```
name: <unnamed>
     log: /Users/connorbrennan/Library/CloudStorage/OneDrive-TheUniversityo
> fChicago/mmb/output/stepwise_regressions/y_timing_max_properties.smcl
 log type: smcl
opened on: 10 Jan 2025, 11:33:20
 - capture ! rm ./output/stepwise_regressions/`depvar'_`type'.pdf
 = capture ! rm ./output/stepwise_regressions/y_timing_max_properties.pdf
 > ********
- 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: properties"
Independent Variable set: properties
 - di "***********************
> *********
*******************************
 - ${reg_`depvar'_`type'}
 = nbreg y_timing_max cb_authors_ext estimated if y_timing_max<60 , vce(r)</pre>
                                        — begin nbreg ———
   - if by() {
    local BY `"by `_byvars'`_byrc0':"'
    }
   - `BY' _vce_parserun nbreg, mark(Exposure OFFset CLuster) : `0'
   > authors_ext estimated if y_timing_max<60 , vce(r)</pre>
                               ---- 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
> cb_authors_ext estimated if y_timing_max<60 , vce(r)</pre>
                               — begin _on_colon_parse —
```

Friday, January 10, 2025 at 11:33 AM Page 1

- 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 cb_authors_ext estimated if
> y_timing_max<60 , vce(r)"' != "" {</pre>
        - 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 cb_authors_ext estimated if
> y_timing_max<60 , vce(r)"' != "" {</pre>
          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 cb_authors_ext estimated if y
> _timing_max<60 , vce(r)"'</pre>
                                    ----- end _on_colon_parse ---
      - local ZER0 `"`s(before)'"'
      = local ZERO `"nbreg, mark(Exposure OFFset CLuster) "'
      - local 0 `"`s(after)'"'
      = local 0 `" y_timing_max cb_authors_ext estimated if y_timing_max<60</pre>
> , 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 cb_authors_ext estimated if y_timing_ma
> x<60 , vce(r)"'</pre>
      - 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 UNEQUALFIRSTeg 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
                                 cb_authors_ext estimated 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 "' != "" {</pre>
- local if `"if (`if')"'
= local if `"if (y_timing_max<60 )"'</pre>
- }
- 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'"'

```
----- 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 cb_authors_ext estimated if y_timi
> ng_max<60 , vce(r)</pre>
                              ----- 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", "")</pre>
      - 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
```

= sreturn local exit `""'

```
> 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 {
                                — 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 *1
          - 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 `""' != "" {
    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 {
```

= if 0 {

---- 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' {

```
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 " " 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
```

- opts\_exclusive "`word' `width'" fvwrapon

```
- 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) OTOLe
> 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) 0T0
> 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"
                                          — 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
> )
                                     <del>----</del> begin _on_colon_parse <del>------</del>
          - 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 <del>---</del>
  - 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 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 (Varname)
- }
- }
- local 0 `"`user'"'
= local 0 `" [], vce(r) "'
- syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
```

= local OPTNAMES `"robust oim opg"'

```
= 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 0 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 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'"' != "" {
```

- return local vce `OPT'

```
= 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") {
```

```
- 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'
  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
```

= if inlist("robust", "robust", "cluster") {

```
– begin tsunab <del>– –</del>
        - 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 }</pre>
        = if 1>=1 & 1<=32000 { exit }
                                                      – end tsunab <del>– –</del>
      - 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
      - \text{ if } r(N) == 0 \{ error 2000 \}
      - \text{ if } r(N) == 1 \{ error 2001 \}
      - \text{ if } r(min) < 0  {
        version 7: di as err "{bf:`y'} must be greater than or equal to zero"
        exit 459
        }
      - \text{ 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 cb_authors_ext estimated [] if __000000,
      - local xvars `r(varlist)'
      = local xvars cb_authors_ext estimated
      - _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 cb_authors_ext estimated []
> 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
> cb_authors_ext estimated [] 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 cb_authors_ext estimated [] if __000000, nodisplay
                                                          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 cb_authors_ext estimated []
> 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 cb_authors_ext estimated []
> 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 cb_authors_ext estimated []
                          robust"'
> if __000000, nodisplay
                                      ---- end _on_colon_parse -----
          - local ZER0 `"`s(before)'"'
          = local ZERO `"poisson, mark(Exposure OFFset CLuster) "'
          - local 0 `"`s(after)'"'
         = local 0 `" y_timing_max cb_authors_ext estimated [] if __000000, n
              robust"'
> odisplay
```

```
- 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 cb_authors_ext estimated [] 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", "")</pre>
          - 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
                         <del>-----</del> end opts_exclusive <del>---</del>
- 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 ——
```

```
- args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - 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 "" == "" {
```

- version 8.2

```
- 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 " "

```
    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 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
    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
  }
- }
```

local n 0

- while `"`opts'"' != "" {

= while `""' != "" {

```
- 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 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' *
```

- c\_local `c\_opts' `"`options'"'

```
> ]
            = 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 *
> 1
            - 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 }</pre>
            = 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
          - \text{ if } r(N) == 0 \{ error 2000 \}
          - \text{ if } r(N) == 1 \{ error 2001 \}
          - \text{ if } r(min) < 0  {
            di in red "`y' must be greater than or equal to zero"
            exit 459
            }
          - \text{ 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)<. {</pre>
          - 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 cb_authors_ext estimated [] if __000002,
          - local xvars `r(varlist)'
          = local xvars cb_authors_ext estimated
          - if "`from'"=="" {
          = if ""=="" {
          - `vv' Ipois `y' `xvars' [`weight'`exp'] if `touse', n(`nobs') mean(
> `mean') `constan' `offopt'
          = version 18, missing: Ipois y_timing_max cb_authors_ext estimated [
> ] 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 cb_authors_ext estim
> ated if __000002,
                                    <del>----</del> begin _ereturn_display <del>--</del>
              - 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 N00MITted 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 " "
                                      <del>----</del> begin opts_exclusive <del>--</del>
                    - version 8.2

    args opts optname errcode optslab

                    - local opts `opts'
                    = local opts
                    - local n 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
                      <del>----</del> end opts_exclusive <del>-</del>
- 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
                    <del>-----</del> end opts_exclusive <del>-</del>
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "
```

- version 8.2

- args opts optname errcode optslab

---- begin opts\_exclusive ---

- local opts `opts'

```
= local opts
  - local n 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 {</pre>
                    = 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 ---
```

```
- 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 N00MITted 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 {
```

- c\_local `name1' `"`diopts'"'
= c\_local diopts `"fvwrap(1)"'

```
- 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 `""' != "" {
    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 {
```

--- 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 {

```
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
    }
```

confirm numeric format `cformat'

```
= 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'
```

- opts\_exclusive "`word' `width'" fvwrapon

```
= 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
                                         <del>----</del> end opts_exclusive <del>--</del>
                  - 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
                     <del>-----</del> end opts_exclusive <del>-</del>
- 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'"'
```

```
}
- 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 cformat `"cformat(`cformat')"'

```
- local opts `opts'
                      = local opts
                      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 ---
                - }
```

```
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 negopt neg(`r(k_eq)')
              = local negopt neg(1)
              - }
              - else {
                local negopt neg(`neg')
                }
              - _coef_table, nodiparm nocnsreport noeqcheck eformall `eform' `
> first' `negopt' `plus' `beta' `mcopt' `diopts'
              = _coef_table, nodiparm nocnsreport noeqcheck eformall showeqns
> neq(1)
            mcompare(noadjust ) fvwrap(1)
```

- else {

GetDiopts DUPS options, `options'

```
── 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
            sort depname(string) COEFTitle(string) coeftitle2(string) ptitle(
> end
> 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 fylabel nofylabel
                  }
                  else {
                  local fylabel fylabel
                  }
                - else local fvlabel `nofvlabel' `fvlabel'
                = else local fylabel
                local type `coeflegend' `selegend'
                = local 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 ——
- 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 {
```

- opts\_exclusive "`type' `standardized'"

```
- 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 showegns
  - local n 0
  - while `"`opts'"' != "" {
  = while `"showegns"' != "" {
  - 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 `"`showegns'"' != "" {
                = 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 {</pre>
                      = 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_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 S\_`sname' = s(`sname')

```
= local opts
  - local n 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 {
```

```
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'"' != "" {
```

confirm numeric format `sformat'

```
= 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,
                                 — 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'"' != "" {
```

GetDiopts DUPS options, `options'

```
= 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 `""' != "" {
    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 {</pre>
                      = 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'
                                                       fvwrap(1)
                    = 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 `"fvwrap(1)"'
                  - local snames : s(macros)
                  - foreach sname of local snames {
```

```
- }
                  - 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'"
```

- local S\_`sname' = s(`sname')
= local S\_level = s(level)

```
= opts_exclusive " "
               ------ begin opts_exclusive -----
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 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
```

```
Friday, January 10, 2025 at 11:33 AM Page 169
```

args opts optname errcode optslab

- local opts `opts'

= local opts
- local n 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 -
```

Friday, January 10, 2025 at 11:33 AM Page 173

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 {
```

```
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'"' != "" {
```

confirm numeric format `sformat'

```
= 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 <code>_get_diopts</code> -\!\!\!\!-
                - 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 {</pre>
                    _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 `""' == "" & `"218"' != "" {
                    - capture confirm integer number `e(df_r)'
                    = capture confirm integer number 218
                    - if !c(rc) {
                    - local gdof dof(`e(df_r)')
                    = local gdof dof(218)
                    - }
                    - 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 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
                     \overline{\hspace{1cm}} end <code>_get_diparmopts</code> \overline{\hspace{1cm}}
- 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)'"'
```

local diparm`k' `"`diparm'"'

```
}
  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' {
```

```
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
```

 $= if 0 {$ 

```
- 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 {</pre>
                      = 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 `""' != "" {
    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 {
```

```
- 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 " "
```

= if 0 < 2{

```
begin opts_exclusive
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 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'"' != "" {
```

```
- 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 "" == "" {
```

= while `""' != "" {

gettoken item`n' opts : opts, bind

local ++n

```
- 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
                    <del>----</del> 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 {
```

---- 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 {

```
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
    }
```

confirm numeric format `cformat'

```
= 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'
```

- opts\_exclusive "`word' `width'" fvwrapon

```
= 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'"=="") {
```

= sreturn local compare

- sreturn local level `level'

