = capture syntax [, NOADJust BONferroni DUNCan DUNNett S
> CHeffe SIDak SNK TUKey ADJustall]
                      - if c(rc) {
                        di as err "invalid mcompare() option;"
                        di as err "method '`mcompare'' not allowed"
                        error 198
                        }
                      - local METHOD `METHOD' `noadjust' `bonferroni' `duncan'
>  `dunnett' `scheffe' `sidak' `snk' `tukey'
                      = local METHOD
                      - local METHOD : list uniq METHOD
                      - local ALL `ALL' `adjustall'
                      = local ALL
                      - local ALL : list uniq ALL
                      - opts_exclusive "`METHOD'" `suboption'
                      = opts_exclusive "" mcompare()
                        ------------------------------------------------------
> --------------------------------------- begin opts_exclusive ---------------
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 0 < 2 {
                        - exit
                        ───────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                      - if "`METHOD'" == "" {
                      = if "" == "" {
                      - if "`ALL'" != "" {
                      = if "" != "" {
                        di as err "multiple comparison method required with th
> e adjustall option"
                        exit 198
                        }
                      - local METHOD noadjust
                      - local noadjust noadjust
                      - }
                      - opts_exclusive "`ALL' `noadjust'" `suboption'
                      = opts_exclusive " noadjust" mcompare()
                        ───────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                        - version 8.2
                        - args opts optname errcode optslab
                        - local opts `opts'
                        = local opts  noadjust
                        - local n 0
                        - while `"`opts'"' != "" {
                        = while `"noadjust"' != "" {
                        - local ++n
                        - gettoken item`n' opts : opts, bind
                        = gettoken item1 opts : opts, bind
                        - }
                        - while `"`opts'"' != "" {
                        = while `""' != "" {
                          local ++n
                          gettoken item`n' opts : opts, bind
                          }
                        - if `n' < 2 {
                        = if 1 < 2 {
                        - exit
                        ───────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                      - local EXCLUDE duncan dunnett snk tukey
                      - if `:list METHOD in EXCLUDE' {
                      = if 0 {
                        if `is_pwc' {
                        local opt : copy local METHOD
                        }
                        else {
                        local opt "mcompare(`METHOD')"
                        }
                        local cmdlist anova manova regress mvreg pwmean
                        if "`cmd'" == "pwcompare" {
                        local cmd `"`e(cmd_est)'"'
                        }
                        if `is_marg' {
                        local cmd margins
                        }
                        if !`:list cmd in cmdlist' | !`is_pwc' {
                        di as err `"method `opt' is not allowed with results f
> rom `cmd'"'
                        exit 322
                        }
                        if `"`e(prefix)'"' == "svy" {
                        di as err `"method `opt' is not allowed with results u
> sing the svy prefix"'
                        exit 322
                        }
                        local vce `"`e(vce)'"'
                        if !inlist("`vce'", "", "ols") {
                        di as err `"method `opt' is not allowed with results u
> sing vce(`vce')"'
                        exit 322
                        }
                        }
                      - local EXCLUDE duncan dunnett snk tukey scheffe
                      - if `:list METHOD in EXCLUDE' {
                      = if 0 {
                        if "`ALL'" != "" {
                        di as err `"option adjustall is not allowed with metho
> d `METHOD'"'
                        exit 198
                        }
                        }
                      - sreturn local method `"`METHOD'"'
                      = sreturn local method `"noadjust"'
