```
name: <unnamed>
     log: /Users/connorbrennan/Library/CloudStorage/OneDrive-TheUniversityo
> fChicago/mmb/output/stepwise_regressions/piq_timing_max_frics_det.smcl
 log type: smcl
opened on:
           8 May 2025, 20:05:57
- capture ! rm ./output/stepwise_regressions/`depvar'_`type'.pdf
= capture ! rm ./output/stepwise_regressions/piq_timing_max_frics_det.pdf
> *******
- di "Outcomes of bi-directional stepwise regressions with `depvar' with rule
> fixed effects"
= di "Outcomes of bi-directional stepwise regressions with piq_timing_max with
> rule fixed effects"
Outcomes of bi-directional stepwise regressions with piq_timing_max with rule
> fixed effects
- di "Independent Variable set: `type'"
= di "Independent Variable set: frics_det"
Independent Variable set: frics det
> *******
*******************************
- ${reg_`depvar'_`type'}
= nbreg piq_timing_max wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prpric
> e wg_ndx_other open if piq_timing_max<60 , vce(r)</pre>
                                    ----- begin nbreg
 - if _by() {
   local BY `"by `_byvars'`_byrc0':"'
 - `BY' _vce_parserun nbreg, mark(Exposure OFFset CLuster) : `0'
 = _vce_parserun nbreg, mark(Exposure OFFset CLuster) : piq_timing_max
                                                                wl
> th stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open if pi
> q_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) : piq_timing_max
> wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open if
> piq_timing_max<60 , vce(r)</pre>
```

```
---- begin _on_colon_parse -----
      - version 8.2
      - sreturn local before ""
     - sreturn local after ""
      - gettoken before after : 0, parse(":") bind match(par) quotes
      - if "`par'" != "" {
      = if "" != "" {
        local before `"(`before')"'
      - if `"`before'"' == ":" {
      = if `"nbreg, mark(Exposure OFFset CLuster) "' == ":" {
        sreturn local after `"`after'"'
        exit
        }
      - while `"`COLON'"' != ":" & `"`after'"' != "" {
      = while `""' != ":" & `": piq_timing_max wlth stky_pr_rotemberg stk
> y_pr_calvo wg_ndx_prprice wg_ndx_other open if piq_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 `":"' != ":" & `" piq_timing_max wlth stky_pr_rotemberg stk
> y_pr_calvo wg_ndx_prprice wg_ndx_other open if piq_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 `" piq_timing_max wlth stky_pr_rotemberg stky
> _pr_calvo wg_ndx_prprice wg_ndx_other open if piq_timing_max<60 , vce(r)"'</pre>
                                         <del>----</del> end _on_colon_parse <del>--</del>
    - local ZER0 `"`s(before)'"'
    = local ZER0 `"nbreg, mark(Exposure OFFset CLuster) "'
    - local 0 `"`s(after)'"'
    = local 0 `" piq_timing_max
                                  wlth
                                          stky_pr_rotemberg stky_pr_calvo wg_n
> dx_prprice wg_ndx_other open if piq_timing_max<60 , vce(r)"'</pre>
    - quietly syntax [anything(equalok)] [if] [in] [fw aw pw iw] [, VCE(string
> asis) VCE1(string asis) LRMODEL * ]
    - if `"`vce'"' == "" {
    = if `"r"' == "" {
      MYRESULT
      exit
      }
    - local AFTER `"`0'"'
    = local AFTER `" piq_timing_max wlth stky_pr_rotemberg stky_pr_calvo
> wg_ndx_prprice wg_ndx_other open if piq_timing_max<60 , vce(r)"'</pre>
    - local 0 `"`ZERO'"'
    = local 0 `"nbreg, mark(Exposure OFFset CLuster) "'
    syntax name(name=caller id="calling command name") [, WTYPES(string) NOB
> OOTstrap NOJACKknife NOOTHERvce NOTEST PANELdata STdata bootopts(string asis
> ) jkopts(string asis) robustok multivce REQUIREDopts(namelist) NOEQLIST EQop
> ts(passthru) EQARGopts(passthru) noNEEDVARLIST COMMONopts(namelist) MARKopts
> (passthru) SMARKopts(passthru) RMCOLLopts(passthru) RMDCOLLopts(passthru) NU
> MDEPvars(passthru) NEEDEQUAL ALLDEPSMISsing PARentheses UNPARFIRSTeq OR EQUA
> L UNEQUALFIRSTeq IGNORENOCONS ]
    - if `"`requiredopts'"' != "" {
    = if `""' != "" {
      tempname reqopts
      .`reqopts' = ._optlist.new
      foreach req of local requiredopts {
      .`reqopts'.addopt `req', passthru
      }
      }
    - if "`wtypes'" == "" {
    = if "" == "" {

    local wtypes fw aw pw iw
```

```
- }
    - if "`paneldata'" != "" {
    = if "" != "" {
      local panelopt "CLuster(varname) I(varname)"
      }
    - if "`stdata'" != "" {
    = if "" != "" {
      local stopt "CLuster(varname) SHared(varname)"

    local typelist svy jackknife bootstrap

    - if "`stdata'" == "" & replay() & ! _by() {
    = if "" == "" & replay() & ! _by() {
      local ecmd `e(cmd)'
      local ecmdname `e(cmdname)'
      if `"`ecmd'"' == "" {
      error 301
      }
      else if `"`ecmd'"' != "`caller'" & `"`ecmdname'"' == "`caller'" & `:list
> ecmd in typelist' {
      `ecmd' `0'
     MYRESULT exit
     MYRESULT
      exit
    gettoken svy typelist : typelist
    - if "`reqopts'" != "" {
    = if "" != "" {
      local REQOPTLIST `"`.`regopts'.dumpoptions'"'
      local REQOPTNAMES `"`.`reqopts'.dumpnames'"'
    - local 0 `"`AFTER'"'
    = local 0 `" piq_timing_max
                                  wlth
                                          stky_pr_rotemberg stky_pr_calvo wg_n
> dx_prprice wg_ndx_other open if piq_timing_max<60 , vce(r)"'</pre>
    - quietly syntax [anything(equalok)] [if/] [in] [`wtypes'] [, VCE(string a
> sis) VCE1(string asis) Robust NODOTS `panelopt' `stopt' `REQOPTLIST' * ]
    = quietly syntax [anything(equalok)] [if/] [in] [fw aw pw iw] [, VCE(strin
> g 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 `"piq_timing_max<60 "' != "" {</pre>
- local if `"if (`if')"'
= local if `"if (piq_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 vcelopts: vcelopts, parse(",")
  local vce1opts: list retokenize vce1opts
  di as err "{p}VCE option " "{bf:`vce1opts'} not allowed{p_end}"
  exit 198
  }
  if ("`cluster'"=="") & ("`noeqlist'"=="") {
  if "`caller'" == "regress" {
  Noc2Noconstant `opts'
  local opts `"`s(opts)'"'
  }
  local opts `"`opts' cluster(`vceopts')"'
  }
  }
  }
- }
```

```
- if ! `:list vcetype in typelist' {
    = if ! 0 {
   - if "`vcetype'" != "robust" & "`noothervce'" == "noothervce" {
    = if "robust" != "robust" & "" == "noothervce" {
      di as err "option vce(`uvcetype') not allowed"
      exit 198
      }
    - MYRESULT
                            ------ begin _vce_parserun.MYRESULT ----
     args exit
      - sreturn local exit `"`exit'"'
      = sreturn local exit `""'
                               ----- end _vce_parserun.MYRESULT ------
    - exit
                                     ----- end _vce_parserun -----
  - if "`s(exit)'" != "" {
  = if "" != "" {
    version 10: ereturn local cmdline `"nbreg `0'"'
    exit
   }
  - version 6, missing
  - local version : di "version " string(_caller()) ":"
  - if replay() {
    if "`e(cmd)'" != "nbreg" { error 301 }
    if _by() { error 190 }
    global S_1 = e(chi2_c)
    Display `0'
    error `e(rc)'
    exit
  - `version' `BY' Estimate `0'
  = version 18: Estimate piq_timing_max wlth stky_pr_rotemberg stky_pr_c
> alvo wg_ndx_prprice wg_ndx_other open if piq_timing_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(s
> tring) Level(cilevel) OFFset(varname numeric ts) Exposure(varname numeric ts
> ) noCONstant Robust CLuster(varname) SCore(string) NOLOg LOg noDISPLAY noLRt
> est Dispersion(string) CRITTYPE(passthru) VCE(passthru) moptobj(passthru) *
> 1
    = syntax varlist(numeric fv ts) [fw pw iw] [if] [in] [, IRr FROM(string)
> Level(cilevel) OFFset(varname numeric ts) Exposure(varname numeric ts) noCON
> stant Robust CLuster(varname) SCore(string) NOLOg LOg noDISPLAY noLRtest Dis
> persion(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 NO

> BASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NOOM
> ITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sforma
> t(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(st
> ring) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV AB
> BREV
        - syntax namelist(max=2) [, `DIOPTS' *]
        = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels ALL
> BASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EM
> PTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(s
> tring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru
> ) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(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 " "
                          - version 8.2

    args opts optname errcode optslab

 - local opts `opts'
 = local opts
 - local n 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 <del>-</del>
- 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' `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 ALLBASElevels NO

> BASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NOOM
> ITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sforma
> t(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(st
> ring) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV AB
> BREV
       - syntax namelist(max=2) [, `DIOPTS' *]
        = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels ALL
> BASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EM
> PTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(s
> tring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru
> ) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(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 ----
```

```
- args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - 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' `baselevels'
> `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend'
> `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 ALLBASElevels NO

> BASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NOOM
> ITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sforma
> t(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(st
> ring) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV AB
> BREV
        - syntax namelist(max=2) [, `DIOPTS' *]
        = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels ALL
> BASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EM
> PTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(s
> tring) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru
> ) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(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
```

```
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

local ++n

- 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' `baselevels'
> `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend'
> `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwrap
> ' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
        = c_local DUPS
        - if `K' == 2 {
        = if 2 == 2 {
```

```
- c_local `c_opts' `"`options'"'
        = c_local options `""'
        sreturn local coding `coding'
        = sreturn local coding
        - sreturn local versus `versus'
        = sreturn local versus
        sreturn local compare `compare'
        = sreturn local compare
        - sreturn local level `level'
        = sreturn local level 95
                                   --- end _get_diopts.GetDiopts --
      - c_local `name2' `"`options'"'
      = c_local options `""'
      - }
      local DUPS : list DUPS - DEFAULT
      - gettoken DUPS : DUPS
      - if `"`DUPS'"' != "" {
      = if `""' != "" {
        if (strpos(`"`DUPS'"', "(")) {
        gettoken DUPS : DUPS, parse("(")
        local DUPS `"`DUPS'()"'
        di as err "duplicate {bf:`DUPS'} option not allowed"
        exit 198
        }
      sreturn clear
      - foreach sname of local snames {
      - sreturn local `sname' = `"`S_`sname''"'
      = sreturn local level = `"95"'
      - }
                                             --- end _get_diopts ----
    - mlopts mlopts, `options' `log' `nolog'
    = mlopts mlopts,
                                                   - begin mlopts —
      - version 8.0

    local maxoptlist MLOPTs(string) TRace TRACEDIffs GRADient HESSian SHOW

> STEP ITERate(int -1) TOLerance(real -1) LTOLerance(real -1) GTOLerance(real
> -1) NONRTOLerance SHOWNRtolerance SHOWTOLerance NRTOLerance(real -1) QTOLera
> nce(real -1) DIFficult HALFSTEPonly CONSTraints(string) noCNSNOTEs COLlinear
> TECHnique(passthru) VCE(passthru) DOTS depsilon(passthru) SHOWH NOTCONCAVE(
> passthru) USEVIEWS NOLOg LOg nrderiv
      - syntax namelist(id="macro names" min=1 max=2) [, `maxoptlist' * ]
```

```
= syntax namelist(id="macro names" min=1 max=2) [, MLOPTs(string) TRace
> TRACEDIffs GRADient HESSian SHOWSTEP ITERate(int -1) TOLerance(real -1) LTOL
> erance(real -1) GTOLerance(real -1) NONRTOLerance SHOWNRtolerance SHOWTOLera
> nce NRTOLerance(real -1) QTOLerance(real -1) DIFficult HALFSTEPonly CONSTrai
> nts(string) noCNSNOTEs COLlinear TECHnique(passthru) VCE(passthru) DOTS deps
> ilon(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 SH
> OWSTEP ITERate(int -1) TOLerance(real -1) LTOLerance(real -1) GTOLerance(rea
> l -1) NONRTOLerance SHOWNRtolerance SHOWTOLerance NRTOLerance(real -1) QTOLe
> rance(real -1) DIFficult HALFSTEPonly CONSTraints(string) noCNSNOTEs COLline
> ar TECHnique(passthru) VCE(passthru) DOTS depsilon(passthru) SHOWH NOTCONCAV
> E(passthru) USEVIEWS NOLOg LOg nrderiv ]
      - }
      - local mlopts `mlopts' `trace' `tracediffs' `gradient' `hessian' `shows
> tep' `difficult' `halfsteponly' `nonrtolerance' `shownrtolerance' `showtoler
> ance' `dots' `depsilon' `showh' `notconcave' `useviews' `log' `nolog' `nrder
> iv'
      = 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' `cn
> snotes' `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 -----
```

```
- syntax [, Mean Constant ]
      - if "`constan'"=="" {
      = if ""=="" {
      - sret local dispers "mean"
      - exit
                                              — end nbreg.Dispers ——
    - local dispers `s(dispers)'
   = local dispers mean
   - if "`dispers'"=="mean" {
   = if "mean"=="mean" {
   - local prog "nbreg_lf"
    - local parm "alpha"
   - local LLprog "LLalpha"
    - }
    - else {
      local prog "nbreg_al"
      local parm "delta"
      local LLprog "LLdelta"
    - local title "Negative binomial regression"
    - if `"`score'"'!="" {
    = if `""'!="" {
      local nword : word count `score'
      if `nword'==1 & bsubstr("`score'",-1,1)=="*" {
      local score = bsubstr("`score'",1,length("`score'")-1)
      local score `score'1 `score'2
      local nword 2
      confirm new variable `score'
      if `nword' != 2 {
      version 7: di as err "option {bf:score()} must contain the name of " "tw
> o 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 not
> be specified together"
      exit 198
```

sret clear

```
}
    - if "`constan'"!="" {
   = if ""!="" {
      local nvar : word count `varlist'
      if `nvar' == 1 {
      version 7: di as err "independent variables required with " "option {bf:
> noconstant}"
      exit 102
      }
      }
    marksample touse
   - if `"`cluster'"'!="" {
   = if `""'!="" {
      local clopt cluster(`cluster')
    - _vce_parse, argopt(CLuster) opt(Robust oim opg) old: [`weight'`exp'], `v
> ce' `clopt' `robust'
    = _vce_parse, argopt(CLuster) opt(Robust oim opg) old: [], vce(r)
                                             — begin _vce_parse ——
      - version 10
      - _on_colon_parse `0'
      = _on_colon_parse , argopt(CLuster) opt(Robust oim opg) old: [], vce(r)
>
                                       --- begin _on_colon_parse -----
        - version 8.2
       - sreturn local before ""
       - sreturn local after ""
        - gettoken before after : 0, parse(":") bind match(par) quotes
       - if "`par'" != "" {
        = if "" != "" {
          local before `"(`before')"'
        - if `"`before'"' == ":" {
       = if `", argopt(CLuster) opt(Robust oim opg) old"' == ":" {
          sreturn local after `"`after'"'
          exit
        - while `"`COLON'"' != ":" & `"`after'"' != "" {
        = while `""' != ":" & `": [], vce(r) "' != "" {
        - gettoken COLON after : after, parse(":") bind match(par) quotes
        - if "`par'" != "" {
       = if "" != "" {
          local before `before' (`COLON')
          local COLON
```

```
}
        - else if `"`COLON'"' != ":" {
       = else if `":"' != ":" {
          local before `"`before' `COLON'"'
          local COLON
          }
        - }
        - while `"`COLON'"' != ":" & `"`after'"' != "" {
       = while `":"' != ":" & `" [], vce(r) "' != "" {
          gettoken COLON after : after, parse(":") bind match(par) quotes
          if "`par'" != "" {
          local before `before' (`COLON')
          local COLON
          }
          else if `"`COLON'"' != ":" {
          local before `"`before' `COLON'"'
          local COLON
          }
          }
        - if `"`COLON'"' != ":" {
       = if `":"' != ":" {
          di as err "'' found where ':' expected"
          exit 198
       - sreturn local before `"`before'"'
       = sreturn local before `", argopt(CLuster) opt(Robust oim opg) old"'
       - sreturn local after `"`after'"'
       = sreturn local after `" [], vce(r) "'
                                ----- end _on_colon_parse -----
     - local 0 `"`s(before)'"'
      = local 0 `", argopt(CLuster) opt(Robust oim opg) old"'
      - local user `"`s(after)'"'
      = local user `" [], vce(r) "'
      - syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTlist(namelis
> t) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
      - local touse `varlist'
      = local touse
      - tempname o a
      - .`o' = ._optlist.new
      = .__000001 = ._optlist.new
       -class {
       -instance:
                array options = {}
                array names = {}
        -}
```

```
    local optlist: list uniq optlist

- foreach name of local optlist {
- .`o'.addopt `name'
= .__000001.addopt Robust
                                    - begin optlist.addopt —
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
 = local mname = lower("Robust")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
    }
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "Robust"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "robust"
                                     — end _optlist.addopt ——
- .`o'.addopt `name'
= .__000001.addopt oim
                             ------ begin _optlist.addopt ----
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
 = local mname = lower("oim")
  - if "`passthru'" != "" {
 = if "" != "" {
    local optspec `optspec'(passthru)
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "oim"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "oim"
                                      – end _optlist.addopt —
- .`o'.addopt `name'
= .__000001.addopt opg
                                    - begin _optlist.addopt ------
  - version 9
  - syntax name(name=optspec) [, PASSthru]
```

```
- local mname = lower("`optspec'")
  = local mname = lower("opg")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "opg"
  - .names.Arrpush "`mname'"
 = .names.Arrpush "opg"
                              ---- end _optlist.addopt ----
- }
- .`a' = ._optlist.new
= .__000002 = ._optlist.new

    local argoptlist : list uniq argoptlist

- foreach name of local argoptlist {
- .`a'.addopt `name'
= ___000002.addopt CLuster
                                --- begin _optlist.addopt
 - version 9
  - syntax name(name=optspec) [, PASSthru]
 - local mname = lower("`optspec'")
 = local mname = lower("CLuster")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
    }
  - .options.Arrpush "`optspec'"
 = .options.Arrpush "CLuster"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "cluster"
                                  ---- end _optlist.addopt ------
- local OPTNAMES `"`.`o'.dumpnames'"'
                              — begin _optlist.dumpnames —
 - version 9
 - forval i = 1/`.names.arrnels' {
 = forval i = 1/3 {
  - local namelist `namelist' `.names[`i']'
 = local namelist robust
  - }
  - local namelist `namelist' `.names[`i']'
```

```
= local namelist robust oim
 - }
  - local namelist `namelist' `.names[`i']'
  = local namelist robust oim opg
 - }
  local namelist : list uniq namelist
 - sreturn local namelist `"`namelist'"'
 = sreturn local namelist `"robust oim opg"'
  - class exit `"`namelist'"'
  = class exit `"robust oim opg"'
                                --- end _optlist.dumpnames ---
= local OPTNAMES `"robust oim opg"'
- local ARGOPTNAMES `"`.`a'.dumpnames'"'
                          ------ begin _optlist.dumpnames ---
 - version 9
 - forval i = 1/`.names.arrnels' {
 = forval i = 1/1 {
  - local namelist `namelist' `.names[`i']'
 = local namelist cluster
  - local namelist : list uniq namelist
 - sreturn local namelist `"`namelist'"'
 = sreturn local namelist `"cluster"'
  - class exit `"`namelist'"'
 = class exit `"cluster"'
                               ---- end _optlist.dumpnames -
= local ARGOPTNAMES `"cluster"'
local AND: list OPTNAMES & ARGOPTNAMES
- if `:list sizeof AND' {
= if 0 {
  di as err "vcetype '`:word 1 of `AND''' specified twice"
  exit 198
 }

    local pwallowed : list uniq pwallowed

- local pwlist robust cluster
- foreach n of local pwallowed {
  local lc = lower("`n'")
  local pwlist `pwlist' `lc'
  }
- if "`old_is_ok'" != "" {
= if "old_is_ok" != "" {

    local ROBUST robust

- if `:list ROBUST in OPTNAMES' {
```

```
= if 1 {
- local robust Robust
- }

    local CLUSTER cluster

- if `:list CLUSTER in ARGOPTNAMES' {
= if 1 {
local cluster (Varname)
- }
- }
- local 0 `"`user'"'
= local 0 `" [], vce(r) "'
- syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
= syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varname) ]
- if `"`vce'"' != "" {
= if `"r"' != "" {
- gettoken name args : vce, parse(" ,")
- local args : list retok args
- capture ParseVCE `o' `a' , `name'
= capture ParseVCE __000001 __000002 , r
                   begin _vce_parse.ParseVCE -----
 - gettoken 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 —
```

```
- version 9
 - forval i = 1/`.options.arrnels' {
 = forval i = 1/1 {
 - local optlist `optlist' `.options[`i']'
 = local optlist CLuster
 - local optlist : list uniq optlist
 - sreturn local optlist `"`optlist'"'
 = sreturn local optlist `"CLuster"'
 - class exit `"`optlist'"'
 = class exit `"CLuster"'
                        ----- end _optlist.dumpoptions -----
= local OPTSPECS `"Robust oim opg CLuster"'
- local OPTNAMES `"`.`O'.dumpnames' `.`A'.dumpnames'"'
                          --- begin _optlist.dumpnames ----
 - version 9
 - forval i = 1/`.names.arrnels' {
 = forval i = 1/3 {
 - local namelist `namelist' `.names[`i']'
 = local namelist robust
  - }
 - local namelist `namelist' `.names[`i']'
 = local namelist robust oim
  - }
 - local namelist `namelist' `.names[`i']'
 = local namelist robust oim opg
 - }
 - local namelist : list uniq namelist
 - sreturn local namelist `"`namelist'"'
 = sreturn local namelist `"robust oim opg"'
 - class exit `"`namelist'"'
 = class exit `"robust oim opg"'
                             ---- end _optlist.dumpnames
                        ---- begin _optlist.dumpnames —
 - version 9
 - forval i = 1/`.names.arrnels' {
 = forval i = 1/1 {
 - local namelist `namelist' `.names[`i']'
 = local namelist cluster
 - }
 - local namelist : list uniq namelist
```

```
- sreturn local namelist `"`namelist'"'
          = sreturn local namelist `"cluster"'
          - class exit `"`namelist'"'
          = class exit `"cluster"'
                                      —— end _optlist.dumpnames —
        = local OPTNAMES `"robust oim opg cluster"'
        - syntax [, `OPTSPECS']
        = syntax [, Robust oim opg CLuster]
        - foreach OPT of local OPTNAMES {
        - if `"``OPT''"' != "" {
        = if `"robust"' != "" {
        - return local vce `OPT'
        = return local vce robust
        - continue, break
          }
                                    ----- end _vce_parse.ParseVCE ----
      - if c(rc) {
        di as err "vcetype {bf:`name'} not allowed"
        exit 198
        }
      - local name `r(vce)'
      = local name robust
      - if "`weight'" == "pweight" & !`:list name in pwlist' {
      = if "" == "pweight" & !1 {
        di as err "pweights are not allowed with vce(`name')"
        exit 198
        }
      return add
      - if `"`robust'"' != "" & !inlist("`name'","","robust","eim","oim","clus
> ter") {
      = if `""' != "" & !inlist("robust","","robust","eim","oim","cluster") {
        opts_exclusive "`robust' vce(`name')"
        }
      - if "`name'" == "cluster" {
      = if "robust" == "cluster" {
        if `"`args'"' == "" {
        di as err "invalid vce(cluster) option"
        exit 198
        }
        confirm var `args'
        unab args : `args'
        local markout `args'
        if "`cluster'" != "" {
```

```
if !`:list args == cluster' {
  di as err "options cluster() and vce(cluster) are in conflict"
  exit 100
  }
  }
  }
- else if "`cluster'" != "" & !inlist("`name'","eim","oim") {
= else if "" != "" & !inlist("robust","eim","oim") {
  opts_exclusive "cluster() vce(`name')"
- if `"`args'"' != "" {
= if `"" != "" {
  if ! `:list name in ARGOPTNAMES' {
  di as err "invalid vce() option"
  exit 198
  if "`name'" == "hc2" {
  confirm var `args'
  unab args : `args'
  local markout `args'
  return local vceargs `"`:list retok args'"'
- else if `:list name in ARGOPTNAMES' {
= else if 0 {
  if "`noargopt_is_ok'" == "" {
  di as err "invalid vce() option"
  exit 198
  }
  }
- }
- else {
  if "`weight'" == "pweight" | "`robust'" != "" {
  local vce robust
  }
  if "`cluster'" != "" {
  local vce cluster
  local args `cluster'
  local markout `cluster'
  return local vce `"`vce'"'
  return local vceargs `"`args'"'
- if "`return(vce)'" != "" {
= if "robust" != "" {
- if `"`return(vceargs)'"' != "" {
```

```
local ss " "
  - return local vceopt `"vce(`return(vce)'`ss'`return(vceargs)')"'
  = return local vceopt `"vce(robust)"'
  - }
  - if "`return(vce)'" == "cluster" {
  = if "robust" == "cluster" {
    return local cluster `return(vceargs)'
    }
  - if inlist("`return(vce)'", "robust", "cluster") {
  = if inlist("robust", "robust", "cluster") {
  - return local robust robust
  - }
  - if "`touse'" != "" {
  = if "" != "" {
    if "`markout'" != "" {
    markout `touse' `markout', strok
    }
                                          ---- end _vce_parse ----
- local cluster `r(cluster)'
= local cluster
- local robust `r(robust)'
= local robust robust
- local vce `"`r(vceopt)'"'
= local vce `"vce(robust)"'
- if `"`cluster'"'!="" {
= if `""'!="" {
  markout `touse' `cluster', strok
  }
- if "`exposur'"!="" {
= if ""!="" {
  capture assert `exposur' > 0 if `touse'
  if _rc {
  version 7: di as err "option {bf:exposure()} must be greater than zero"
  exit 459
  }
  tempvar offset
  qui gen double `offset' = ln(`exposur')
  local offvar "ln(`exposur')"
- if "`offset'"!="" {
= if ""!="" {
  markout `touse' `offset'
```

= if `"" != "" {

```
local offopt "offset(`offset')"
      if "`offvar'"=="" {
      local offvar "`offset'"
      }
    - gettoken y xvars : varlist
    - _fv_check_depvar `y'
    = _fv_check_depvar piq_timing_max
    - tsunab y : `y'
    = tsunab y : piq_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 piq_timing_max
      - local n : word count `varlist'
      = local n : word count piq_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 local wt `"[aw`exp']"'
    - summarize `y' `wt' if `touse', meanonly
    = summarize piq_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 \underline{\phantom{0}}000001 = r(mean)
    - if "`display'"=="" {
    = if ""=="" {
    - capture assert `y' == int(`y') if `touse'
    = capture assert piq_timing_max == int(piq_timing_max) if __000000
    - if _rc {
      di in gr "note: you are responsible for " "interpretation of non-count d
> ep. variable"
      }
    - }
    - if "`display'"=="" & "`weight'"=="aweight" {
    = if ""=="" & ""=="aweight" {
      di in gr "note: you are responsible for interpretation " "of analytic we
> ights"
      }
    - if `fvops' {
    = if 1 {
    - local rmcoll "version 11: _rmcoll"
    - }
    - else local rmcoll _rmcoll
    - if "`display'"!="" & "`weight'"=="aweight" {
    = if ""!="" & ""=="aweight" {
      `rmcoll' `xvars' [iw`exp'] if `touse', `constan' `coll'
    - else `rmcoll' `xvars' [`weight'`exp'] if `touse', `constan' `coll'
    = else version 11: _rmcoll wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_pr
> price wg_ndx_other open [] if __000000,
    - local xvars `r(varlist)'
    = local xvars with stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_o
> ther open
    - _parse_iterlog, `log' `nolog'
    = _parse_iterlog,
                                       ----- begin _parse_iterlog ----
      - version 16
      - syntax [, NOLOG LOG]
      - if "`log'`nolog'" != "" {
      = if "" != "" {
        opts_exclusive "`log' `nolog'"
      - else if "`c(iterlog)'" == "on" {
      = else if "on" == "on" {
      - local log log
```

```
- }
      - else {
        local nolog nolog
      sreturn local log `log'
      = sreturn local log log
      sreturn local nolog `nolog'
      = sreturn local nolog
                                          <del>----</del> end _parse_iterlog <del>---</del>
    - 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 `offop
> t' `constan' `mlopts' `robust'
    = version 18, missing: poisson piq_timing_max wlth stky_pr_rotemberg stky_
> pr_calvo wg_ndx_prprice wg_ndx_other open [] if __000000, nodisplay
                                          ------ 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) : piq_timing_max
> wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open [] if
> __000000, nodisplay
                          robust
                                       ----- begin _vce_parserun ----
        - version 9
        - local version : di "version " string(_caller()) ":"
        - local bycall = _by()
        - _on_colon_parse `0'
        = _on_colon_parse poisson, mark(Exposure OFFset CLuster) : piq_timing_
> max wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open []
```

```
----- begin _on_colon_parse -----
          - version 8.2
          - sreturn local before ""
          - sreturn local after ""
          - gettoken before after : 0, parse(":") bind match(par) quotes
          - if "`par'" != "" {
          = if "" != "" {
            local before `"(`before')"'
            }
          - if `"`before'"' == ":" {
          = if `"poisson, mark(Exposure OFFset CLuster) "' == ":" {
            sreturn local after `"`after'"'
            exit
            }
          - while `"`COLON'"' != ":" & `"`after'"' != "" {
          = while `""' != ":" & `": piq_timing_max wlth stky_pr_rotemberg stky
> _pr_calvo wg_ndx_prprice wg_ndx_other open [] if __000000, nodisplay
> st"' != "" {
          - 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 `":"' != ":" & `" piq_timing_max wlth stky_pr_rotemberg stky
> _pr_calvo wg_ndx_prprice wg_ndx_other open [] if __000000, nodisplay
                                                                           robu
> st"' != "" {
            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 `" piq_timing_max wlth stky_pr_rotemberg stky_
> pr_calvo wg_ndx_prprice wg_ndx_other open [] if __000000, nodisplay
> t"'
                                     ---- end _on_colon_parse ----
       - local ZER0 `"`s(before)'"'
       = local ZERO `"poisson, mark(Exposure OFFset CLuster) "'
       - local 0 `"`s(after)'"'
       = local 0 `" piq_timing_max wlth stky_pr_rotemberg stky_pr_calvo wg_nd
> x_prprice wg_ndx_other open [] if __000000, nodisplay robust"'
       - quietly syntax [anything(equalok)] [if] [in] [fw aw pw iw] [, VCE(st
> ring asis) VCE1(string asis) LRMODEL * ]
       - if `"`vce'"' == "" {
       = if `""' == "" {
       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 piq_timing_max wlth stky_pr_rotemberg stky_pr_ca
> lvo wq ndx prprice wq ndx other open [] if 000000, nodisplay
                                         – 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 FR
> OM(string) Level(cilevel) OFFset(varname numeric ts) Exposure(varname numeri
> c ts) noCONstant Robust CLuster(varname) SCore(string) noDISPLAY CRITTYPE(pa
> ssthru) MATAevaluator moptobi(passthru) * ]
        = syntax varlist(numeric fv ts) [fw pw iw] [if] [in] [, IRr FROM(stri
> ng) Level(cilevel) OFFset(varname numeric ts) Exposure(varname numeric ts) n
> oCONstant Robust CLuster(varname) SCore(string) noDISPLAY CRITTYPE(passthru)
> 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 ALLBASElevel

> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPO
> N(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
            - syntax namelist(max=2) [, `DIOPTS' *]
            = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
            - opts_exclusive "`allbaselevels' `noallbaselevels'"
            = opts_exclusive " "
                                           – begin opts_exclusive —
              - version 8.2
              - args opts optname errcode optslab
              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
                }
              - if `n' < 2 {
              = if 0 < 2 {
              - exit
                                          ---- end opts_exclusive ---
            - opts_exclusive "`allbaselevels' `nobaselevels'"
            = opts_exclusive " "
                                           - begin opts_exclusive —
              - version 8.2

    args opts optname errcode optslab

              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
```