```
local k_eq = 1
                  }
                  if (`k_eform'<`k_eq' & `k_eform') {</pre>
                  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 -----
            - \text{ mat `b1'} = (1/\text{`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 \inf' = 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
                }
              - \text{ if } r(max) > 709 \mid 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'<. {</pre>
            = 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 \inf' = 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 cb_authors_ext estimated
   [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 TUKev 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'"' != "" {
```

```
- 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
```

= while `"noadjust"' != "" {

- local ++n

```
}
                  }

    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 {</pre>
                    = 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')
```

```
- }

    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 S\_options = s(options)

```
- local n 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'
```

```
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 `""' != "" {
```

if fmtwidth(`"`sformat'"') > 8 {

```
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')
                      }
                                    <del>----</del> end _get_diopts.Wrapon <del>-</del>
                  - 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
                      <del>----</del> end opts_exclusive <del>-</del>
- 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')
                      }
                                     <del>---</del> 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 negopt neg(1)
              - }
              - else {
                local negopt neg(`neg')
              - _coef_table, nodiparm nocnsreport noeqcheck eformall `eform' `
> first' `negopt' `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
> q:"
                - if (!c(noisily) & c(coeftabresults) == "off") {
                  exit
                  }
                - _check_eclass
                - syntax [, BMATrix(passthru) VMATrix(passthru) * ]
                - if "`e(b)'" == "" & "`e(V)'" == "" & "`bmatrix'`vmatrix'"=="
> " {
```

```
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
```

= if "matrix" == "" & "matrix" == "" & ""=="" {

```
> 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
            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 fylabel fylabel
                  }
                  }
                - else local fvlabel `nofvlabel' `fvlabel'
                = else local fylabel
                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 `""' != "" {
```

```
- 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'
```

gettoken item`n' opts : opts, bind

local ++n

```
= local opts
  - local n 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 showegns
  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 `"showegns"' != "" {

    local nofirst nofirst

- }
- if `"`ematrix'`noeqcheck'"' == "" {
= if `"noegcheck"' == "" {
  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 TUKev 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 <code>_get_mcompare</code> -\!-\!-
                - 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
                   <del>-----</del> end opts_exclusive <del>-</del>
- 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 -----
```

```
Friday, January 10, 2025 at 11:33 AM Page 275
```

args opts optname errcode optslab

- version 8.2

= local opts
- local n 0

- local opts `opts'

```
}
  - 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'" == "" {
```

- while `"`opts'"' != "" {

gettoken item`n' opts : opts, bind

= while `""' != "" {

local ++n

```
= 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 {</pre>
                      = 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 `""' != "" {
                        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
                   <del>---</del> begin opts_exclusive <del>-</del>
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    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 " "
                                       <del>---</del> begin opts_exclusive <del>-</del>
                      - version 8.2

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                       - local n 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 `""' != "" {
    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
                    - \text{ 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
                   <del>----</del> 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 {</pre>
                      = 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)
                    - \text{ 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 " "
                                       <del>----</del> begin opts_exclusive <del>--</del>
                      - version 8.2

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                      local n 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 -----
```

args opts optname errcode optslab

- version 8.2

= local opts
- local n 0

- local opts `opts'

```
- 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"
  }
```

```
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 {
```

sreturn local sformat `"`sformat'"'

```
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
```

 $= if 0 < 2 {$ 

> 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 `""' != "" {
                        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
                   <del>---</del> begin opts_exclusive <del>-</del>
    - version 8.2
    - args opts optname errcode optslab
    - local opts `opts'
    = local opts
    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 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
                    }
```

- if `:length local fvwrapon' {

```
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)
> 1
                  - 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 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
```

- capture confirm name `ef'

```
- }
- 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"
```

```
}
                  - 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"
                    }
```

local eform\_cons\_note = "risk ratios"

```
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 {

```
}
                - 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 {</pre>
                    _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 `""' == "" & `"218"' != "" {
                    - capture confirm integer number `e(df_r)'
                    = capture confirm integer number 218
```

```
- local gdof dof(`e(df_r)')
                    = local gdof dof(218)
                    - }
                    - 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 !c(rc) {

```
- 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
```

= if `""" == "" {

- }

- syntax [, diparm(string asis) ]

```
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 {</pre>
                      = 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)"'
```

```
- 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 " "
```

- local snames : s(macros)

```
begin opts_exclusive -----
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 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 `""' != "" {
    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
                    <del>----</del> end opts_exclusive <del>-</del>
- 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'
```

```
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 `""' != "" {
```

if fmtwidth(`"`sformat'"') > 8 {

```
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
```

```
- 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') {</pre>
                 if ("`e(cmd2)'" == "stintreg" | "`e(cmd2)'" == "streg") & ("
> `e(cmd)'" == "weibull" | "`e(cmd)'" == "gompertz") {
                 }
                 else {
                 di as txt "`efnote'"
                 }
                 }
```

- gettoken DUPS : DUPS

```
}
                - 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 ---
            - \text{ 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 \inf' = 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 \underline{\hspace{0.4cm}}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 = cb_authors_ext estimated, ) [] if __000002, collinear missing max noo
> utput nopreserve title(Poisson regression) robust init(__000006) search(o
> ff) lf0(1 -437.385284075989) negh
```

```
— begin ml —
            - if _caller()>=11 {
            - mopt `0'
            = mopt model e2 poiss_lf (y_timing_max: y_timing_max = cb_authors_
> ext estimated, ) [] if __000002, collinear missing max nooutput nopreserve
> title(Poisson regression) robust init( 000006) search(off) lf0(1 -437.38
> 5284075989) 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'
```

```
}
              - 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 = cb_authors_ext estimated, ) [] if __000002, collinear missing ma
> x nooutput nopreserve title(Poisson regression) robust init(__000006) sea
```

exit

```
> rch(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 {</pre>
                    _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 `""' == "" & `"218"' != "" {
                    - capture confirm integer number `e(df_r)'
```

```
- if !c(rc) {
                    - local gdof dof(`e(df_r)')
                    = local gdof dof(218)
                    - }
                    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'"'
                    }
                    }
```

= capture confirm integer number 218

```
= 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
```

- if `"`soptions'"' == "" {

```
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 62 {
                - local ++ieq
                - gettoken eq eqspec : eqspec, bind
                - if bsubstr(trim("`eq'"),1,1) == "/" {
                = if bsubstr(trim("(y_timing_max: y_timing_max = cb_authors_ex
> t estimated, )"),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 = cb_authors_ex
               )"')
> t estimated,
                - if bsubstr("`p2'",1,1) == "," {
                = if bsubstr("y_timing_max: y_timing_max = cb_authors_ext esti
> mated, )",1,1) == "," {
                  gettoken comma p2 : p2, parse(",")
                  local p2 = trim(`"`p2'"')
                  }
                - if `"`p1'`p2'"' == "()" {
                = if `"(y_timing_max: y_timing_max = cb_authors_ext estimated,
```

```
)"' == "()" {
                  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 `"`moptobi'"' != "" {
                = 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:
                                           n_depvars
                           array
                           string
                                           needequal
                                           noneedvarlist
                           string
                           string
                                           wtypes
                                           collinear
                           string
                           string
                                           nocons
                                           nocons_ignore
                           string
                           double
                                           n_eq
                                           gl_if
                           string
                           string
                                           gl_in
                           string
                                           gl_wgt
                                           gl_options
                           string
                           _optlist
                                           eq_opts_allowed
                    -class {
                    -instance:
                             array options = {}
                             array names = {}
```

```
-}
                                            eq_list
                           array
                           _optlist
                                            mark_opts
                           array
                                            mark_list
                                            mark_name
                           array
                           _optlist
                                            smark opts
                           array
                                            smark_list
                                            smark_name
                           array
                                            rmcoll_opts
                           _optlist
                           array
                                            rmcoll_list
                                            rmcoll_name
                           array
                                            rmdcoll_opts
                           _optlist
                                            rmdcoll_list
                           array
                           array
                                            rmdcoll_name
                  -}
                                            — begin _eqlist.new ——
                  - version 9.2
                  - ._init
                                        --- begin _eqlist._init ------
                    - version 9.2
                    - \cdot 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 egopts {
                    - .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 = cb_authors_ex
> t estimated, ) []
                                        — 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' {
```

```
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 = cb_authors_ext es
> timated, ) []"', parse(",()[]")
                  - local rebind = `"`1'"' != "(" & `"`2'"' == "("
                  = local rebind = `"("' != "(" & `"y_timing_max: y_timing_max
  = cb_authors_ext estimated"' == "("
                  - }
                  - 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 ZER0 `"`ZER0' (`tok')"'
                    }
                    else {
                    local ZERO `"(`ZERO') (`tok') `0'"'
                    local 0
                    }
                    else if inlist("`tok'", "if", "in", ",") {
                    local ZERO `"(`ZERO') `tok' `0'"'
```

= forval i = 1/0 {