                      - sreturn local adjustall `"`ALL'"'
                      = sreturn local adjustall `""'
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _get_mcompare ───────────────
                    - if !inlist("`s(method)'", "noadjust", "bonferroni", "sid
> ak") {
                    = if !inlist("noadjust", "noadjust", "bonferroni", "sidak"
> ) {
                      di as err "option `mcompare' not allowed"
                      exit 198
                    }
                  - .METHOD = "`s(method)'"
                  = .METHOD = "noadjust"
                  - .LEVEL = "`level'"
                  = .LEVEL = "95"
                  - if "`bmatrix'" == "" {
                  = if "" == "" {
                  - if `:length local vmatrix' {
                  = if 0 {
                    di as err "option vmatrix() requires option bmatrix()"
                    exit 198
                    }
                  - }
                  - if "`vmatrix'" == "" {
                  = if "" == "" {
                  - if `:length local dfmatrix' {
                  = if 0 {
                    di as err "option dfmatrix() requires option vmatrix()"
                    exit 198
                    }
                  - }
                  - if `.IS_MI' & "`bmatrix'`vmatrix'`dfmatrix'`e(properties
> )'"=="" {
                  = if 0 & "b V"=="" {
                    local bmatrix e(b_mi)
                    local vmatrix e(V_mi)
                    local dfmatrix e(df_mi)
                    }
                  - if `:length local bmatrix' {
                  = if 0 {
                    .has_b = 1
                    .BMAT = "`bmatrix'"
                    .COLNA = "`:colful `bmatrix''"
                    }
                  - else {
                  - .COLNA = "`:colful e(b)'"
                  = .COLNA = "y_timing_max:wlth y_timing_max:wg_ndx y_timing
> _max:stky_pr_rotemberg y_timing_max:stky_pr_calvo y_timing_max:open y_timing
> _max:_cons /lnalpha"
                  - .has_Cns = "`e(Cns)'" == "matrix"
                  = .has_Cns = "" == "matrix"
                  - }
                  - if `:length local vmatrix' {
                  = if 0 {
                    .has_v = 1
                    .VMAT = "`vmatrix'"
```

```
                      }
                    - if `:length local dfmatrix' {
                    = if 0 {
                      .has_df = 1
                      .DFMAT = "`dfmatrix'"
                      }
                    - if `dof' <= 0 {
                    = if -1 <= 0 {
                    - local df_r 0
                    - Chk4PosInt df_r
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────── begin _b_diparm.Chk4PosInt ───────────────
                      - version 11
                      - args ename
                      - if `"`e(`ename')'"' != "" {
                      = if `""' != "" {
                        capture confirm integer number `e(`ename')'
                        if !c(rc) {
                        if `e(`ename')' > 0 {
                        c_local `ename' `e(`ename')'
                        }
                        }
                        }
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────── end _b_diparm.Chk4PosInt ───────────────
                    - if `df_r' {
                    = if 0 {
                      .DF = `df_r'
                      }
                    - }
                    - else {
                      .DF = `dof'
                      }
                    - if `extra' > 1 {
                    = if 1 > 1 {
                      .EXTRA = `extra'
                      }
                    ───────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _b_diparm.new ───────────────
                  - .`T'.compute `eqs', `options'
                  = .__000008.compute lnalpha, exp
                    ───────────────────────────────────────────────────────────
> ──────────────────────────────────── begin _b_diparm.compute ───────────────
                    - version 11
                    - version 11
                    - syntax anything(name=EQS id="equation name(s)") [, NOPro
```

```
> b Prob EXP TANH ILOGIT INVLOGIT Function(str) Derivative(str) CI(string) ]
                    - opts_exclusive "`prob' `noprob'"
                    = opts_exclusive " "
                      ────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                      ────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - local prob `prob' `noprob'
                    = local prob
                    - if "`ilogit'`invlogit'" != "" {