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

    args opts optname errcode optslab

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

- opts\_exclusive "`fvlabel' `nofvlabel'"

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

    args opts optname errcode optslab

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

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
```

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

    args opts optname errcode optslab

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

```
--- end opts_exclusive ----
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
                               — begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                            ---- end opts_exclusive --
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "
                            ---- begin opts_exclusive ----
```

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

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

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

    args opts optname errcode optslab

    - local opts `opts'
    = local opts
    local n 0
    - while `"`opts'"' != "" {
    = while `""' != "" {
      gettoken item`n' opts : opts, bind
      }
    - if `n' < 2 {
```

```
= if 0 < 2 {
                - exit
                                            — end opts_exclusive —
              - local fvwrapon `word' `width'
              = local fvwrapon
              - if `:length local fvwrapon' {
              = if 0 {
                c_local fvwrapon fvwrapon(`fvwrapon')
                                      ---- end _get_diopts.Wrapon --
            - if "`fvwrap'" != "" {
            = if "" != "" {
              FVWrap, `fvwrap'
            - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
            = c local diopts
            - if `K' == 2 {
            = if 2 == 2 {
            - c_local `c_opts' `"`options'"'
            = c_local options `""'
            - }
            sreturn local coding `coding'
            = sreturn local coding
            - sreturn local versus `versus'
            = sreturn local versus
            - sreturn local compare `compare'
            = sreturn local compare
            - sreturn local level `level'
            = sreturn local level 95
                                      – end _get_diopts.GetDiopts —
          - c_local `name1' `"`diopts'"'
          = c_local diopts `""'
          - local snames : s(macros)
          - foreach sname of local snames {
          - local S_`sname' = s(`sname')
          = local S_level = s(level)
          - }
          - sreturn clear
          GetDiopts DEFAULT
```

```
--- begin _get_diopts.GetDiopts --

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel

> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPO
> N(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
            - syntax namelist(max=2) [, `DIOPTS' *]
            = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
            - opts_exclusive "`allbaselevels' `noallbaselevels'"
            = opts_exclusive " "
                                     begin opts_exclusive —
              - version 8.2

    args opts optname errcode optslab

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

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

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    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 {
```

```
——— 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 `"options"' == "" {
            GetDiopts DUPS, `options'
            }
          - else {
          GetDiopts DUPS options, `options'
          = GetDiopts DUPS options,
                                   — begin _get_diopts.GetDiopts —

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevel

> s NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells
```

> NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sf

```
> ormat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPO
> N(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBRE
> V ABBREV
            - syntax namelist(max=2) [, `DIOPTS' *]
            = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels
> ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcell
> s EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cform
> at(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(pass
> thru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(pass
> thru) NOABBREV ABBREV *]
            - opts_exclusive "`allbaselevels' `noallbaselevels'"
            = opts exclusive " "
                                         — begin opts_exclusive ——
              - version 8.2

    args opts optname errcode optslab

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

```
— end opts_exclusive ——
- opts_exclusive "`baselevels' `nobaselevels'"
= opts_exclusive " "
                              — begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                               — end opts_exclusive ——
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "
                           ----- begin opts_exclusive ----
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                             ——— end opts_exclusive ——
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "
                             --- begin opts_exclusive ----
  - version 8.2

    args opts optname errcode optslab
```

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

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
```

```
- if `n' < 2 {
  = if 0 < 2 {
  - exit
                                 — end opts_exclusive —
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "
                              — begin opts_exclusive —
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 
  - exit
                                 — end opts_exclusive —
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "
                             --- begin opts_exclusive ---
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 
  - exit
                              <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'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  }
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
- if `:length local pformat' {
= if 0 {
```

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

    args opts optname errcode optslab

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

```
= local fvwrapon
              - if `:length local fvwrapon' {
              = if 0 {
                c_local fvwrapon fvwrapon(`fvwrapon')
                }
                                       —— end _get_diopts.Wrapon —
            - if "`fvwrap'" != "" {
            = if "" != "" {
              FVWrap, `fvwrap'
              }
            - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselev
> els' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflege
> nd' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fv
> wrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
            = c_local DUPS
            - if `K' == 2 {
            = if 2 == 2 {
            - c_local `c_opts' `"`options'"'
            = c_local options `""'
            - sreturn local coding `coding'
            = sreturn local coding
            - sreturn local versus `versus'
            = sreturn local versus
            - sreturn local compare `compare'
            = sreturn local compare
            - sreturn local level `level'
            = sreturn local level 95
                                    --- end _get_diopts.GetDiopts ---
          - c_local `name2' `"`options'"'
          = c_local options `""'
          - }
          - local DUPS : list DUPS - DEFAULT
          - gettoken DUPS : DUPS
          - if `"`DUPS'"' != "" {
          = if `""' != "" {
            if (strpos(`"`DUPS'"', "(")) {
            gettoken DUPS : DUPS, parse("(")
            local DUPS `"`DUPS'()"'
            di as err "duplicate {bf:`DUPS'} option not allowed"
            exit 198
            }

    sreturn clear
```

```
- foreach sname of local snames {
          - sreturn local `sname' = `"`S_`sname''"'
          = sreturn local level = `"95"'
                                                - end get diopts -
        - mlopts mlopts, `options'
        = mlopts mlopts.
                                                   – begin mlopts –
          - version 8.0

    local maxoptlist MLOPTs(string) TRace TRACEDIffs GRADient 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
          - syntax namelist(id="macro names" min=1 max=2) [, `maxoptlist' * ]
          = syntax namelist(id="macro names" min=1 max=2) [, MLOPTs(string) TR
> ace TRACEDIffs GRADient HESSian SHOWSTEP ITERate(int -1) TOLerance(real -1)
> LTOLerance(real -1) GTOLerance(real -1) NONRTOLerance SHOWNRtolerance SHOWTO
> Lerance NRTOLerance(real -1) QTOLerance(real -1) DIFficult HALFSTEPonly CONS
> Traints(string) noCNSNOTEs COLlinear TECHnique(passthru) VCE(passthru) DOTS
> depsilon(passthru) SHOWH NOTCONCAVE(passthru) USEVIEWS NOLOg LOg nrderiv * ]
          - gettoken dest rest : namelist
          - if "`rest'" == "" {
          = if "" == "" {
          - syntax namelist [, `maxoptlist' ]
          = syntax namelist [, MLOPTs(string) TRace TRACEDIffs GRADient 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 ]
          - }
          - local mlopts `mlopts' `trace' `tracediffs' `gradient' `hessian' `s
> howstep' `difficult' `halfsteponly' `nonrtolerance' `shownrtolerance' `showt
> olerance' `dots' `depsilon' `showh' `notconcave' `useviews' `log' `nolog' `n
> rderiv'
          = 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
        - 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 variable
          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 option"
          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 piq_timing_max
        - tsunab y : `y'
        = tsunab y : piq_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 3
> 2000) NAME(string)]
          - c_local `user' `varlist'
          = c_local y piq_timing_max
          - local n : word count `varlist'
          = local n : word count piq_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 piq_timing_max if __000002, meanonly
        - \text{ if } r(N) == 0 \{ error 2000 \}
        - if r(N) == 1 { error 2001 }
        - if r(min) < 0 {
          di in red "`y' must be greater than or equal to zero"
          exit 459
          }
        - \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 analyt
> ic weights."
        - if "`constan'`cns'"=="" & "`cluster'"=="" & "`weight'"!="pweight" {
        = if ""=="" & ""=="" & ""!="pweight" {
        - tempname c
        - if "`offset'"!="" {
        = if ""!="" {
          SolveC `y' `offset' [`weight'`exp'] if `touse', n(`nobs') mean(`mean
> ')
          scalar `c' = r(_cons)
          if `c'>=. {
          di in blu "note: exposure = exp(`offvar') overflows;" _n "
                                                                            coul
> d 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 piq_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} = piq_timing_max*(_{000005})-exp(_{000005})-
> lngamma(piq_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 -526.3044152481488)"
```

```
- }
        - else {
          di in blu "note: could not compute " "constant-only model log likeli
> hood."
        - }
        - }
        - if `fvops' {
       = if 1 {
       - local rmcoll "version 11: _rmcoll"
        - else local rmcoll _rmcoll
        - if "`display'"!="" & "`weight'"=="aweight" {
        = if "nodisplay"!="" & ""=="aweight" {
          `rmcoll' `xvars' [iw`exp'] if `touse', `constan' `coll'
          }
        - else `rmcoll' `xvars' [`weight'`exp'] if `touse', `constan' `coll'
        = else version 11: _rmcoll wlth stky_pr_rotemberg stky_pr_calvo wg_nd
> x_prprice wg_ndx_other open [] if __000002,
        - local xvars `r(varlist)'
       = local xvars with stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_n
> dx_other open
       - if "`from'"=="" {
       = if ""=="" {
       - `vv' Ipois `y' `xvars' [`weight'`exp'] if `touse', n(`nobs') mean(`m
> ean') `constan' `offopt'
        = version 18, missing: Ipois piq_timing_max wlth stky_pr_rotemberg stk
> y_pr_calvo wg_ndx_prprice wg_ndx_other open [] if __000002, n(__000004) mean
> (__000003)
                                         —— begin poisson.Ipois —
          - local vv : display "version " string(_caller()) ", missing:"
          - version 6, missing
          - syntax varlist(fv ts) [fw aw pw iw/] [if] , Nobs(string) Mean(stri
> ng) [ 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 piq_timing_max
          - `vv' _regress `ynew' `xvars' `awt' `if', `constan'
          = version 18, missing: _regress piq_timing_max wlth stky_pr_rotembe
> rg stky_pr_calvo wg_ndx_prprice wg_ndx_other open if __000002,
                                      --- begin _ereturn_display -----
            - version 11
            - if "`e(b)'" == "" & "`e(V)'" == "" {
            = if "matrix" == "" & "matrix" == "" {
              exit
              }
            - if "`e(cmd)'" == "regress" {
            = if "regress" == "regress" {
            - local ALTOPT Beta
            - }
            - syntax [, eform(passthru) First neq(integer -1) PLus `ALTOPT' *]
            = syntax [, eform(passthru) First neq(integer -1) PLus Beta *]
            - _get_mcompare, `options'
            = _get_mcompare, level(95.00) fvwrap(1)
                                    ------ begin _get_mcompare -----
              - version 11
              - local cmd `"`e(cmd)'"'
              = local cmd `"regress"'
              - syntax [name(name=caller)] [, *]
              - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") | inli
> st("pwmean", "`cmd'", "`caller'")
              = local is_pwc = inlist("pwcompare", "regress", "") | inlist("pw
> mean", "regress", "")
              - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'", "`call
> er'")
              = local is_marg = inlist("margins", "regress", "", "")
              - local OPTIONS NOADJust BONferroni DUNCan DUNNett SCHeffe 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 `"level(95.00) fvwrap(1)"'
              - if `is pwc' {
              = if 0 {
                local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `schef
> fe' `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 S
> IDak 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' `dunnet
> t' `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 `""' != "" {
                  gettoken item`n' opts : opts, bind
                  }
                - if `n' < 2 {
```

```
- exit
                                           —— end opts_exclusive ——
              - if "`METHOD'" == "" {
              = if "" == "" {
              - if "`ALL'" != "" {
              = if "" != "" {
                di as err "multiple comparison method required with the adjust
> all 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
                }
```

= if 0 < 2{

```
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 `METHO
> D'"'
                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 ALLBASEl

> evels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYce
> lls NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string
> ) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVW
> RAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOA
> BBREV ABBREV
                - syntax namelist(max=2) [, `DIOPTS' *]
                = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEle
> vels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTY
> cells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND c
> format(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(
> passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(
> 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 " "
                       —— begin opts_exclusive —
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - local n 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')}; " "non
> negative integer required{p_end}"
                    exit 198
                                     ----- end _get_diopts.FVWrap ----
                - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `bas
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
> `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> v'
                = c_local diopts
                                                   fvwrap(1)
                - if `K' == 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 ALLBASEl

> evels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYce
> lls NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string
> ) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVW
> RAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOA
> BBREV ABBREV
                - syntax namelist(max=2) [, `DIOPTS' *]
                = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEle
> vels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTY
> cells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND c
> format(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(
> passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(
> passthru) NOABBREV ABBREV *]
                - opts_exclusive "`allbaselevels' `noallbaselevels'"
                = opts_exclusive " "
```

 $= if 2 == 2 {$ 

```
— 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 "`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' `bas
```

```
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
> `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> v'
                = 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 ALLBASEl
> evels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYce
> lls NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string
> ) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVW
> RAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOA
> BBREV ABBREV
                - syntax namelist(max=2) [, `DIOPTS' *]
                = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEle
> vels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTY
> cells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND c
> format(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(
> passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(
> 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
```

- version 8.2

```
    args opts optname errcode optslab

 - local opts `opts'
 = local opts
 - local n 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 " "
                  - version 8.2

    args opts optname errcode optslab

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

```
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

local ++n

- 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 ,
```

```
— 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' `bas
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
> `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> v'
                = c_local DUPS
                - if `K' == 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
- }
```

 $= if 1 == 2 {$ 

```
- \text{ 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' `fi
> rst' `neqopt' `plus' `beta' `mcopt' `diopts'
            = _coef_table, nodiparm nocnsreport noeqcheck eformall showeqns n
> eq(1)
          mcompare(noadjust ) fvwrap(1)
                                           ---- begin _coef_table --
              - version 11
              - local vv : di "version " string(max(11,_caller())) ", missing:
> "
              - 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(st
> ring) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) R
> OWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(stri
> ng) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string) P
> CLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(stri
> ng asis) `beta' `standardized' NOCI NOPValues `dftable' `dfonly' dfci DFPVal
> ues dfmissing `groups' COEFLegend selegend `fvignore' `flignore' `showginvar
> iant' `nolabel' `nofootnote' `wrap' sort `pisematrix' depname(string) COEFTi
> tle(string) coeftitle2(string) ptitle(string) cititle(string) NOMCLEGend noC
> NSReport FULLCNSReport `noclustreport' cformat(passthru) sformat(passthru) p
> format(passthru) NOFirst First SHOWEQns neq(integer -1) NODIPARM NOTEST SEPa
> rator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFORMALL CITYPE(string) e
> qselect(string) noEFORMNOTE * ]
              = syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(st
> ring) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) R
> OWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(stri
> ng) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string) P
> CLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(stri
> ng asis) Beta NOCI NOPValues
                                  dfci DFPValues dfmissing COEFLegend selegen
          sort depname(string) COEFTitle(string) coeftitle2(string) ptitle(st
> ring) cititle(string) NOMCLEGend noCNSReport FULLCNSReport cformat(passthru
> ) sformat(passthru) pformat(passthru) NOFirst First SHOWEQns neq(integer -1)
> NODIPARM NOTEST SEParator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFOR
> MALL 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 "`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' `group
> s' `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 `"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 `"`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'") | 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 `"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 `", noadjust"'
                - 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 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 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 `""'
                               -\!\!\!- 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'
```

- sreturn local adjustall `"`ALL'"'

```
= GetDiopts diopts options, 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
```

```
begin opts_o

- version 8.2

- args opts optname errcode optslab

- local opts `opts'

= local opts

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

 $- if `n' < 2 {$ 

```
= sreturn local level 95
                                     — end _get_diopts.GetDiopts —
                - c_local `name1' `"`diopts'"'
                = c local diopts `"fvwrap(1)"'
                - local snames : s(macros)
                - foreach sname of local snames {
                - local S_`sname' = s(`sname')
                = local S_level = s(level)
                - }
                - local S_`sname' = s(`sname')
                = local S_method = s(method)
                - }
                - local S_`sname' = s(`sname')
                = local S_options = s(options)
                - }

    sreturn clear

    GetDiopts DEFAULT

                                 —— begin _get_diopts.GetDiopts —

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells 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
```

- sreturn local level `level'

```
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
```

```
- 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
  }
```

gettoken item`n' opts : opts, bind

}

- }

- if "`lstretch'" == "" {

- if c(lstretch) == "off" {
 local lstretch nolstretch

= if "" == "" {

```
}
- }
- 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 [, W0rd 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 {
```

```
- 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 —
```

= if 0 < 2{

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

    args opts optname errcode optslab

 - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
```

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

    args opts optname errcode optslab

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

- opts\_exclusive "`coeflegend' `selegend'"

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

    args opts optname errcode optslab

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

- local opts `opts'

```
= local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
 = if 0 < 2 {
  - exit
                    ----- end opts_exclusive -----
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "
                   ----- begin opts_exclusive ----
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
  exit
                      ----- end opts_exclusive -----
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "
                  ------ begin opts_exclusive -----
  - version 8.2

    args opts optname errcode optslab

 - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
 = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
```

```
= if 0 < 2 {
- exit
```

— end opts\_exclusive — - local allbaselevels `allbaselevels' `noallbaselevels' = local allbaselevels - local baselevels `baselevels' `nobaselevels' = local baselevels - local emptycells `emptycells' `noemptycells' = local emptycells - local omitted `omitted' `noomitted' = local omitted - local lstretch `lstretch' `nolstretch' = local lstretch - local fvlabel `fvlabel' `nofvlabel' = local fvlabel - local abbrev `abbrev' `noabbrev' = local abbrev - if "`allbaselevels'` baselevels'" == "" { = if "" == "" { - if c(showbaselevels) == "all" { local allbaselevels allbaselevels } - else if c(showbaselevels) == "on" { local baselevels baselevels } - } - if "`emptycells'" == "" { = if "" == "" { - if c(showemptycells) == "off" { local emptycells noemptycells } - } - if "`omitted'" == "" { = if "" == "" { - if c(showomitted) == "off" { local omitted noomitted } - } - if "`lstretch'" == "" { = if "" == "" { - if c(lstretch) == "off" { local lstretch nolstretch } - } - if `:length local cformat' {

```
= if 0 {
  confirm numeric format `cformat'
  if fmtwidth(`"`cformat'"') > 9 {
  local cformat "%9.0g"
  di "{txt}note: invalid cformat(), using default"
  sreturn local cformat `"`cformat'"'
  local cformat `"cformat(`cformat')"'
- if `:length local sformat' {
= if 0 {
  confirm numeric format `sformat'
  if fmtwidth(`"`sformat'"') > 8 {
  local sformat "%8.2f"
  di "{txt}note: invalid sformat(), using default"
  sreturn local sformat `"`sformat'"'
  local sformat `"sformat(`sformat')"'
- if `:length local pformat' {
= if 0 {
  confirm numeric format `pformat'
  if fmtwidth(`"`pformat'"') > 5 {
  local pformat "%5.3f"
  di "{txt}note: invalid pformat(), using default"
  }
  sreturn local pformat `"`pformat'"'
  local pformat `"pformat(`pformat')"'
  }
- if `K' == 1 & `:length local options' {
= if 2 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
  local levelopt level(`level')
- Wrapon , `fvwrapon'
= Wrapon ,
                   — begin _get_diopts.Wrapon —
  - capture syntax [, WOrd WIdth]
  - if c(rc) {
    di as err "invalid fvwrapon() option;"
    syntax [, WOrd WIdth]
    exit 198
```

```
}
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                                           — begin opts_exclusive —
                      - version 8.2

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                             — end opts_exclusive —
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                                        — end _get_diopts.Wrapon —
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 2 == 2 {
                  - c_local `c_opts' `"`options'"'
                  = c_local options `""'
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
```

```
= sreturn local 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)
```

= sreturn local versus

- sreturn local compare `compare'

```
— 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 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 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
```

- if `:length local sformat' {

```
- 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 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 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 ++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'

= while `""' != "" {

- while `"`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 1 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
  local levelopt level(`level')
  }
```

```
- Wrapon , `fvwrapon'
                  = Wrapon ,
                                    ---- begin _get_diopts.Wrapon -
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                                         —— begin opts_exclusive —
                      - version 8.2

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                      local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                            end opts_exclusive —
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                                      —— end _get_diopts.Wrapon —
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
```

```
= c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                     end _get_diopts.GetDiopts —
                - if `"`name2'"' == "" {
                = if `""" == """ {
                GetDiopts DUPS, `options'
                = GetDiopts DUPS,
                              ——— begin _get_diopts.GetDiopts —

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
> cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts exclusive " "
                                         — begin opts_exclusive —
                    - version 8.2

    args opts optname errcode optslab

                    - local opts `opts'
                    = local opts
                    - local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
```

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

    args opts optname errcode optslab

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

- opts\_exclusive "`emptycells' `noemptycells'"

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

    args opts optname errcode optslab

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

    args opts optname errcode optslab

 - local opts `opts'
```

= local opts
- local n 0

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

    args opts optname errcode optslab

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

```
— end opts_exclusive ——
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "
                       — begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
 = if 0 < 2 {
  - exit
                         — end opts_exclusive ——
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
                     ——— begin opts_exclusive ———
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                        --- end opts_exclusive ----
- local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "
                        — begin opts_exclusive —
```

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

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

gettoken item`n' opts : opts, bind

}

= if "" == "" {

- if c(lstretch) == "off" {
 local lstretch nolstretch

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

```
> ------ begin _get_diopts.Wrapon ------
- capture syntax [, WOrd WIdth]
```

- if c(rc) {

```
di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                                          — begin opts_exclusive —
                      - version 8.2

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                      local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                             — end opts_exclusive —
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                                      ---- end _get_diopts.Wrapon ----
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
```

```
= sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                     — end _get_diopts.GetDiopts —
                - }
                - else {
                  GetDiopts DUPS options, `options'
                  c_local `name2' `"`options'"'
                  }
                - local DUPS : list DUPS - DEFAULT
                - gettoken DUPS : DUPS
                - if `"`DUPS'"' != "" {
                = if `""' != "" {
                  if (strpos(`"`DUPS'"', "(")) {
                  gettoken DUPS : DUPS, parse("(")
                  local DUPS `"`DUPS'()"'
                  di as err "duplicate {bf:`DUPS'} option not allowed"
                  exit 198
                  }
                sreturn clear
                - foreach sname of local snames {
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local level = `"95"'
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local 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__) soption
> S
```

```
= _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 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 l
                - foreach ef of local efopts {
                - 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 `""'
                - 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'"', `"`ef
> ormdi''')
              = local coefttl = cond(`""'==`""', `""', `""')
              - local options `"`s(options)'"'
              = local options `""'
```

- sreturn local options `"`opts'"'

```
- _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 pl

> us SYNTAXonly * ]
                - local goptions `options'
                = local goptions level(95)
                SpliceGlobals junk , `goptions'
                = SpliceGlobals junk , level(95)
                         —— begin _get_diparmopts.SpliceGlobals —
                  - syntax name(id="macro name" name=c_diparm) [, diparm(strin
> g asis) Level(cilevel) dof(passthru) syntaxonly ]
                  - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                  = if `""' == "" & `"211"' != "" {
                  - capture confirm integer number `e(df_r)'
                  = capture confirm integer number 211
                  - if !c(rc) {
                  - local gdof dof(`e(df_r)')
                  = local gdof dof(211)
                  - }
                  - capture
                  - else local gdof `"`dof'"'
                  = else local gdof `""'
                  - local glevel `level'
                  = local glevel 95
                  - local lopt level(`glevel')
                  = local lopt level(95)
                  - if (`"`diparm'"' == "") exit
                  = if (`""' == "") exit
                            —— end _get_diparmopts.SpliceGlobals —
                - local 0 `", `diparmopts'"'
                = local 0 `", "'

    local diparmopts

                - local k 0
                - syntax [, diparm(string asis) * ]
                - while `"`diparm'"' != "" {
```

```
= while `""' != "" {
                   local ++k
                   local single 1
                   local after
                   capture _on_colon_parse `diparm'
                   if !c(rc) {
                   local single 0
                   local diparm `"`s(before)'"'
                   local after `"`s(after)'"'
                   capture
                   SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptio
> ns'
                   local diparm`k' `"`diparm'"'
                   local diparmopts `"`diparmopts' : `diparm'"'
                   if `single' | `"`:list retok after'"' == "" {
                   local 0 `", `options'"'
                   syntax [, diparm(string asis) * ]
                   else {
                   local diparm `"`after'"'
                   }
                 - if `"`soptions'"' == "" {
                 = if `""' == "" {
                 - syntax [, diparm(string asis) ]
                 - if ("`execute'" == "") {
                 = if ("" == "") {
                 - sreturn clear
                 - sreturn local options `"`options'"'
                 = sreturn local options `""'
                 - sreturn local diparm `"`diparmopts'"'
                 = sreturn local diparm `""'
                 - forval i = 1/k' {
                 = forval i = 1/0 {
                   sreturn local diparm`i' `"`diparm`i''"'
                   }
                 - sreturn local k `k'
                 = sreturn local k 0
                 - exit
                                            \overline{\phantom{m}} end <code>_get_diparmopts</code> \overline{\phantom{m}}
               - local NODIPARM : length local nodiparm
               - if `NODIPARM' {
               = if 8 {
```

```
- local options
- }
- local GTOPTS parse(":") bind quotes
- local k 0
- if !`NODIPARM' {
= if !8 {
  if `"`e(diparm)'"' != "" {
  local i 0
  local diparm `"`e(diparm)'"'
  else if `"`e(diparm1)'"' != "" {
  local i 1
  local diparm `"`e(diparm1)'"'
  }
  while `:length local diparm' {
  gettoken diparm rest : diparm, `GTOPTS'
  while `:length local rest' {
  local ++k
  local diparm`k' : copy local diparm
  gettoken COLON rest : rest, `GTOPTS'
  gettoken diparm rest : rest, `GTOPTS'
  }
  local ++k
  local diparm`k' : copy local diparm
  local ++i
  local diparm `"`e(diparm`i')'"'
  }
  }
- if `:length local options' {
= if 0 {
  local 0 `", `options'"'
  syntax [, diparm(string asis) *]
  if `k' & `:length local diparm' {
  local ++k
  local diparm`k' __sep__
  while `:length local diparm' {
  gettoken diparm rest : diparm, `GTOPTS'
  while `:length local rest' {
  local ++k
  local diparm`k' : copy local diparm
  gettoken COLON rest : rest, `GTOPTS'
  gettoken diparm rest : rest, `GTOPTS'
  }
  local ++k
  local diparm`k' : copy local diparm
```

```
local 0 `", `options'"'
                syntax [, diparm(string asis) *]
                }
                }
              - if "`markdown'" != "" {
              = if "" != "" {
                local lsize = c(linesize)
                set linesize 255
              - `vv' mata: _coef_table()
              = version 11, missing: mata: _coef_table()
                                             — begin _get_diopts —
                - version 11
                - syntax namelist(max=2) [, *]
                - gettoken name1 namelist : namelist
                - gettoken name2 namelist : namelist
                GetDiopts diopts options, `options'
                = GetDiopts diopts options, fvwrap(1)
                                  — begin _get_diopts.GetDiopts —

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels 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 {
  - 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
```

```
- 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
  }
- }
```

gettoken item`n' opts : opts, bind

}

- if "`lstretch'" == "" {

- if c(lstretch) == "off" {
 local lstretch nolstretch

= if "" == "" {

```
}
- }
- 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]
```

Thursday, May 8, 2025 at 8:06 PM Page 203

- 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)
                  - \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 __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 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 fylabel
- local abbrev `abbrev' `noabbrev'
= local abbrev
- if "`allbaselevels'` baselevels'" == "" {
= if "" == "" {
- if c(showbaselevels) == "all" {
  local allbaselevels allbaselevels
  }
- else if c(showbaselevels) == "on" {
  local baselevels baselevels
  }
- if "`emptycells'" == "" {
```

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