```
local 0
                    }
                    else if inlist(substr(`"`tok'"',1,1), "#", "|") {
                    local ZER0 `"`ZER0'`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' {</pre>
                  = if 1 <= 1 {
                  - local ndep = `.n_depvars[`i']'
                  = local ndep = 0
                  - }
                  - .eq_list[`i'] = ._eqspec.new, numdepvars(`ndep') `.needequ
> al' `.noneedvarlist' wtypes(`.wtypes') `.nocons_ignore'
                  = .eq_list[1] = ._eqspec.new, numdepvars(0) needequal noneed
> varlist wtypes()
                    -class {
                    -instance:
                             double n_depvars
                             double needequal
                             double needvarlist
                             string
                                     wtypes
                             string
                                     name
                             string
                                     depvars
                             double hasequal
                             string
                                     indepvars
                                     other_markvars
                             string
                             double nocons
                             double nocons_ignore
                             string offset
                             double exposure
                             double freeparm
                             string
                                     if
                             string
                                     in
                             string
                                     wgt
                             string options
                    -}
```

Friday, January 10, 2025 at 11:33 AM Page 383

— 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(6000028d8000):y_timing_max: y_timi
> ng_max = cb_authors_ext estimated
                                     ——— begin _eqspec.parse ———
                    - version 9.2
                    - _on_colon_parse `0'
                   = _on_colon_parse __key(6000028d8000):y_timing_max: y_timi
> ng_max = cb_authors_ext estimated
                                   ----- 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(6000028d8000)"' == ":" {
                        sreturn local after `"`after'"'
                        exit
                        }
                      - while `"`COLON'"' != ":" & `"`after'"' != "" {
                      = while `""' != ":" & `":y_timing_max: y_timing_max = cb
```

```
> _authors_ext estimated"' != "" {
                      - 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 = cb
> _authors_ext estimated"' != "" {
                        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(6000028d8000)"'
                      - sreturn local after `"`after'"'
                      = sreturn local after `"y_timing_max: y_timing_max = cb_
> authors_ext estimated"'
                                       ---- end _on_colon_parse ----
                    - local ol `s(before)'
                    = local ol __key(6000028d8000)
                    - 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 = cb_authors_ext es
> timated"'
                    - if `"`.wtypes'"' != "" {
                    = if `""' != "" {
                      local wgt "[`.wtypes']"
                      }
                    - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST'
> `NOCONS' *1
                    = 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 5 {
                    - 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 `"= cb_authors_ext estimated"' == "" {
  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' {</pre>
                      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 }</pre>
                      = if 1>=1 & 1<=32000 { exit }
```

```
---- end tsunab -----
                    - if `:list sizeof INDEPVARS' {
                    = if 2 {
                    - fvunab INDEPVARS : `INDEPVARS'
                    = fvunab INDEPVARS : cb_authors_ext estimated
                                             ——— begin fvunab ————
                      - version 11
                      - _on_colon_parse `0'
                      = _on_colon_parse INDEPVARS : cb_authors_ext estimated
                                ------ 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 `""' != ":" & `": cb_authors_ext estimated"'
> != "" {
                        - 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 `":"' != ":" & `" cb_authors_ext estimated"'
```

```
> != "" {
                          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 `" cb_authors_ext estimated"'
                                       ---- end _on_colon_parse ---
                      - local 0 `"`s(before)'"'
                      = local 0 `"INDEPVARS "'
                      - syntax name(id="macro name" name=user)
                      - local 0 `"`s(after)'"'
                      = local 0 `" cb_authors_ext estimated"'
                      - syntax [varlist(ts fv default=none)] [, MIN(integer 1)
> MAX(integer 32000) NAME(string) ]
                      - c_local `user' `varlist'
                      = c_local INDEPVARS cb_authors_ext estimated
                      - local n : list sizeof varlist
                      - if (`min' <= `n' & `n' <= `max') exit</pre>
                      = if (1 <= 2 & 2 <= 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 = `"cb_authors_ext estimated"'
  - .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'"
                    }
                    }
                  - \cdot 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 `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'
```

= if "" != "" & "missing" == "" {

```
── begin _eqlist.dim ──
                  - version 9.2
                  syntax
                  - local neq = `.eq count'
                                             — begin eglist.eg —
                    - 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' {</pre>
                    = 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 `"cb_authors_ext estimated"'
                      - sreturn local value `"`value'"'
                      = sreturn local value `"cb_authors_ext estimated"'
                      - class exit `"`value'"'
                      = class exit `"cb_authors_ext estimated"'
                                           --- end _eqspec.item --
                    - class exit `"`s(value)'"'
                    = class exit `"cb_authors_ext estimated"'
                                             --- end _eqlist.eq ---
                  = local xvarsi `"cb_authors_ext estimated"'
                  - 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' {</pre>
                    = 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'
```

```
--- 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 = + 2
                  - if "`noconsi'" == "0" {
                  = if "0" == "0" {
                  - local ++dim
                  - }
                  - }
                  - sreturn local value `"`dim'"'
                  = sreturn local value `"3"'
                  - class exit `"`s(value)'"'
                  = class exit `"3"'
```

= .\_check\_eq\_item\_name item, nocons

```
— end _eqlist.dim —
                = global ML dim = 3
                - 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' {</pre>
                  = 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 1

    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 <del>---</del>
                  - 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' {</pre>
                  = 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' {</pre>
  = else if 0 < 1 & 1 <= 1 {
  - .eq_list[`idx'].item `item'
  = .eq_list[1].item indepvars
```

```
– begin _eqspec.item <del>---</del>
                    - 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 `"cb_authors_ext estimated"'
                    - sreturn local value `"`value'"'
                    = sreturn local value `"cb_authors_ext estimated"'
                    - class exit `"`value'"'
                    = class exit `"cb_authors_ext estimated"'
                                             — end _eqspec.item ——
                  - class exit `"`s(value)'"'
                  = class exit `"cb_authors_ext estimated"'
                                                - end _eqlist.eq -
                = fvexpand cb_authors_ext estimated if __000007
                - if "`r(tsops)'" == "true" {
                = if "" == "true" {
                  global ML_preserve no
                  }
                - local eq_rhs`i' `"`r(varlist)'"'
                = local eq_rhs1 `"cb_authors_ext estimated"'
```

```
- 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' {</pre>
                  = 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' {</pre>
                  = 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'
```

```
- 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' {</pre>
                  = 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' {</pre>
                  = 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 = 1/2 {
                - gettoken xvar TMP : TMP
                - local colna `"`colna' `eq':`xvar'"'
                = local colna `" y_timing_max:cb_authors_ext"'
                - }
```

```
- gettoken xvar TMP : TMP
                - local colna `"`colna' `eq':`xvar'"'
                = local colna `" y_timing_max:cb_authors_ext y_timing_max:esti
> mated"'
                - }
                - 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:cb_authors_ext y_timing_max:esti
> mated 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''
                  }
                  }
                - 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'
                  }
                  }
```

```
}
                - 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

                - \text{ matrix `b0'} = J(1, `dim', 0)
                = matrix __000009 = J(1,3,0)
                - matrix colna `b0' = `colna'
                = matrix colna __000009 = y_timing_max:cb_authors_ext y_timin
> g_max:estimated 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
```

local lhs `tmp'

```
> ]
                  - 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
```

```
--- 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'"'
```

- sret local skip `skip'

= sret local skip

```
= 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:cb_authors_ext y_timing_max:estimated y_
> timing_max:_cons"'!="" {
                  - `vv' ChkNames `mat' "`matin'" `"`colname'"' `"`error'"' "`
> skip'" "`first'"
                  = version 18: ChkNames __00000A "__000009" `"y_timing_max:cb
> _authors_ext y_timing_max:estimated 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:cb_authors_ext"',1,in
> dex(`"y_timing_max:cb_authors_ext"',":"))
                    - }
                    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'
                    - \text{ mat `fill'} = J(1, k', 0)
                    = mat ___00000C = J(1,3,0)
                    - local i 1
                    - while `i' <= `dim' {</pre>
                    = while 1 <= 3 {
                    - 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 "_:cb_authors_ext"
                    - if (usubstr("`eq'",1,1) != "/") {
                    = if (usubstr("_",1,1) != "/") {
                    - local sspec "/`eq':`name'"
                    = local sspec "/_:cb_authors_ext"
                    - }
                    - }

    local oname

                    local ospec
                    - capture _msparse `name', noomit
                    = capture _msparse cb_authors_ext, 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,`"_:cb_authors_ex
> t"')
                    - if `j' == . & "`oname'" != "" {
                    = if 1 == . & "" != "" {
                      `vv' local j = colnumb(`new',`"`ospec'"')
                    - if `j' == . & "`sspec'" != "" {
                    = if 1 == . & "/_:cb_authors_ext" != "" {
                      `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] = __000000A[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' {</pre>
                    = while 2 <= 3 {</pre>
                    - 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 "_:estimated"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:estimated"
- }
- }
- local oname
local ospec
- capture _msparse `name', noomit
= capture _msparse estimated, 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,`"_:estimated"')
- if `j' == . & "`oname'" != "" {
= if 2 == . & "" != "" {
  `vv' local j = colnumb(`new',`"`ospec'"')
  }
- if `j' == . & "`sspec'" != "" {
= if 2 == . & "/_:estimated" != "" {
  `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] = __000000A[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' {</pre>
                    = while 3 <= 3 {
                    - 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 "_:_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 3 == . & "" != "" {
                       `vv' local j = colnumb(`new',`"`ospec'"')
                      }
                    - if `j' == . & "`sspec'" != "" {
                    = if 3 == . & "/_:_cons" != "" {
                      `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' {</pre>
                    = while 4 <= 3 {
                      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)'

```
- }
                  - }
                  - }
                  - 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 "3"!="" {
                  - sret local k_fill `fill'
                  = sret local k_fill 3
                  - 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(1,3,0)
                - matrix colna `bomit' = `colna'
                = matrix colna __00000A = y_timing_max:cb_authors_ext y_timin
> g_max:estimated y_timing_max:_cons
                - _ms_omit_info `bomit'
                = _ms_omit_info __00000A
```

= local fill 3

```
- 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 0IM
                                      --- 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"
                     <del>----</del> end _optlist.addopt <del>-</del>
- .`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 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 (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
                    }
```

= local ARGOPTNAMES `"cluster"'

```
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
- \text{ 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
- \text{ 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"
                    }
                  - 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 D00
> 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 "$ML_preserve" != "no" {
                  = if "no" != "no" {
                    if `:length local score' {
                    di as smcl as err "May not specify {bf:score()} option unl
> ess" n "
                a) estimation subsample is the entire data in memory, or" _n "
      b) you specify option {bf:nopreserve} on {bf:ml model} statement (meani
> ng" _n "
                   your evaluation program explicitly restricts itself to obs"
                for which {bf:$}" "{bf:ML_samp==1}."
> _n "
                    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 <del>------</del>
                  - 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 "`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
                   > 1)
                   = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
                   - if `todo' == 0 | `lnf'==. {
```

= if "" == "" {