                    = if "" != "" {
                      local ilogit ilogit
                      }
                    - local builtin `exp' `tanh' `ilogit'
                    = local builtin exp
                    - local fd 0
                    - if `:length local function' {
                    = if 0 {
                      local ++fd
                      }
                    - if `:length local derivative' {
                    = if 0 {
                      local ++fd
                      }
                    - if `fd' == 1 {
                    = if 0 == 1 {
                      di as err "both function() and derivative() must be spec
> ified"
                      exit 198
                      }
                    - if `fd' {
                    = if 0 {
                      local fopt "function()"
                      }
                    - opts_exclusive "`builtin' `fopt'"
                    = opts_exclusive "exp "
                      ─────────────────────────────────────────────────────────
> ─────────────────────────────────────── begin opts_exclusive ────────────────
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts exp
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `"exp"' != "" {
                      - local ++n
                      - gettoken item`n' opts : opts, bind
                      = gettoken item1 opts : opts, bind
                      - }
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 1 < 2 {
                      - exit
                      ─────────────────────────────────────────────────────────
> ───────────────────────────────────────── end opts_exclusive ────────────────
                    - if `.has_b' {
                    = if 0 {
                      local bmat `"`.BMAT'"'
                      }
                    - else {
                    - local bmat `"e(b)"'
                    - }
                    - foreach EQ of local EQS {
                    - if substr(`"`EQ'"',1,1) != "/" {
                    = if substr(`"lnalpha"',1,1) != "/" {
                    - local eq `"/`EQ'"'
                    = local eq `"/lnalpha"'
                    - }
                    - else local eq : copy local EQ
                    - local el : colnumb `bmat' "`eq'"
                    = local el : colnumb e(b) "/lnalpha"
                    - if inlist(`"`el'"', "", ".") {
                    = if inlist(`"7"', "", ".") {
                      di as err "parameter named {bf:`EQ'} not found"
                      exit 322
```

```
            }
          - local eqs `eqs' `eq'
          = local eqs  /lnalpha
          - }
          - local neq : list sizeof eqs
          - if `.has_Cns' {
          = if 0 {
            tempname Cns C
            matrix `Cns' = e(Cns)
            }
          - if `neq' != 1 {
          = if 1 != 1 {
            local el 0
            }
          - if `.IS_MI' {
          = if 0 {
            if `.has_df' {
            local df = el(`.DFMAT',1,`el')
            }
            else {
            local df = el(e(df_mi),1,`el')
            }
            if missing(`df') {
            local df 0
            }
            }
          - else {
          - local df = `.DF'
          = local df = 0
          - }
          - tempname z alpha
          - scalar `alpha' = (100 - `.LEVEL')/100
          = scalar __00000A = (100 - 95)/100
          - mata: st_numscalar("`z'", _mc_crit("`.METHOD'", `df' ==
> 0 ? . : `df', st_numscalar("`alpha'"), ., `.EXTRA'))
          = mata: st_numscalar("__000009", _mc_crit("noadjust", 0 ==
>  0 ? . : 0, st_numscalar("__00000A"), ., 1))
          - local isCns 0
          - if `neq' == 1 {
          = if 1 == 1 {
          - tempname b se
          - if `.has_b' {
          = if 0 {
            scalar `b' = el(`.BMAT',1,`el')
            if `.has_v' {
            scalar `se' = sqrt(el(`.VMAT',`el',`el'))
          }
          else {
          scalar `se' = 0
          }
          }
        - else {
        - scalar `b' = _b[`eqs']
        = scalar __00000B = _b[/lnalpha]
        - if "`e(V)'" == "matrix" {
        = if "matrix" == "matrix" {
        - scalar `se' = _se[`eqs']
        = scalar __00000C = _se[/lnalpha]
        - }
        - else {
          scalar `se' = 0
          }
        - if `.has_Cns' & `se' == 0 {
        = if 0 & __00000C == 0 {
          matrix `C' = `Cns'[1...,`el']
          matrix `C' = `C''*`C'
          local isCns = `C'[1,1] != 0
          }
        - }
        - if `se' == 0 {
        = if __00000C == 0 {
          scalar `se' = .