```
- if `K' == 1 & `:length local options' {
= if 1 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
  }
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
  local levelopt level(`level')
- Wrapon , `fvwrapon'
= Wrapon ,
                 ---- begin _get_diopts.Wrapon -
  - capture syntax [, WOrd WIdth]
  - if c(rc) {
    di as err "invalid fvwrapon() option;"
    syntax [, WOrd WIdth]
    exit 198
    }
  - opts_exclusive "`word' `width'" fvwrapon
  = opts_exclusive " " fvwrapon
                       ── begin opts_exclusive ─
    - version 8.2

    args opts optname errcode optslab

   - local opts `opts'
   = local opts
    - local n 0
    - while `"`opts'"' != "" {
   = while `""' != "" {
      local ++n
      gettoken item`n' opts : opts, bind
    - if `n' < 2 {
   = if 0 < 2 {
    – exit
                         ── end opts_exclusive ─
  - local fvwrapon `word' `width'
 = local fvwrapon
  - if `:length local fvwrapon' {
 = if 0 {
    c_local fvwrapon fvwrapon(`fvwrapon')
                      — end _get_diopts.Wrapon —
```

```
- if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                      − end _get_diopts.GetDiopts −
                - if `"`name2'"' == "" {
                = if `""" == """ {
                GetDiopts DUPS, `options'
                = GetDiopts DUPS,
                               ——— begin _get_diopts.GetDiopts ——

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells 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 {
  - 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 <del>-</del>
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "
```

```
—— begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

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

- if "`omitted'" == "" {

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

```
= if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                                    ---- begin _get_diopts.Wrapon ---
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                                         --- begin opts_exclusive ---
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                      - if `n' < 2 {
                      = if 0 < 2 {
                      – exit
                                             end opts_exclusive —
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                                      ── end _get_diopts.Wrapon ─
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
```

```
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                               ------ end _get_diopts.GetDiopts ----
                - }
                - else {
                  GetDiopts DUPS options, `options'
                  c_local `name2' `"`options'"'
                  }
                - local DUPS : list DUPS - DEFAULT
                - gettoken DUPS : DUPS
                - if `"`DUPS'"' != "" {
                = if `""' != "" {
                  if (strpos(`"`DUPS'"', "(")) {
                  gettoken DUPS : DUPS, parse("(")
                  local DUPS `"`DUPS'()"'
                  di as err "duplicate {bf:`DUPS'} option not allowed"
                  exit 198
                - sreturn clear
                - foreach sname of local snames {
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local level = `"95"'
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local k = `"0"'
                - }
                                              --- end _get_diopts --
              - if "`markdown'" != "" {
              = if "" != "" {
```

```
set linesize `lsize'
               }
             - if "`egselect'" == "" & "`eformnote'" != "noeformnote" {
             = if "" == "" & "" != "noeformnote" {
             - if `"`eformdi'"'!="" & ("`e(cmd)'"!="gnbreg" | "`e(prefix)'"==
> "svy") {
             = if `""'!="" & ("regress"!="gnbreg" | ""=="svy") {
               local k_eform `r(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'"
               }
               }
             - if (`"`eformdi'"'!="" & "`e(noconstant)'"=="0" & `"`eform_cons
> _ti'"'!="" & "`e(consonly)'"!="1") {
             = if (`""'!="" & ""=="0" & `""'!="" & ""!="1") {
               if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cmd)
> '"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
               local asvar = `"`e(ranvars)'`e(fixvars)'`e(indvars)'"' != ""
               if `"`e(casevars)'"' != "" & `asvar' {
               local note1 "Exponentiated coefficients represent odds ratios
> for "
               local note2 "alternative-specific variables (first equation) a
> nd "
               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_cons_
> 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 piq_timing_max __000006 [] if __000002, n(__000004)
                                  ------ begin poisson.LikePois --
```

```
- gettoken y 0 : 0
            - gettoken xb 0 : 0
            - syntax [fw aw pw iw] [if] , Nobs(string)
            - if "`weight'"!="" {
            = if ""!="" {
              if "`weight'"=="fweight" {
              local wt `"[fw`exp']"'
              }
              else if "`weight'"=="iweight" {
              local wt `"[iw`exp']"'
              }
              else local wt `"[aw`exp']"'
            tempvar lnf
            - qui gen double `lnf' = `y'*(`xb')-exp(`xb')-lngamma(`y'+1) `if'
            = qui gen double __00000B = piq_timing_max*(__000006)-exp(__000006
> )-lngamma(piq_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 piq_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 }
            - \text{ 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 piq_timing_max __000006+__00000B [] if __000002, n(__0000
> 04)
                                         — begin poisson.LikePois ———
            - gettoken y 0 : 0
            - gettoken xb 0 : 0
```

```
- syntax [fw aw pw iw] [if] , Nobs(string)
            - if "`weight'"!="" {
           = if ""!="" {
              if "`weight'"=="fweight" {
              local wt `"[fw`exp']"'
              else if "`weight'"=="iweight" {
              local wt `"[iw`exp']"'
              else local wt `"[aw`exp']"'
              }
            tempvar lnf
            - qui gen double `lnf' = `y'*(`xb')-exp(`xb')-lngamma(`y'+1) `if'
           = qui gen double __00000C = piq_timing_max*(__000006+__00000B)-exp
> (__000006+__00000B)-lngamma(piq_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 _{00007} = piq_timing_max*exp(-(__000006+__00000B))-1 +
> __000006+__00000B if __000002
          - `vv' _regress `z' `xvars' [aw=`wt'exp(`xb'`poff'`c')] `if', `const
> an'
          = version 18, missing: _regress __000007 wlth stky_pr_rotemberg stk
> y_pr_calvo wg_ndx_prprice wg_ndx_other open [aw=exp(__000006+__00000B)] if _
> _000002,
                                      —— begin _ereturn_display —
           - version 11
            - if "`e(b)'" == "" & "`e(V)'" == "" {
           = if "matrix" == "" & "matrix" == "" {
              exit
```

```
}
            - if "`e(cmd)'" == "regress" {
            = if "regress" == "regress" {
            - local ALTOPT Beta
            - }
            - syntax [, eform(passthru) First neq(integer -1) PLus `ALTOPT' *]
            = syntax [, eform(passthru) First neq(integer -1) PLus Beta *]
            - _get_mcompare, `options'
            = _get_mcompare, level(95.00) fvwrap(1)
                                           — begin _get_mcompare —
              - version 11
              - local cmd `"`e(cmd)'"'
              = local cmd `"regress"'
              - syntax [name(name=caller)] [, *]
              - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") | inli
> st("pwmean", "`cmd'", "`caller'")
              = local is_pwc = inlist("pwcompare", "regress", "") | inlist("pw
> mean", "regress", "")
              - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'", "`call
> er'")
              = local is_marg = inlist("margins", "regress", "", "")

    local OPTIONS NOADJust BONferroni DUNCan DUNNett SCHeffe 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 `"level(95.00) fvwrap(1)"'
              - if `is_pwc' {
              = if 0 {
                local METHOD `noadjust' `bonferroni' `duncan' `dunnett' `schef
> fe' `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 S
> IDak 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' `dunnet
> t' `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 adjust
> all 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 `METHO
> D'"'
                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 ALLBASEl

> evels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYce
```

> lls NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string

```
> ) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVW
> RAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOA
> BBREV ABBREV
                - syntax namelist(max=2) [, `DIOPTS' *]
                = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEle
> vels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTY
> cells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND c
> format(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(
> passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(
> 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 <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'"'
  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')}; " "non
> negative integer required{p_end}"
                    exit 198
                    }
                                    ----- end _get_diopts.FVWrap ----
                - }
                - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `bas
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
> `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> v'
                = 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)"'
```

```
- 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 ALLBASEl

> evels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYce
> lls NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string
> ) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVW
> RAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOA
> BBREV ABBREV
                - syntax namelist(max=2) [, `DIOPTS' *]
                = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEle
> vels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTY
> cells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND c
> format(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(
> passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(
> passthru) NOABBREV ABBREV *]
                - opts_exclusive "`allbaselevels' `noallbaselevels'"
                = opts_exclusive " "
                                           – begin opts_exclusive <del>–</del>
                  - 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 snames : s(macros)

```
———— 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' `bas
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
> `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> v'
                = 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 ALLBASEl

> evels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYce
> lls NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string
> ) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVW
> RAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOA
> BBREV ABBREV
                - syntax namelist(max=2) [, `DIOPTS' *]
                = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEle
> vels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTY
> cells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND c
> format(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(
> passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(
> 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 " "
                  - version 8.2

    args opts optname errcode optslab

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

- if `:length local sformat' {

```
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' `bas
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
> `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> v'
                = 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 showegns
            - \text{ 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' `fi
> rst' `neqopt' `plus' `beta' `mcopt' `diopts'
            = _coef_table, nodiparm nocnsreport noeqcheck eformall showeqns n
          mcompare(noadjust ) fvwrap(1)
> eq(1)
                                             — begin _coef_table —
              - version 11
```

```
- local vv : di "version " string(max(11,_caller())) ", missing:
> "
              - 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(st
> ring) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) R
```

```
> OWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(stri
> ng) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string) P
> CLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(stri
> ng asis) `beta' `standardized' NOCI NOPValues `dftable' `dfonly' dfci DFPVal
> ues dfmissing `groups' COEFLegend selegend `fvignore' `flignore' `showginvar
> iant' `nolabel' `nofootnote' `wrap' sort `pisematrix' depname(string) COEFTi
> tle(string) coeftitle2(string) ptitle(string) cititle(string) NOMCLEGend noC
> NSReport FULLCNSReport `noclustreport' cformat(passthru) sformat(passthru) p
> format(passthru) NOFirst First SHOWEQns neq(integer −1) NODIPARM NOTEST SEPa
> rator(integer 0) NOSKIP OFFSETONLY1 Plus NOEQCHECK EFORMALL CITYPE(string) e
> qselect(string) noEFORMNOTE * ]
              = syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(st
> ring) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) R
> OWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(stri
> ng) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string) P
> CLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(stri
> ng asis) Beta NOCI NOPValues
                                  dfci DFPValues dfmissing COEFLegend selegen
          sort depname(string) COEFTitle(string) coeftitle2(string) ptitle(st
> ring) cititle(string) NOMCLEGend noCNSReport FULLCNSReport cformat(passthru
> ) sformat(passthru) pformat(passthru) NOFirst First SHOWEQns neq(integer -1)
> NODIPARM NOTEST SEParator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFOR
> MALL 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' `group
> s' `dfci' `dfpvalues'
```

```
= local type
- }
- opts_exclusive "`type'"
= opts_exclusive ""
                           — begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

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

    args opts optname errcode optslab
```

```
- local opts `opts'
  = local opts showeqns
  - local n 0
  - while `"`opts'"' != "" {
  = while `"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 `"`showeqns'"' != "" {
              = if `"showeqns"' != "" {
              local nofirst nofirst
              - }
              - if `"`ematrix'`noeqcheck'"' == "" {
              = if `"noeqcheck"' == "" {
                if `"`e(error)'"' == "matrix" {
                local ematrix e(error)
                }
                }
              - _get_mcompare, `options'
              = _get_mcompare, mcompare(noadjust ) fvwrap(1)
                                           — begin _get_mcompare —
                - version 11
                - local cmd `"`e(cmd)'"'
                = local cmd `"regress"'
                - syntax [name(name=caller)] [, *]
                - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") | 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 `"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 `", noadjust"'
                - 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 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 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 ---
              - 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 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 " "
                       — begin opts_exclusive —
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
 = local opts
  - 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
```

- opts\_exclusive "`abbrev' `noabbrev'"

```
}
- }
- 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')
                = local S_options = s(options)
```

```
    GetDiopts DEFAULT

                                   — begin _get_diopts.GetDiopts —

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

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

- }

- sreturn clear

```
- 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'
```

```
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 {
```

```
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
```

local sformat "%8.2f"

```
gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                          --- end opts_exclusive ---
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                                        — end _get_diopts.Wrapon —
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                      - end _get_diopts.GetDiopts -
                - if `"`name2'"' == "" {
                = if `"options"' == "" {
                  GetDiopts DUPS, `options'
                  }
                - else {
                - GetDiopts DUPS options, `options'
                = GetDiopts DUPS options,
```

```
- begin _get_diopts.GetDiopts ----

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
> cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                                         — begin opts_exclusive —
                    - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

                    - local opts `opts'
                    = local opts
                    local n 0
                    - while `"`opts'"' != "" {
                    = while `""' != "" {
                      local ++n
```

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

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

    args opts optname errcode optslab

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

    args opts optname errcode optslab

 - local opts `opts'
```

= local opts
- local n 0

```
- while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                      ——— end opts_exclusive —
- opts_exclusive "`cnsreport' `fullcnsreport'"
= opts_exclusive " "
                   ----- begin opts_exclusive ----
  - version 8.2

    args opts optname errcode optslab

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

```
- end opts_exclusive ----
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
                       — begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

 - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                           – end opts_exclusive —
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "
                       — begin opts_exclusive —
```

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

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

```
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 `""' != "" {
      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' `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("(")
```

= if 0 < 2{

```
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 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
```

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

```
}
- 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 DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                     — end _get_diopts.GetDiopts —
                - if `"`name2'"' == "" {
```

```
= if `""" == """ {
                - GetDiopts DUPS, `options'
                = GetDiopts DUPS,
                                   — begin _get_diopts.GetDiopts —

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

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

    args opts optname errcode optslab

                    - local opts `opts'
                    = local opts
                    - local n 0
```

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

    args opts optname errcode optslab

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

```
- end opts_exclusive -----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "
                      --- begin opts_exclusive ---
  - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

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

    args opts optname errcode optslab
```

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

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
```

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

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

    args opts optname errcode optslab

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

- local emptycells `emptycells' `noemptycells'

= local emptycells

= local omitted

- local omitted `omitted' `noomitted'

- 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 {
```

```
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
```

local sformat "%8.2f"

```
gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                          --- end opts_exclusive ---
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                                        — end _get_diopts.Wrapon —
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                    --- end _get_diopts.GetDiopts --
                - }
                - else {
                  GetDiopts DUPS options, `options'
                  c_local `name2' `"`options'"'
                  }
                - local DUPS : list DUPS - DEFAULT
                - gettoken DUPS : DUPS
```

```
- if `"`DUPS'"' != "" {
                = if `""' != "" {
                  if (strpos(`"`DUPS'"', "(")) {
                  gettoken DUPS : DUPS, parse("(")
                  local DUPS `"`DUPS'()"'
                  di as err "duplicate {bf:`DUPS'} option not allowed"
                  exit 198
                  }
                sreturn clear
                - foreach sname of local snames {
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local level = `"95"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local 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__) soption
> S
              = _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 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
                - 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'
```

```
----- 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'"', `"`ef
> ormdi'"')
              = 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 pl

> us SYNTAXonly * ]
                local goptions `options'
                = local goptions level(95)
                SpliceGlobals junk , `goptions'
                = SpliceGlobals junk , level(95)
```

```
— begin _get_diparmopts.SpliceGlobals ——
                  - syntax name(id="macro name" name=c_diparm) [, diparm(strin
> g asis) Level(cilevel) dof(passthru) syntaxonly ]
                  - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                  = if `""' == "" & `"211"' != "" {
                  - capture confirm integer number `e(df_r)'
                  = capture confirm integer number 211
                  - if !c(rc) {
                  - local gdof dof(`e(df_r)')
                  = local gdof dof(211)
                  - }
                  - 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'"' == "" {
```

```
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{\phantom{m}} end <code>_get_diparmopts</code> \overline{\phantom{m}}
- 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'
```

local 0 `", `options'"'

```
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
```

```
- GetDiopts diopts options, `options'
                = GetDiopts diopts options, 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
```

- gettoken name2 namelist : namelist

```
- 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
```

```
Thursday, May 8, 2025 at 8:06 PM Page 341
```

- local emptycells `emptycells' `noemptycells'

- local omitted `omitted' `noomitted'

- local lstretch `lstretch' `nolstretch'

= local emptycells

= local omitted

```
= 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 {
```

```
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
```

local sformat "%8.2f"

```
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
                            - 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 __00000D `"fvwrap(1)"'
                - local snames : s(macros)
                - foreach sname of local snames {
                - local S_`sname' = s(`sname')
                = local S level = s(level)
                - local S_`sname' = s(`sname')
                = local S_k = s(k)
                - }
                sreturn clear

    GetDiopts DEFAULT

                                  --- begin _get_diopts.GetDiopts ----

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels 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 " "
                       <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 `""' != "" {
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
  exit
                         --- end opts_exclusive --
- opts_exclusive "`emptycells' `noemptycells'"
= opts_exclusive " "
```

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

    args opts optname errcode optslab

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

    args opts optname errcode optslab

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

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

    args opts optname errcode optslab

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

```
----- end opts_exclusive ----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "
                       — begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  - if `n' < 2 {
  = if 0 < 2 {
  exit
                          — end opts_exclusive ——
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
                    ——— begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 0
 - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                         — end opts_exclusive —
local K : list sizeof namelist
- gettoken c_diopts c_opts : namelist
- opts_exclusive "`coding' `compare'"
= opts_exclusive " "
                        – begin opts_exclusive —
```

- version 8.2

```
    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  local n 0
  - while `"`opts'"' != "" {
 = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
   }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                    ----- end opts_exclusive -----
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "
                 ------ begin opts_exclusive -----
  - version 8.2

    args opts optname errcode optslab

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

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

 end opts exclusive local allbaselevels `allbaselevels' `noallbaselevels' = local allbaselevels - local baselevels `baselevels' `nobaselevels' = local baselevels - local emptycells `emptycells' `noemptycells' = local emptycells - local omitted `omitted' `noomitted' = local omitted - local lstretch `lstretch' `nolstretch' = local lstretch - local fvlabel `fvlabel' `nofvlabel' = local fvlabel - local abbrev `abbrev' `noabbrev' = local abbrev - if "`allbaselevels'`baselevels'" == "" { = if "" == "" { - if c(showbaselevels) == "all" { local allbaselevels allbaselevels - else if c(showbaselevels) == "on" { local baselevels baselevels - } - if "`emptycells'" == "" { = if "" == "" { - if c(showemptycells) == "off" { local emptycells noemptycells - } - if "`omitted'" == "" { = if "" == "" { - if c(showomitted) == "off" { local omitted noomitted } - } - if "`lstretch'" == "" { = if "" == "" { - if c(lstretch) == "off" { local lstretch nolstretch

}

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

```
syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                                        --- begin opts_exclusive --
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      exit
                                           —— end opts_exclusive —
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                                        — end _get_diopts.Wrapon ——
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                  sreturn local coding `coding'
                  = sreturn local coding
```

```
- sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                 ---- end _get_diopts.GetDiopts --
                - if `"`name2'"' == "" {
                = if `""" == "" {
                - GetDiopts DUPS, `options'
                = GetDiopts DUPS,
                               ----- begin _get_diopts.GetDiopts -----
                  - local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS
> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells 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 {
                    - 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 " "
                   ----- begin opts_exclusive ----
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
 = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
```

```
- exit
```

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

```
    args opts optname errcode optslab

  local opts `opts'
 = local opts
  local n 0
  - while `"`opts'"' != "" {
 = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                         — end opts_exclusive ——
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
                 ------ begin opts_exclusive -----
  - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
```

```
local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
  exit
                          — end opts_exclusive ——
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "
                  begin opts_exclusive ——
  - version 8.2

    args opts optname errcode optslab

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

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

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

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

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                          --- end opts_exclusive ---
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                                         – end _get_diopts.Wrapon —
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
```

```
---- end _get_diopts.GetDiopts
                - }
                - else {
                  GetDiopts DUPS options, `options'
                  c_local `name2' `"`options'"'
                local DUPS : list DUPS - DEFAULT
                - gettoken DUPS : DUPS
                - if `"`DUPS'"' != "" {
                = if `""' != "" {
                  if (strpos(`"`DUPS'"', "(")) {
                  gettoken DUPS : DUPS, parse("(")
                  local DUPS `"`DUPS'()"'
                  di as err "duplicate {bf:`DUPS'} option not allowed"
                  exit 198
                  }
                - sreturn clear
                - foreach sname of local snames {
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local level = `"95"'
                - }
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local 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 `r(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_cons
> _ti'"'!="" & "`e(consonly)'"!="1") {
              = if (`""'!="" & ""=="0" & `""'!="" & ""!="1") {
                if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cmd)
> '"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                local asvar = `"`e(ranvars)'`e(fixvars)'`e(indvars)'"' != ""
                if `"`e(casevars)'"' != "" & `asvar' {
                local note1 "Exponentiated coefficients represent odds ratios
> for "
                local note2 "alternative-specific variables (first equation) a
> nd "
                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_cons_
> 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 piq_timing_max __000006 [] if __000002, n(__000004)
                                        — begin poisson.LikePois —
            - gettoken y 0 : 0
            - gettoken xb 0 : 0
            - syntax [fw aw pw iw] [if] , Nobs(string)
            - if "`weight'"!="" {
            = if ""!="" {
              if "`weight'"=="fweight" {
              local wt `"[fw`exp']"'
              else if "`weight'"=="iweight" {
              local wt `"[iw`exp']"'
              else local wt `"[aw`exp']"'
            tempvar lnf
```

```
- qui gen double `lnf' = `y'*(`xb')-exp(`xb')-lngamma(`y'+1) `if'
            = qui gen double __00000D = piq_timing_max*(__000006)-exp(__000006
> )-lngamma(piq_timing_max+1) if __000002
           - summarize `lnf' `wt' `if', meanonly
           = summarize __00000D if __000002, meanonly
           - if r(N) != `nobs' { exit }
           = if r(N) != __000004 { exit }
            - if "`weight'"=="aweight" {
           = if ""=="aweight" {
              ret scalar lnf = r(N)*r(mean)
              }
            - else ret scalar lnf = r(sum)
                                          — end poisson.LikePois ——
          - tempname lnf2
          - scalar `lnf2' = r(lnf)
          = scalar \__00000D = r(lnf)
          - }
          - if rc { local lnf2 . }
          - if `lnf1'>=. & `lnf1c'>=. & `lnf2'>=. { exit }
          = if __00000A>=. & __00000C>=. & __00000D>=. { exit }
          - if `lnf2'<.&(`lnf2'>`lnf1'|`lnf1'>=.)&(`lnf2'>`lnf1c'|`lnf1c'>=.)
> {
          = if __00000D<.&(__00000D>__00000A|__00000A>=.)&(__00000D>__00000C|_
> 00000C>=.) {
         - ret matrix b0 `b2'
         = ret matrix b0 ___000009
          exit
                                      ----- end poisson.Ipois -----
       - if "`r(b0)'"!="" {
       = if "matrix"!="" {
        - tempname from
        - mat `from' = r(b0)
       = mat __000006 = r(b0)
        - }
        - }
       - if "`from'"!="" {
       = if " 000006"!="" {
        - local initopt `"init(`from') search(off)"'
       = local initopt `"init(__000006) search(off)"'
        - }
        - else local initopt "search(on) maxfeas(50)"
        - `vv' ml model `mm' `eval' (`yname': `y' = `xvars', `constan' `offopt
> ') [`weight'`exp'] if `touse', collinear missing max nooutput nopreserve `ml
> opts' title(Poisson regression) `scopt' `robust' `clopt' `initopt' `ll0' `ne
```

```
> gh' `moptobj'
        = version 18, missing: ml model e2 poiss_lf (piq_timing_max: piq_timin
> g_max = wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other ope
> n, ) [] if __000002, collinear missing max nooutput nopreserve title(Poiss
> on regression) robust init(__000006) search(off) lf0(1 -526.3044152481488)
> negh
                                                       — begin ml ——
          - if _caller()>=11 {
          - mopt `0'
          = mopt model e2 poiss_lf (piq_timing_max: piq_timing_max = wlth stky
> _pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open, ) [] if __000
> 002, collinear missing max nooutput nopreserve title(Poisson regression) r
> obust init(__000006) search(off) lf0(1 -526.3044152481488) negh
                                                     – begin mopt –
            - local vv : di "version " string(_caller()) ":"
            - version 12
            - gettoken subcmd 0 : 0, parse(" ,")
            - local lcmd : length local subcmd
            - if "`subcmd'" == "clear" {
            = if "model" == "clear" {
              Clear
              exit
              }
            - if `"`subcmd'"' == "hold" {
            = if `"model"' == "hold" {
              ml_hold `0'
              exit
            - if `"`subcmd'"' == "unhold" {
            = if `"model"' == "unhold" {
              ml unhold `0'
              exit
              }
            - if "`subcmd'" == "score" {
            = if "model" == "score" {
              if _caller() > 12 {
              `vv' Score `0'
              }
              else {
              Score `0'
              }
              exit
            - if "`subcmd'" == "count" {
```

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

```
}
            - if "`subcmd'" == bsubstr("model",1,max(3,`lcmd')) {
            = if "model" == bsubstr("model",1,max(3,5)) {
            - `vv' capture noi Model `0'
            = version 18: capture noi Model e2 poiss_lf (piq_timing_max: piq_
> timing max = wlth stky pr rotemberg stky pr calvo wg ndx prprice wg ndx othe
> r open, ) [] if __000002, collinear missing max nooutput nopreserve title(
> Poisson regression) robust init(__000006) search(off) lf0(1 -526.304415248
> 1488) 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(s
> tring) noCNSNOTEs VCE(passthru) NEGH NOPREserve TECHnique(string) ITERID(str
> ing) CRITtype(string) OBS(numlist max=1 >0) TItle(string) WALDtest(integer -
> 1) SVY SUBpop(string) SRSsubpop noSVYadjust SCore(passthru) noOUTput noSCVAR
> S GROUP(varname) ITERPROLOG(string) DERIVPROLOG(string) DERIVH(string) DERIV
> SCALE(string) DERIV(string) nrderiv GNWMATrix(string) KAUXiliary(numlist int
>> >=0) MAXimize MINimize USERinfo(namelist) PUPDATED Robust CLuster(passthru)
> 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'
```

```
- 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 pl

> us SYNTAXonly * ]
                - local goptions `options'
                = local goptions
                SpliceGlobals junk , `goptions'
```

= local maxmin maximize

```
= SpliceGlobals junk ,
```

```
——— begin _get_diparmopts.SpliceGlobals —
                  - syntax name(id="macro name" name=c_diparm) [, diparm(strin
> g asis) Level(cilevel) dof(passthru) syntaxonly ]
                  - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                  = if `""' == "" & `"211"' != "" {
                  - capture confirm integer number `e(df_r)'
                  = capture confirm integer number 211
                  - if !c(rc) {
                  - local gdof dof(`e(df_r)')
                  = local gdof dof(211)
                  - }
                  - 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' `goptio
> ns'
                  local diparm`k' `"`diparm'"'
                  local diparmopts `"`diparmopts' : `diparm'"'
```

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

if `single' | `"`:list retok after'"' == "" {

```
- confirm name `evaltype'
              = confirm name e2
              - gettoken evaluator spec : spec
              - global ML_evaltype : copy local evaltype
              - if `:length local srssubpop' {
              = if 0 {
                local 0 , srssubpop
                syntax [, NONOPTION]
                exit 198
                }
              - if `:length local subpop' {
              = if 0 {
                local svy svy
              - if `:length local svy' {
              = if 0 {
                opts_exclusive "`vce' `svy'" vce
                if `:length local weight' {
                di as err "svy option not allowed with weights"
                exit 198
                global ML_noadj : copy local svyadjust
              - global ML_svy : copy local svy
              - if _caller() >= 15 & c(userversion) >= 15 {
              - local fparm ", freeparm"
              - }

    local eqspec : copy local spec

              - local ieq 0
              - while `:length local eqspec' {
              = while 111 {
              - local ++ieq
              - gettoken eq eqspec : eqspec, bind
              - if bsubstr(trim("eq'"),1,1) == "/" {
              = if bsubstr(trim("(piq_timing_max: piq_timing_max = wlth stky_p
> r_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open, )"),1,1) == "/"
> {
                local eq = bsubstr(trim("`eq'"),2,.)
                local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"',
> word
                }
              - else {
              - gettoken p1 p2 : eq, parse("()")
              - local p2 = trim(`"`p2'"')
              = local p2 = trim(`"piq_timing_max: piq_timing_max = wlth stky_p
```

gettoken evaltype spec : spec

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

```
> word
```

}

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

```
string
                                          gl_if
                         string
                                          gl_in
                         string
                                          gl_wgt
                         string
                                          gl_options
                         _optlist
                                          eq_opts_allowed
                  -class {
                  -instance:
                           array options
                                            = {}
                           array names
                                            = {}
                  -}
                                          eq_list
                         array
                                          mark_opts
                         _optlist
                         array
                                          mark_list
                         array
                                          mark_name
                                          smark_opts
                         _optlist
                                          smark_list
                         array
                                          smark_name
                         array
                         _optlist
                                          rmcoll_opts
                                          rmcoll_list
                         array
                                          rmcoll_name
                         array
                         _optlist
                                          rmdcoll_opts
                                          rmdcoll_list
                         array
                                          rmdcoll_name
                         array
                -}
                                              – begin _eqlist.new —
                - version 9.2
                - ._init
                                            — begin _eqlist._init ——
                  - version 9.2
                  - n_eq = 0
                  - .gl_if = ""
                  - .gl_in = ""
                  - .gl_wgt = ""
                  - .gl_options = ""
                  - .eq_list = {}
                                              — end _eqlist._init —
                - ._setup `0'
                = ._setup , eqopts(NOCONStant FREEParm) eqargopts(OFFset EXPos
> ure) 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) noNEEDVARLI
> ST COMMONopts(string asis) MARKopts(namelist) SMARKopts(namelist) RMCOLLopts
> (namelist) RMDCOLLopts(namelist) NUMDEPvars(numlist integer >=0) NEEDEQUAL W
> TYPES(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
```

```
- 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
```

= .eq\_opts\_allowed.addopt OFFset, 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 (piq_timing_max: piq_timing_max = wlth stky_p
> r_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open, ) []
                                           — begin _eqlist.parse ———
                - version 9.2
                - ._init
                                            - begin _eqlist._init —
                  - version 9.2
                  - n_eq = 0
                  - .gl_if = ""
                  - .gl_in = ""
                  - .gl_wgt = ""
                  - .gl_options = ""
                  - .eq_list = {}
```