```
= if 2 == 0 \mid \__00000L == . {
                      exit
                      }
                    - qui replace `score' = $ML_y1 - exp(`xb') if $ML_samp
                    = qui replace __000000 = y_timing_max - exp(__00000Q) if _
> 000007
                    - $ML_ec mlvecsum `lnf' `g' = `score'
                    = * mlvecsum __00000L __00000M = __000000
                    - if `todo' == 1 | `lnf'==. {
                    = if 2 == 1 \mid \underline{00000L} == . {
                      exit
                      }
                    - mlmatsum `lnf' `H' = exp(`xb')
                     = mlmatsum __00000L __00000N = exp(__00000Q)
                                             ----- end poiss_lf ---
Iteration 0: Log pseudolikelihood = -390.64599
                                         ----- begin poiss_lf -----
                    - version 6
                    - args todo b lnf g H score
                    tempvar xb
                    - mleval xb' = b'
                    = mleval __00000Q = __00000K
                    - mlsum \ \ lnf' = -exp(\ xb') + \ xb'*$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 \mid \__00000L == . {
                    - exit
                                                --- end poiss_lf -----
                                        ------ begin poiss_lf -----
                    - version 6

    args todo b lnf g H score

                    tempvar xb
                     - mleval xb' = b'
                    = mleval __000000 = __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 \mid \__00000L == . {
                     exit
                     }
                   - qui replace `score' = $ML_y1 - exp(`xb') if $ML_samp
                   = qui replace __000000 = y_timing_max - exp(__00000Q) if _
> _000007
                   - $ML_ec mlvecsum `lnf' `g' = `score'
                   = * mlvecsum __00000L __00000M = __000000
                   - 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 = -390.6455
                                       ----- begin poiss_lf -----
                   - version 6

    args todo b lnf g H score

                   tempvar xb
                   - mleval `xb' = `b'
                   = mleval __00000Q = __00000K
                   > 1)
                   = mlsum __00000L = -exp(__00000Q) + __00000Q*y_timing_max
> - lngamma(y_timing_max+1)
                   - if `todo' == 0 | `lnf'==. {
                   = if 0 == 0 \mid \__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}) + <math>\__{00000Q*y\_{timing\_max}}
> - lngamma(y_timing_max+1)
                    - if `todo' == 0 | `lnf'==. {
                    = if 0 == 0 \mid \__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 \mid \__00000L == .  {
                      exit
                    - qui replace `score' = $ML_y1 - exp(`xb') if $ML_samp
                    = qui replace __000000 = y_timing_max - exp(__00000Q) if _
> 000007
                    - $ML_ec mlvecsum `lnf' `g' = `score'
                    = * mlvecsum __00000L __00000M = __000000
                    - if `todo' == 1 | `lnf'==. {
                    = if 2 == 1 | __00000L==. {
                      exit
                    - mlmatsum `lnf' `H' = exp(`xb')
                    = mlmatsum __00000L __00000N = exp(__00000Q)
                                         ------ end poiss_lf -----
```

```
---- 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 {</pre>
    _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 egns
                          local 0 `"`zero'"'
                          while `"`tok'"' != "" & `"`tok'"' != "," {
                          gettoken tok 0 : 0, parse(" ,") bind
                          local eqns `"`eqns' `tok'"'
                          gettoken tok : 0, parse(" ,") bind
                          local egns `"`"`egns'"'"

    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 {</pre>
                            = 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' < . {</pre>
                         = 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 \underline{\phantom{0}}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')) * `
  }
  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')
```

> chi2'

Friday, January 10, 2025 at 11:33 AM Page 453

```
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 "" != "" {
                         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 {
                                           F(" %3.0f `df1' "," %6.0f `df2' ")
                          di as txt "
> =" 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}"
                                            {c |}{ralign 12:`d'} df{ralign
                          di as txt "
> 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 <del>–  </del>
 - 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 {</pre>
    test `0'
    return add
    exit
    }
```

```
----- 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 <del>– –</del>
    - 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 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 .1068618116917133
          - 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 cb_authors_
> ext estimated [] if __000000, nodisplay
                                              robust"'
                                          ----- end poisson ----
      tempname bp
      - \text{ 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)
```

est hidden local marginsderiv default N IR

```
}
      - 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'<. {</pre>
      = if .8283739677697126<. {</pre>
      - \text{ 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 nocusnotes 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" {

```
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
```

= if "model" == "init" {

```
> 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 {</pre>
                _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
```

```
- 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 `""'
```

- local lopt level(`glevel')

= local lopt level(95)

```
= 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' {
```

- forval i = 1/k' {

```
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
                                        nocons_ignore
                       string
                       double
                                        n_eq
                                        gl_if
                       string
                       string
                                        gl_in
                                        gl_wgt
                       string
                       string
                                        gl_options
                       _optlist
                                        eq_opts_allowed
                -class {
                -instance:
                         array options
                                          = {}
                         array names
                                          = {}
                -}
                                        eq_list
                       array
                       _optlist
                                       mark_opts
                                       mark_list
                       array
                                        mark_name
                       array
                                        smark_opts
                       _optlist
                                        smark_list
                       array
                       array
                                        smark_name
                                        rmcoll_opts
                       _optlist
                                        rmcoll_list
                       array
                                        rmcoll_name
                       array
                                        rmdcoll_opts
                       _optlist
                                        rmdcoll_list
                       array
                                        rmdcoll_name
                       array
```

```
-}
                                            — begin _eqlist.new ————
              - version 9.2
              - ._init
                                        --- begin _eqlist._init -----
                - version 9.2
                - \cdot 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 egopts {
                - .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 —
```

```
- 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'"
```

- syntax name(name=optspec) [, PASSthru]

- version 9

```
= .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
                - \cdot 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 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' {</pre>
              = if 1 <= 1 {
              - local ndep = `.n_depvars[`i']'
              = local ndep = 0
```

- if `EQ\_n' == 0 & "`.noneedvarlist'" == "" {

```
- }
              - .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(6000028d9380):y_timing_max: y_timing_m
> ax=
                                   ----- begin _eqspec.parse ----
                - version 9.2
                - _on_colon_parse `0'
                = _on_colon_parse __key(6000028d9380):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(6000028d9380)"" == ":" {
                    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(6000028d9380)"'
                  - sreturn local after `"`after'"
                  = sreturn local after `"y_timing_max: y_timing_max="'
                                      ---- end _on_colon_parse ----
                - local ol `s(before)'
                = local ol __key(6000028d9380)
                - 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 "`wqt'" != "" & "`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' {</pre>
                  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 }</pre>
                  = 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' {</pre>
              = 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(6000028d9380):"lnalpha":, freeparm
                                        --- begin _eqspec.parse -
                - version 9.2
                - _on_colon_parse `0'
                = _on_colon_parse __key(6000028d9380):"lnalpha":, freeparm
                                      <del>----</del> begin _on_colon_parse <del>--</del>
                  - 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(6000028d9380)"' == ":" {
                    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(6000028d9380)"'
                  - sreturn local after `"`after'"'
                  = sreturn local after `""lnalpha":, freeparm"'
                                      ---- end _on_colon_parse --
                - local ol `s(before)'
                = local ol __key(6000028d9380)
                - 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 {
```

```
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' {</pre>
                   error 102
                   }
                   forval j = 1/`.n_depvars' {
                   gettoken YY anything : anything
```

syntax varname(ts)

```
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'"
                }
                }
              - \cdot 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/\text{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' {</pre>
                = 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' {</pre>
                = 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
                    - 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' {</pre>
  = 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' {</pre>
                = 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
                    - 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 <del>-</del>
            = 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' {</pre>
              = 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'
```

```
- 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' {</pre>
              = 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' {</pre>
```

```
= else if 0 < 1 & 1 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq list[1].item indepvars
                                           - begin _eqspec.item <del>-</del>
                - 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' {</pre>
              = 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' {</pre>
              = 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' {</pre>
              = 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' {</pre>
              = 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' {</pre>
  = else if 0 < 2 & 2 <= 2 {
  - .eq_list[`idx'].item `item'
  = .eq_list[2].item depvars
                               – begin _eqspec.item <del>---</del>
```

```
- 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' {</pre>
              = 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' {</pre>
              = 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' {</pre>
  = 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' {</pre>
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
```

```
= .eq_list[2].item offset
                                           – begin _eqspec.item <del>-----</del>
                - 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
                  - 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' {</pre>
              = 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 eglist.eg —
              - 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' {</pre>
              = 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 {
```

```
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'
```

di in red "from() must be specified"

```
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"'
             - local 0 `"`s(before)'"'
= local 0 `"
              = 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 {
```

```
= .__000009.addopt 0IM
                       — begin _optlist.addopt —
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("0IM")
  - 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")
```

- .`o'.addopt `name'

```
- 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 (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) 1
              - 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)')"
```

```
- 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
```

= return local vceopt `"vce(robust)"'

- }

```
}
              }
              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
- \text{ 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) 0
> 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 "$ML_preserve" != "no" {
              = if "no" != "no" {
                if `:length local score' {
                di as smcl as err "May not specify {bf:score()} option unless"
> _n "
            a) estimation subsample is the entire data in memory, or" _n "
> b) you specify option {bf:nopreserve} on {bf:ml model} statement (meaning"
               your evaluation program explicitly restricts itself to obs" _n
> "
            for which {bf:$}" "{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 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'
```

= sreturn local log log

- sreturn local nolog `nolog'

```
- `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 \__0000000 = \__000000J, 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 {</pre>
                = 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 \mid \__{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 {</pre>
                = 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
```