          }
        - if "`function'" != "" {
        = if "" != "" {
          .Function `b' `se' `z' "`function'" "`derivative'"
          }
        - else if "`builtin'" != "" {
        = else if "exp" != "" {
        - .`builtin' `b' `se' `z'
        = .exp __00000B __00000C __000009
          -------------------------------------------------------
> ---------------------------------------- begin _b_diparm.exp ----------
          - version 11
          - args b se z
          - return scalar est = exp(`b')
          = return scalar est = exp(__00000B)
          - return scalar se = return(est)*`se'
          = return scalar se = return(est)*__00000C
          - return scalar lb = exp(`b'-`z'*`se')
          = return scalar lb = exp(__00000B-__000009*__00000C)
          - return scalar ub = exp(`b'+`z'*`se')
```

```
                      = return scalar ub = exp(__00000B+__000009*__00000C)
                      - return scalar i = 0
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────────── end _b_diparm.exp ───────────────
                    - }
                    - else {
                      if ("`prob'" != "noprob") local prob prob
                      .identity `b' `se' `z' `el' "`ci'"
                      }
                    - }
                    - else {
                      .Multiple "`eqs'" `z' "`function'" "`derivative'" "`ci'"
                      local isCns = r(cns)
                      }
                    - .AddTest `df', `prob'
                    = .AddTest 0,
                      ────────────────────────────────────────────────────────
> ──────────────────────────────────── begin _b_diparm.AddTest ───────────────
                      - version 11
                      - syntax anything(name=df) [, Prob]
                      - return add
                      - if "`prob'" == "" {
                      = if "" == "" {
                      - return scalar p = .
                      - return scalar z = .
                      - exit
                      ────────────────────────────────────────────────────────
> ────────────────────────────────────── end _b_diparm.AddTest ───────────────
                    - return add
                    - if `df' == 0 {
                    = if 0 == 0 {
                    - return scalar df = .
                    - }
                    - else return scalar df = `df'
                    = else return scalar df = 0
                    - return scalar crit = `z'
                    = return scalar crit = __000009
                    - return scalar cns = `isCns'
                    = return scalar cns = 0
                    ──────────────────────────────────────────────────────────
> ────────────────────────────────────── end _b_diparm.compute ───────────────
                  - exit
                  ────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────── end _diparm ───────────────
──────────────────┬───────────────────────────────────────────────────────────
> ─────
```

```
                  │               Robust
     y_timing_max │ Coefficient  std. err.      z    P>|z|     [95% conf. inte
> rval]
──────────────────┼─────────────────────────────────────────────────────────
> ──────
             wlth │  -.4257901   .1044589    -4.08   0.000    -.6305258   -.22
> 10544
           wg_ndx │   .5933492   .1194414     4.97   0.000     .3592483    .82
> 74501
stky_pr_rotemberg │  -1.423485    .112945   -12.60   0.000    -1.644853   -1.2
> 02117
    stky_pr_calvo │  -.8713189   .1101619    -7.91   0.000    -1.087232   -.65
> 54056
             open │  -.2666963   .1079528    -2.47   0.013      -.47828   -.05
> 51126
            _cons │   1.495162   .1019079    14.67   0.000     1.295426    1.6
> 94898
──────────────────┼─────────────────────────────────────────────────────────
> ──────
         /lnalpha │  -2.260776    .791142                     -3.811386   -.71
> 01661
──────────────────┼─────────────────────────────────────────────────────────
> ──────
            alpha │   .1042696    .082492                      .0221175    .49
> 15626
──────────────────┴─────────────────────────────────────────────────────────
> ──────
                - if "`markdown'" != "" {
                = if "" != "" {
                  set linesize `lsize'
                  }
                - if "`eqselect'" == "" & "`eformnote'" != "noeformnote" {
                = if "" == "" & "" != "noeformnote" {
                - if `"`eformdi'"'!="" & ("`e(cmd)'"!="gnbreg" | "`e(prefix)'"
> =="svy") {
                = if `""'!="" & ("nbreg"!="gnbreg" | ""=="svy") {
                  local k_eform `e(k_eform)'
                  if ("`k_eform'"=="") {
                  local k_eform = 1
                  }
                  local k_eq `e(k_eq)'
                  if ("`k_eq'"=="") {
                  local k_eq = 1
                  }
                  if (`k_eform'<`k_eq' & `k_eform') {
                  if ("`e(cmd2)'" == "stintreg" | "`e(cmd2)'" == "streg") & ("
> `e(cmd)'" == "weibull" | "`e(cmd)'" == "gompertz") {
                  }
                  else {
                  _eform_multeq_note efnote : `k_eform' `"`tr_item'"'
                  di as txt "`efnote'"
                  }
                  }
                  }
                - if (`"`eformdi'"'!="" & "`e(noconstant)'"=="0" & `"`eform_co
> ns_ti'"'!="" & "`e(consonly)'"!="1") {
                = if (`""'!="" & "0"=="0" & `""'!="" & "0"!="1") {
                  if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cm
> d)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                  local asvar = `"`e(ranvars)'`e(fixvars)'`e(indvars)'"' != ""
                  if `"`e(casevars)'"' != "" & `asvar' {
                  local note1 "Exponentiated coefficients represent odds ratio
> s for "
                  local note2 "alternative-specific variables (first equation)
>  and "
                  local note3 "{help j_cmrisk##|_new:relative-risk ratios} "
                  local note4 "for case-specific variables."