```
- end _eqlist._init -
- local MARKOPTLIST `"`.mark_opts.dumpoptions'"'
                    – begin _optlist.dumpoptions —
  - version 9
  - forval i = 1/`.options.arrnels' {
  = forval i = 1/0 {
    local optlist `optlist' `.options[`i']'
  - local optlist : list uniq optlist
  - sreturn local optlist `"`optlist'"'
  = sreturn local optlist `""'
  - class exit `"`optlist'"'
  = class exit `""'
                 ----- end _optlist.dumpoptions ----
= local MARKOPTLIST `""'
- local SMARKOPTLIST `"`.smark_opts.dumpoptions'"'
                 ---- begin _optlist.dumpoptions ---
  - version 9
  - forval i = 1/`.options.arrnels' {
  = forval i = 1/0 {
    local optlist `optlist' `.options[`i']'
    }
  - local optlist : list uniq optlist
  - sreturn local optlist `"`optlist'"'
  = sreturn local optlist `""'
  - class exit `"`optlist'"'
  = class exit `""'
                      end _optlist.dumpoptions -
= local SMARKOPTLIST `""'
- local RMCOLLOPTLIST `"`.rmcoll_opts.dumpoptions'"'
                  —— begin _optlist.dumpoptions —
  - version 9
  - forval i = 1/`.options.arrnels' {
  = forval i = 1/0 {
    local optlist `optlist' `.options[`i']'
    }
  - local optlist : list uniq optlist
  - sreturn local optlist `"`optlist'"'
 = sreturn local optlist `""'
  - class exit `"`optlist'"'
```

= class exit `""' ----- end \_optlist.dumpoptions ----= local RMCOLLOPTLIST `""' - local RMDCOLLOPTLIST `"`.rmdcoll\_opts.dumpoptions'"' --- begin \_optlist.dumpoptions ----- version 9 - forval i = 1/`.options.arrnels' { = forval i = 1/0 { local optlist `optlist' `.options[`i']' - local optlist : list uniq optlist - sreturn local optlist `"`optlist'"' = sreturn local optlist `""' - class exit `"`optlist'"' = class exit `""' --- end \_optlist.dumpoptions ---= local RMDCOLLOPTLIST `""' - \_parse expand EQ GL : 0, gweight common( `MARKOPTLIST' `SMAR > KOPTLIST' `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 `"(piq\_timing\_max: piq\_timing\_max = wlth stky\_pr\_ro > temberg stky\_pr\_calvo wg\_ndx\_prprice wg\_ndx\_other open, ) []"', parse(",()[ > ]") - local rebind = `"`1'"' != "(" & `"`2'"' == "(" = local rebind = `"("' != "(" & `"piq\_timing\_max: piq\_timing\_m > ax = wlth stky\_pr\_rotemberg stky\_pr\_calvo wg\_ndx\_prprice wg\_ndx\_other open"' > == "(" - } - if `rebind' {  $= if 0 {$ while `:length local 0' { gettoken tok 0 : 0, parse(" ,") bind match(par) if "`par'" == "(" { gettoken nxt: 0

```
local nxt = substr(`"`nxt'"',1,1)
                  if inlist(`"`nxt'"', "#", "|") {
                  local ZERO `"`ZERO' (`tok')"'
                  else {
                  local ZERO `"(`ZERO') (`tok') `0'"'
                  local 0
                  }
                  }
                  else if inlist("`tok'", "if", "in", ",") {
                  local ZERO `"(`ZERO') `tok' `0'"'
                  local 0
                  }
                  else if inlist(substr(`"`tok'"',1,1), "#", "|") {
                  local ZER0 `"`ZER0'`tok'"'
                  else {
                  local ZERO `"`ZERO' `tok'"'
                  }
                  _parse expand EQ GL : ZERO, gweight common( `MARKOPTLIST' `S
> MARKOPTLIST' `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') `.needequal
> ' `.noneedvarlist' wtypes(`.wtypes') `.nocons_ignore'
                = .eq_list[1] = ._eqspec.new, numdepvars(0) needequal noneedva
> rlist 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
> 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(60000ba5a100):piq_timing_max: piq_ti
> ming_max = wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other
> open
                                          —— begin _eqspec.parse —
                  - version 9.2
                  - _on_colon_parse `0'
                  = _on_colon_parse __key(60000ba5a100):piq_timing_max: piq_ti
> ming_max = wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other
> open
                                          - begin _on_colon_parse —
                    - version 8.2
                    - sreturn local before ""
                    - sreturn local after ""
```

```
- gettoken before after : 0, parse(":") bind match(par) qu
> otes
                    - if "`par'" != "" {
                    = if "" != "" {
                      local before `"(`before')"'
                    - if `"`before'"' == ":" {
                    = if `"__key(60000ba5a100)"' == ":" {
                      sreturn local after `"`after'"'
                      exit
                      }
                    - while `"`COLON'"' != ":" & `"`after'"' != "" {
                    = while `""' != ":" & `":piq_timing_max: piq_timing_max =
> wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open"' != "
> " {
                    - gettoken COLON after : after, parse(":") bind match(par)
> quotes
                    - if "`par'" != "" {
                    = if "" != "" {
                      local before `before' (`COLON')
                      local COLON
                      }
                    - else if `"`COLON'"' != ":" {
                    = else if `":"' != ":" {
                      local before `"`before' `COLON'"'
                      local COLON
                      }
                    - }
                    - while `"`COLON'"' != ":" & `"`after'"' != "" {
                    = while `":"' != ":" & `"piq_timing_max: piq_timing_max =
> wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open"' != "
> " {
                      gettoken COLON after : after, parse(":") bind match(par)
> quotes
                      if "`par'" != "" {
                      local before `before' (`COLON')
                      local COLON
                      }
                      else if `"`COLON'"' != ":" {
                      local before `"`before' `COLON'"'
                      local COLON
                      }
                    - if `"`COLON'"' != ":" {
                    = if `":"' != ":" {
                      di as err "'' found where ':' expected"
```

```
exit 198
                      }
                    - sreturn local before `"`before'"'
                    = sreturn local before `"__key(60000ba5a100)"'
                    - sreturn local after `"`after'"'
                    = sreturn local after `"piq_timing_max: piq_timing_max = w
> lth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open"'
                                           — end _on_colon_parse —
                  - local ol `s(before)'
                  = local ol __key(60000ba5a100)
                  - 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) EXPos
> ure(passthru)
                   - }
                    local optlist : list uniq optlist
                    - sreturn local optlist `"`optlist'"'
                    = sreturn local optlist `"NOCONStant FREEParm OFFset(passt
> hru) EXPosure(passthru)"'
                    - class exit `"`optlist'"'
                    = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosu
> re(passthru)"'
                              ------ end _optlist.dumpoptions -----
                  = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPos
> ure(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 expo
> sure"'
                    - 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 `"piq_timing_max: piq_timing_max = wlth stky_pr_ro
> temberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open"'
                  - if `"`.wtypes'"' != "" {
                  = if `""' != "" {
                    local wgt "[`.wtypes']"
                  - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `N
> 0CONS' *]
                  = syntax [anything(equalok)] [if] [in] [, NOCONStant FREEPa
> rm OFFset(passthru) EXPosure(passthru) *]
                  - local HOLDIF `"`if'"'
                  = local HOLDIF `""'
                  - local HOLDIN `"`in'"'
                  = local HOLDIN `""'
```

```
= if "" != "" & "" != "" {
  local HOLDWGT `"[`weight'`exp']"'
- gettoken NAME REST : anything, parse(":")
- if trim("`NAME'") == ":" {
= if trim("piq_timing_max") == ":" {
  di as err "nothing found where equation name expected"
  exit 198
  }
- if `:list sizeof REST' {
= if 9 {
- if strpos(`"`NAME'"', ":") {
= if strpos(`"piq_timing_max"', ":") {
  capture _msparse `NAME'
  if c(rc) {
  di as err "{bf:`NAME'} invalid equation specification"
  exit 198
  }
- else {
- ._confirm_eqname `NAME'
= ._confirm_eqname piq_timing_max
              — begin _eqspec._confirm_eqname ——
  - version 9.2
  - capture confirm number `0'
  = capture confirm number piq_timing_max
  - if (! c(rc)) exit
  - local hasdot = strpos(`"`0'"',".")
  = local hasdot = strpos(`"piq_timing_max"',".")
  - if `hasdot' {
  = if 0 {
    syntax varname(ts)
    exit
  - capture syntax name(id="equation name")
  - if (! c(rc)) exit
                 - end <code>_eqspec._confirm_eqname</code> -\!-\!-
- }
local NAME : list retok NAME
- gettoken COLON anything : REST, parse(":")
- }
- else {
  local NAME
```

- if "`wqt'" != "" & "`weight'" != "" {

```
}
                  - gettoken DEPVARS REST : anything, parse("=") bind
                  - if "`DEPVARS'" == "=" {
                  = if "piq_timing_max " == "=" {
                    local REST: copy local anything
                    local DEPVARS
                    }
                  - if (`:length local DEPVARS' == 0 & `.n_depvars') {
                  = if (15 == 0 \& 0) {
                    di as err "nothing found where depvar expected"
                    exit 198
                    }
                  - if `"`REST'"' == "" {
                  = if `"= wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice
> wg_ndx_other open"' == "" {
                    if 0`.needequal' {
                    if `.needvarlist' | (`:length local DEPVARS' != 0 & `.n_de
> pvars') {
                    di as err "equal sign required to separate depvars from in
> depvars"
                    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 piq_timing_max
                  - tsunab DEPVARS : `DEPVARS'
```

```
= tsunab DEPVARS : piq_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 DEPVARS piq_timing_max
                    - local n : word count `varlist'
                   = local n : word count piq_timing_max
                    - if `n'>=`min' & `n'<=`max' { exit }</pre>
                    = if 1>=1 & 1<=32000 { exit }
                                 ------end tsunab -----
                 - }
                 - if `:list sizeof INDEPVARS' {
                 = if 6 {
                 - fvunab INDEPVARS : `INDEPVARS'
                 = fvunab INDEPVARS : wlth stky_pr_rotemberg stky_pr_calvo w
> g_ndx_prprice wg_ndx_other open
                                                --- begin fvunab -----
                    - version 11
                   - _on_colon_parse `0'
                   = _on_colon_parse INDEPVARS : wlth stky_pr_rotemberg stky
> _pr_calvo wg_ndx_prprice wg_ndx_other open
                                     ---- begin _on_colon_parse ----
                     - version 8.2
                     - sreturn local before ""
                     - sreturn local after ""
                     - gettoken before after : 0, parse(":") bind match(par)
> quotes
                     - if "`par'" != "" {
                     = if "" != "" {
                       local before `"(`before')"'
                       }
```

sreturn local after `"`after'"'

- if `"`before'"' == ":" {
= if `"INDEPVARS "' == ":" {

exit
}

```
- while `"`COLON'"' != ":" & `"`after'"' != "" {
                      = while `""' != ":" & `": wlth stky_pr_rotemberg stky_p
> r_calvo wg_ndx_prprice wg_ndx_other open"' != "" {
                      - gettoken COLON after : after, parse(":") bind match(pa
> r) quotes
                      - if "`par'" != "" {
                      = if "" != "" {
                        local before `before' (`COLON')
                        local COLON
                      - else if `"`COLON'"' != ":" {
                      = else if `":"' != ":" {
                        local before `"`before' `COLON'"'
                        local COLON
                        }
                      - }
                      - while `"`COLON'"' != ":" & `"`after'"' != "" {
                      = while `":"' != ":" & `" wlth stky_pr_rotemberg stky_p
> r_calvo wg_ndx_prprice wg_ndx_other open"' != "" {
                        gettoken COLON after: after, parse(":") bind match(pa
> r) quotes
                        if "`par'" != "" {
                        local before `before' (`COLON')
                        local COLON
                        else if `"`COLON'"' != ":" {
                        local before `"`before' `COLON'"'
                        local COLON
                        }
                      - if `"`COLON'"' != ":" {
                      = if `":"' != ":" {
                        di as err "'' found where ':' expected"
                        exit 198
                        }
                      - sreturn local before `"`before'"'
                      = sreturn local before `"INDEPVARS "'
                      - sreturn local after `"`after'"'
                      = sreturn local after `" wlth stky_pr_rotemberg stky_pr
> _calvo wg_ndx_prprice wg_ndx_other open"'
                                             - end _on_colon_parse <del>-----</del>
                    - local 0 `"`s(before)'"'
                    = local 0 `"INDEPVARS "'
                    - syntax name(id="macro name" name=user)
                    - local 0 `"`s(after)'"'
```

```
= local 0 `" wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_
> prprice wg_ndx_other open"'
                    - syntax [varlist(ts fv default=none)] [, MIN(integer 1) M
> AX(integer 32000) NAME(string) ]
                    - c_local `user' `varlist'
                    = c_local INDEPVARS with stky_pr_rotemberg stky_pr_calvo w
> g_ndx_prprice wg_ndx_other open
                    - local n : list sizeof varlist
                    - if (`min' <= `n' & `n' <= `max') exit</pre>
                    = if (1 <= 6 & 6 <= 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
> 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 = `"piq_timing_max"'
                  - .depvars = `"`DEPVARS'"'
                  = .depvars = `"piq_timing_max"'
                  - .hasequal = `hasequal'
                  = .hasequal = 1
                  - .indepvars = `"`:list retok INDEPVARS'"'
                  = .indepvars = `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx
> _prprice wg_ndx_other open"'
                  - .other_markvars = `"`:list retok OTHER'"'
                  = .other_markvars = `""'
                  - .nocons = `NOCONS'
                  = .nocons = 0
                  - .if = `"`HOLDIF'"'
                  = .if = `"""
                  - .in = `"`HOLDIN'"'
                  = .in = `"""
                  - .wgt = `"`HOLDWGT'"'
                  = .wgt = `""'
                  - .offset = `"`OFFSET'"'
                  = .offset = `""'
                  - .exposure = `EXPOSURE'
                  = .exposure = 0
                  - .freeparm = `FREEPARM'
                  = .freeparm = 0
```

```
- .options = `"`OPTIONS'"'
                  = .options = `""'
                                            — end _eqspec.parse —
                - }
                - local MARKOPTLIST `"`.mark_opts.dumpoptions'"'
                                  --- begin _optlist.dumpoptions ----
                  - version 9
                  - forval i = 1/`.options.arrnels' {
                  = forval i = 1/0 {
                    local optlist `optlist' `.options[`i']'
                  - local optlist : list uniq optlist
                  - sreturn local optlist `"`optlist'"'
                  = sreturn local optlist `""'
                  - class exit `"`optlist'"'
                  = class exit `""'
                                 ----- end _optlist.dumpoptions ----
                = local MARKOPTLIST `""'
                - local MARKOPTNAMES `"`.mark_opts.dumpnames'"'
                                    —— begin _optlist.dumpnames —
                  - version 9
                  - forval i = 1/`.names.arrnels' {
                  = forval i = 1/0 {
                    local namelist `namelist' `.names[`i']'
                    }
                  - local namelist : list uniq namelist
                  - sreturn local namelist `"`namelist'"'
                  = sreturn local namelist `""'
                  - class exit `"`namelist'"'
                  = class exit `""'
                                        - end _optlist.dumpnames ------
                = local MARKOPTNAMES `"""
                - local OPTLIST1 : subinstr local MARKOPTLIST "(passthru)" "(s
> tring 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' COLli
> near noCONStant * ]
                                COLlinear noCONStant * ]
                = syntax [,
                - 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(`.wtype
> s')
                  .rmcoll_list[`I'].parse "" : ``OPT''
                  .rmcoll_name.Arrpush "`OPT'"
                  }
```

```
- local I 0
  - foreach OPT of local RMDCOLLOPTNAMES {
    if `:list sizeof `OPT'' {
    .rmdcoll_list[`++I'] = ._eqspec.new, wtypes(`.wtypes')
    .rmdcoll_list[`I'].parse "" : ``OPT''
    .rmdcoll_name.Arrpush "`OPT'"
    }
    }
  - .n_eq = `EQ_n'
  = .n_eq = 1
  - .gl_if = `"`GL_if'"'
  = .gl_if = `""'
  - .gl_in = `"`GL_in'"'
  = .gl_in = `""'
  - .gl_wgt = `"`GL_wt'"'
  = .gl_wgt = `"[]"'
  - .gl_options = `"`:list retok GL_op'"'
  = .gl_options = `""'
                            ——— end _eqlist.parse —
- if "`subpop'" != "" & "`missing'" == "" {
= if "" != "" & "missing" == "" {
  if `interactive' {
  SetGlobalVar ML_samp : _MLtu
  }
  else {
  global ML_samp : tempvar
  if `"`moptobj'"' != "" {
  global ML_samp `moptobj'$ML_samp
  }
  tempvar markuse
  _svy_setup $ML_sample $ML_samp, svy subpop(`subpop')
  quietly gen byte `markuse' = $ML_samp
  }
else global ML_samp $ML_sample
= else global ML_samp __000007
- if "`collinear'" == "" {
= if "collinear" == "" {
  .`eqlist'.rmcoll $ML_samp, replace `missing'
- else if "`missing'" == "" {
= else if "missing" == "" {
  .`eqlist'.markout $ML_samp, replace
  }
```

}

```
- if "$ML_samp" != "$ML_sample" {
= if "__000007" != "__000007" {
  `vv' quietly replace $ML_sample = 0 if `markuse' & !$ML_samp
  drop `markuse'
  }
- local eq_n = `.`eqlist'.eq count'
                                — begin _eqlist.eq <del>-----</del>
  - version 9.2
  args item idx
  - if "`item'" == "count" {
  = if "count" == "count" {
  - sreturn local value `"`.n_eq'"'
  = sreturn local value `"1"'
  - class exit `"`s(value)'"'
  = class exit `"1"'
                          ------ end _eqlist.eq -----
= local eq_n = 1
- global ML_n : copy local eq_n
- global ML_dim = `.`eqlist'.dim'
                             --- begin _eqlist.dim ----
  - version 9.2
  syntax
  - local neg = `.eg count'
                            ----- begin _eqlist.eq -----
   - version 9.2
    args item idx
   - if "`item'" == "count" {
    = if "count" == "count" {
   - sreturn local value `"`.n_eq'"'
   = sreturn local value `"1"'
    - class exit `"`s(value)'"'
    = class exit `"1"'
                                  — end _eqlist.eq ——
  = local neq = 1
  - forval i = 1/`neq' {
  = forval i = 1/1 {
  - local xvarsi `"`.eq indepvars `i''"'
                               — begin _eqlist.eq ———
    - version 9.2
    args item idx
```

```
- if "`item'" == "count" {
                  = if "indepvars" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                    }
                  - else if 0 < `idx' & `idx' <= `.n eq' {</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 INDEP
> vars IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                      - if c(rc) error 198
                      - if `:list sizeof other' {
                      = if 0 {
                        local other other_markvars
                      - local item `name' `depvars' `indepvars' `if' `in' `wgt
> ' `other' `nocons' `offset' `exposure' `freeparm' `options'
                      = local item
                                     indepvars
                      - if `:list sizeof item' != 1 {
                      = if 1 != 1 {
                        error 198
                        }
                      - c_local `c_item' `item'
                      = c_local item indepvars
                           ----- end _eqspec._check_eq_item_name ----
                    - local value `"`.`item''"'
                    = local value `"wlth stky_pr_rotemberg stky_pr_calvo wg_nd
> x_prprice wg_ndx_other open"'
                    - sreturn local value `"`value'"'
                    = sreturn local value `"wlth stky_pr_rotemberg stky_pr_cal
> vo wg_ndx_prprice wg_ndx_other open"'
                    - class exit `"`value'"'
                    = class exit `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx
> _prprice wg_ndx_other open"'
```

```
--- end _eqspec.item ----
                  - class exit `"`s(value)'"'
                  = class exit `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_p
> rprice wg_ndx_other open"'
                                              ---- end _eqlist.eq ----
                = local xvarsi `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_p
> rprice wg_ndx_other open"'
                - local noconsi `"`.eq nocons `i''"'
                                             --- begin _eqlist.eq ----
                  - version 9.2
                  args item idx
                  - if "`item'" == "count" {
                  = if "nocons" == "count" {
                    sreturn local value `"`.n_eq'"'
                    class exit `"`s(value)'"'
                  - else if 0 < `idx' & `idx' <= `.n_eq' {</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 noconsi `"0"'
  - local dim = `dim' + `:list sizeof xvarsi'
  = local dim = + 6
  - if "`noconsi'" == "0" {
  = if "0" == "0" {
  - local ++dim
  - }
  - }
  - sreturn local value `"`dim'"'
  = sreturn local value `"7"'
  - class exit `"`s(value)'"'
  = class exit `"7"'
                                 — end _eqlist.dim —
= global ML_dim = 7
- forval i = 1/`eq_n' {
= forval i = 1/1 {
- 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 <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 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 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 `"piq_timing_max"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"piq_timing_max"'
                  - class exit `"`value'"'
                  = class exit `"piq_timing_max"'
                                             --- end _eqspec.item ----
                - class exit `"`s(value)'"'
                = class exit `"piq_timing_max"'
                                                — end _eqlist.eq —
              = local depvars piq_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 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 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 `"piq_timing_max"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"piq_timing_max"'
                  - class exit `"`value'"'
                  = class exit `"piq_timing_max"'
                                               - end _eqspec.item -
                - class exit `"`s(value)'"'
                = class exit `"piq_timing_max"'
```

```
—— end _eqlist.eq ——
              = local eq piq_timing_max
              - if !`:length local eg' {
              = if !14 {
                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 piq_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 —
                  - version 9.2
                  args item
                  - ._check_eq_item_name item, `item'
                  = ._check_eq_item_name item, indepvars
                        ------ begin _eqspec._check_eq_item_name ---
                    - version 9.2
                    - capture syntax name(name=c_item) [, NAME DEPvars INDEPva
> rs IF IN WGT OTHER NOCONS OFFset EXPosure FREEParm OPTions ]
                    - if c(rc) error 198
                    - if `:list sizeof other' {
                    = if 0 {
                      local other other_markvars
                    - local item `name' `depvars' `indepvars' `if' `in' `wgt'
> `other' `nocons' `offset' `exposure' `freeparm' `options'
                    = local item
                                   indepvars
```

```
- if `:list sizeof item' != 1 {
                    = if 1 != 1 {
                      error 198
                    - c_local `c_item' `item'
                    = c local item indepvars
                            ---- end _eqspec._check_eq_item_name ----
                  - local value `"`.`item''"'
                  = local value `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_
> prprice wg_ndx_other open"'
                  - sreturn local value `"`value'"'
                  = sreturn local value `"wlth stky_pr_rotemberg stky_pr_calvo
> wg_ndx_prprice wg_ndx_other open"'
                  - class exit `"`value'"'
                  = class exit `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_p
> rprice wg_ndx_other open"'
                                            --- end _eqspec.item ----
                - class exit `"`s(value)'"'
                = class exit `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prp
> rice wg_ndx_other open"'
                                         ----- end _eqlist.eq ----
              = fvexpand wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice w
> g_ndx_other open if __000007
              - if "`r(tsops)'" == "true" {
              = if "" == "true" {
                global ML_preserve no
              - local eq_rhs`i' `"`r(varlist)'"'
              = local eq_rhs1 `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_pr
> price wg_ndx_other open"'
              - local eq_nocons`i' `.`eqlist'.eq nocons `i''
                                            ---- begin _eqlist.eq -----
                - version 9.2
                args item idx
                - if "`item'" == "count" {
                = if "nocons" == "count" {
                  sreturn local value `"`.n_eq'"'
                  class exit `"`s(value)'"'
                - else if 0 < `idx' & `idx' <= `.n_eq' {</pre>
                = else if 0 < 1 & 1 <= 1 {
                - .eq_list[`idx'].item `item'
```

```
— 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 eq_nocons1 0
              - local eq_offset`i' `.`eqlist'.eq offset `i''
                                              — begin _eqlist.eq ————
                - version 9.2
                args item idx
```

= .eq\_list[1].item nocons

```
- 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 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
                                         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 eglist.eg —
                - 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 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 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 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
                                           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 piq_timing_max
              - local eq_names `eq_names' `eq'
              = local eq_names piq_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 = 1/6 {
              - gettoken xvar TMP : TMP
              - local colna `"`colna' `eq':`xvar'"'
              = local colna `" piq_timing_max:wlth"'
              - }
              - gettoken xvar TMP : TMP
              - local colna `"`colna' `eq':`xvar'"'
             = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rote
> mberg"'
              - }
              - gettoken xvar TMP : TMP
              - local colna `"`colna' `eq':`xvar'"'
              = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rote
> mberg piq_timing_max:stky_pr_calvo"'
              - }
              - gettoken xvar TMP : TMP
              - local colna `"`colna' `eq':`xvar'"'
              = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rote
```

```
> mberg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice"'
              - }
              - gettoken xvar TMP : TMP
              - local colna `"`colna' `eq':`xvar'"'
              = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rote
> mberg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_
> max:wg_ndx_other"'
              - }
              - gettoken xvar TMP : TMP
              - local colna `"`colna' `eq':`xvar'"'
              = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rote
> mberg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_
> max:wg_ndx_other piq_timing_max:open"'
              - }
              - if `eq_freeparm`i'' {
              = if 0 {
                if `nxvars' {
                di as err "{it:xvars} not allowed with option {bf:freeparm}"
                exit 198
                }
                if strpos(`"`eq'"', ":") {
                local colna `"`colna' /`eq'"'
                }
                else {
                local colna `"`colna' /:`eq'"'
              - else if !`eq_nocons`i'' {
              = else if !0 {
              - local colna `"`colna' `eq':_cons"'
              = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rote
> mberg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_
> max:wg_ndx_other piq_timing_max:open piq_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 "" != "" {
```

```
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 \& 20 {
                opts_exclusive "waldtest() lf0()"
                }
              - if `:length local continue' {
              = if 0 {
                if !`:length local init' {
                tempname init
                local ub0 `init'
                else tempname ub0
                mat `ub0' = e(b)
                tempname v0 iv0
                mat `v0' = e(V)
                mat `iv0' = syminv(`v0')
                global ML_rank0 = colsof(`v0') - diag0cnt(`iv0')
                if !`:length local lf0' & !missing(e(ll)) {
                local lf0 `=colsof(`ub0')' `e(ll)'
                local ub0
              - if `:length local init' {
              = if 8 {
              - tempname b0

    local dim : list sizeof colna

              - matrix b0' = J(1, \dim', 0)
              = matrix 000009 = J(1,7,0)
              - matrix colna `b0' = `colna'
              = matrix colna __000009 = piq_timing_max:wlth piq_timing_max:st
> ky_pr_rotemberg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice p
> iq_timing_max:wg_ndx_other piq_timing_max:open piq_timing_max:_cons
              - `vv' _mkvec `b0', from(`init') update first error("initial vec
> tor")
              = version 18: _mkvec __000009, from(__000006) update first error
```

foreach y of local lhs {

```
> ("initial vector")
```

```
----- begin _mkvec ----
                - local vv : display "version " string(_caller()) ":"
                - version 6
                - gettoken matout 0 : 0, parse(", ")
                - if "`matout'"=="" | "`matout'"=="," {
                = if "__000009"=="" | "__000009"=="," {
                  error 198
                - syntax [, FROM(str) UPdate COLnames(str) ERRor(str) FIRST ]
                - if "`update'"!="" {
                = if "update"!="" {
                - if "`colname'"!="" {
                = if ""!="" {
                  di in red "update and colnames() cannot both be " "specified
                  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 ve
> ctor"
                  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
```

Thursday, May 8, 2025 at 8:06 PM Page 414

---- begin \_mkvec.From ----

```
- sret clear
                  - sret local from `from'
                  = sret local from ___000006
                  - if `"`0'"'!="" {
                  = if `""'!="" {
                    syntax [, COPY SKIP ]
                    }
                  sret local copy `copy'
                  = sret local copy
                  - sret local skip `skip'
                  = sret local skip
                                               — end _mkvec.From —
                - local copy `s(copy)'
                = local copy
                - local skip `s(skip)'
                = local skip
                - if "`copy'"!="" {
                = if ""!="" {
                  CopyMat `mat' `"`error'"' `s(from)'
                  if `"`colname'"'!="" {
                  local dim : list sizeof colname
                  if `dim' != colsof(matrix(`mat')) {
                  di in red `"`error'matrix must "' `"be dimension "' `dim'
                  exit 503
                  `vv' mat colnames `mat' = `colname'
                  }
                - else {
                - `vv' BuildMat `mat' `"`error'"' "`skip'" `s(from)'
                = version 18: BuildMat __00000A `"initial vector: "' "" __0000
> 06
                                    ——— 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"!="" {
```

- gettoken from 0 : 0, parse(",") bind

```
- local k = i' + 1
                  = local k = 1 + 1
                  - if "``k''"=="=" {
                  = if ""=="=" {
                    local j = i' + 2
                    `vv' MkMat `matadd' ``i'' ``j'' `skip'
                    local i = i' + 3
                    }
                  - else {
                  - ChkMat `matadd' ``i'' `"`error'"'
                  = ChkMat __00000B __000006 `"initial vector: "'
                                            — begin _mkvec.ChkMat —

    args matout matin error

                    - capture di matrix(`matin'[1,1])
                    = capture di matrix(__000006[1,1])
                    - if rc {
                      capture confirm number `matin'
                      if _rc {
                      di in red `"`error'matrix `matin' not found"'
                      exit 111
                      }
                      di in red `"`error'list of numbers requires copy option"
> '
                      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 " matri
> x(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 `"piq_timing_max:wlth piq_timing_max:stky_pr_rotemberg pi
> q_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_max:wg_n
> dx_other piq_timing_max:open piq_timing_max:_cons"'!="" {
                - `vv' ChkNames `mat' "`matin'" `"`colname'"' `"`error'"' "`sk
> ip'" "`first'"
                = version 18: ChkNames __00000A "__000009" `"piq_timing_max:wl
> th piq_timing_max:stky_pr_rotemberg piq_timing_max:stky_pr_calvo piq_timing_
> max:wg_ndx_prprice piq_timing_max:wg_ndx_other piq_timing_max:open piq_timin
> g_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(`"piq_timing_max:wlth"',1,index(`"piq_
> timing_max:wlth"',":"))
                  - }
                  - tempname new fill x
                  - local k : list sizeof names
                  - if "`matin'"!="" {
                  = if " 000009"!="" {
                  - mat `new' = `matin'
```