tempname value b V iV

```
> 005
                - replace `sc2' = `m'*(digamma(`m') - digamma(`y'+`m') - ln(`p
> ')) + `p'*(`y'-`mu') if $ML_samp
                = replace __000000 = __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 = __000000, eq(2)
                - $ML_ec matrix `g' = (`g1', `g2')
                = * matrix __00000L = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \__00000K == . { exit }
                tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar ___00000W = exp(___00000R)
                - if `lnalpha' < -20 {</pre>
                = 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*(__000000W*__000000V*(
> 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 \__0000000 = \__000000J, eq(1)
               - mleval `lnalpha' = `b', eq(2) scalar
               = mleval __00000R = __00000J, eq(2) scalar
               - local y "$ML_y1"
               = local y "y_timing_max"
               - scalar `m' = exp(-`lnalpha')
               = scalar __00000S = exp(-__00000R)
               - if `lnalpha' < -20 {</pre>
               = if 00000R < -20  {
                 }
               - else {
               - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
               = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_{timing_max*ln1p(exp(-__00000Q-__00000R))}
               - if `todo' == 0 | `lnf'==. { exit }
               = if 0 == 0 \mid \__{00000K==}. { exit }
                                              — end nbreg_lf —
                                      ----- begin nbreg_lf -----
               - version 6.0
               args todo b lnf g H sc1 sc2
               tempvar xb
               tempname lnalpha m
               - mleval `xb' = `b', eq(1)
               = mleval \__000000 = \__000000J, eq(1)
               - mleval `lnalpha' = `b', eq(2) scalar
               = mleval __00000R = __00000J, eq(2) scalar
               - local v "$ML v1"
               = local y "y_timing_max"
               - scalar `m' = exp(-`lnalpha')
               = scalar __00000S = exp(-__00000R)
```

```
- if `lnalpha' < -20 {</pre>
               = if __00000R < -20 {
                 }
               - 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 \mid \__{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 \__{000000} = \__{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 {</pre>
               = 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 \mid \__{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 \__{000000} = \__{00000J}, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval \__{00000R} = \__{00000J}, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {</pre>
                = if __00000R < -20 {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_{timing_max*ln1p(exp(-__00000Q-__00000R))}
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 \mid \__{00000K==}. { exit }
                                                — end nbreg_lf ————
                                             ---- begin nbreg_lf -----
                - version 6.0
                - args todo b lnf g H sc1 sc2
                tempvar xb
                - tempname lnalpha m
                - mleval xb' = b', eq(1)
                = mleval \__0000000 = \__000000J, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000R = __00000J, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000S = exp(-__00000R)
                - if `lnalpha' < -20 {</pre>
                = 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) - __000000S*ln1p(exp(__00000Q+__000000R)) -
> y_{timing_max*ln1p(exp(-__00000Q-__00000R))}
                - if `todo' == 0 | `lnf'==. { exit }
                = if 2 == 0 \mid \__{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 {</pre>
                = 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 __000000 = __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 = __000000, eq(2)
                - $ML_ec matrix `g' = (`g1', `g2')
                = * matrix ___00000L = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \__00000K == . { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar ___00000W = exp(___00000R)
                - if `lnalpha' < -20 {</pre>
```

```
= 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 \__0000000 = \__000000J, 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 {</pre>
                = 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 \mid \__{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 \__{000000} = \__{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 {</pre>
               = if __00000R < -20 {
                 }
               - 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 \mid \__{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 {</pre>
                = if __00000R < -20 {
                  }
                - 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 \mid \__{00000K==} {exit}

    tempname alpha

                - tempvar mu p
                - quietly {
                - gen double `mu' = exp(`xb') if $ML_samp
                = gen double \__00000U = exp(\__000000) 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 {</pre>
                = 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 __000000 = __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 \inf' \g1' = \sc1', eq(1)
                = * mlvecsum __00000K = __00000N, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __00000K = __000000, eq(2)
                - $ML_ec matrix `g' = (`g1', `g2')
                = * matrix  00000L = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \__00000K == . { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __00000W = exp(__00000R)
                - if `lnalpha' < -20 {</pre>
                = 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 \__0000000 = \__000000J, eq(1)
               - mleval `lnalpha' = `b', eq(2) scalar
               = mleval 00000R = 00000J, eq(2) scalar
               - local y "$ML_y1"
               = local y "y_timing_max"
               - scalar `m' = exp(-`lnalpha')
               = scalar __00000S = exp(-__00000R)
               - if `lnalpha' < -20 {</pre>
               = if __00000R < -20 {
                 }
               - else {
               - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
               = mlsum __00000K = lngamma(__00000S+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R)) -
> y_{timing_max*ln1p(exp(-__00000Q-__00000R))}
               - if `todo' == 0 | `lnf'==. { exit }
               = if 0 == 0 \mid \__{00000K==}. { exit }
                                          ----- end nbreg_lf -----
                                        ----- begin nbreg_lf ---
               - version 6.0
               args todo b lnf g H sc1 sc2
               tempvar xb
               tempname lnalpha m
               - mleval xb' = b', eq(1)
               = mleval \__0000000 = \__000000J, eq(1)
               - mleval `lnalpha' = `b', eq(2) scalar
               = mleval __00000R = __00000J, eq(2) scalar
               - local y "$ML_y1"
               = local y "y_timing_max"
               - scalar `m' = exp(-`lnalpha')
               = scalar __00000S = exp(-__00000R)
               - if `lnalpha' < -20 {</pre>
               = 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) - __000000S*ln1p(exp(__00000Q+__00000R)) -
> y_timing_max*ln1p(exp(-__00000Q-__00000R))
```

```
- }
                 - if `todo' == 0 | `lnf'==. { exit }
                 = if 0 == 0 \mid 00000K == . { exit }
                                                   - end nbreg_lf <del>---</del>
                                              --- 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 __000000 = __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 {</pre>
                 = 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 \mid \__{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 {</pre>
                 = 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 000000 = 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 = __000000, eq(2)
                - $ML_ec matrix `g' = (`g1',`g2')
                = * matrix ___00000L = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \__00000K == . { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __00000W = exp(__00000R)
                - if `lnalpha' < -20 {</pre>
                = 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'
```

```
}
  - 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 {
```

exit

```
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 ----
- \text{ 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 3 > 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)
      - }
      - \text{ mat `bp'}[1, \text{`dim'}] = \text{`bp'}[1, \text{`dim'}] + \text{`b0'}[1,1] - \text{r(mean)}
      = mat __000002[1,3] = __000002[1,3] + __000003[1,1] - r(mean)
      - \text{ 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' }</pre>
        = 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) - __0000007*ln1p(exp(__0000005+__0000006)) - 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 —
      - \text{ if } r(\ln f) > `ll0' \& r(\ln f) <. {
      = 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=cb_author
> s_ext estimated, ) /lnalpha if __000000 [], collinear missing max nooutput
> nopreserve init(__000002) search(off) robust vce(robust) continue title(Ne
> gative binomial regression) diparm(lnalpha, exp label("alpha")) negh
                                                     – begin ml –
       - if _caller()>=11 {
       - mopt `0'
        = mopt model e2 nbreg_lf (y_timing_max: y_timing_max=cb_authors_ext es
> timated, ) /lnalpha if __000000 [], collinear missing max nooutput nopreser
> ve init(__000002) search(off) robust vce(robust) continue title(Negative b
> inomial 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=cb_authors_ext estimated, ) /lnalpha if __000000 [], collinear missing
> max nooutput nopreserve init(__000002) search(off) robust vce(robust) con
> tinue title(Negative binomial regression) diparm(lnalpha, 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 {</pre>
                _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 = 1/1 {
  - sreturn local diparm`i' `"`diparm`i''"'
  = sreturn local diparm1 `"lnalpha, exp label("alpha")"'
  - }
  - sreturn local k `k'
  = sreturn local k 1
  - exit
                             oldsymbol{--} end <code>_get_diparmopts</code> oldsymbol{--}
- 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 {
```

- forval i = 1/k' {

```
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 66 {
            - local ++ieq
            - gettoken eq eqspec : eqspec, bind
            - if bsubstr(trim("`eq'"),1,1) == "/" {
            = if bsubstr(trim("(y_timing_max: y_timing_max=cb_authors_ext esti
> mated, )"),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=cb_authors_ext esti
> mated, )"')
            - if bsubstr("`p2'",1,1) == "," {
            = if bsubstr("y_timing_max: y_timing_max=cb_authors_ext estimated,
    )",1,1) == "," {
              gettoken comma p2 : p2, parse(",")
              local p2 = trim(`"`p2'"')
              }
            - if `"`p1'`p2'"' == "()" {
            = if `"(y_timing_max: y_timing_max=cb_authors_ext estimated, )"'
> == "()" {
              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
                                       needequal
                       string
                                       noneedvarlist
                       string
                       string
                                       wtypes
                       string
                                       collinear
                       string
                                       nocons
                       string
                                       nocons_ignore
                       double
                                       n_eq
                       string
                                       gl_if
                       string
                                       gl_in
                       string
                                       gl_wgt
                                       gl_options
                       string
                                       eq_opts_allowed
                       _optlist
                -class {
                -instance:
                         array options
                                         = {}
                                         = {}
                         array names
                -}
                                       eq_list
                       array
                       _optlist
                                       mark_opts
                                       mark_list
                       array
                       array
                                       mark_name
                       _optlist
                                       smark_opts
                       array
                                       smark_list
                                       smark_name
                       array
                                        rmcoll_opts
                       _optlist
```

```
rmcoll_list
                       array
                                        rmcoll_name
                       array
                                        rmdcoll_opts
                       _optlist
                                        rmdcoll_list
                       array
                                        rmdcoll_name
                       array
              -}
                                            — begin _eqlist.new —
              - version 9.2
              - ._init
                                          — begin _eqlist._init —
                - version 9.2
                - \cdot 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 egopts {
                - .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=cb_authors_ext esti
> mated, ) ("lnalpha":, freeparm)
                                    ----- begin _eqlist.parse -----
             - version 9.2
             - ._init
                                      ---- begin _eqlist._init -----
               - version 9.2
               - \cdot 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 ZER0 `"(`ZER0') `tok' `0'"'
                local 0
                }
                else if inlist(substr(`"`tok'"',1,1), "#", "|") {
                local ZER0 `"`ZER0'`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' {</pre>
              = 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(6000025bae00):y_timing_max: y_timing_m
> ax=cb_authors_ext estimated
                                ------ begin _eqspec.parse -----
                - version 9.2
                - _on_colon_parse `0'
                = _on_colon_parse __key(6000025bae00):y_timing_max: y_timing_m
> ax=cb_authors_ext estimated
                                ------ 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(6000025bae00)"' == ":" {
                    sreturn local after `"`after'"'
                    exit
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
                  = while `""' != ":" & `":y_timing_max: y_timing_max=cb_autho
> rs_ext estimated"' != "" {
                  - 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=cb_autho
> rs_ext estimated"' != "" {
                    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(6000025bae00)"'
                  - sreturn local after `"`after'"'
                  = sreturn local after `"y_timing_max: y_timing_max=cb_author
> s_ext estimated"'
                                       ---- end _on_colon_parse -----
                - local ol `s(before)'
                = local ol __key(6000025bae00)
                - 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=cb_authors_ext estimate
> d"'
                - 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 "`wqt'" != "" & "`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 3 {
                - 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 `"=cb_authors_ext estimated"' == "" {
                  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' {</pre>
                  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 <del>---</del>
                  - 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 }</pre>
                  = if 1>=1 & 1<=32000 { exit }
                                                 ---- end tsunab ----
                - if `:list sizeof INDEPVARS' {
                = if 2 {
                - fvunab INDEPVARS : `INDEPVARS'
                = fvunab INDEPVARS : cb_authors_ext estimated
                                                  - begin fvunab —
                  - version 11
                  - _on_colon_parse `0'
                  = _on_colon_parse INDEPVARS : cb_authors_ext estimated
```

```
<del>----</del> begin _on_colon_parse <del>-</del>
                     - 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 `""' != ":" & `": cb_authors_ext estimated"' != ""
> {
                     - 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 `":"' != ":" & `" cb_authors_ext estimated"' != ""
                       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 `" cb_authors_ext estimated"'
                                         — end _on_colon_parse —
                  - local 0 `"`s(before)'"'
                  = local 0 `"INDEPVARS "'
                  - syntax name(id="macro name" name=user)
                  - local 0 `"`s(after)'"'
                  = local 0 `" cb_authors_ext estimated"'
                  - syntax [varlist(ts fv default=none)] [, MIN(integer 1) MAX
> (integer 32000) NAME(string) ]
                  - c_local `user' `varlist'
                  = c_local INDEPVARS cb_authors_ext estimated
                  - local n : list sizeof varlist
                  - if (`min' <= `n' & `n' <= `max') exit</pre>
                  = if (1 <= 2 & 2 <= 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 = `"cb_authors_ext estimated"'
- .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' {</pre>
              = 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(6000025bae00):"lnalpha":, freeparm
                                    ──── begin _eqspec.parse ──
                - version 9.2
                - _on_colon_parse `0'
                = _on_colon_parse __key(6000025bae00):"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(6000025bae00)"' == ":" {
                    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(6000025bae00)"'
                  - sreturn local after `"`after'"'
                  = sreturn local after `""lnalpha":, freeparm"'
                                        --- end _on_colon_parse ---
                - local ol `s(before)'
                = local ol __key(6000025bae00)
                - 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' *1
                = 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' {</pre>
                  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'].parse "" : ``OPT''
    .rmdcoll name.Arrpush "`OPT'"
    }
  - \cdot 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'
```