                  di as txt "{p 0 6 2}Note: `note1'`note2'`note3'`note4'{p_end
> }"
                  }
                  }
                  if "`eform_cons_ti'" == "Inc. rate" {
                  local eform_cons_note "incidence rate"
                  }
                  else if "`eform_cons_ti'" == "Rel. risk" {
                  local eform_cons_note "relative risk"
                  }
                  else if "`eform_cons_ti'" == "Health" {
                  local eform_cons_note "health (probability of no disease)"
                  }
                  else {
                  local eform_cons_note = strlower(`"`eform_cons_ti'"')
                  }
                  local eform_cons_note "baseline `eform_cons_note'"
                  if ("`e(cmd2)'"=="") {
                  local cmd `e(cmd)'
                  }
                  else {
                  local cmd `e(cmd2)'
                  }
                  local f2 = udsubstr("`cmd'",1,2)
                  local is_re = ("`f2'"=="xt" | "`f2'"=="me")
                  if `is_re' {
                  local extranote " (conditional on zero random effects)"
                  }
                  di as txt "{p 0 6 2}Note: {bf:_cons} estimates " "`eform_con
> s_note'`extranote'" _c
                  if ("`e(cmd)'"=="mlogit" | "`e(cmd)'"=="asclogit" | "`e(cmd)
> '"=="cmclogit" | "`e(cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                  di as txt " for each outcome" _c
                  }
                  di as txt ".{p_end}"
                  }
                - }
                - return add
                - if !`keepmc' {
                = if !0 {
                - return local mcmethod
                - return local mctitle
                - }
                ──────────────────────────────────────────────────────────────
> ─────────────────────────────────────────── end _coef_table ────────────────
              - if "`footnote'" == "" {
              = if "nofootnote" == "" {
                ml_footnote
                }
              ────────────────────────────────────────────────────────────────
> ────────────────────────────────────────── end mopt.Display ────────────────
            - exit
            ──────────────────────────────────────────────────────────────────
> ────────────────────────────────────────────────── end mopt ────────────────
          - exit
          ────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────────────────── end ml ────────────────
        - if "`e(chi2_ct)'"!="LR" { exit }
        = if ""!="LR" { exit }
        ──────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────── end nbreg.Display ────────────────
      - }
      - error `e(rc)'
      = error 0
      ────────────────────────────────────────────────────────────────────────
> ──────────────────────────────────────── end nbreg.Estimate ────────────────
    - version 10: ereturn local cmdline `"nbreg `0'"'
    = version 10: ereturn local cmdline `"nbreg y_timing_max   wlth wg_ndx  st
> ky_pr_rotemberg  stky_pr_calvo open  if y_timing_max<60 , vce(r)"'
    ──────────────────────────────────────────────────────────────────────────
> ───────────────────────────────────────────────── end nbreg ────────────────
```

```
  - log close
      name:  <unnamed>
       log:  /Users/connorbrennan/Library/CloudStorage/OneDrive-TheUniversityo
> fChicago/mmb/output/stepwise_regressions/y_timing_max_frics_sim.smcl
  log type:  smcl
 closed on:  10 Jan 2025, 11:33:19
------------------------------------------------------------------------------
```