```
= mat __00000B = __000009
- }
- else {
  mat `new' = J(1, k', 0)
  `vv' mat colnames `new' = `names'
  }
- mat `fill' = J(1, k', 0)
= mat __00000C = J(1,7,0)
- local i 1
- while `i' <= `dim' {</pre>
= while 1 <= 7 {</pre>
- mat `x' = `mat'[1,`i'..`i']
= mat __00000D = __00000A[1,1..1]
- local eq : coleq `x'
= local eq : coleq __00000D
- local name : colname `x'
= local name : colname __00000D
- if "`eq'" == "/" {
= if "_" == "/" {
  local spec "/`name'"
  }
- else {
- local spec "'eq':'name'"
= local spec "_:wlth"
- if (usubstr("`eq'",1,1) != "/") {
= if (usubstr("_",1,1) != "/") {
- local sspec "/`eq':`name'"
= local sspec "/_:wlth"
- }
- }
- local oname
local ospec
- capture _msparse `name', noomit
= capture _msparse wlth, noomit
- if c(rc) == 0 {
- if r(omit) {
  local oname `"`r(stripe)'"'
  local ospec "'eq':'oname'"
  }
- }
- `vv' local j = colnumb(`new',`"`spec'"')
= version 18: local j = colnumb(__00000B,`"_:wlth"')
- if `j' == . & "`oname'" != "" {
= if 1 == . & "" != "" {
  `vv' local j = colnumb(`new',`"`ospec'"')
  }
```

```
- if `j' == . & "`sspec'" != "" {
                  = if 1 == . & "/_:wlth" != "" {
                    `vv' local j = colnumb(`new',`"`sspec'"')
                  - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                  = if 1==. & `"_"'=="_" & `"piq_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' found
> ""
                    else di in red `"`error'"' `"duplicate entries for `eq':`n
> ame' 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 2 <= 7 {
                  - 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 "_:stky_pr_rotemberg"
                  - if (usubstr("`eq'",1,1) != "/") {
                  = if (usubstr("_",1,1) != "/") {
                  - local sspec "/`eq':`name'"
                  = local sspec "/_:stky_pr_rotemberg"
                  - }
                  - }
                  local oname
                  local ospec
                  - capture _msparse `name', noomit
                  = capture _msparse stky_pr_rotemberg, noomit
                  - if c(rc) == 0 {
                  - if r(omit) {
                    local oname `"`r(stripe)'"'
                    local ospec "`eq':`oname'"
                    }
                  - }
                  - `vv' local j = colnumb(`new',`"`spec'"')
                  = version 18: local j = colnumb(__00000B,`"_:stky_pr_rotembe
> rg"')
                  - if `j' == . & "`oname'" != "" {
                  = if 2 == . & "" != "" {
                    `vv' local j = colnumb(`new',`"`ospec'"')
                    }
                  - if `j' == . & "`sspec'" != "" {
                  = if 2 == . & "/_:stky_pr_rotemberg" != "" {
                    `vv' local j = colnumb(`new',`"`sspec'"')
                    }
                  - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                  = if 2==. & `"_"'=="_" & `"piq_timing_max:"'!="" {
                    `vv' local j = colnumb(`new',`"`eq1'`name'"')
                    if `j' == . & "`oname'" != "" {
```

- while `i' <= `dim' {</pre>

```
`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' found
> ""
                    else di in red `"`error'"' `"duplicate entries for `eq':`n
> ame' found"'
                    exit 507
                    }
                    else if !missing(`new'[1,`j']) {
                    matrix `mat'[1,`i'] = `new'[1,`j']
                     }
                     }
                  - else mat `fill'[1, `j'] = 1
                  = else mat \__000000C[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 <= 7 {
                  - 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 "_" == "/" {
                    local spec "/`name'"
                    }
                  - else {
                  - local spec "'eq':'name'"
                  = local spec "_:stky_pr_calvo"
                  - if (usubstr("`eq'",1,1) != "/") {
                  = if (usubstr("_",1,1) != "/") {
                  - local sspec "/`eq':`name'"
                  = local sspec "/_:stky_pr_calvo"
                  - }
                  - }
                  local oname
                  local ospec
                  - capture _msparse `name', noomit
                  = capture _msparse stky_pr_calvo, noomit
                  - if c(rc) == 0 {
                  - if r(omit) {
                    local oname `"`r(stripe)'"'
                    local ospec "`eq':`oname'"
                  - }
                  - `vv' local j = colnumb(`new',`"`spec'"')
                  = version 18: local j = colnumb(__00000B,`"_:stky_pr_calvo"'
> )
                  - if j' == . \& "`oname'" != "" {
                  = if 3 == . & "" != "" {
                    `vv' local j = colnumb(`new',`"`ospec'"')
                  - if `j' == . & "`sspec'" != "" {
                  = if 3 == . & "/_:stky_pr_calvo" != "" {
                    `vv' local j = colnumb(`new',`"`sspec'"')
                  - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                  = if 3==. & `"_"'=="_" & `"piq_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 "`eq'" == "/" {

```
if !r(omit) {
                    if "`eq'"=="_" {
                    di in red `"`error'duplicate "' `"entries for `name' found
> ""
                    }
                    else di in red `"`error'"' `"duplicate entries for `eq':`n
> ame' 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] = __000000A[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 <= 7 {
                  - mat `x' = `mat'[1,`i'..`i']
                  = mat __00000D = __00000A[1,4..4]
                  - local eq : coleq `x'
                  = local eq : coleq __00000D
                  - local name : colname `x'
                  = local name : colname __00000D
                  - if "`eq'" == "/" {
                  = if "_" == "/" {
                    local spec "/`name'"
                    }
                  - else {
                  - local spec "`eq':`name'"
                  = local spec "_:wg_ndx_prprice"
                  - if (usubstr("`eq'",1,1) != "/") {
```

```
= if (usubstr("_",1,1) != "/") {
                  - local sspec "/`eq':`name'"
                  = local sspec "/_:wg_ndx_prprice"
                  - }
                  - local oname
                  local ospec
                  - capture _msparse `name', noomit
                  = capture _msparse wg_ndx_prprice, noomit
                  - if c(rc) == 0 {
                  - if r(omit) {
                    local oname `"`r(stripe)'"'
                    local ospec "`eq':`oname'"
                    }
                  - }
                  - `vv' local j = colnumb(`new',`"`spec'"')
                  = version 18: local j = colnumb(__00000B,`"_:wg_ndx_prprice"
> ')
                  - if `j' == . & "`oname'" != "" {
                  = if 4 == . & "" != "" {
                    `vv' local j = colnumb(`new',`"`ospec'"')
                  - if `j' == . & "`sspec'" != "" {
                  = if 4 == . & "/_:wg_ndx_prprice" != "" {
                    `vv' local j = colnumb(`new',`"`sspec'"')
                    }
                  - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                  = if 4==. & `"_"'=="_" & `"piq_timing_max:"'!="" {
                    `vv' local j = colnumb(`new',`"`eq1'`name'"')
                    if `j' == . & "`oname'" != "" {
                    `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                    }
                  - if `j'!=. {
                  = if 4!=. {
                  - if `fill'[1,`j'] {
                  = if __00000C[1,4] {
                    _ms_parse_parts `name'
                    if !r(omit) {
                    if "`eq'"=="_" {
                    di in red `"`error'duplicate "' `"entries for `name' found
                    else di in red `"`error'"' `"duplicate entries for `eq':`n
> ame' found"'
                    exit 507
```

```
else if !missing(`new'[1,`j']) {
                    matrix `mat'[1,`i'] = `new'[1,`j']
                    }
                  - else mat `fill'[1, `j'] = 1
                  = else mat __00000C[1,4] = 1
                  - mat `new'[1, `j'] = `mat'[1, `i']
                  = mat __00000B[1,4] = __00000A[1,4]
                  - }
                  - else if "`skip'"=="" {
                  = else if ""=="" {
                    if "`eq'"=="_" {
                     local spec : copy local name
                    di in red `"`error'extra parameter "' `"`spec' found"' _n
> "specify skip option if necessary"
                    exit 111
                  - local i = `i' + 1
                  = local i = 4 + 1
                  - }
                  - while `i' <= `dim' {</pre>
                  = while 5 <= 7 {
                  - mat `x' = `mat'[1,`i'..`i']
                  = mat __00000D = __00000A[1,5..5]
                  - local eq : coleq `x'
                  = local eq : coleq __00000D
                  - local name : colname `x'
                  = local name : colname __00000D
                  - if "`eq'" == "/" {
                  = if "_" == "/" {
                     local spec "/`name'"
                    }
                  - else {
                  - local spec "`eq':`name'"
                  = local spec "_:wg_ndx_other"
                  - if (usubstr("`eq'",1,1) != "/") {
                  = if (usubstr("_",1,1) != "/") {
                  - local sspec "/`eq':`name'"
                  = local sspec "/_:wg_ndx_other"
                  - }
                  - }
                  - 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'"')
                  = version 18: local j = colnumb(__00000B,`"_:wg_ndx_other"')
                  - if `j' == . \& "`oname'" != "" {
                  = if 5 == . & "" != "" {
                    `vv' local j = colnumb(`new',`"`ospec'"')
                  - if `j' == . & "`sspec'" != "" {
                  = if 5 == . & "/_:wg_ndx_other" != "" {
                    `vv' local j = colnumb(`new',`"`sspec'"')
                    }
                  - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                  = if 5==. & `"_"'=="_" & `"piq_timing_max:"'!="" {
                    `vv' local j = colnumb(`new',`"`eq1'`name'"')
                    if j' == . & "`oname'" != "" {
                    `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                    }
                    }
                  - if `j'!=. {
                  = if 5!=. {
                  - if `fill'[1,`j'] {
                  = if __00000C[1,5] {
                    _ms_parse_parts `name'
                    if !r(omit) {
                    if "`eq'"=="_" {
                    di in red `"`error'duplicate "' `"entries for `name' found
> " '
                    else di in red `"`error'"' `"duplicate entries for `eq':`n
> ame' found"'
                    exit 507
                    }
                    else if !missing(`new'[1,`j']) {
                    matrix `mat'[1,`i'] = `new'[1,`j']
                    }
                    }
                  - else mat `fill'[1, `j'] = 1
                  = else mat _{-}00000C[1,5] = 1
                  - mat `new'[1, `j'] = `mat'[1, `i']
                  = mat __00000B[1,5] = __000000A[1,5]
```

= capture \_msparse wg\_ndx\_other, noomit

```
- }
                  - else if "`skip'"=="" {
                  = else if ""=="" {
                    if "`eq'"=="_" {
                    local spec : copy local name
                    di in red `"`error'extra parameter "' `"`spec' found"' _n
> "specify skip option if necessary"
                    exit 111
                  - local i = i' + 1
                  = local i = 5 + 1
                  - }
                  - while `i' <= `dim' {</pre>
                  = while 6 <= 7 {
                  - mat `x' = `mat'[1,`i'..`i']
                  = mat __00000D = __00000A[1,6..6]
                  - local eq : coleq `x'
                  = local eq : coleq __00000D
                  - local name : colname `x'
                  = local name : colname __00000D
                  - if "`eq'" == "/" {
                  = if " " == "/" {
                    local spec "/`name'"
                    }
                  - else {
                  - local spec "`eq':`name'"
                  = local spec "_:open"
                  - if (usubstr("`eq'",1,1) != "/") {
                  = if (usubstr("_",1,1) != "/") {
                  - local sspec "/`eq':`name'"
                  = local sspec "/_:open"
                  - }
                  - }
                  - local oname

    local ospec

                  - capture _msparse `name', noomit
                  = capture _msparse open, noomit
                  - if c(rc) == 0 {
                  - if r(omit) {
                    local oname `"`r(stripe)'"'
                    local ospec "`eq':`oname'"
                    }
                  - }
                  - `vv' local j = colnumb(`new',`"`spec'"')
                  = version 18: local j = colnumb(__00000B,`"_:open"')
```

```
- if `j' == . \& "`oname'" != "" {
                  = if 6 == . & "" != "" {
                    `vv' local j = colnumb(`new',`"`ospec'"')
                  - if `j' == . & "`sspec'" != "" {
                  = if 6 == . & "/ :open" != "" {
                    `vv' local j = colnumb(`new',`"`sspec'"')
                    }
                  - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
                  = if 6==. & `"_"'=="_" & `"piq_timing_max:"'!="" {
                    `vv' local j = colnumb(`new',`"`eq1'`name'"')
                    if `j' == . & "`oname'" != "" {
                    `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                    }
                    }
                  - if `j'!=. {
                  = if 6!=. {
                  - if `fill'[1,`j'] {
                  = if __00000C[1,6] {
                    _ms_parse_parts `name'
                    if !r(omit) {
                    if "`eq'"=="_" {
                    di in red `"`error'duplicate "' `"entries for `name' found
                    else di in red `"`error'"' `"duplicate entries for `eq':`n
> ame' found"'
                    exit 507
                    }
                    else if !missing(`new'[1, `j']) {
                    matrix `mat'[1,`i'] = `new'[1,`i']
                    }
                  - else mat `fill'[1, `j'] = 1
                  = else mat __00000C[1,6] = 1
                  - mat `new'[1, `j'] = `mat'[1, `i']
                  = mat __00000B[1,6] = __00000A[1,6]
                  - }
                  - else if "`skip'"=="" {
                  = else if ""=="" {
                    if "`eq'"=="_" {
                    local spec : copy local name
                    di in red `"`error'extra parameter "' `"`spec' found"' _n
> "specify skip option if necessary"
                    exit 111
```

```
}
- local i = i' + 1
= local i = 6 + 1
- }
- while `i' <= `dim' {</pre>
= while 7 <= 7 {</pre>
- mat `x' = `mat'[1,`i'..`i']
= mat __00000D = __00000A[1,7..7]
- 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 7 == . & "" != "" {
  `vv' local j = colnumb(`new',`"`ospec'"')
  }
- if `j' == . & "`sspec'" != "" {
= if 7 == . & "/_:_cons" != "" {
  `vv' local j = colnumb(`new',`"`sspec'"')
- if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
```

```
= if 7==. & `"_"'=="_" & `"piq_timing_max:"'!="" {
                     `vv' local j = colnumb(`new',`"`eq1'`name'"')
                    if `j' == . & "`oname'" != "" {
                     `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                     }
                     }
                  - if `j'!=. {
                  = if 7!=. {
                  - if `fill'[1,`j'] {
                  = if __00000C[1,7] {
                    _ms_parse_parts `name'
                    if !r(omit) {
                     if "`eq'"=="_" {
                    di in red `"`error'duplicate "' `"entries for `name' found
> ""
                     else di in red `"`error'"' `"duplicate entries for `eq':`n
> ame' 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[1,7] = 1
                  - mat `new'[1, `j'] = `mat'[1, `i']
                  = mat __00000B[1,7] = __000000A[1,7]
                  - }
                  - 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 = 7 + 1
                  - }
                  - while `i' <= `dim' {</pre>
                  = while 8 <= 7 {</pre>
                    mat `x' = `mat'[1,`i'..`i']
                     local eq : coleq `x'
                     local name : colname `x'
```

```
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':`n
> ame' found"'
                    exit 507
                    else if !missing(`new'[1,`j']) {
                    matrix `mat'[1,`i'] = `new'[1,`j']
                    }
```

if "`eq'" == "/" {

```
else mat `fill'[1, `j'] = 1
                    mat `new'[1, `j'] = `mat'[1, `i']
                    else if "`skip'"=="" {
                    if "`eq'"=="_" {
                    local spec : copy local name
                    }
                    di in red `"`error'extra parameter "' `"`spec' found"' _n
> "specify skip option if necessary"
                    exit 111
                    }
                    local i = i' + 1
                    }
                  - mat `fill' = `fill'*`fill''
                  = mat __00000C = __00000C*__00000C'
                  sret clear
                  - sret local k_fill = `fill'[1,1]
                  = sret local k_fill = __00000C[1,1]
                  - mat `mat' = `new'
                  = mat ___00000A = ___00000B
                                           — end _mkvec.ChkNames —
                - local fill `s(k_fill)'
                = local fill 7
                - }
                - }
                - }
                - else {
                  local fill 0
                  if "`update'"!="" {
                  mat `mat' = `matin'
                  else if `"`colname'"'!="" {
                  local dim : list sizeof colname
                  mat `mat' = J(1, `dim', 0)
                  `vv' mat colnames `mat' = `colname'
                  }
                  else {
                  di in red "from() must be specified"
                  exit 198
                  }
                  }
                - sret clear
                sret local copy `copy'
                = sret local copy
```

```
- sret local skip `skip'
                = sret local skip
                - sret local k = colsof(matrix(`mat'))
                = sret local k = colsof(matrix(__00000A))
                - if "`fill'"!="" {
                = if "7"!="" {
                - sret local k_fill `fill'
                = sret local k_fill 7
                - }
                - else sret local k_fill = colsof(matrix(`mat'))
                = else sret local k_fill = colsof(matrix(__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(1,7,0)
              - matrix colna `bomit' = `colna'
              = matrix colna __00000A = piq_timing_max:wlth piq_timing_max:st
> ky_pr_rotemberg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice p
> iq_timing_max:wg_ndx_other piq_timing_max:open piq_timing_max:_cons
              - _ms_omit_info `bomit'
              = _ms_omit_info __00000A
              - if r(k_omit) | `:length local constraints' {
              = if r(k_omit) | 0 {
                nobreak {
                capture noisily break {
                _b_post0 `colna'
                local clist : subinstr local constraints "," " ", all
                `vv' makecns `clist', `cnsnotes'
                local constraints `"`r(clist)'"'
                local k_autoCns = e(k_autoCns)
                tempname C
                capture matrix C' = e(Cns)
                local rcc = c(rc)
                }
                local rc = c(rc)
                ereturn clear
                }
                if (`rc') exit `rc'
                if (`rcc') {
                local C
                local k_autoCns
                }
```

```
- if `:length local constraints' {
              = if 0 {
                local lf0
                }
              - local vce `vce' `robust' `cluster'
              = local vce robust
              - if `:length local vce' {
              = if 6 {
              - _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old :
> `wt', `vce'
              = _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old :
> , robust
                                      ------ begin _vce_parse -----
                - version 10
                - _on_colon_parse `0'
                = _on_colon_parse , argoptlist(CLuster) optlist(OIM OPG Robust
> ) old : , robust
                                 ------ 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 `", 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) 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 `":"' != ":" & `" , robust"' != "" {
                    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 `", argoptlist(CLuster) optlist(OIM 0
> PG Robust) old "'
                  - sreturn local after `"`after'"'
                  = sreturn local after `" , robust"'
                                         ---- end _on_colon_parse ----
                - local 0 `"`s(before)'"'
                = local 0 `", argoptlist(CLuster) optlist(OIM OPG Robust) old
> "'
                - local user `"`s(after)'"'
                = local user `" , robust"'
                - syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTli
> st(namelist) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
                - local touse `varlist'
                = local touse
                - tempname o a
                - .`o' = ._optlist.new
                = ._000000B = ._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("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'
= .__00000B.addopt OPG
                  ------ begin _optlist.addopt ------
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("OPG")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
    }
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "OPG"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "opg"
                       ----- end _optlist.addopt -----
- .`o'.addopt `name'
= .__00000B.addopt Robust
                      ---- begin _optlist.addopt ----
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
 = local mname = lower("Robust")
  - if "`passthru'" != "" {
  = if "" != "" {
```

```
local optspec `optspec'(passthru)
    }
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "Robust"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "robust"
                      ----- end _optlist.addopt ----
- }
- .`a' = ._optlist.new
= .__00000C = ._optlist.new
local argoptlist : list uniq argoptlist
- foreach name of local argoptlist {
- .`a'.addopt `name'
= .__00000C.addopt CLuster
                      ---- begin _optlist.addopt -----
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("CLuster")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "CLuster"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "cluster"
                       ----- end _optlist.addopt -----
- }
- local OPTNAMES `"`.`o'.dumpnames'"'
                   ---- begin _optlist.dumpnames -----
  - version 9
  - forval i = 1/`.names.arrnels' {
  = forval i = 1/3 {
  - local namelist `namelist' `.names[`i']'
  = local namelist oim
  - }
  - local namelist `namelist' `.names[`i']'
 = local namelist oim opg
  - }
  - local namelist `namelist' `.names[`i']'
  = local namelist oim opg robust
```

```
- local namelist : list uniq namelist
  - sreturn local namelist `"`namelist'"'
  = sreturn local namelist `"oim opg robust"'
  - class exit `"`namelist'"'
  = class exit `"oim opg robust"'
                    ----- end _optlist.dumpnames ---
= local OPTNAMES `"oim opg robust"'
- local ARGOPTNAMES `"`.`a'.dumpnames'"'
                    --- begin _optlist.dumpnames ---
  - version 9
  - forval i = 1/`.names.arrnels' {
  = forval i = 1/1 {
  - local namelist `namelist' `.names[`i']'
  = local namelist cluster
  - }
  - local namelist : list uniq namelist
  - sreturn local namelist `"`namelist'"'
 = sreturn local namelist `"cluster"'
  - class exit `"`namelist'"'
  = class exit `"cluster"'
                      ---- end _optlist.dumpnames ---
= local ARGOPTNAMES `"cluster"'
local AND: list OPTNAMES & ARGOPTNAMES
- if `:list sizeof AND' {
= if 0 {
  di as err "vcetype '`:word 1 of `AND''' specified twice"
  exit 198
  }

    local pwallowed : list uniq pwallowed

    local pwlist robust cluster

- foreach n of local pwallowed {
  local lc = lower("`n'")
  local pwlist `pwlist' `lc'
  }
- if "`old_is_ok'" != "" {
= if "old_is_ok" != "" {
local ROBUST robust
- if `:list ROBUST in OPTNAMES' {
= if 1 {
- local robust Robust
- }
- local CLUSTER cluster
```

```
- if `:list CLUSTER in ARGOPTNAMES' {
                = if 1 {
                - local cluster CLuster(varname)
                - }
                - local 0 `"`user'"'
                = local 0 `" , robust"'
                - syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster'
> ]
                = syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varn
> ame) ]
                - if `"`vce'"' != "" {
                = if `""' != "" {
                  gettoken name args : vce, parse(" ,")
                  local args : list retok args
                  capture ParseVCE `o' `a' , `name'
                  if c(rc) {
                  di as err "vcetype {bf:`name'} not allowed"
                  exit 198
                  }
                  local name `r(vce)'
                  if "`weight'" == "pweight" & !`:list name in pwlist' {
                  di as err "pweights are not allowed with vce(`name')"
                  exit 198
                  }
                  return add
                  if `"`robust'"' != "" & !inlist("`name'","","robust","eim","
> oim","cluster") {
                  opts_exclusive "`robust' vce(`name')"
                  if "`name'" == "cluster" {
                  if `"`args'"' == "" {
                  di as err "invalid vce(cluster) option"
                  exit 198
                  }
                  confirm var `args'
                  unab args : `args'
                  local markout `args'
                  if "`cluster'" != "" {
                  if !`:list args == cluster' {
                  di as err "options cluster() and vce(cluster) are in conflic
> t"
                  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 "__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 `eval
> type'"
                exit 198
              - if `:length local crittype' == 0 {
              = if 0 == 0 {
              - if inlist("`vce'", "cluster", "robust", "svy") {
              = if inlist("robust", "cluster", "robust", "svy") {
              - local crittype "log pseudolikelihood"
              - }
              - else local crittype "log likelihood"
              - }
              - global ML_waldtest `waldtest'
              = global ML_waldtest −1
              - if `:length local svy' | `:length local weight' {
              = if 0 | 0 {
                if `interactive' {
```

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

```
}
  }
- if `:length local lf0' {
= if 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 1 -526.3044152481488
- global ML_ll_0 : word 2 of `lf0'
= global ML_ll_0 : word 2 of 1 -526.3044152481488
confirm integer number $ML_k0
= confirm integer number 1
- confirm number $ML_ll_0
= confirm number -526.3044152481488
- \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 ─
                - capture syntax [, LEN(integer 0), MIN1(numlist min=2 max=2 m
> issingokay) NOMIN MIN]
                - if (_rc) {
                  syntax [, LEN(integer 0) MIN1(string) NOMIN MIN]
                - if `"`min1'"' != "" & `"`nomin'"' != "" {
                = if `""' != "" & `""' != "" {
                  di as err "options {bf:min()} and {bf:nomin} are mutually ex
> clusive"
                  exit 198
                  }
                - if `"`min'"' != "" & `"`nomin'"' != "" {
                = if `""' != "" & `""' != "" {
                  di as err "options {bf:min} and {bf:nomin} are mutually excl
> usive"
                  exit 198
                  }
                - if (`"`min1'"' != "") {
                = if (`""' != "") {
                  if (_rc) {
                  capture confirm matrix `min1'
                  if (_rc) {
                  di as err "option {bf:min()} requires that either two number
> s or a 1X2 matrix be specified"
                  exit 198
                  }
                  local deriv `min1'
                - else if (`"`min'"' != "") {
                = else if (`""' != "") {
                  if (`len' > length(`"`min'"')) {
                  di as err "option {bf:min()} requires that either two number
> s or a 1X2 matrix be specified"
```

```
exit 198
                  local deriv 1
                - else {
                - if (`len' > 0) {
                = if (0 > 0) {
                  if ("`nomin'" == "") {
                  di as err "option {bf:min()} requires that either two number
> s or a 1X2 matrix be specified"
                  exit 198
                  }
                  else if (`len' > length(`"`nomin'"')) {
                  di as err "options {bf:min()} and {bf:nomin} are mutually ex
> clusive"
                  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 na
> me"
                  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(`mopt
> obj')
              = 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 hav
> e done something to drop" _n "temporary variables ml added to your data. Yo
> u 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(numlist
> max=1 >=0) NOTCONCAVE(numlist max=1 >=0) ndami DIFficult HALFSTEPonly DOOPT
> SEArch(name) Repeat(passthru) Bounds(string) SCore(string) noWARNing noCLEA
> R NOLOg LOg DOTs SHOWTOLerance SHOWNRtolerance SHOWSTEP TRace COEFDIffs GRAD
> ient 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 "$ML_preserve" != "no" {
                = if "no" != "no" {
                  if `:length local score' {
                  di as smcl as err "May not specify {bf:score()} option unles
> s" _n "
              a) estimation subsample is the entire data in memory, or" _n "
> b) you specify option {bf:nopreserve} on {bf:ml model} statement (meaning
> " _n "
                 your evaluation program explicitly restricts itself to obs" _
> n "
              for which {bf:$}" "{bf:ML_samp==1}."
                  exit 198
                  }
                  preserve
                  local N = c(N)
                  quietly keep if $ML_sample
                  if (N' != c(N)) {
                  mata: Mopt_init_regetviews()
                  }
                  }
                - if `:length local score' {
```

```
= if 0 {
                SetupScore `"$ML_evaltype"' `"`score'"' $ML_n $ML_dim
                local scores "`s(scores)'"
              - _parse_iterlog, `nolog' `log'
              = _parse_iterlog,
                                    ----- begin _parse_iterlog ----
                - version 16
                - syntax [, NOLOG LOG]
                - if "`log'`nolog'" != "" {
                = if "" != "" {
                  opts_exclusive "`log' `nolog'"
                  }
                - else if "`c(iterlog)'" == "on" {
                = else if "on" == "on" {
                local log log
                - }
                - else {
                 local nolog nolog
                - sreturn local log `log'
                = sreturn local log log
                sreturn local nolog `nolog'
                = sreturn local nolog
                                        ---- end _parse_iterlog ----
              - local log "`s(nolog)'"
              = local log ""
             - local tropts `log' `dots' `showtolerance' `showstep' `trace'
`coefdiffs'
             = local tropts
              - if "`tropts'" != "nolog" {
              = if "" != "nolog" {
              - local tropts `tropts' `gradient' `hessian'
              = local tropts
              - if "`skipline'" == "" {
              = if "" == "" {
             - if "`iterate'" != "0" | `:length local tropts' {
              = if "" != "0" | 0 {
              - di
```

```
- }
               - }
               - }
               - else {
                 local gradient
                 local hessian
                 local nolog nolog
                 }
               - if "`search'" != "off" & "`iterate'" != "0" {
               = if "off" != "off" & "" != "0" {
                 if "`search'" == "quietly" {
                 local sopts nolog
                 else {
                 if `:length local tropts' {
                 if "`tropts'" != "nolog" {
                 local sopts trace
                 else local sopts nolog
                 if "`search'" == "norescale" {
                 local sopts `sopts' norescale
                 Search `bounds', nopreserve `sopts' `repeat' `maxmin'
               tempname value b V iV
               - `vv' mata: Mopt_maxmin()
               = version 18: mata: Mopt_maxmin()
                                          ----- begin poiss_lf -----
                 - version 6
                 - args todo b lnf g H score
                 tempvar xb
                 - mleval `xb' = `b'
                 = mleval ___00000Q = ___00000K
                 = mlsum __00000L = -exp(__00000Q) + __00000Q*piq_timing_max
> - lngamma(piq_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 = piq_timing_max - exp(__00000Q) if _
> _000007
```

```
- $ML_ec mlvecsum `lnf' `g' = `score'
                 = * mlvecsum __00000L __00000M = __000000
                 - if `todo' == 1 | `lnf'==. {
                 = if 2 == 1 \mid \underline{00000L} == . {
                   exit
                   }
                 - mlmatsum `lnf' `H' = exp(`xb')
                 = mlmatsum __00000L __00000N = exp(__00000Q)
                                         ----- end poiss_lf -----
Iteration 0: Log pseudolikelihood = -386.24205
                                     ------ begin poiss_lf -----
                 - version 6
                 - args todo b lnf g H score
                 tempvar xb
                 - mleval xb' = b'
                 = mleval ___00000Q = ___00000K
                 - mlsum \ \ lnf' = -exp(\ xb') + \ xb'*$ML_y1 - lngamma($ML_y1+1)
                 = mlsum __00000L = -exp(__00000Q) + __00000Q*piq_timing_max
> - lngamma(piq_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 __00000L = -exp(__00000Q) + __00000Q*piq_timing_max
> - lngamma(piq_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*piq_timing_max
> - lngamma(piq_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 = piq_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 = -384.84187
                                          ----- 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*piq_timing_max
> - lngamma(piq_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*piq_timing_max
> - lngamma(piq_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 __00000L = -exp(__00000Q) + __00000Q*piq_timing_max
> - lngamma(piq_timing_max+1)
                - if `todo' == 0 | `lnf'==. {
                = if 2 == 0 | __00000L==. {
                  exit
                  }
                - qui replace `score' = $ML_y1 - exp(`xb') if $ML_samp
                = qui replace __000000 = piq_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 2: Log pseudolikelihood = -384.83957
                                        begin poiss_lf
                - version 6
                - args todo b lnf g H score
                tempvar xb
                - mleval `xb' = `b'
                = mleval ___00000Q = ___00000K
                = mlsum __00000L = -exp(__00000Q) + __00000Q*piq_timing_max
> - lngamma(piq_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 __00000L = -exp(__00000Q) + __00000Q*piq_timing_max
> - lngamma(piq_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*piq_timing_max
> - lngamma(piq_timing_max+1)
                 - if `todo' == 0 | `lnf'==. {
                 = if 2 == 0 | __00000L==. {
                   exit
                 - qui replace `score' = $ML_y1 - exp(`xb') if $ML_samp
                 = qui replace __000000 = piq_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) depn
> ame(piq_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 = -526.3044152481488
                - 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) - $ML_k0
                = else ereturn scalar df_m = e(rank) - 1
                - if !`:length global ML_ll_0' | inlist(e(vce), "robust", "clu
> ster", "linearized") {
                = if !18 | inlist(e(vce), "robust", "cluster", "linearized") {
                - if "$ML svy" == "" {
                = if "" == "" {
                - _prefix_model_test, minimum
                                    ---- begin _prefix_model_test ----
                  - version 9
                  - syntax [name(name=cmd)] [, svy noADJust noSVYadjust MINimu
> m ]
                  - 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 __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" "' "o
> ption 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 MINim

> um Mtest Mtest2(passthru) noTest COEF matvlc(passthru) DF(numlist max=1 >0)
> 1
                      - if "`df'" != "" {
                      = if "" != "" {
                        local dof = `df'
                      - else if "`e(df_r)'" !="" {
                      = else if "" !="" {
                        local dof = e(df_r)
                        }
                      - else {
                      - local dof = .
                      - }
                      - if `"`mtest'`mtest2'"' != "" {
                      = if `"" != "" {
                        if inlist("`e(cmd)'", "svymean", "svytotal", "svyratio
> ") {
                        di as err `"mtest option not allowed after `e(cmd)'"'
                        exit 301
                         _mtest syntax, `mtest' `mtest2'
                        local mtmethod `r(method)'
                      - if "`mtmethod'" != "" {
                      = if "" != "" {
                        if "`test'" != "" {
                        di as err "options mtest and notest may not be combine
```

```
> d"
                        exit 198
                        if "`accumulate'" != "" {
                        di as err "options mtest and accumulate may not be com
> bined"
                        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
> 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_s
> trata))) {
                        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(lo
> cal nch)
                      - if `nch' > 0 {
```

```
= if 0 > 0 {
                        di as err "=== invalid operator"
                        exit 198
                        }
                      - local eqns : subinstr local eqns "==" "=", all
                      - ExpandExpns `"`egns'"' "`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(loc
> al 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
```