.rmdcoll\_list[`++I'] = .\_eqspec.new, wtypes(`.wtypes')

```
}
- 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' {</pre>
                = 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 `"cb_authors_ext estimated"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"cb_authors_ext estimated"'
                  - class exit `"`value'"'
                  = class exit `"cb_authors_ext estimated"'
                                            — end _eqspec.item —
                - class exit `"`s(value)'"'
                = class exit `"cb_authors_ext estimated"'
                                               – end _eqlist.eq —
              = local xvarsi `"cb_authors_ext estimated"'
              - 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' {</pre>
                = 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 = + 2
              - 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' {</pre>
                = 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' {</pre>
  = 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 = 3 + 0
              - if "`noconsi'" == "0" {
              = if "0" == "0" {
              - local ++dim
              - }
              - sreturn local value `"`dim'"'
              = sreturn local value `"4"'
              - class exit `"`s(value)'"'
              = class exit `"4"'
                                             — end _eqlist.dim —
            = global ML_dim = 4
            - forval i = 1/eq n'
            = forval i = 1/2 {
```

```
- local depvars `.`eqlist'.eq depvars `i''
                                             – begin _eqlist.eq <del>---</del>
              - 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' {</pre>
              = 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' {</pre>
              = 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' {</pre>
  = else if 0 < 1 & 1 <= 2 {
  - .eq_list[`idx'].item `item'
  = .eq_list[1].item indepvars
                               – begin _eqspec.item <del>–</del>
    - 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 `"cb_authors_ext estimated"'
                - sreturn local value `"`value'"'
                = sreturn local value `"cb_authors_ext estimated"'
                - class exit `"`value'"'
                = class exit `"cb_authors_ext estimated"'
                                          --- end _eqspec.item ----
              - class exit `"`s(value)'"'
              = class exit `"cb_authors_ext estimated"'
                                             — end _eqlist.eq —
            = fvexpand cb_authors_ext estimated if __000006
            - if "`r(tsops)'" == "true" {
            = if "" == "true" {
              global ML_preserve no
            - local eq_rhs`i' `"`r(varlist)'"'
            = local eq_rhs1 `"cb_authors_ext estimated"'
            - 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' {</pre>
              = 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 eglist.eg —
              - 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' {</pre>
              = 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' {</pre>
              = 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' {</pre>
              = 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 = 1/2 {
            - gettoken xvar TMP : TMP
            - local colna `"`colna' `eq':`xvar'"'
            = local colna `" y_timing_max:cb_authors_ext"'
            - }
            - gettoken xvar TMP : TMP
            - local colna `"`colna' `eq':`xvar'"'
            = local colna `" y_timing_max:cb_authors_ext y_timing_max:estimate
> d"'
            - }
```

```
- 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:cb_authors_ext y_timing_max:estimate
> d 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' {</pre>
              = else if 0 < 2 & 2 <= 2 {
              - .eq_list[`idx'].item `item'
              = .eq_list[2].item depvars
                                            – begin _eqspec.item <del>-----</del>
                - 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' {</pre>
              = 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' {</pre>
              = 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' {</pre>
  = 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' {</pre>
              = 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' {</pre>
              = 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' {</pre>
              = 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:cb_authors_ext y_timing_max:estimate
> d 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 -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
- \text{ mat `ub0'} = e(b)
= mat __000008 = e(b)
- tempname v0 iv0
- \text{ mat `v0'} = e(V)
= mat __000009 = e(V)
- \text{ mat `iv0'} = \text{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(1,4,0)
            - matrix colna `b0' = `colna'
            = matrix colna __00000B = y_timing_max:cb_authors_ext y_timing_ma
> x:estimated 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 <del>-</del>
- 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:cb_authors_ext y_timing_max:estimated y_timi
> ng_max:_cons /lnalpha"'!="" {
              - `vv' ChkNames `mat' "`matin'" `"`colname'"' `"`error'"' "`skip
> '" "`first'"
              = version 18: ChkNames __00000C "__00000B" `"y_timing_max:cb_aut
> hors_ext y_timing_max:estimated y_timing_max:_cons /lnalpha"' `"initial vect
> or: "' "" "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( 00000C))
                - if "`first'"!="" {
```

```
= if "first"!="" {
                gettoken name : names
                - local eq1 = bsubstr(`"`name'"',1,index(`"`name'"',":"))
                = local eq1 = bsubstr(`"y_timing_max:cb_authors_ext"',1,index(
> `"y_timing_max:cb_authors_ext"',":"))
                - }

    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'
                  }
                - \text{ mat `fill'} = J(1, k', 0)
                = mat __00000E = J(1,4,0)
                - local i 1
                - while `i' <= `dim' {</pre>
                = while 1 <= 4 {</pre>
                - 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:cb_authors_ext"
                - if (usubstr("`eq'",1,1) != "/") {
                = if (usubstr("y_timing_max",1,1) != "/") {
                - local sspec "/`eq':`name'"
                = local sspec "/y_timing_max:cb_authors_ext"
                - }
                - }
                - local oname
                local ospec
                - capture _msparse `name', noomit
                = capture _msparse cb_authors_ext, 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:cb_aut
> hors_ext"')
                - if `j' == . & "`oname'" != "" {
                = if 1 == . & "" != "" {
                  `vv' local j = colnumb(`new',`"`ospec'"')
                - if `j' == . & "`sspec'" != "" {
                = if 1 == . & "/y_timing_max:cb_authors_ext" != "" {
                  `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' {</pre>
                = while 2 <= 4 {</pre>
                - 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:estimated"
                - if (usubstr("`eq'",1,1) != "/") {
                = if (usubstr("y_timing_max",1,1) != "/") {
                - local sspec "/`eq':`name'"
                = local sspec "/y_timing_max:estimated"
                - }
                - }
                - local oname
                local ospec
                - capture _msparse `name', noomit
                = capture _msparse estimated, 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:estima
> ted"')
                - if `j' == . & "`oname'" != "" {
```

```
= if 2 == . & "" != "" {
                  `vv' local j = colnumb(`new',`"`ospec'"')
                - if `j' == . & "`sspec'" != "" {
                = if 2 == . & "/y_timing_max:estimated" != "" {
                  `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,`i'] {
                = 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
```

```
- }
                - while `i' <= `dim' {</pre>
                = while 3 <= 4 {</pre>
                - 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:_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 3 == . & "" != "" {
                  `vv' local j = colnumb(`new',`"`ospec'"')
                - if `j' == . & "`sspec'" != "" {
                = if 3 == . & "/y_timing_max:_cons" != "" {
                  `vv' local j = colnumb(`new',`"`sspec'"')
                - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                = if 3==. & `"y_timing_max"'=="_" & `"y_timing_max:"'!="" {
```

= local i = 2 + 1

```
`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' {</pre>
                = while 4 <= 4 {
                - 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 "/" == "/" {
- 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 4 == . & "" != "" {
  `vv' local j = colnumb(`new',`"`ospec'"')
- if `j' == . & "`sspec'" != "" {
= if 4 == . & "/y_timing_max:_cons" != "" {
  `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 __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' {</pre>
                = while 5 <= 4 {</pre>
                  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''
```

```
- 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 4
- }
- }
- }
- 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 "4"!="" {
- sret local k_fill `fill'
= sret local k fill 4
- 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
```

= mat \_\_00000E = \_\_00000E\*\_\_00000E'

- sret clear

Friday, January 10, 2025 at 11:33 AM Page 647

---- end \_mkvec --

```
- }
            tempname bomit
            - matrix `bomit' = J(1,`:list sizeof colna',0)
            = matrix ___00000C = J(1,4,0)
            - matrix colna `bomit' = `colna'
            = matrix colna 00000C = y timing max:cb authors ext y timing ma
> x:estimated 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("0IM")
                - 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
  - }
```

```
- 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 —
```

local namelist : list uniq namelist

```
- gettoken 0 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") {
```

- }

```
}
- 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" {
```

opts\_exclusive "cluster() vce(`name')"

```
- 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 "robust" == "cluster" {

return local cluster `return(vceargs)'

```
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
- \text{ 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
- \text{ 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 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
```

- if `:length local derivh' {

```
}
                }
              - 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) 0
> 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
                  }
```

```
- exit
                                           - end opts_exclusive —
              - if `:length local shownrtolerance' {
              = if 0 {
                local showtolerance showtolerance
              - if "$ML_preserve" != "no" {
              = if "no" != "no" {
                if `:length local score' {
                di as smcl as err "May not specify {bf:score()} option unless"
            a) estimation subsample is the entire data in memory, or" _n "
> _n "
> b) you specify option {bf:nopreserve} on {bf:ml model} statement (meaning"
               your evaluation program explicitly restricts itself to obs" _n
> "
            for which {bf:$}" "{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 {
```

- if `n' < 2 { = if 0 < 2 {

```
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 {</pre>
                = if __00000V < -20 {
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __000000 = 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 \mid \underline{0000000} == \{ 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 {</pre>
                = if 00000V < -20  {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                  }
```

```
- else {
                - replace \sc1' = \p'*(\y'-\mu') if \sc4ML_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 __000000 = __00000R, eq(1)
                - ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __000000 = __00000S, eq(2)
                - ML_ec matrix `g' = (`g1', `g2')
                = * matrix __00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \underline{0000000} = \{ exit \}
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar \__000010 = exp(\__00000V)
                - if `lnalpha' < -20 {</pre>
                = 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 __000000 __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 __000000 __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 __000000 __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
> ax+__00000W) - trigamma(__00000W))) + __000000Y*__000000Z*(__000010*__000000Z*(
> y_{ming_max-_00000Y} - 1), eq(2)
```

```
- matrix `H' = (`d11',`d12' \ `d12'',`d22')
               = matrix 000000 = ( 000011, 000012 \ 000012', 000013)
                                          ---- end nbreg_lf ---
Iteration 0: Log pseudolikelihood = -385.559
                                          ---- 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 v "$ML v1"
               = local y "y_timing_max"
               - scalar `m' = exp(-`lnalpha')
               = scalar __00000W = exp(-__00000V)
               - if `lnalpha' < -20 {</pre>
               = if __00000V < -20 {
                 }
               - else {
               - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
               = mlsum __000000 = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
               - if `todo' == 0 | `lnf'==. { exit }
               = if 0 == 0 | __000000==. { exit }
                                            ---- end nbreg_lf -----
                                         ----- begin nbreg_lf -----
               - version 6.0
               - args todo b lnf g H sc1 sc2
               tempvar xb
               tempname lnalpha m
               - mleval `xb' = `b', eq(1)
               = mleval \__00000U = \__00000N, eq(1)
               - mleval `lnalpha' = `b', eq(2) scalar
               = mleval \__{00000V} = \__{00000N}, eq(2) scalar
               - local y "$ML_y1"
```

```
= local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar 00000W = \exp(-00000V)
                - if `lnalpha' < -20 {</pre>
                = 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 __000000 = 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 \mid \underline{000000} == . { 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 {</pre>
                = 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 __000000 = 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 \mid \__{000000} == . { 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 {</pre>
                = 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 __000000 = __00000R, eq(1)
                - ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __000000 = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1', `g2')
                = * matrix ___00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \underline{0000000} == \{ exit \}
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar \__000010 = exp(\__00000V)
                - if `lnalpha' < -20 {</pre>
                = 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 __000000 __000011 = __00000Y*__00000Z*(__000010*__0
```

```
> 0000Z*(y_timing_max-__00000Y)+1), eq(1)
               > )
               = mlmatsum __000000 __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 __000000 __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
> ax+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__000000Z*(
> y_timing_max - 00000Y) - 1), eq(2)
               - matrix H' = (d11', d12' \setminus d12'', d22')
               = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                                           ----- end nbreg lf -----
Iteration 1: Log pseudolikelihood = -381.07885
                                          ---- 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 {</pre>
               = 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 __000000 = 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 \mid \__{000000} == . { 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 "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {</pre>
                = if 00000V < -20  {
                  mlsum \ \ lnf' = -lngamma(\ y'+1) - exp(\ xb') + \ y'*xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __000000 = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 \mid \__0000000 == . { exit }
                                              ---- end nbreg_lf ----
                                             --- begin nbreg_lf ----
                - version 6.0
                args todo b lnf g H sc1 sc2
                tempvar xb
                tempname lnalpha m
                - mleval xb' = b', eq(1)
                = mleval \__00000U = \__00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval __00000V = __00000N, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {</pre>
                = 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 000000 = 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 \mid \underline{0000000} == . { 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 {</pre>
                = 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 __000000 = __00000R, eq(1)
                - ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __000000 = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1', `g2')
                = * matrix ___00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \underline{0000000} = \{ exit \}
                - tempname alpha d11 d12 d22
```

```
- scalar `alpha' = exp(`lnalpha')
                = scalar \__{000010} = \exp(\__{00000V})
                - if `lnalpha' < -20 {</pre>
                = 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 __000000 __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 __000000 __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 __000000 __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 = -380.88112
                                              --- 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 {</pre>
                = 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 000000 = 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 | __000000==. { 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 {</pre>
                = 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 __000000 = 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 \mid \underline{000000} == . { 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 {</pre>
                = if 00000V < -20  {
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __000000 = 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 \mid \__{000000} = . { 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 {</pre>
                = if __00000V<-20 {
                  replace `sc1' = `y'-`mu' if $ML_samp
                  replace `sc2' = 0 if $ML_samp
                  }
                - else {
                - replace \cite{sc1'} = \cite{y'} - \cite{mu'} if \cite{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 q1 q2
                - $ML_ec mlvecsum `lnf' `g1' = `sc1', eq(1)
                = * mlvecsum __000000 = __00000R, eq(1)
                - $ML_ec mlvecsum `lnf' `g2' = `sc2', eq(2)
                = * mlvecsum __000000 = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1', `g2')
                = * matrix ___00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \underline{0000000} == \{ exit \}
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar \__000010 = \exp(\__00000V)
                - if `lnalpha' < -20 {</pre>
                = 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 __000000 __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 __000000 __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 __000000 __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
> ax+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__000000Z*(
> 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 = -380.88011
                                              --- 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 "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar __00000W = exp(-__00000V)
                - if `lnalpha' < -20 {</pre>
                = if 00000V < -20  {
                  mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                  }
                - else {
                - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m
> ') - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
                = mlsum __000000 = lngamma(__00000W+y_timing_max) - lngamma(y_
> timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V)) -
> y_timing_max*ln1p(exp(-__00000U-__00000V))
                - }
                - if `todo' == 0 | `lnf'==. { exit }
                = if 0 == 0 \mid \underline{000000} == . { exit }
                                          ------ end nbreg_lf -----
                                        ------ begin nbreg_lf -----
                - version 6.0
                args todo b lnf g H sc1 sc2
                tempvar xb
                tempname lnalpha m
                - mleval `xb' = `b', eq(1)
                = mleval __00000U = __00000N, eq(1)
                - mleval `lnalpha' = `b', eq(2) scalar
                = mleval \__{00000V} = \__{00000N}, eq(2) scalar
                - local y "$ML_y1"
                = local y "y_timing_max"
                - scalar `m' = exp(-`lnalpha')
                = scalar ___00000W = exp(-__00000V)
                - if `lnalpha' < -20 {</pre>
                = 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 __000000 = 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 | 000000 == . { 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 {</pre>
                = 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 __000000 = 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 \mid \underline{0000000} == . { 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 {</pre>
                = 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 __000000 = __00000R, eq(1)
                - \ML_ec \ mlvecsum \ \lnf' \ \g2' = \ \sc2', \ eq(2)
                = * mlvecsum __000000 = __00000S, eq(2)
                - $ML_ec matrix `g' = (`g1', `g2')
                = * matrix ___00000P = (,)
                - if `todo' == 1 | `lnf'==. { exit }
                = if 2 == 1 \mid \__0000000 == . { exit }
                - tempname alpha d11 d12 d22
                - scalar `alpha' = exp(`lnalpha')
                = scalar __000010 = exp(__00000V)
                - if `lnalpha' < -20 {</pre>
                = 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 __000000 __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 __000000 __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 __000000 __000013 = __00000W*(digamma(__00000W) - d
> igamma(y_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(y_timing_m
```

```
> ax+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__000000Z*(
> 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 = -380.88011
                                       ----- 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 = __0000006
                - }
                - 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 {</pre>
    _test `0'
    return add
    exit
    }
  - is_svy
                               <del>----</del> begin is_svy <del>-</del>
    - 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 `"("' == "(" {
```

```
- 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 egns
                      local 0 `"`zero'"'
                      while `"`tok'"' != "" & `"`tok'"' != "," {
                      gettoken tok 0 : 0, parse(" ,") bind
                      local eqns `"`eqns' `tok'"'
                      gettoken tok : 0, parse(" ,") bind
                      local egns `"`"`egns'"'"

    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
```

- gettoken tok 0 : 0, parse(" (,") match(paren) bind

```
}
                      _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
> 1 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 {</pre>
                        = 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)'
```

```
- 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' < . {</pre>
= 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)
```

gettoken exp expns : expns

}

```
- scalar `df1' = r(df)
= scalar \underline{\phantom{0}}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)
```

Friday, January 10, 2025 at 11:33 AM Page 690

> '

```
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
```

mat `Rr' = get(Rr)

```
- 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 {</pre>
    _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
                                                       \mathsf{-} end test \mathsf{-}
                - 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
                 - 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 =  $colsof(\underline{000006})$ - matrix `pclass'[1,1] = J(1, `dim', `PCDEF')  $= matrix __000006[1,1] = J(1,4,0)$ - matrix `pclass'[1, `dim'] = `PCAUX'  $= matrix __000006[1,4] = 2$ - 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  $(e(ll) < e(ll_c)) \mid (_b[/ln`parm'] < -20)$ { 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 .0805078800182051

```
- 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
                             <del>----</del> end opts_exclusive <del>-</del>
- 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
```

```
- 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
```

- local opts `opts'

= local opts
- local n 0

```
}
- }
- 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
                                          <del>---</del> end opts_exclusive <del>-</del>
              - 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
```

```
- 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)
- }
```

- if `K' == 2 { = if 2 == 2 {

```
    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
                                       <del>-----</del> end opts_exclusive <del>-</del>
            - 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'"' != "" {
```

- sreturn clear

```
= 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 `""' != "" {
    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 `""' != "" {
    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 N00MITted 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'
```

```
- 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
            }
```

= local fvwrapon

```
- 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 = `"4"'
  - }
  - sreturn local `sname' = `"`S_`sname''"'
  = sreturn local k = `"4"'
  - }
                              ------ 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'
```

sreturn clear

```
exit
  }
- version 8.2, missing
- version 6, missing
- if _caller()<6 {</pre>
  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) noF00Tnote NOSKIP TItle(passthru) NOTEST * ]
              - if "`plus'" != "" {
              = if "" != "" {
                local footnote nofootnote
                }
              - if `neq' >= 0 {
              = if -1 >= 0 {
                local negopt neg(`neg')
              - _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 {
```

```
- 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 0 < 2{

```
- 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')
    }
```

```
<del>-----</del> 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 `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 `""' != "" {
                      gettoken item`n' opts : opts, bind
                      }
                    - if `n' < 2 {
                    = if 0 < 2 {
                    - exit
```

= local S\_deriv = s(deriv)

- }

```
----- 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
                   <del>-----</del> end opts_exclusive <del>-</del>
- 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 " "
                    <del>----</del> begin opts_exclusive <del>--</del>
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 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 = `"4"'
- }
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local k_fill = `"4"'
- }
- 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"'
- }
```

```
- _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
- }
- 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
                                         <del>----</del> end _get_eformopts <del>---</del>
              - 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 {</pre>
                  _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)'"' != "" {
```