- }

- local i 1

```
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
> .2f `chi2'
                      = di as txt _col(12) "chi2(" %3.0f __00000V ") =" as res
> %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 __00
> 000W
                      - }
                      - 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 "
                                         > 1: \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 t
> xt "*"
                       di as txt "{hline 7}{c +}{hline 30}"
                       di as txt " All {c |}" as res _col(12) %9.2f ``testt
> ype'' _col(22) %6.0f `df1' _col(33) %6.4f `p'
                       di as txt "{hline 7}{c BT}{hline 30}"
                        _mtest footer 1 "`mtmethod'" "* "
                     - if "`coef'" != "" {
                     = if "" != "" {
                       Table
                       }
                     - return scalar p = `p'
                     = return scalar p = __00000W
                     - return scalar df = `df1'
                     = return scalar df = __00000V
                     - if "`testtype'" == "F" {
                     = if "chi2" == "F" {
                       return scalar F = `F'
                       return scalar df_r = `df2'
                     - else return scalar chi2 = `chi2'
                     = else return scalar chi2 = __00000U
                     - return scalar drop = `drop'
```

```
= return scalar drop = __00000X
    - local i 1
    - while "`dropped `i''" != "" {
    = while "" != "" {
      return scalar dropped_`i' = `dropped_`i''
      local ++i
      }
    - if "`mtmethod'" != "" {
    = if "" != "" {
      return matrix mtest `tm'
      return local mtmethod `mtmethod'
                          ---- end test.WaldTest ----
  return add
                                     — end test —
- if !c(rc) {
- if `:length local minimum' {
= if 7 {
- quietly test, min
                                   — begin test ——
  - if "`e(cmd)'" == "anova" | "`e(cmd)'" == "manova" {
  = if "mopt" == "anova" | "mopt" == "manova" {
    AnovaTestChooser `0'
    return add
    exit
    }
  - if "`e(cmd)'" == "mixed" {
  = if "mopt" == "mixed" {
    MixedTestChooser `0'
    return add
    exit
    }
  - if _caller() < 8 {</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'
                    = _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)
                    }
```

```
- 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"'
```

- else {

ereturn local wexp `"\$ML\_wexp"'

}

```
- if `:length global ML_group' {
                = if 0 {
                  ereturn local group `"$ML_group"'
                  if `"`e(clustvar)'"' == "$ML_grp" & "$ML_grp" != "" {
                  ereturn local clustvar `"$ML_group"'
                  }
                  }
                - ereturn local cmd "ml"
                - if `:length local score' {
                = if 0 {
                  mata: Mopt_score(0)
                  ereturn local scorevars `scores'
                - if "$ML_preserve" != "no" {
                = if "no" != "no" {
                  restore
                  if "`e(prefix)'" == "svy" & e(N_strata_omit) {
                  tempname v
                  quietly _svy2 $ML_sample if $ML_sample, type(total) svy v(`v
> ') subpop(`e(subpop)') touse($ML_sample)
                  ereturn repost, esample($ML_sample)
                - if `"`moptobj'"' != "" {
                = if `""' != "" {
                  local clear noclear
                - if !`:length local clear' {
                = if !0 {
                Clear
                                               - begin mopt.Clear —
                  - syntax [, NOTANOPTION]
                  capture drop $ML_w
                  = capture drop ___000007
                  - capture drop $ML_samp
                  = capture drop ___000007
                  capture drop $ML_sample
                  = capture drop ___000007
                  capture drop $ML_subv
                  = capture drop
                  - capture drop $ML_grp
                  = capture drop
                  - mata: Mopt_drop_external()
                  - macro drop ML_*
```

```
----- end mopt.Clear ----
        - }
        - else {
          capture confirm var $ML_sample
          if c(rc) {
          quietly gen byte $ML sample = e(sample)
          }
        - if `:length local output' == 0 {
        = if 8 == 0 {
          Display, level(`level') `options'
                                     ---- end mopt.MaxMin -----
      - }
                                      --- end mopt.Model ----
    - if c(rc) {
      local rc = c(rc)
      Clear
      exit `rc'
      }
    exit
                                          ----- end mopt -----
  - exit
                                           ----- end ml —
- if "`score'" != "" {
= if "" != "" {
  label var `scvar' "Score index from poisson"
  rename `scvar' `score'
  est local scorevars `score'
- est scalar r2_p = 1 - e(ll)/e(ll_0)
- est hidden local gof "poiss_g"
- est local offset "`offvar'"
= est local offset ""
- est local offset1
- est local estat_cmd "poisson_estat"
- est hidden local marginsderiv default N IR
- est local predict "poisso_p"
- est local cmd "poisson"
- global S_E_ll = e(ll)
- global S_E_ll0 `e(ll_0)'
= global S_E_ll0 -526.3044152481488
```

```
- global S_E_chi2 = e(chi2)
        - global S_E_mdf = e(df_m)
        - global S_E_pr2 `e(r2_p)'
        = global S_E_pr2 .2687890138438774
        - 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 piq_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 piq_timing_max wlth stky_p
> r_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open [] if __000000, n
> odisplay
              robust"'
                                                     — end poisson <del>——</del>
    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', `offopt'
> `constan' iter(1)
      tempname bp
      mat `bp' = e(b)
    - if "`constan'"=="" & `"`from'"'=="" {
    = if ""=="" & `""'=="" {
    - if "`offset'"!="" {
    = if ""!="" {
```

```
SolveC `y' `offset' [`weight'`exp'] if `touse', mean(`mean')
      local c = r(\_cons)
      }
    - else local c = ln(`mean')
   = else local c = ln(\underline{000001})
    - tempname b0 ll0
   - if `c'<. {
   = if .9126142571448463<. {
    - \text{ mat `b0'} = (`c', 0)
   = mat __000003 = (.9126142571448463, 0)
    - }
    - else mat `b0' = (0, 0)
   = else mat \__000003 = (0, 0)
   - mat colnames `b0' = `y':_cons ln`parm':_cons
   = mat colnames __000003 = piq_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(`b0'
> , copy) search(off) `mlopts' `robust' nocnsnotes `negh'
    = version 18: ml model e2 nbreg_lf (piq_timing_max: piq_timing_max=, ) /l
> nalpha if __000000 , collinear missing max nooutput nopreserve wald(0) init(
> __000003, copy) search(off) robust nocnsnotes negh
                                                     --- begin ml ----
      - if caller()>=11 {
      - mopt `0'
      = mopt model e2 nbreg_lf (piq_timing_max: piq_timing_max=, ) /lnalpha i
> f 000000 , collinear missing max nooutput nopreserve wald(0) init( 000003
> , copy) search(off) robust nocnsnotes negh
                                                     - begin mopt —
        - local vv : di "version " string(_caller()) ":"
        - version 12
        - gettoken subcmd 0 : 0, parse(" ,")
        - local lcmd : length local subcmd
```

```
- if "`subcmd'" == "clear" {
= if "model" == "clear" {
  Clear
  exit
  }
- if `"`subcmd'"' == "hold" {
= if `"model"' == "hold" {
  ml_hold `0'
  exit
  }
- if `"`subcmd'"' == "unhold" {
= if `"model"' == "unhold" {
  ml_unhold `0'
  exit
  }
- if "`subcmd'" == "score" {
= if "model" == "score" {
  if _caller() > 12 {
  `vv' Score `0'
  }
  else {
  Score `0'
  exit
  }
- if "`subcmd'" == "count" {
= if "model" == "count" {
  Count `0'
  exit
- if "`subcmd'" == "trace" {
= if "model" == "trace" {
  Trace `0'
  exit
  }
- if "`subcmd'" == bsubstr("graph",1,max(2,`lcmd')) {
= if "model" == bsubstr("graph",1,max(2,5)) {
  Graph `0'
  exit
  }
- if "`subcmd'" == "init" {
= if "model" == "init" {
  Interactive 0
  `vv' Init `0'
  exit
  }
```

```
- if "`subcmd'" == bsubstr("maximize",1,max(3,`lcmd')) {
       = if "model" == bsubstr("maximize",1,max(3,5)) {
          Interactive 1
          `vv' MaxMin maximize `0'
          exit
          }
       - if "`subcmd'" == bsubstr("minimize",1,max(3,`lcmd')) {
       = if "model" == bsubstr("minimize",1,max(3,5)) {
          Interactive 1
          `vv' MaxMin minimize `0'
          exit
          }
        - if "`subcmd'" == bsubstr("display",1,max(2,`lcmd')) {
       = if "model" == bsubstr("display",1,max(2,5)) {
          Display `0'
          exit
          }
        - if "`subcmd'" == bsubstr("footnote",1,max(4,`lcmd')) {
       = if "model" == bsubstr("footnote",1,max(4,5)) {
          ml footnote `0'
          exit
          }
        - if "`subcmd'" == "," {
       = if "model" == "," {
          Display, `0'
          exit
        - if "`subcmd'" == bsubstr("model",1,max(3,`lcmd')) {
       = if "model" == bsubstr("model",1,max(3,5)) {
        - `vv' capture noi Model `0'
       = version 18: capture noi Model e2 nbreg_lf (piq_timing_max: piq_timi
> ng_max=, ) /lnalpha if __000000 , collinear missing max nooutput nopreserve
> wald(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] [, B
> RACKET COLlinear MISSing CONTinue lf0(string) INIT(string) CONSTraints(strin
> g) noCNSNOTEs VCE(passthru) NEGH NOPREserve TECHnique(string) ITERID(string)
> CRITtype(string) OBS(numlist max=1 >0) TItle(string) WALDtest(integer -1) S
> VY SUBpop(string) SRSsubpop noSVYadjust SCore(passthru) noOUTput noSCVARS GR
> OUP(varname) ITERPROLOG(string) DERIVPROLOG(string) DERIVH(string) DERIVSCAL
> E(string) DERIV(string) nrderiv GNWMATrix(string) KAUXiliary(numlist int >=0
```

```
> ) MAXimize MINimize USERinfo(namelist) PUPDATED Robust CLuster(passthru) mop
> tobj(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 {
```

```
- 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 S
> YNTAXonly * ]
            - local goptions `options'
            = local goptions
            SpliceGlobals junk , `goptions'
            = SpliceGlobals junk ,
                          — begin _get_diparmopts.SpliceGlobals —
              - syntax name(id="macro name" name=c_diparm) [, diparm(string as
> is) 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
```

= if 1 < 2{

```
— end _get_diparmopts.SpliceGlobals —
- local 0 `", `diparmopts'"'
= local 0 `", search(off)"'
local diparmopts
- local k 0
- syntax [, diparm(string asis) * ]
- while `"`diparm'"' != "" {
= while `""' != "" {
  local ++k
  local single 1
  local after
  capture _on_colon_parse `diparm'
  if !c(rc) {
  local single 0
  local diparm `"`s(before)'"'
  local after `"`s(after)'"'
  }
  capture
  SpliceGlobals diparm , diparm(`diparm') `syntaxonly' `goptions'
  local diparm`k' `"`diparm'"'
  local diparmopts `"`diparmopts' : `diparm'"'
  if `single' | `"`:list retok after'"' == "" {
  local 0 `", `options'"'
  syntax [, diparm(string asis) * ]
  }
  else {
  local diparm `"`after'"'
  }
  }
- if `"`soptions'"' == "" {
= if `"soptions"' == "" {
  syntax [, diparm(string asis) ]
- if ("`execute'" == "") {
= if ("" == "") {
- sreturn clear
- sreturn local options `"`options'"'
= sreturn local options `"search(off)"'
- sreturn local diparm `"`diparmopts'"'
= sreturn local diparm `""'
- forval i = 1/k' {
= forval i = 1/0 {
  sreturn local diparm`i' `"`diparm`i''"'
  }
- sreturn local k `k'
= sreturn local k 0
```

── end \_get\_diparmopts ── - forval k = 1/s(k)' { = forval k = 1/0 { local diparm`k' `"`s(diparm`k')'"' - local ndiparm `s(k)' = local ndiparm 0 - local options `"`s(options)'"' = local options `"search(off)"' - if `interactive' & `:length local options' { = if 0 & 11 { local 0 , `options' syntax [, NOTANOPTION] - if `:length local nopreserve' | `:length local score' { = if 10 | 0 { - global ML\_preserve no **-** } else global ML\_preserve yes - gettoken evaltype spec : spec - confirm name `evaltype' = confirm name e2 gettoken evaluator spec : spec - global ML\_evaltype : copy local evaltype - if `:length local srssubpop' { = if 0 { local 0 , srssubpop syntax [, NONOPTION] exit 198 } - if `:length local subpop' { = if 0 { local svy svy - if `:length local svy' { = if 0 { opts\_exclusive "`vce' `svy'" vce if `:length local weight' { di as err "svy option not allowed with weights" exit 198 global ML\_noadj : copy local svyadjust

- global ML\_svy : copy local svy

```
- if _caller() >= 15 & c(userversion) >= 15 {
          - local fparm ", freeparm"

    local eqspec : copy local spec

          - local ieq 0
          - while `:length local egspec' {
          = while 46 {
          - local ++ieq
          - gettoken eq eqspec : eqspec, bind
          - if bsubstr(trim("`eq'"),1,1) == "/" {
          = if bsubstr(trim("(piq_timing_max: piq_timing_max=, )"),1,1) == "/
> " {
            local eq = bsubstr(trim("`eq'"),2,.)
            local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', wor
> d
            }
          - else {
          - gettoken p1 p2 : eq, parse("()")
          - local p2 = trim(`"`p2'"')
          = local p2 = trim(`"piq_timing_max: piq_timing_max=, )"')
          - if bsubstr("`p2'",1,1) == "," {
          = if bsubstr("piq_timing_max: piq_timing_max=, )",1,1) == "," {
            gettoken comma p2 : p2, parse(",")
            local p2 = trim(`"`p2'"')
          - if `"`p1'`p2'"' == "()" {
          = if `"(piq_timing_max: piq_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')"', wor
> d
          = local spec : subinstr local spec "/lnalpha" `"("lnalpha":, freepar
> m)"', 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')"', wor
> d
            }
            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) egargopts(OF
> Fset EXPosure) noneedvarlist numdepvars(0) needequal
          = . 000006 = . eqlist.new, eqopts(NOCONStant FREEParm) eqarqopts(OF
> Fset EXPosure) noneedvarlist numdepvars(0) needequal
            -class {
            -instance:
                     array
                                      n_depvars
                     string
                                      needequal
                                      noneedvarlist
                     string
                      string
                                      wtypes
                     string
                                      collinear
                     string
                                      nocons
                                      nocons_ignore
                     string
                     double
                                      n_eq
                     string
                                      gl_if
                                      gl_in
                     string
                      string
                                      gl_wgt
                     string
                                      gl_options
                      _optlist
                                      eq_opts_allowed
              -class {
              -instance:
                       array options
                                        = {}
                                        = {}
                       array names
              -}
                     array
                                      eq_list
                     _optlist
                                      mark_opts
                                      mark_list
                     array
                     array
                                      mark_name
                      _optlist
                                      smark_opts
                                      smark_list
                     array
                                      smark_name
                     array
                                      rmcoll_opts
                      _optlist
                                      rmcoll_list
                     array
                     array
                                      rmcoll_name
                      _optlist
                                      rmdcoll_opts
                                      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 EXPosure)
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 C
> OMMONopts(string asis) MARKopts(namelist) SMARKopts(namelist) RMCOLLopts(nam
> elist) RMDCOLLopts(namelist) NUMDEPvars(numlist integer >=0) NEEDEQUAL WTYPE
> S(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" != "" {
```

```
- .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 = ""
```

- local optspec `optspec'(passthru)
= local optspec EXPosure(passthru)

- end \_eqlist.\_setup —

```
---- end _eqlist.new --
        - .`eqlist'.parse `spec'
        = .__000006.parse (piq_timing_max: piq_timing_max=, ) ("lnalpha":,
freeparm)
                                          – begin eglist.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 <del>-----</del>
            = local RMDCOLLOPTLIST `""'
            - _parse expand EQ GL : 0, gweight common( `MARKOPTLIST' `SMARKOPT
> LIST' `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 `"(`ZERO') `tok' `0'"'
              local 0
              else if inlist(substr(`"`tok'"',1,1), "#", "|") {
              local ZER0 `"`ZER0'`tok'"'
              }
              else {
              local ZER0 `"`ZER0' `tok'"'
              }
              }
              _parse expand EQ GL : ZERO, gweight common( `MARKOPTLIST' `SMARK
> OPTLIST' `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 noneedvarlis
> t 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 noNE
> EDVARLIST 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(60000bac3580):piq_timing_max: piq_timing
> _max=
                                           – begin _eqspec.parse —
```

```
- version 9.2
              - _on_colon_parse `0'
              = _on_colon_parse __key(60000bac3580):piq_timing_max: piq_timing
> _max=
                                       ---- 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(60000bac3580)"' == ":" {
                  sreturn local after `"`after'"'
                  exit
                  }
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `""' != ":" & `":piq_timing_max: piq_timing_max="' !=
> "" {
                - 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 `":"' != ":" & `"piq_timing_max: piq_timing_max="' !=
> "" {
                  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 `"__key(60000bac3580)"'
                - sreturn local after `"`after'"'
                = sreturn local after `"piq_timing_max: piq_timing_max="'
                                       <del>-----</del> end _on_colon_parse <del>-</del>
              - local ol `s(before)'
              = local ol __key(60000bac3580)
              - 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) EXPosure(
> passthru)
                - }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `"NOCONStant FREEParm OFFset(passthru)
> EXPosure(passthru)"'
                - class exit `"`optlist'"'
                = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosure(p
> assthru)"'
                              ----- end _optlist.dumpoptions ----
```

```
= local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPosure(
> 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 exposure
                - 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 `"piq_timing_max: piq_timing_max="'
              - if `"`.wtypes'"' != "" {
              = if `"" != "" {
                local wgt "[`.wtypes']"
              - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `NOCON
> S' *]
              = syntax [anything(equalok)] [if] [in] [, NOCONStant FREEParm 0
> FFset(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("piq_timing_max") == ":" {
  di as err "nothing found where equation name expected"
  exit 198
  }
- if `:list sizeof REST' {
= if 2 {
- if strpos(`"`NAME'"', ":") {
= if strpos(`"piq_timing_max"', ":") {
  capture _msparse `NAME'
  if c(rc) {
  di as err "{bf:`NAME'} invalid equation specification"
  exit 198
  }
  }
- else {
- ._confirm_eqname `NAME'
= ._confirm_eqname piq_timing_max
               ----- begin _eqspec._confirm_eqname --
  - version 9.2
  - capture confirm number `0'
  = capture confirm number piq_timing_max
  - if (! c(rc)) exit
  - local hasdot = strpos(`"`0'"',".")
  = local hasdot = strpos(`"piq_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 "piq_timing_max" == "=" {
                local REST: copy local anything
                local DEPVARS
                }
              - if (`:length local DEPVARS' == 0 & `.n_depvars') {
              = if (14 == 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_depvar
> s') {
                di as err "equal sign required to separate depvars from indepv
> ars"
                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 piq_timing_max
              - tsunab DEPVARS : `DEPVARS'
              = tsunab DEPVARS : piq_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(int
> eger 32000) NAME(string)]
                - c_local `user' `varlist'
                = c_local DEPVARS piq_timing_max
                - local n : word count `varlist'
                = local n : word count piq_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 noco
> nstant 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 = `"piq_timing_max"'
- .depvars = `"`DEPVARS'"'
= .depvars = `"piq_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 noneedvarlis
> t wtypes()
                                       ----- begin _eqspec.new ----
              - version 9.2
              - syntax [, NUMDEPvars(numlist integer >=0 max=1) NEEDEQUAL noNE
> EDVARLIST 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(60000bac3580):"lnalpha":, freeparm
                                         ---- begin _eqspec.parse ----
              - version 9.2
              - _on_colon_parse `0'
              = _on_colon_parse __key(60000bac3580):"lnalpha":, freeparm
                                       --- 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(60000bac3580)"' == ":" {
                  sreturn local after `"`after'"'
                  exit
                  }
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `""' != ":" & `":"lnalpha":, freeparm"' != "" {
                - 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 `":"' != ":" & `""lnalpha":, freeparm"' != "" {
                  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 `"__key(60000bac3580)"'
                - sreturn local after `"`after'"'
                = sreturn local after `""lnalpha":, freeparm"'
                                       ----- end _on_colon_parse ---
              - local ol `s(before)'
              = local ol __key(60000bac3580)
              - 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) EXPosure(
> passthru)
                - }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
                = sreturn local optlist `"NOCONStant FREEParm OFFset(passthru)
> EXPosure(passthru)"'
                - class exit `"`optlist'"'
                = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosure(p
> assthru)"'
```

```
---- end _optlist.dumpoptions ----
              = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPosure(
> 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 exposure
> ""
                - 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 `"`.wtvpes'"' != "" {
              = if `""' != "" {
                local wgt "[`.wtypes']"
              - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `NOCON
> S' *]
              = syntax [anything(equalok)] [if] [in] [, NOCONStant FREEParm 0
```

```
> FFset(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_depvar
> s') {
              = if 0 | (0 != 0 \& 0) {
                di as err "equal sign required to separate depvars from indepv
> ars"
                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 noco
> nstant 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)" "(strin
> g 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)" "(str
> ing 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)" "(str
> ing 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)" "(st
```

```
> ring asis)", all
            - local 0 `", `GL_op'"'
            = local 0 `", "'
            - syntax [, `OPTLIST1' `OPTLIST1s' `OPTLIST2' `OPTLIST3' COLlinear
> 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_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'
  }
```

.rmdcoll\_list[`I'].parse "" : ``OPT''

```
- local eq_n = `.`eqlist'.eq count'
                                     — begin _eqlist.eq <del>-----</del>
  - 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 egspec.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 —
            = 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 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 <del>--</del>
            = 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 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 <del>---</del>
              - 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 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 noconsi `"0"'
            - local dim = `dim' + `:list sizeof xvarsi'
            = local dim = 1 + 0
            - if "`noconsi'" == "0" {
            = if "0" == "0" {
            - local ++dim
            - }
            - sreturn local value `"`dim'"'
            = sreturn local value `"2"'
            - class exit `"`s(value)'"'
            = class exit `"2"'
                                             —— end _eqlist.dim —
          = global ML_dim = 2
          - forval i = 1/eq_n' {
          = forval i = 1/2 {
          - local depvars `.`eqlist'.eq depvars `i''
```

```
- begin _eqlist.eq <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 I
> F 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' `oth
> er' `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 `"piq_timing_max"'
              - sreturn local value `"`value'"'
              = sreturn local value `"piq_timing_max"'
              - class exit `"`value'"'
              = class exit `"piq_timing_max"'
```

```
– end _eqspec.item <del>−−−</del>
            - class exit `"`s(value)'"'
            = class exit `"piq_timing_max"'
                                                 — end eglist.eg —
          = local depvars piq_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 I
> F 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' `oth
> er' `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 `"piq_timing_max"'
    - sreturn local value `"`value'"'
    = sreturn local value `"piq_timing_max"'
    - class exit `"`value'"'
    = class exit `"piq_timing_max"'
                                      – end _eqspec.item <del>–</del>
  - class exit `"`s(value)'"'
  = class exit `"piq_timing_max"'
                                       — end _eqlist.eq —
= local eq piq_timing_max
- if !`:length local eq' {
= if !14 {
  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 piq_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 −
    - 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 I
> F 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' `oth
> er' `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 \underline{\phantom{0}}000005
          - if "`r(tsops)'" == "true" {
          = if "" == "true" {
            global ML_preserve no
            }
          - local eg 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 I
> F 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' `oth
> er' `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 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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 <del>-</del>
              - 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 I
> F 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' `oth
> er' `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 piq_timing_max
          - local eq_names `eq_names' `eq'
          = local eq_names piq_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 `" piq_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 ----
              - 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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 piq_timing_max lnalpha
          - fvexpand `.`eqlist'.eq indepvars `i'' if $ML_samp
                                               - begin _eqlist.eq <del>-</del>
            - 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 I
> F 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' `oth
> er' `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'"'
```

- local eqnames `eqnames' `eq'

```
= 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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 <del>–</del>
              - 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 I
> F 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' `oth
> er' `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 piq_timing_max
- local eq_names `eq_names' `eq'
= local eq_names piq_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 `" piq_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'" != "" {
```

```
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 = piq_timing_max:_cons /:lnalpha
          - `vv' _mkvec `b0', from(`init') update first error("initial vector"
> )
          = version 18: _mkvec __000007, from(__000003, copy) update first err
> or("initial vector")
```

= if "" != "" {

```
- 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 vector
  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(co
> lsof(`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 `"pig 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 = piq_timing_max:_cons /lnalph
> a
            - }
            - }
            - else {
              `vv' BuildMat `mat' `"`error'"' "`skip'" `s(from)'
              if `"`colname'"'!="" {
              `vv' ChkNames `mat' "`matin'" `"`colname'"' `"`error'"' "`skip'"
> "`first'"
              local fill `s(k_fill)'
              }
            - }
            - else {
              local fill 0
              if "`update'"!="" {
              mat `mat' = `matin'
              }
              else if `"`colname'"'!="" {
              local dim : list sizeof colname
              mat `mat' = J(1, `dim', 0)
              `vv' mat colnames `mat' = `colname'
              }
              else {
              di in red "from() must be specified"
              exit 198
              }
              }
            sret clear
            - sret local copy `copy'
            = sret local copy copy
            - sret local skip `skip'
            = sret local skip
```

```
= sret local k = colsof(matrix(__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 = piq_timing_max:_cons /:lnalpha
- _ms_omit_info `bomit'
= _ms_omit_info ___000008
- if r(k_omit) | `:length local constraints' {
= if r(k_omit) | 0 {
  nobreak {
  capture noisily break {
  _b_post0 `colna'
  local clist: subinstr local constraints "," " ", all
  `vv' makecns `clist', `cnsnotes'
  local constraints `"`r(clist)'"'
  local k_autoCns = e(k_autoCns)
  tempname C
  capture matrix C' = e(Cns)
  local rcc = c(rc)
  local rc = c(rc)
  ereturn clear
  }
  if (`rc') exit `rc'
  if (`rcc') {
  local C
  local k_autoCns
  }
  }
- if `:length local constraints' {
= if 0 {
  local lf0
  }
```