```
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 `""' == "" & `""' != "" {

```
- 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 {
                                   = "e"
           string
                  result
                  newline
                                   = "display"
           string
           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
                                   = ""
                  title2
           string
                                   = ""
           string
                  groupvar
                                   = ""
           string
                   intmethod
           double
                   intpoints
                                   = -1
                                   = ""
                   cmd
           string
                                   = ""
           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
                                   = 0
                  is_areg
           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
```

```
= 0
                         double prop_iselected
                         double prop_selected
                         double prop_groups
                                                 = 0
                         double prop_balance
                                                 = 0
                         double ablen
                                                 = 16
                         double width
                                                 = 78
                         double c1
                                                 = 1
                         double c2
                                                 = 16
                         double c2a
                                                 = 16
                                                 = 49
                         double c3
                                                 = 67
                         double c4
                         double c2wfmt
                                                 = 10
                         double c4wfmt
                                                 = 10
                                                 = "ml"
                         string scheme
                         double lalignr
                                                 = 0
                         double ralignr
                                                 = 0
                         double lalignl
                                                 = 0
                         double ralignl
                                                 = 0
                         double lalignla
                                                 = 0
                         double ralignla
                                                 = 0
                                 left
                         array
                                 right
                         array
                -}
                             — begin _coef_table__header.new —
                - version 16
                - syntax [, rclass noDVHeader noMODELtest TItle(string asis)
nocluster noRULES noTVAR SEPTITLE linesize(int 0) l
                - if "`rclass'" != "" {
                = if "" != "" {
                  .result = "r"
                  }
                - if "`dvheader'" == "" {
                = if "" == "" {
                - .opt_dvheader = 1
                - }
                - if "`modeltest'" == "" {
                = if "" == "" {
                - .opt_modeltest = 1
                - }
                - if "`cluster'" == "" {
                = if "" == "" {
                - .opt_cluster = 1
                - }
```

double prop\_censored =
double prop\_nouncensored

= 0

```
- .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 "`rules'" == "" {

= if "" == "" {

```
- if "`.cmd'" == "gsem" | "`.cmd2'" == "gsem" {
                    = if "nbreg" == "gsem" | "" == "gsem" {
                      is_gsem = 1
                      }
                    - if "`.cmd'" == "sem" {
                    = if "nbreq" == "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 + \circ ffset'
                       .c4 = 51 + `offset'
```

```
\cdotc2wfmt = 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' {</pre>
                       .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''")
                                                       221")
                    = local direst = ustrltrim("
                    - .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'.
> Ofc `.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 `"2"'
                         ----- end _coef_table__header.Scalar -----
                    = if missing(2) {
                      exit
                      }
                    - if `"`.Macro chi2'"' != "" | `"`.Macro df_r'"' == "" {
                         ----- begin _coef_table__header.Macro ---
                      - version 16
                      - class exit `"``.result'(`0')'"'
                      = class exit `"76.65980986072974"'
                         ------ end _coef_table__header.Macro -----
                        ----- begin _coef_table__header.Macro -----
                      - version 16
                      - class exit `"``.result'(`0')'"'
                      = class exit `""'
                          ----- end _coef_table__header.Macro ---
                    = if `"76.65980986072974"' != "" | `""' == "" {
                    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("2")
                      - if !missing(e(chi2)) {
                      - .PushRight "`type' chi2({res:`didf'})" " = " "as res"
> %`.c4wfmt'.2f e(chi2)
                      = .PushRight "Wald chi2({res:2})" " = " "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("
                                                         76.66")
                        - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                        = .ralignr = max(3, udstrlen("76.66"))
                        - local len : di `"`tok'"'
                        = local len : di `"Wald chi2({res:2})"'

    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:2})}"' `.C4' " = " as res "{ralign `.ralignr':76.66}"
                        - 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''")
                                                        0.0000")
                        = local direst = ustrltrim("
                        - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                        = .ralignr = max(5, 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("
                                                     0.0805")
                      - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                      = .ralignr = max(6, udstrlen("0.0805"))
                      - 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':0.0805}"
                      - 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 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 {
```

- if `.opt\_septitle' {

```
- .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(`"-380.8801100504097"') & !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 eg 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("-380.88011")

    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':-380.88011}"
                      - }
                      - 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:2})}"' _col(70) " = " as res "{ralign 6:76.66}"
                                                       Wald chi2(2) = 76.66
                 - }
                  - 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}"
                                                       Prob > chi2
Dispersion: mean
                                                                     = 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:-380.88011}" as txt _col(57) `"{
> lalign 13:Pseudo R2}"' _col(70) " = " as res "{ralign 6:0.0805}"
Log pseudolikelihood = -380.88011
                                                        Pseudo R2
                                                                      = 0.0805
                  - }
                          ---- 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 "nbreq" == "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
              NOCI NOPValues
                                dfci DFPValues dfmissing COEFLegend selegend
> ring asis)
        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 fylabel fylabel
  }
  }
- else local fvlabel `nofvlabel' `fvlabel'
= else local fylabel
- 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
                        <del>----</del> end opts_exclusive <del>--</del>
- 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,
                                       <del>-----</del> begin _get_mcompare <del>---</del>
                  - 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 " 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
                    }
```

- opts\_exclusive "`ALL' `noadjust'" `suboption'

```
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 —
```

Friday, January 10, 2025 at 11:33 AM Page 815

- local K : list sizeof namelist

```
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "
                   <del>----</del> begin opts_exclusive <del>--</del>
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
 = local opts
  - local n 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 ++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
  }
```

= local opts
- local n 0

- while `"`opts'"' != "" {

= while `""' != "" {

```
- }
- 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 ,
        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
                    = c_local diopts
```

> bbrev'

```
- 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 -----
```

args opts optname errcode optslab

- version 8.2

= local opts
- local n 0

- local opts `opts'

```
- 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 ——
```

```
- local opts `opts'
  = local opts
  - 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 "" == "" {
```

- version 8.2

- args opts optname errcode optslab

```
- 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 —
```

Friday, January 10, 2025 at 11:33 AM Page 833

- local K : list sizeof namelist

```
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "
                   <del>----</del> begin opts_exclusive <del>--</del>
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
 = local opts
  local n 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 ++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
  }
```

= local opts
- local n 0

- while `"`opts'"' != "" {

= while `""' != "" {

```
- }
- 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 ,
        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'
```

```
Friday, January 10, 2025 at 11:33 AM Page 837
```

= c\_local DUPS

> `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 `c\_diopts' `levelopt' `vsquish' `allbaselevels'

```
= 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
```

 $- if `K' == 2 {$ 

```
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 " "
                 ——— begin opts_exclusive —
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
 = local opts
  - local n 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
```

- opts\_exclusive "`allbaselevels' `nobaselevels'"

```
local n 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 " "
                  <del>----</del> begin opts_exclusive <del>-</del>
  - version 8.2

    args opts optname errcode optslab

 - local opts `opts'
 = local opts
  - local n 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"
```

```
}
  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
```

di "{txt}note: invalid cformat(), using default"

```
--- begin opts_exclusive --
                         - version 8.2

    args opts optname errcode optslab

                         - local opts `opts'
                        = local opts
                         - local n 0
                         - while `"`opts'"' != "" {
                         = while `""' != "" {
                           local ++n
                           gettoken item`n' opts : opts, bind
                           }
                         - if `n' < 2 {
                         = if 0 < 2 {
                         - exit
                                         <del>----</del> end opts_exclusive <del>---</del>
                       - 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'
```

```
- 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
                    <del>----</del> 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 {
```

---- 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 {

```
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
    }
```

confirm numeric format `cformat'

```
= 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'
```

- opts\_exclusive "`word' `width'" fvwrapon

```
= 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'"'
```

```
}
- 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 cformat `"cformat(`cformat')"'

```
- local opts `opts'
                        = local opts
                        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
                                    <del>-----</del> 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
                                        	extcolor{line}{----} end <code>_get_eformopts</code> 	extcolor{line}{--}
                 - 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 {</pre>
                     _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'"'
```

```
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 diparmopts `"`diparmopts' : `diparm'"'

```
- 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 -----
```

args opts optname errcode optslab

- version 8.2

= local opts
- local n 0

- local opts `opts'

```
- 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 ——
```

```
- local opts `opts'
  = local opts
  - 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 "" == "" {
```

- version 8.2

- args opts optname errcode optslab

```
- 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 —
```

Friday, January 10, 2025 at 11:33 AM Page 898

- local K : list sizeof namelist

```
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "
                   <del>----</del> begin opts_exclusive <del>--</del>
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
 = local opts
  local n 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 ++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
  }
```

= local opts
- local n 0

- while `"`opts'"' != "" {

= while `""' != "" {

```
- }
- 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 ,
        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')
    }
```

= 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 {</pre>
  _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
                                            = ""
                            string BMAT
                                            = ""
                            string COLNA
                                    VMAT
                            string
                                            = ""
                            string DFMAT
                            string COLFUL = ""
                            double DF
                                            = 0
                            double DF_HOLD = 0
                            double EXTRA
                            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
```

```
- 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
```

= gettoken item1 opts : opts, bind

- }

```
- 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' {
                      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 {
                       \cdothas_b = 1
                       .BMAT = "`bmatrix'"
                       .COLNA = "`:colful `bmatrix''"
                       }
                     - else {
                     - .COLNA = "`:colful e(b)'"
                     = .COLNA = "y_timing_max:cb_authors_ext y_timing_max:estim
> ated 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 {
                       \cdothas df = 1
                       .DFMAT = "`dfmatrix'"
                       }
                     - if `dof' <= 0 {</pre>
                     = if -1 \le 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(`"4"', "", ".") {
  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
                    - \text{ 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-__0000009*__000000C)
  - 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. interva
> 1]
cb_authors_ext
                  .6342626
                            .0997935
                                          6.36
                                                 0.000
                                                           .4386709
                                                                       .82985
> 42
    estimated
                 .7625162
                            . 0979475
                                          7.78
                                                           .5705426
                                                 0.000
                                                                       .95448
> 98
                 -.1740708
                            .0921914
                                         -1.89
                                                 0.059
                                                          -.3547627
        _cons
                                                                       .00662
> 11
                 -2.092348
     /lnalpha
                            . 6586252
                                                           -3.38323
                                                                      -.80146
> 62
                  .1233971
                             .0812724
                                                           .0339377
        alpha |
                                                                       .44867
> 06
               - 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') {</pre>
                  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 ----
                                                    -\!-\! 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 cb_authors_ext
> estimated if y_timing_max<60 , vce(r)"'</pre>
                                     ----- end nbreg
 log close
     name: <unnamed>
      log: /Users/connorbrennan/Library/CloudStorage/OneDrive-TheUniversityo
> fChicago/mmb/output/stepwise_regressions/y_timing_max_properties.smcl
 log type: smcl
closed on: 10 Jan 2025, 11:33:20
```