- sret local k = colsof(matrix(`mat'))

```
- 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 : , ro
> bust
                                            ---- begin _vce_parse ----
            - version 10
            - _on_colon_parse `0'
            = _on_colon_parse , argoptlist(CLuster) optlist(OIM OPG Robust) ol
> d : , 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) quote
> S
              - 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) quote
> S
                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 R
> obust) old "'
              - sreturn local after `"`after'"'
              = sreturn local after `" , robust"'
                                       ---- end _on_colon_parse --
            - local 0 `"`s(before)'"'
            = local 0 `", argoptlist(CLuster) optlist(OIM OPG Robust) old "'
           - local user `"`s(after)'"'
            = local user `" , robust"'
            - syntax [varname(default=none)], [ OPTlist(namelist) ARGOPTlist(n
> amelist) PWallowed(namelist) OLD_is_ok NOARGOPT_is_ok ]
            - local touse `varlist'
            = local touse
            tempname o a
            - .`o' = ._optlist.new
            = .__000009 = ._optlist.new
            - local optlist : list uniq optlist
            - foreach name of local optlist {
            - .`o'.addopt `name'
            = .__000009.addopt 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")
  - 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
= .__00000A = ._optlist.new
- local argoptlist : list uniq argoptlist
- foreach name of local argoptlist {
- .`a'.addopt `name'
= ___00000A.addopt CLuster
                              — begin _optlist.addopt —
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("CLuster")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "CLuster"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "cluster"
                              —— end _optlist.addopt —
- local OPTNAMES `"`.`o'.dumpnames'"'
                       ---- begin _optlist.dumpnames -
  - version 9
  - forval i = 1/`.names.arrnels' {
  = forval i = 1/3 {
  - local namelist `namelist' `.names[`i']'
  = local namelist oim
  - local namelist `namelist' `.names[`i']'
  = local namelist oim opg
  - local namelist `namelist' `.names[`i']'
  = local namelist oim opg robust
  - local namelist : list uniq namelist
  - sreturn local namelist `"`namelist'"'
  = sreturn local namelist `"oim opg robust"'
  - class exit `"`namelist'"'
  = class exit `"oim opg robust"'
```

```
—— end _optlist.dumpnames —
= local OPTNAMES `"oim opg robust"'
- local ARGOPTNAMES `"`.`a'.dumpnames'"'
                          — begin _optlist.dumpnames —
  - version 9
  - forval i = 1/`.names.arrnels' {
  = forval i = 1/1 {
  - local namelist `namelist' `.names[`i']'
  = local namelist cluster
  - }
  - local namelist : list uniq namelist
  - sreturn local namelist `"`namelist'"'
  = sreturn local namelist `"cluster"'
  - class exit `"`namelist'"'
  = class exit `"cluster"'
                        ----- end _optlist.dumpnames --
= local ARGOPTNAMES `"cluster"'
- local AND : list OPTNAMES & ARGOPTNAMES
- if `:list sizeof AND' {
= if 0 {
  di as err "vcetype '`:word 1 of `AND''' specified twice"
  exit 198
  }
- local pwallowed : list uniq pwallowed

    local pwlist robust cluster

- foreach n of local pwallowed {
  local lc = lower("`n'")
  local pwlist `pwlist' `lc'
  }
- if "`old_is_ok'" != "" {
= if "old_is_ok" != "" {
local ROBUST robust
- if `:list ROBUST in OPTNAMES' {
= if 1 {
- local robust Robust
- }

    local CLUSTER cluster

- if `:list CLUSTER in ARGOPTNAMES' {
= if 1 {
- local cluster CLuster(varname)
- }
- }
- local 0 `"`user'"'
= local 0 `" , robust"'
```

```
- syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
            = syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varname)
> 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","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 conflict"
              exit 100
              }
              }
              else if "`cluster'" != "" & !inlist("`name'","eim","oim") {
              opts_exclusive "cluster() vce(`name')"
              if `"`args'"' != "" {
              if ! `:list name in ARGOPTNAMES' {
              di as err "invalid vce() option"
              exit 198
              if "`name'" == "hc2" {
```

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

```
}
                                        – end _vce_parse <del>–</del>
- 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 "`touse'" != "" {

if "`markout'" != "" {

markout `touse' `markout', strok

= if "" != "" {

}

```
}
            }
            }
          - if "$ML_samp" != "$ML_sample" {
          = if "__000005" != "__000005" {
            quietly replace $ML_samp = 0 if $ML_samp & $ML_sample == 0
          - if `:length local vce' == 0 {
          = if 6 == 0 {
            if `"`technique'"' == "bhhh" {
            local vce opg
            }
            else local vce oim
          - if inlist("`vce'", "robust", "cluster") & bsubstr("`evaltype'",1,1
> ) == "d" {
          = if inlist("robust", "robust", "cluster") & bsubstr("e2",1,1) == "d
> " {
            local optname = cond("`svy'"=="","vce(`vce')","svy")
            di as err "option `optname' is not allowed with evaltype `evaltype
> '''
            exit 198
            }
          - if `:length local crittype' == 0 {
          = if 0 == 0 {
          - if inlist("`vce'", "cluster", "robust", "svy") {
          = if inlist("robust", "cluster", "robust", "svy") {
          - local crittype "log pseudolikelihood"
          - }
          - else local crittype "log likelihood"
          - global ML_waldtest `waldtest'
          = global ML_waldtest 0
          - if `:length local svy' | `:length local weight' {
          = if 0 | 0 {
            if `interactive' {
            SetGlobalVar ML_w : _MLw
            }
            else {
            global ML_w : tempvar
            if `"`moptobj'"' != "" {
            global ML_w `moptobj'$ML_w
            }
            }
          - if `:length local weight' {
```

```
= if 0 {
  if `"`moptobj'"' != "" {
  cap drop $ML_w
  quietly gen double $ML_w `exp' if $ML_samp
  local wtype `"`weight'"'
  local wexp `"`exp'"'
  global ML_wtyp : copy local wtype
  global ML_wexp : copy local wexp
  if "`wtype'" == "iweight" | "`svy'" != "" {
  local zeroweight zeroweight
  }
  }
- if inlist("`vce'", "svy", "cluster") {
= if inlist("robust", "svy", "cluster") {
  if `interactive' {
  SetGlobalVar ML_subv : _MLsu
  }
  else {
  global ML_subv : tempvar
  if `"`moptobj'"' != "" {
  global ML_subv `moptobj'$ML_subv
  }
- quietly count if $ML_sample
= quietly count if __000005
- if r(N) == 0 {
  error 2000
- if `"`weight'"' != "" {
= if `""' != "" {
  quietly count if $ML_sample & $ML_w != 0
  if r(N) == 0 {
  di in gr "all observation have zero weights"
  exit 2000
  }
- if `:length local lf0' {
= if 0 {
  if `:list sizeof lf0' != 2 {
  di as err "lf0(`lf0') invalid"
  exit 198
  }
  global ML_k0 : word 1 of `lf0'
  global ML_ll_0 : word 2 of `lf0'
```

```
confirm integer number $ML_k0
            confirm number $ML_ll_0
            if ML k0 < 0 {
            di as err "lf0(`lf0') invalid"
            exit 198
            }
            }
          - if "`obs'" == "" {
          = if "" == "" {
          - if "`wtype'" != "fweight" {
          = if "" != "fweight" {
          - quietly count if $ML_sample
          = quietly count if __000005
          - local obs = r(N)
          - }
          - else {
            sum $ML_w if $ML_sample, mean
            local obs = r(sum)
            }
          - }
          - if `:length local iterid' {
          = if 0 {
            local iterid = trim(bsubstr(`"`iterid'"',1,32))
          - if `:length local crittype' {
          = if 20 {
          - local crittype = trim(bsubstr(`"`crittype'"',1,32))
          = local crittype = trim(bsubstr(`"log pseudolikelihood"',1,32))
          - }
          - if `:length local derivscale' {
          = if 0 {
            confirm matrix `derivscale'
          - if `:length local derivh' {
          = if 0 {
            confirm matrix `derivh'
          - local l : strlen local deriv
          - ParseUsemin, `deriv' len(`l')
          = ParseUsemin, len(0)
                                         — begin mopt.ParseUsemin −
            - capture syntax [, LEN(integer 0), MIN1(numlist min=2 max=2 missi
> ngokay) NOMIN MIN]
            - if (_rc) {
              syntax [, LEN(integer 0) MIN1(string) NOMIN MIN]
```

```
}
            - if `"`min1'"' != "" & `"`nomin'"' != "" {
            = if `""' != "" & `""' != "" {
              di as err "options {bf:min()} and {bf:nomin} are mutually exclus
> ive"
              exit 198
            - if `"`min'"' != "" & `"`nomin'"' != "" {
            = if `""' != "" & `""' != "" {
              di as err "options {bf:min} and {bf:nomin} are mutually exclusiv
> e"
              exit 198
            - if (`"`min1'"' != "") {
            = if (`""' != "") {
              if (_rc) {
              capture confirm matrix `min1'
              if (_rc) {
              di as err "option {bf:min()} requires that either two numbers or
> a 1X2 matrix be specified"
              exit 198
              }
              local deriv `min1'
            - else if (`"`min'"' != "") {
            = else if (`""' != "") {
              if (`len' > length(`"`min'"')) {
              di as err "option {bf:min()} requires that either two numbers or
> a 1X2 matrix be specified"
              exit 198
              }
              local deriv 1
            - else {
            - if (`len' > 0) {
            = if (0 > 0) {
              if ("`nomin'" == "") {
              di as err "option {bf:min()} requires that either two numbers or
 a 1X2 matrix be specified"
              exit 198
              else if (`len' > length(`"`nomin'"')) {
              di as err "options {bf:min()} and {bf:nomin} are mutually exclus
> ive"
              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(`moptobj'
> )
          = version 18: MaxMin maximize, nooutput search(off) moptobj()
                                             — begin mopt.MaxMin ————
            - local vv : di "version " string(_caller()) ":"
            - version 12
```

```
— 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 do
> ne something to drop" _n "temporary variables ml added to your data. You mu
> st start again."
                Clear
                exit 111
                }
                                           --- end mopt.ChkMacros -
            - syntax name(name=maxmin) [, NEGH TOLerance(numlist max=1 >=0) LT
> OLerance(numlist max=1 >=0) NONRTOLerance NRTOLerance(numlist max=1 >=0) QTO
> Lerance(numlist max=1 >=0) GTOLerance(numlist max=1 >=0) ITERate(numlist max
> =1 >=0) NOTCONCAVE(numlist max=1 >=0) ndami DIFficult HALFSTEPonly DOOPT SEA
> rch(name) Repeat(passthru) Bounds(string) SCore(string) noWARNing noCLEAR NO
> LOg LOg DOTs SHOWTOLerance SHOWNRtolerance SHOWSTEP TRace COEFDIffs GRADient
> 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 "$ML_preserve" != "no" {
            = if "no" != "no" {
              if `:length local score' {
              di as smcl as err "May not specify {bf:score()} option unless"
          a) estimation subsample is the entire data in memory, or" _n "
> n "
> ) you specify option {bf:nopreserve} on {bf:ml model} statement (meaning" _n
             your evaluation program explicitly restricts itself to obs" _n "
          for which {bf:$}" "{bf:ML_samp==1}."
              exit 198
              }
              preserve
              local N = c(N)
              quietly keep if $ML_sample
              if (N' != c(N)) {
              mata: Mopt_init_regetviews()
              }
              }
            - if `:length local score' {
            = if 0 {
              SetupScore `"$ML_evaltype"' `"`score'"' $ML_n $ML_dim
              local scores "`s(scores)'"
            - _parse_iterlog, `nolog' `log'
            = _parse_iterlog,
                                         --- begin _parse_iterlog -
              - version 16
              - syntax [, NOLOG LOG]
              - if "`log'`nolog'" != "" {
              = if "" != "" {
                opts_exclusive "`log' `nolog'"
              - else if "`c(iterlog)'" == "on" {
              = else if "on" == "on" {
              - local log log
```

```
- }
              - else {
                local nolog nolog
              - sreturn local log `log'
              = sreturn local log log
              sreturn local nolog `nolog'
              = sreturn local nolog
                                            — end _parse_iterlog —
            - local log "`s(nolog)'"
            = local log ""
            - local tropts `log' `dots' `showtolerance' `showstep' `trace' `co
> efdiffs'
            = 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
              }
              }
```

```
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 \__0000000 = \__000000J, eq(1)
              - mleval `lnalpha' = `b', eq(2) scalar
              = mleval __00000R = __00000J, eq(2) scalar
              - local y "$ML_y1"
              = local y "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R))
> - piq_timing_max*ln1p(exp(-__00000Q-__00000R))
              - }
              - if `todo' == 0 | `lnf'==. { exit }
              = if 2 == 0 \mid \underline{00000K} == . { exit }

    tempname alpha

              - tempvar mu p
              - quietly {
              - gen double `mu' = exp(`xb') if $ML_samp
              = gen double \__00000U = exp(\__00000Q) if \__0000005
              - gen double `p' = 1/(1+exp(`xb'+`lnalpha')) if $ML_samp
              = gen double \__00000V = 1/(1+exp(\__00000Q+\__00000R)) if \__000005
              - if `lnalpha'<-20 {</pre>
              = if __00000R<-20 {
                replace `sc1' = `y'-`mu' if $ML_samp
                replace `sc2' = 0 if $ML_samp
```

if "`search'" == "norescale" {

```
}
              - else {
              - replace sc1' = p'*(y'-mu') if ML_samp
              = replace __00000N = __00000V*(piq_timing_max-__00000U) if __000
> 005
              - \text{ replace `sc2'} = \text{`m'*(digamma(`m')} - \text{digamma(`y'+`m')} - \text{ln(`p')}
> ) + p'*(y'-mu') if ML_samp
              = replace __000000 = __00000S*(digamma(__00000S) - digamma(piq_t
> iming_max + __00000S) - ln(__00000V)) + __00000V*(piq_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*__000
> 00V*(piq_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*(pig
> _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) - dig
> amma(piq_timing_max+__00000S) - ln(__00000V) - __00000S*(trigamma(piq_timing
> _max+__00000S) - trigamma(__00000S))) + __00000U*__00000V*(__00000W*__00000V
> *(piq_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 = -455.8057
                                                -- 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 "$ML_y1"
              = local y "piq_timing_max"
              - scalar `m' = exp(-`lnalpha')
              = scalar __00000S = exp(-__00000R)
              - if `lnalpha' < -20 {</pre>
              = if __00000R < -20 {
                mlsum \ \ lnf' = -lngamma(\ y'+1) - exp(\ xb') + \ y'*xb'
                }
              - else {
              - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m')
 - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
              = mlsum __00000K = lngamma(__00000S+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R))
> - piq_timing_max*ln1p(exp(-__00000Q-__00000R))
              - if `todo' == 0 | `lnf'==. { exit }
              = if 0 == 0 \mid \__00000K == . { exit }
                                                   - end nbreg_lf ------
                                              ---- begin nbreg_lf ---
              - version 6.0
              - args todo b lnf q H sc1 sc2
              tempvar xb
              - tempname lnalpha m
              - mleval xb' = b', eq(1)
              = mleval \__{000000} = \__{00000J}, eq(1)
              - mleval `lnalpha' = `b', eq(2) scalar
              = mleval __00000R = __00000J, eq(2) scalar
              - local y "$ML_y1"
```

```
= local y "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R))
> - piq_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 "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R))
> - piq_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 y "$ML_y1"
              = local y "piq_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+pig_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R))
> - piq_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 \__0000005
              - 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*(piq_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(piq_t
> iming_max + __00000S) - ln(__00000V)) + __00000V*(piq_timing_max - __00000U) if
> 000005
              - }
              - }
              - $ML ec tempname q1 q2
              = * 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 {
              - \text{ mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1), eq}
> (1)
              = mlmatsum _{00000K} _{00000X} = _{00000U*} _{00000V*} (_{00000W*} _{0000W}
> 00V*(piq_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*(piq)}
> _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) - dig
> amma(piq_timing_max+__00000S) - ln(__00000V) - __00000S*(trigamma(piq_timing
> _max+__00000S) - trigamma(__00000S))) + __00000U*__00000V*(__00000W*__00000V
> *(pig 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 = -442.72954
```

```
---- begin nbreg_lf ----
              - version 6.0
              - args todo b lnf q 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 "$ML_y1"
              = local y "piq_timing_max"
              - scalar `m' = exp(-`lnalpha')
              = scalar __00000S = exp(-__00000R)
              - if `lnalpha' < -20 {</pre>
              = if __00000R < -20 {
                mlsum \ \ lnf' = -lngamma(\ y'+1) - exp(\ xb') + \ y'*xb'
                }
              - else {
              - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m')
> - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
              = mlsum __00000K = lngamma(__00000S+piq_timing_max) - lngamma(pi
> q_{timing_max+1} - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R))
> - piq_timing_max*ln1p(exp(-__00000Q-__00000R))
              - if `todo' == 0 | `lnf'==. { exit }
              = if 0 == 0 \mid \__{00000K==} { exit }
                                               ---- end nbreg_lf ----
                                        -----begin nbreg_lf -----
              - version 6.0
              - args todo b lnf g H sc1 sc2
              tempvar xb
              tempname lnalpha m
              - mleval `xb' = `b', eq(1)
              = mleval \__0000000 = \__000000J, eq(1)
              - mleval `lnalpha' = `b', eq(2) scalar
              = mleval __00000R = __00000J, eq(2) scalar
              - local y "$ML_y1"
              = local y "piq_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+piq_timing_max) - lngamma(pi
> q_{timing_max+1} - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R))
> - pig timing max*ln1p(exp(- 00000Q- 00000R))
              - if `todo' == 0 | `lnf'==. { exit }
              = if 0 == 0 \mid \underline{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 "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000S) - __00000S*ln1p(exp(__00000Q+__00000R))
> - piq_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 \__0000005
              - 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*(piq_timing_max-__00000U) if __000
> 005
              - \text{ replace `sc2'} = \text{`m'*(digamma(`m')} - \text{digamma(`y'+`m')} - \text{ln(`p')}
> ) + `p'*(`y'-`mu') if $ML_samp
              = replace __000000 = __00000S*(digamma(__00000S) - digamma(piq_t
> iming_max + __00000S) - ln(__00000V)) + __00000V*(piq_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*__000
> 00V*(pig timing max- 00000U)+1), eq(1)
              - \text{ mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2)}
              = mlmatsum __00000K __00000Y = __00000W*__00000U*__00000V^2*(piq
> _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) - dig
```

```
> amma(piq_timing_max+__00000S) - ln(__00000V) - __00000S*(trigamma(piq_timing
> _max+__00000S) - trigamma(__00000S))) + __00000U*__00000V*(__00000W*__00000V
> *(pig 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 = -442.72952
                                           ---- 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(`depv
> ar') buildfvinfo
              = ereturn post __00000Q __00000R [], esample(__00000S) depname(
> piq_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) - $ML_k0
            - if !`:length global ML_ll_0' | inlist(e(vce), "robust", "cluster
> ", "linearized") {
            = if !0 | inlist(e(vce), "robust", "cluster", "linearized") {
            - if "$ML svy" == "" {
            = if "" == "" {
            - _prefix_model_test, minimum
                                    --- begin _prefix_model_test --
              - version 9
              - syntax [name(name=cmd)] [, svy noADJust noSVYadjust MINimum ]
              - if (inlist("`cmd'","asmixlogit","cmmixlogit","cmxtmixlogit"))
```

```
> {
              = if (inlist("","asmixlogit","cmmixlogit","cmxtmixlogit")) {
                _asmixtest, `svy' `adjust' `svyadjust'
                exit
                }
              - local K = 1
              - if "`e(k_eq_model)'" != "" {
              = if "0" != "" {
              - capture confirm integer number `e(k_eq_model)'
              = capture confirm integer number 0
              - if ! c(rc) {
              - local K = e(k_eq_model)
              - }
              - }
              - if "`e(k_eq_model_skip)'" != "" {
              = if "" != "" {
                capture confirm integer number `e(k_eq_model_skip)'
                if ! c(rc) {
                local skip = e(k_eq_model_skip)
                }
                }
              - ereturn local df_m
              - ereturn local F
              - ereturn local chi2
              ereturn local chi2type
              - ereturn local p
              - if (`K' == 0) {
              = if (0 == 0) {
              exit
                                    ----- end _prefix_model_test ----
            - }
            - else {
              _prefix_model_test, $ML_svy $ML_noadj
              }
            - else if `:length global ML_ll_0' {
            = else if 0 {
              if `"`maxmin'"' == "minimize" {
              ereturn scalar chi2 = -2*(e(ll)-e(ll_0))
              }
              else {
              ereturn scalar chi2 = 2*(e(ll)-e(ll_0))
              ereturn scalar p = chi2tail(e(df_m), e(chi2))
              ereturn local chi2type "LR"
```

```
}
            - if `:length global ML_wexp' {
            = if 0 {
              ereturn local wtype `"$ML_wtyp"'
              ereturn local wexp `"$ML_wexp"'
            - if `:length global ML_group' {
            = if 0 {
              ereturn local group `"$ML_group"'
              if `"`e(clustvar)'"' == "$ML_grp" & "$ML_grp" != "" {
              ereturn local clustvar `"$ML_group"'
              }
              }
            - ereturn local cmd "ml"
            - if `:length local score' {
            = if 0 {
              mata: Mopt_score(0)
              ereturn local scorevars `scores'
            - if "$ML_preserve" != "no" {
            = if "no" != "no" {
              restore
              if "`e(prefix)'" == "svy" & e(N_strata_omit) {
              tempname v
              quietly _svy2 $ML_sample if $ML_sample, type(total) svy v(`v') s
> ubpop(`e(subpop)') touse($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)
```

```
- \text{ if `dim'} > 1  {
= if 7 > 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[1,7] = __000002[1,7] + __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 piq_timing_max __000005 __000003[1,2] [] if __000000, nobs(218)
                                      ---- 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+pig timing max) - lngamma(pig
> timing_max+1) - lngamma(__000007) - __0000007*ln1p(exp(__000005+__000006)) -
> piq_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) != 218 { exit }
      - if "`weight'"=="aweight" {
      = if ""=="aweight" {
        ret scalar lnf = r(N)*r(mean)
      - else ret scalar lnf = r(sum)
                                            —— end nbreg.LLalpha —
    - if r(lnf) > `ll0' & r(lnf)<. {</pre>
    = 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 nopreserve
> `initopt' search(off) `mlopts' `scopt' `robust' `vce' `continu' title(`titl
> e') diparm(ln`parm', exp label("`parm'")) `negh' `moptobj'
    = version 18: ml model e2 nbreg_lf (piq_timing_max: piq_timing_max=wlth st
> ky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open, ) /lnalpha
> if __000000 [], collinear missing max nooutput nopreserve init(__000002) sea
> rch(off) robust vce(robust) continue title(Negative binomial regression) d
> iparm(lnalpha, exp label("alpha")) negh
                                                       – begin ml —
      - if _caller()>=11 {
      - mopt `0'
      = mopt model e2 nbreg_lf (piq_timing_max: piq_timing_max=wlth stky_pr_ro
> temberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open, ) /lnalpha if __000
> 000 [], collinear missing max nooutput nopreserve init(__000002) search(off)
     robust vce(robust) continue title(Negative binomial regression) diparm(ln
> alpha, exp label("alpha")) negh
                                                     – begin mopt <del>– –</del>
        - 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 (piq_timing_max: piq_timi
> ng_max=wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open
> , ) /lnalpha if __000000 [], collinear missing max nooutput nopreserve init
                         robust vce(robust) continue title(Negative binomial
> (__000002) search(off)
> 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] [, B
> RACKET COLlinear MISSing CONTinue lf0(string) INIT(string) CONSTraints(strin
> g) noCNSNOTEs VCE(passthru) NEGH NOPREserve TECHnique(string) ITERID(string)
> CRITtype(string) OBS(numlist max=1 >0) TItle(string) WALDtest(integer -1) S
> VY SUBpop(string) SRSsubpop noSVYadjust SCore(passthru) noOUTput noSCVARS GR
> OUP(varname) ITERPROLOG(string) DERIVPROLOG(string) DERIVH(string) DERIVSCAL
> E(string) DERIV(string) nrderiv GNWMATrix(string) KAUXiliary(numlist int >=0
> ) MAXimize MINimize USERinfo(namelist) PUPDATED Robust CLuster(passthru) mop
> tobj(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 label(
> "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 S
> YNTAXonly * ]
            local goptions `options'
           = local goptions
            SpliceGlobals junk , `goptions'
            = SpliceGlobals junk ,
                       ——— begin _get_diparmopts.SpliceGlobals —
              - syntax name(id="macro name" name=c_diparm) [, diparm(string as
> is) 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) quote
> S
                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
                                         <del>----</del> end _on_colon_parse <del>-</del>
            - 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")) synta
> xonly
                          --- begin _get_diparmopts.SpliceGlobals --
              - syntax name(id="macro name" name=c_diparm) [, diparm(string as
> is) 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(passthru
> ) 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")"'
```

```
- sreturn local diparm`i' `"`diparm`i''"'
  = sreturn local diparm1 `"lnalpha, exp label("alpha")"'
  - }
  - sreturn local k `k'
  = sreturn local k 1
  exit
                                --- end _get_diparmopts --
- forval k = 1/s(k)' {
= forval k = 1/1 {
- local diparm`k' `"`s(diparm`k')'"'
= local diparm1 `"lnalpha, exp label("alpha")"'
- }
- local ndiparm `s(k)'
= local ndiparm 1
- local options `"`s(options)'"'
= local options `"search(off)"'
- if `interactive' & `:length local options' {
= if 0 & 11 {
  local 0 , `options'
  syntax [, NOTANOPTION]
  }
- if `:length local nopreserve' | `:length local score' {
= if 10 | 0 {
- global ML_preserve no
- }
else global ML_preserve yes
- gettoken evaltype spec : spec
- confirm name `evaltype'
= confirm name e2
- gettoken evaluator spec : spec
- global ML_evaltype : copy local evaltype
- if `:length local srssubpop' {
= if 0 {
  local 0 , srssubpop
  syntax [, NONOPTION]
  exit 198
- if `:length local subpop' {
= if 0 {
  local svy svy
  }
- if `:length local svy' {
= if 0 {
```

- forval i = 1/`k' {
= forval i = 1/1 {

```
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 115 {
          - local ++ieq
          - gettoken eq eqspec : eqspec, bind
          - if bsubstr(trim("`eq'"),1,1) == "/" {
          = if bsubstr(trim("(piq_timing_max: piq_timing_max=wlth stky_pr_rote
> mberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open, )"),1,1) == "/" {
            local eq = bsubstr(trim("`eq'"),2,.)
            local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', wor
> d
           }
          - else {
          - gettoken p1 p2 : eq, parse("()")
          - local p2 = trim(`"`p2'"')
          = local p2 = trim(`"piq_timing_max: piq_timing_max=wlth stky_pr_rote
> mberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open, )"')
          - if bsubstr("`p2'",1,1) == "," {
          = if bsubstr("piq_timing_max: piq_timing_max=wlth stky_pr_rotemberg
> stky_pr_calvo wg_ndx_prprice wg_ndx_other open, )",1,1) == "," {
            gettoken comma p2 : p2, parse(",")
            local p2 = trim(`"`p2'"')
           }
          - if `"`p1'`p2'"' == "()" {
          = if `"(piq_timing_max: piq_timing_max=wlth stky_pr_rotemberg stky_p
> r_calvo wg_ndx_prprice wg_ndx_other open, )"' == "()" {
            local spec : subinstr local spec "`eq'" "(eq`ieq':)", word
            }
          - }
          - while `:length local eqspec' {
         = while 9 {
          - local ++ieq
          - gettoken eq eqspec : eqspec, bind
```

```
- if bsubstr(trim("`eq'"),1,1) == "/" {
          = if bsubstr(trim("/lnalpha"),1,1) == "/" {
          - local eq = bsubstr(trim("`eq'"),2,.)
          = local eq = bsubstr(trim("/lnalpha"),2,.)
          - local spec : subinstr local spec "/`eq'" `"("`eq'":`fparm')"', wor
> d
          = local spec : subinstr local spec "/lnalpha" `"("lnalpha":, freepar
> m)"', 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')"', wor
> d
            }
            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(OF
> Fset EXPosure) noneedvarlist numdepvars(0) needequal
          = .__000007 = ._eqlist.new, eqopts(NOCONStant FREEParm) eqargopts(OF
> Fset EXPosure) noneedvarlist numdepvars(0) needequal
            -class {
            -instance:
                                     n_depvars
                     array
                                     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
                     string
                                     gl_options
                                     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
                    array
                                    rmcoll_name
                                    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 EXPosure)
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 C
> OMMONopts(string asis) MARKopts(namelist) SMARKopts(namelist) RMCOLLopts(nam
> elist) RMDCOLLopts(namelist) NUMDEPvars(numlist integer >=0) NEEDEQUAL WTYPE
> S(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 (piq_timing_max: piq_timing_max=wlth stky_pr_rote
> mberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open, ) ("lnalpha":, freepa
> rm)
                                            — 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 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 `""'
```

= local MARKOPTLIST `""'

```
end _optlist.dumpoptions ——
            = local RMDCOLLOPTLIST `"""
            - _parse expand EQ GL : 0, gweight common( `MARKOPTLIST' `SMARKOPT
> LIST' `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 ZER0 `"`ZER0' `tok'"'
              }
              }
              _parse expand EQ GL : ZERO, gweight common( `MARKOPTLIST' `SMARK
> OPTLIST' `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 noneedvarlis
> t 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 noNE
> EDVARLIST 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(60000b5d74c0):piq_timing_max: piq_timing
> _max=wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open
                                    ------ begin _eqspec.parse ----
              - version 9.2
              - _on_colon_parse `0'
              = _on_colon_parse __key(60000b5d74c0):piq_timing_max: piq_timing
> _max=wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open
                                 ------ begin _on_colon_parse -----
                - version 8.2
                - sreturn local before ""
                - sreturn local after ""
                gettoken before after: 0, parse(":") bind match(par) quotes
                - if "`par'" != "" {
                = if "" != "" {
                  local before `"(`before')"'
                  }
                - if `"`before'"' == ":" {
                = if `` key(60000b5d74c0)'' == ":" {
                  sreturn local after `"`after'"'
                  exit
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `""' != ":" & `":piq_timing_max: piq_timing_max=wlth s
> tky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open"' != "" {
                - 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 `":"' != ":" & `"piq_timing_max: piq_timing_max=wlth s
> tky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open"' != "" {
                  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 `"__key(60000b5d74c0)"'
                - sreturn local after `"`after'"'
                = sreturn local after `"piq_timing_max: piq_timing_max=wlth st
> ky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open"'
                                       ----- end _on_colon_parse -----
              - local ol `s(before)'
              = local ol __key(60000b5d74c0)
              - 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) EXPosure(
> passthru)
               - local optlist : list uniq optlist
               - sreturn local optlist `"`optlist'"'
               = sreturn local optlist `"NOCONStant FREEParm OFFset(passthru)
> EXPosure(passthru)"'
               - class exit `"`optlist'"'
               = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosure(p
> assthru)"'
                                ----- end _optlist.dumpoptions -----
             = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPosure(
> passthru)"'
             - local OPTNAMES `"`.`ol'.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 exposure
               - 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 `"piq_timing_max: piq_timing_max=wlth stky_pr_rotember
> g stky_pr_calvo wg_ndx_prprice wg_ndx_other open"'
              - if `"`.wtypes'"' != "" {
              = if `"" != "" {
                local wgt "[`.wtypes']"
              - syntax [anything(equalok)] [if] [in] `wgt' [, `OPTLIST' `NOCON
> S' *]
              = syntax [anything(equalok)] [if] [in] [, NOCONStant FREEParm 0
> FFset(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("piq_timing_max") == ":" {
                di as err "nothing found where equation name expected"
                exit 198
              - if `:list sizeof REST' {
              = if 7 {
              - if strpos(`"`NAME'"', ":") {
              = if strpos(`"piq_timing_max"', ":") {
                capture _msparse `NAME'
                if c(rc) {
                di as err "{bf:`NAME'} invalid equation specification"
                exit 198
                }
                }
              - else {
              - __confirm_eqname `NAME'
              = ._confirm_eqname piq_timing_max
                                 — begin _eqspec._confirm_eqname —
                - version 9.2
                capture confirm number `0'
                = capture confirm number piq_timing_max
```

```
- if (! c(rc)) exit
                - local hasdot = strpos(`"`0'"',".")
                = local hasdot = strpos(`"piq_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 "piq_timing_max" == "=" {
                local REST: copy local anything
                local DEPVARS
                }
              - if (`:length local DEPVARS' == 0 & `.n_depvars') {
              = if (14 == 0 \& 0) {
                di as err "nothing found where depvar expected"
                exit 198
                }
              - if `"`REST'"' == "" {
              = if `"=wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_n
> dx_other open"' == "" {
                if 0`.needequal' {
                if `.needvarlist' | (`:length local DEPVARS' != 0 & `.n_depvar
> s') {
                di as err "equal sign required to separate depvars from indepv
> ars"
                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 piq_timing_max
              - tsunab DEPVARS : `DEPVARS'
              = tsunab DEPVARS : piq_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(int
> eger 32000) NAME(string)]
                - c_local `user' `varlist'
                = c_local DEPVARS piq_timing_max
                - local n : word count `varlist'
                = local n : word count pig_timing_max
                - if `n'>=`min' & `n'<=`max' { exit }</pre>
                = if 1>=1 & 1<=32000 { exit }
                                               ----- end tsunab -----
              - }
              - if `:list sizeof INDEPVARS' {
              = if 6 {
              - fvunab INDEPVARS: `INDEPVARS'
              = fvunab INDEPVARS : wlth stky_pr_rotemberg stky_pr_calvo wg_ndx
> _prprice wg_ndx_other open
                                                  — begin fvunab ————
                - version 11
                - _on_colon_parse `0'
```

```
> alvo wg_ndx_prprice wg_ndx_other open
                                     ----- begin _on_colon_parse ----
                  - version 8.2
                  - sreturn local before ""
                  - sreturn local after ""
                  - gettoken before after : 0, parse(":") bind match(par) quot
> es
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `"(`before')"'
                  - if `"`before'"' == ":" {
                  = if `"INDEPVARS "' == ":" {
                    sreturn local after `"`after'"'
                    exit
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
                  = while `""' != ":" & `": wlth stky_pr_rotemberg stky_pr_cal
> vo wg_ndx_prprice wg_ndx_other open"' != "" {
                  - gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                  - if "`par'" != "" {
                  = if "" != "" {
                    local before `before' (`COLON')
                    local COLON
                  - else if `"`COLON'"' != ":" {
                  = else if `":"' != ":" {
                    local before `"`before' `COLON'"'
                    local COLON
                    }
                  - }
                  - while `"`COLON'"' != ":" & `"`after'"' != "" {
                  = while `":"' != ":" & `" wlth stky_pr_rotemberg stky_pr_cal
> vo wg_ndx_prprice wg_ndx_other open"' != "" {
                    gettoken COLON after : after, parse(":") bind match(par) q
> uotes
                    if "`par'" != "" {
                    local before `before' (`COLON')
                    local COLON
                    else if `"`COLON'"' != ":" {
                    local before `"`before' `COLON'"'
                    local COLON
```

= \_on\_colon\_parse INDEPVARS : wlth stky\_pr\_rotemberg stky\_pr\_c

```
}
                    }
                  - if `"`COLON'"' != ":" {
                  = if `":"' != ":" {
                    di as err "'' found where ':' expected"
                    exit 198
                    }
                  - sreturn local before `"`before'"'
                  = sreturn local before `"INDEPVARS "'
                  - sreturn local after `"`after'"'
                  = sreturn local after `" wlth stky_pr_rotemberg stky_pr_calv
> o wg_ndx_prprice wg_ndx_other open"'
                                         ---- end _on_colon_parse -----
                - local 0 `"`s(before)'"'
                = local 0 `"INDEPVARS "'
                - syntax name(id="macro name" name=user)
                - local 0 `"`s(after)'"'
                = local 0 `" wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prpri
> ce wg_ndx_other open"'
                - syntax [varlist(ts fv default=none)] [, MIN(integer 1) MAX(i
> nteger 32000) NAME(string) ]
                - c_local `user' `varlist'
                = c_local INDEPVARS with stky_pr_rotemberg stky_pr_calvo wg_nd
> x_prprice wg_ndx_other open
               - local n : list sizeof varlist
                - if (`min' <= `n' & `n' <= `max') exit</pre>
                = if (1 <= 6 & 6 <= 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 noco
> nstant 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 = `"piq_timing_max"'
- .depvars = `"`DEPVARS'"'
= .depvars = `"piq_timing_max"'
- .hasequal = `hasequal'
= .hasequal = 1
- .indepvars = `"`:list retok INDEPVARS'"'
```

```
= .indepvars = `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prp
> rice wg_ndx_other open"'
              - .other markvars = `"`:list retok OTHER'"'
              = .other_markvars = `""'
              - nocons = `NOCONS'
              = nocons = 0
              - .if = `"`HOLDIF'"'
              = .if = `"""
              - .in = `"`HOLDIN'"'
              = .in = `"""
              - .wgt = `"`HOLDWGT'"'
              = .wgt = `"""
              - .offset = `"`OFFSET'"'
              = .offset = `""'
              - .exposure = `EXPOSURE'
              = exposure = 0
              - .freeparm = `FREEPARM'
              = . freeparm = 0
              - .options = `"`OPTIONS'"'
              = .options = `""'
                                           ---- end _eqspec.parse ----
            - }
            - 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 noneedvarlis
> t wtypes()
                                             — begin _eqspec.new —
              - version 9.2
              - syntax [, NUMDEPvars(numlist integer >=0 max=1) NEEDEQUAL noNE
> EDVARLIST 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 egspecinew --
            - .eq_list[`i'].parse `.eq_opts_allowed.objkey':`EQ_`i''
            = .eq_list[2].parse __key(60000b5d74c0):"lnalpha":, freeparm
                                      <del>-----</del> begin _eqspec.parse —
              - version 9.2
              - _on_colon_parse `0'
              = _on_colon_parse __key(60000b5d74c0):"lnalpha":, freeparm
                                        --- 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(60000b5d74c0)"' == ":" {
                  sreturn local after `"`after'"'
                  exit
                - while `"`COLON'"' != ":" & `"`after'"' != "" {
                = while `""' != ":" & `":"lnalpha":, freeparm"' != "" {
                - 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 `":"' != ":" & `""lnalpha":, freeparm"' != "" {
                  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 `"__key(60000b5d74c0)"'
                - sreturn local after `"`after'"'
                = sreturn local after `""lnalpha":, freeparm"'
                                      ----- end _on_colon_parse -----
              - local ol `s(before)'
              = local ol __key(60000b5d74c0)
              - 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) EXPosure(
> passthru)
                - }
                - local optlist : list uniq optlist
                - sreturn local optlist `"`optlist'"'
```

```
= sreturn local optlist `"NOCONStant FREEParm OFFset(passthru)
> EXPosure(passthru)"'
                - class exit `"`optlist'"'
                = class exit `"NOCONStant FREEParm OFFset(passthru) EXPosure(p
> assthru)"'
                                 ---- end _optlist.dumpoptions ----
              = local OPTLIST `"NOCONStant FREEParm OFFset(passthru) EXPosure(
> 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 exposure
> "'
                - 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' `NOCON
> S' *]
              = syntax [anything(equalok)] [if] [in] [, NOCONStant FREEParm 0
> FFset(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_depvar
> s') {
              = if 0 | (0 != 0 \& 0) {
                di as err "equal sign required to separate depvars from indepv
> ars"
                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 noco
> nstant 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 <del>---</del>
- 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)" "(strin
- 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)" "(str
> ing 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)" "(str
> ing 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 `""'
                                       —— end _optlist.dumpnames —
            = local RMDCOLLOPTNAMES `""'
            - local OPTLIST3 : subinstr local RMDCOLLOPTLIST "(passthru)" "(st
> ring asis)", all
            - local 0 `", `GL_op'"'
           = local 0 `", "'
            - syntax [, `OPTLIST1' `OPTLIST1s' `OPTLIST2' `OPTLIST3' COLlinear
> 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'"
```

- class exit `"`namelist'"'

```
}
 - 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 __000006
- if "`collinear'" == "" {
= if "collinear" == "" {
  .`eqlist'.rmcoll $ML_samp, replace `missing'
- else if "`missing'" == "" {
= else if "missing" == "" {
  .`eqlist'.markout $ML_samp, replace
```

}

```
}
- if "$ML_samp" != "$ML_sample" {
= if " 000006" != " 000006" {
  `vv' quietly replace $ML_sample = 0 if `markuse' & !$ML_samp
 drop `markuse'
- local eq_n = `.`eqlist'.eq count'
                                    — begin _eqlist.eq ——
  - version 9.2
  - args item idx
 - if "`item'" == "count" {
 = if "count" == "count" {
 - sreturn local value `"`.n_eq'"'
 = sreturn local value `"2"'
  - class exit `"`s(value)'"'
  = class exit `"2"'
                                  ─── end _eqlist.eq ───
= local eq_n = 2
- global ML_n : copy local eq_n
- global ML_dim = `.`eqlist'.dim'
                                   — begin _eqlist.dim —
  - version 9.2
  syntax
  - local neq = `.eq count'
                                     – begin _eqlist.eq <del>---</del>
    - 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 INDEPvars
 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' `o
> ther' `nocons' `offset' `exposure' `freeparm' `options'
                  = local item indepvars
                  - if `:list sizeof item' != 1 {
                  = if 1 != 1 {
                    error 198
                  - c_local `c_item' `item'
                  = c_local item indepvars
                              — end _eqspec._check_eq_item_name —
                - local value `"`.`item''"'
                = local value `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_pr
> price wg_ndx_other open"'
                - sreturn local value `"`value'"'
                = sreturn local value `"wlth stky_pr_rotemberg stky_pr_calvo w
> g_ndx_prprice wg_ndx_other open"'
                - class exit `"`value'"'
                = class exit `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prp
> rice wg_ndx_other open"'
```

```
---- end _eqspec.item ----
              - class exit `"`s(value)'"'
              = class exit `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prpri
> ce wg_ndx_other open"'
                                             ----- end _eqlist.eq -
            = local xvarsi `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prpri
> ce wg_ndx_other open"'
            - local noconsi `"`.eq nocons `i''"'
                                            ---- begin _eqlist.eq ----
              - version 9.2
              args item idx
              - if "`item'" == "count" {
              = if "nocons" == "count" {
                sreturn local value `"`.n_eq'"'
                class exit `"`s(value)'"'
              - else if 0 < `idx' & `idx' <= `.n_eq' {</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 noconsi `"0"'
- local dim = `dim' + `:list sizeof xvarsi'
= local dim = + 6
- 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 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 -----
            = 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 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 noconsi `"0"'
            - local dim = `dim' + `:list sizeof xvarsi'
            = local dim = 7 + 0
            - if "`noconsi'" == "0" {
            = if "0" == "0" {
            - local ++dim
            - }
```

```
- sreturn local value `"`dim'"'
            = sreturn local value `"8"'
            - class exit `"`s(value)'"'
            = class exit `"8"'
                                             ── end _eqlist.dim ─
          = global ML_dim = 8
          - 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 I
> F 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' `oth
> er' `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 <del>-</del>
              - local value `"`.`item''"'
              = local value `"piq_timing_max"'
              - sreturn local value `"`value'"'
              = sreturn local value `"piq_timing_max"'
              - class exit `"`value'"'
              = class exit `"piq_timing_max"'
                                              —— end _eqspec.item ——
            - class exit `"`s(value)'"'
            = class exit `"piq_timing_max"'
                                               ---- end _eqlist.eq -----
          = local depvars piq_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 I
> F 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' `oth
> er' `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 `"piq_timing_max"'
              - sreturn local value `"`value'"'
              = sreturn local value `"piq_timing_max"'
              - class exit `"`value'"'
              = class exit `"piq_timing_max"'
                                         ----- end _eqspec.item -----
            - class exit `"`s(value)'"'
            = class exit `"piq_timing_max"'
                                            ----- end _eqlist.eq -----
          = local eq piq_timing_max
          - if !`:length local eq' {
          = if !14 {
            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 piq_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 -----
              - 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 I
> F 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' `oth
> er' `nocons' `offset' `exposure' `freeparm' `options'
                = local item
                               indepvars
                - if `:list sizeof item' != 1 {
                = if 1 != 1 {
                  error 198
                - c_local `c_item' `item'
                = c_local item indepvars
                             ---- end _eqspec._check_eq_item_name --
              - local value `"`.`item''"'
              = local value `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prpr
> ice wg_ndx_other open"'
              - sreturn local value `"`value'"'
              = sreturn local value `"wlth stky_pr_rotemberg stky_pr_calvo wg_
> ndx_prprice wg_ndx_other open"'
              - class exit `"`value'"'
              = class exit `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prpri
> ce wg_ndx_other open"'
                                              - end _eqspec.item -
            - class exit `"`s(value)'"'
            = class exit `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice
> wg_ndx_other open"'
```

```
– end _eqlist.eq <del>-----</del>
          = fvexpand wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prprice wg_nd
> x_{other open if __000006}
          - if "`r(tsops)'" == "true" {
          = if "" == "true" {
            global ML_preserve no
            }
          - local eq_rhs`i' `"`r(varlist)'"'
          = local eq_rhs1 `"wlth stky_pr_rotemberg stky_pr_calvo wg_ndx_prpric
> e wg_ndx_other open"'
          - local eq_nocons`i' `.`eqlist'.eq nocons `i''
                                              — begin _eqlist.eq ———
            - version 9.2
            args item idx
            - if "`item'" == "count" {
            = if "nocons" == "count" {
              sreturn local value `"`.n_eq'"'
              class exit `"`s(value)'"'
            - else if 0 < `idx' & `idx' <= `.n_eq' {</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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 <del>---</del>
              - 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 <del>---</del>
            - 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 I
> F 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' `oth
> er' `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 piq_timing_max
          - local eq_names `eq_names' `eq'
```

```
= local eq_names piq_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 = 1/6 {
          - gettoken xvar TMP : TMP
          - local colna `"`colna' `eq':`xvar'"'
          = local colna `" piq_timing_max:wlth"'
          - }
          - gettoken xvar TMP : TMP
          - local colna `"`colna' `eq':`xvar'"'
          = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rotember
> g"'
          - }
          - gettoken xvar TMP : TMP
          - local colna `"`colna' `eq':`xvar'"'
          = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rotember
> g piq_timing_max:stky_pr_calvo"'
          - }
          - gettoken xvar TMP : TMP
          - local colna `"`colna' `eq':`xvar'"'
          = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rotember
> g piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice"'
          - }
          - gettoken xvar TMP : TMP
          - local colna `"`colna' `eq':`xvar'"'
          = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rotember
> g piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_max:
> wg_ndx_other"'
          - }
          - gettoken xvar TMP : TMP
          - local colna `"`colna' `eq':`xvar'"'
          = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rotember
> g piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_max:
> wg_ndx_other piq_timing_max:open"'
          - }
          - if `eq_freeparm`i'' {
          = if 0 {
            if `nxvars' {
            di as err "{it:xvars} not allowed with option {bf:freeparm}"
            exit 198
            }
            if strpos(`"`eq'"', ":") {
            local colna `"`colna' /`eq'"'
```

```
}
            else {
            local colna `"`colna' /:`eq'"'
            }
          - else if !`eq nocons`i'' {
          = else if !0 {
          - local colna `"`colna' `eq':_cons"'
          = local colna `" piq_timing_max:wlth piq_timing_max:stky_pr_rotember
> g piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_max:
> wg_ndx_other piq_timing_max:open piq_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 —
              - 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 I
```

```
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 piq_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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 <del>---</del>
          = 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 <del>-----</del>
              - 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 I
> F 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' `oth
> er' `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 I
> F 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' `oth
> er' `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 <del>---</del>
          = local eq_freeparm2 1
          - local lhs `lhs' `depvars'
          = local lhs piq_timing_max
          - local eq_names `eq_names' `eq'
          = local eq_names piq_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 `" piq_timing_max:wlth piq_timing_max:stky_pr_rotember
> g piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_max:
> wg_ndx_other piq_timing_max:open piq_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)
- mat iv0' = syminv(v0')
= mat __00000A = syminv(__000009)
- global ML_rank0 = colsof(`v0') - diag0cnt(`iv0')
= global ML_rank0 = colsof(__000009) - diag0cnt(__00000A)
- if !`:length local lf0' & !missing(e(ll)) {
= if !0 & !missing(e(ll)) {
- local lf0 `=colsof(`ub0')' `e(ll)'
= local lf0 2 -442.7295221007071
- }
- local ub0
- }
- if `:length local init' {
= if 8 {
```

```
- tempname b0
          - local dim : list sizeof colna
          - \text{ matrix `b0'} = J(1, `dim', 0)
          = matrix ___00000B = J(1,8,0)
          - matrix colna `b0' = `colna'
          = matrix colna __00000B = piq_timing_max:wlth piq_timing_max:stky_p
> r_rotemberg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_t
> iming_max:wg_ndx_other piq_timing_max:open piq_timing_max:_cons /:lnalpha
          - `vv' _mkvec `b0', from(`init') update first error("initial vector"
> )
          = version 18: _mkvec __00000B, from(__000002) update first error("in
> itial 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 vector
              exit 503
              }
            - local matin `matout'
            = local matin __00000B
            - }
            - if `"`error'"'!="" {
            = if `"initial vector"'!="" {
```

```
- local error `"`error': "'
= local error `"initial vector: "'
- }
tempname mat
- if `"`from'"'!="" {
= if `" 000002"'!="" {
- From `from'
= From ___000002
                               ---- begin _mkvec.From -
  - gettoken from 0 : 0, parse(",") bind
  sret clear
  - sret local from `from'
  = sret local from __000002
  - if `"`0'"'!="" {
  = if `""'!="" {
    syntax [, COPY SKIP ]
  - sret local copy `copy'
  = sret local copy
  - sret local skip `skip'
  = sret local skip
                                   — end _mkvec.From —
- local copy `s(copy)'
= local copy
- local skip `s(skip)'
= local skip
- if "`copy'"!="" {
= if ""!="" {
  CopyMat `mat' `"`error'"' `s(from)'
  if `"`colname'"'!="" {
  local dim : list sizeof colname
  if `dim' != colsof(matrix(`mat')) {
  di in red `"`error'matrix must "' `"be dimension "' `dim'
  exit 503
  `vv' mat colnames `mat' = `colname'
  }
  }
- else {
- `vv' BuildMat `mat' `"`error'"' "`skip'" `s(from)'
= version 18: BuildMat __00000C `"initial vector: "' "" __000002
                             — begin _mkvec.BuildMat -
  - local vv : display "version " string(_caller()) ":"
```

```
- version 6
              - args matall error skip
              - macro shift 3
              - tokenize `"`*'"', parse(" =")
              = tokenize `"__000002"', parse(" =")
              tempname matadd
              - local i 1
              - while "``i''"!="" {
              = while " 000002"!="" {
              - local k = i' + 1
              = local k = 1 + 1
              - if "``k''"=="=" {
              = if ""=="=" {
                local j = i' + 2
                `vv' MkMat `matadd' ``i'' ``j'' `skip'
                local i = i' + 3
                }
              - else {
              - ChkMat `matadd' ``i'' `"`error'"'
              = ChkMat __00000D __000002 `"initial vector: "'
                                          ---- begin _mkvec.ChkMat ----

    args matout matin error

                - capture di matrix(`matin'[1,1])
                = capture di matrix(__000002[1,1])
                - if _rc {
                  capture confirm number `matin'
                  if _rc {
                  di in red `"`error'matrix `matin' not found"'
                  exit 111
                  di in red `"`error'list of numbers requires copy option"'
                  exit 198
                - if matrix(rowsof(`matin')!=1 & colsof(`matin')!=1) {
                = if matrix(rowsof(__000002)!=1 & colsof(__000002)!=1) {
                  di in red "`matin' " matrix(rowsof(`matin')) " x " matrix(co
> lsof(`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 `"piq_timing_max:wlth piq_timing_max:stky_pr_rotemberg piq_ti
> ming_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_max:wg_ndx_o
> ther piq_timing_max:open piq_timing_max:_cons /lnalpha"'!="" {
            - `vv' ChkNames `mat' "`matin'" `"`colname'"' `"`error'"' "`skip'"
   "`first'"
            = version 18: ChkNames __00000C "__00000B" `"piq_timing_max:wlth p
> iq_timing_max:stky_pr_rotemberg piq_timing_max:stky_pr_calvo piq_timing_max:
> wg_ndx_prprice piq_timing_max:wg_ndx_other piq_timing_max:open piq_timing_ma
> x:_cons /lnalpha"' `"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(\_\_00000C))

- if "`first'"!="" {
= if "first"!="" {

- gettoken name : names

- local eq1 = bsubstr(`"`name'"',1,index(`"`name'"',":"))

Thursday, May 8, 2025 at 8:06 PM Page 644

```
= local eq1 = bsubstr(`"piq_timing_max:wlth"',1,index(`"piq_timi
> ng_max:wlth"',":"))
              - }
              tempname new fill x
              - local k : list sizeof names
              - if "`matin'"!="" {
              = if " 00000B"!="" {
              - mat `new' = `matin'
              = mat ___00000D = ___00000B
              - }
              - else {
                mat `new' = J(1, k', 0)
                `vv' mat colnames `new' = `names'
                }
              - \text{ mat `fill'} = J(1, k', 0)
              = mat __00000E = J(1,8,0)
              - local i 1
              - while `i' <= `dim' {</pre>
              = while 1 <= 8 {</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 "piq_timing_max" == "/" {
                local spec "/`name'"
                }
              - else {
              - local spec "`eq':`name'"
              = local spec "piq_timing_max:wlth"
              - if (usubstr("`eq'",1,1) != "/") {
              = if (usubstr("piq_timing_max",1,1) != "/") {
              - local sspec "/`eq':`name'"
              = local sspec "/piq_timing_max:wlth"
              - }
              - }
              - local oname
              local ospec
              - capture _msparse `name', noomit
              = capture _msparse wlth, noomit
              - if c(rc) == 0 {
              - if r(omit) {
                local oname `"`r(stripe)'"'
                local ospec "'eq':'oname'"
```

```
}
              - }
              - `vv' local j = colnumb(`new',`"`spec'"')
              = version 18: local j = colnumb(__00000D,`"piq_timing_max:wlth"'
> )
              - if `j' == . & "`oname'" != "" {
              = if 1 == . & "" != "" {
                `vv' local j = colnumb(`new',`"`ospec'"')
              - if `j' == . & "`sspec'" != "" {
              = if 1 == . & "/piq_timing_max:wlth" != "" {
                `vv' local j = colnumb(`new',`"`sspec'"')
              - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
              = if 1==. & `"piq_timing_max"'=="_" & `"piq_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,`i'] {
              = 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':`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 _{-}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 "spe
> cify skip option if necessary"
                exit 111
                }
              - local i = i' + 1
              = local i = 1 + 1
              - }
              - while `i' <= `dim' {</pre>
              = while 2 <= 8 {</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 "piq_timing_max" == "/" {
                local spec "/`name'"
                }
              - else {
              - local spec "`eq':`name'"
              = local spec "piq_timing_max:stky_pr_rotemberg"
              - if (usubstr("`eq'",1,1) != "/") {
              = if (usubstr("piq_timing_max",1,1) != "/") {
              - local sspec "/`eq':`name'"
              = local sspec "/piq_timing_max:stky_pr_rotemberg"
              - }
              - }

    local oname

              local ospec
              - capture _msparse `name', noomit
              = capture _msparse stky_pr_rotemberg, noomit
              - if c(rc) == 0 {
              - if r(omit) {
                local oname `"`r(stripe)'"'
                local ospec "'eq':'oname'"
                }
              - `vv' local j = colnumb(`new',`"`spec'"')
              = version 18: local j = colnumb(__00000D,`"piq_timing_max:stky_p
> r_rotemberg"')
              - if `j' == . & "`oname'" != "" {
              = if 2 == . & "" != "" {
                `vv' local j = colnumb(`new',`"`ospec'"')
                }
```

```
- if `j' == . & "`sspec'" != "" {
              = if 2 == . & "/piq_timing_max:stky_pr_rotemberg" != "" {
                `vv' local j = colnumb(`new',`"`sspec'"')
              - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
              = if 2==. & `"piq_timing_max"'=="_" & `"piq_timing_max:"'!="" {
                `vv' local j = colnumb(`new',`"`eq1'`name'"')
                if `j' == . & "`oname'" != "" {
                `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                }
              - if `j'!=. {
              = if 2!=. {
              - if `fill'[1,`j'] {
              = if __00000E[1,2] {
                _ms_parse_parts `name'
                if !r(omit) {
                if "`eq'"=="_" {
                di in red `"`error'duplicate "' `"entries for `name' found"'
                }
                else di in red `"`error'"' `"duplicate entries for `eq':`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 __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 "spe
> cify skip option if necessary"
                exit 111
                }
              - local i = i' + 1
              = local i = 2 + 1
              - }
              - while `i' <= `dim' {</pre>
```

```
= while 3 <= 8 {
              - 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 "piq_timing_max" == "/" {
                local spec "/`name'"
                }
              - else {
              - local spec "`eq':`name'"
              = local spec "piq_timing_max:stky_pr_calvo"
              - if (usubstr("`eq'",1,1) != "/") {
              = if (usubstr("piq_timing_max",1,1) != "/") {
              - local sspec "/`eq':`name'"
              = local sspec "/piq_timing_max:stky_pr_calvo"
              - }
              - }
              - local oname
              local ospec
              - capture _msparse `name', noomit
              = capture _msparse stky_pr_calvo, noomit
              - if c(rc) == 0 {
              - if r(omit) {
                local oname `"`r(stripe)'"'
                local ospec "`eq':`oname'"
                }
              - `vv' local j = colnumb(`new',`"`spec'"')
              = version 18: local j = colnumb(__00000D,`"piq_timing_max:stky_p
> r_calvo"')
              - if `j' == . & "`oname'" != "" {
              = if 3 == . & "" != "" {
                `vv' local j = colnumb(`new',`"`ospec'"')
              - if `j' == . & "`sspec'" != "" {
              = if 3 == . & "/piq_timing_max:stky_pr_calvo" != "" {
                `vv' local j = colnumb(`new',`"`sspec'"')
              - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
              = if 3==. & `"piq_timing_max"'=="_" & `"piq_timing_max:"'!="" {
                `vv' local j = colnumb(`new',`"`eq1'`name'"')
                if `j' == . & "`oname'" != "" {
                `vv' local j = colnumb(`new',`"`eq1'`oname'"')
```

```
}
                }
              - if `j'!=. {
              = if 3!=. {
              - if `fill'[1, `j'] {
              = if 00000E[1,3] {
                _ms_parse_parts `name'
                if !r(omit) {
                if "`eq'"=="_" {
                di in red `"`error'duplicate "' `"entries for `name' found"'
                else di in red `"`error'"' `"duplicate entries for `eq':`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 _{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 "spe
> cify skip option if necessary"
                exit 111
              - local i = i' + 1
              = local i = 3 + 1
              - }
              - while `i' <= `dim' {</pre>
              = while 4 <= 8 {
              - 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 "piq_timing_max" == "/" {
```

```
local spec "/`name'"
                }
              - else {
              - local spec "`eq':`name'"
              = local spec "piq_timing_max:wg_ndx_prprice"
              - if (usubstr("`eq'",1,1) != "/") {
              = if (usubstr("piq_timing_max",1,1) != "/") {
              - local sspec "/`eq':`name'"
              = local sspec "/piq_timing_max:wg_ndx_prprice"
              - }
              - }
              - local oname
              local ospec
              - capture _msparse `name', noomit
              = capture _msparse wg_ndx_prprice, 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,`"piq_timing_max:wg_ndx
> _prprice"')
              - if `j' == . & "`oname'" != "" {
              = if 4 == . & "" != "" {
                `vv' local j = colnumb(`new',`"`ospec'"')
              - if `j' == . & "`sspec'" != "" {
              = if 4 == . & "/piq_timing_max:wg_ndx_prprice" != "" {
                `vv' local j = colnumb(`new',`"`sspec'"')
                }
              - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
              = if 4==. & `"piq_timing_max"'=="_" & `"piq_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':`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 \__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 "spe
> cify skip option if necessary"
                exit 111
                }
              - local i = i' + 1
              = local i = 4 + 1
              - while `i' <= `dim' {</pre>
              = while 5 <= 8 {
              - mat `x' = `mat'[1,`i'..`i']
              = mat __00000F = __00000C[1,5..5]
              - local eq : coleq `x'
              = local eq : coleq __00000F
              - local name : colname `x'
              = local name : colname __00000F
              - if "`eq'" == "/" {
              = if "piq_timing_max" == "/" {
                local spec "/`name'"
                }
              - else {
              - local spec "'eq':'name'"
              = local spec "piq_timing_max:wg_ndx_other"
              - if (usubstr("`eq'",1,1) != "/") {
              = if (usubstr("piq_timing_max",1,1) != "/") {
              - local sspec "/`eq':`name'"
              = local sspec "/piq_timing_max:wg_ndx_other"
```

```
- }
              - }
              local oname
              local ospec
              - capture _msparse `name', noomit
              = capture _msparse wg_ndx_other, 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,`"piq_timing_max:wg_ndx
> _other"')
              - if `j' == . & "`oname'" != "" {
              = if 5 == . & "" != "" {
                `vv' local j = colnumb(`new',`"`ospec'"')
              - if `j' == . & "`sspec'" != "" {
              = if 5 == . & "/piq_timing_max:wg_ndx_other" != "" {
                `vv' local j = colnumb(`new',`"`sspec'"')
                }
              - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
              = if 5==. & `"piq_timing_max"'=="_" & `"piq_timing_max:"'!="" {
                `vv' local j = colnumb(`new',`"`eq1'`name'"')
                if `j' == . & "`oname'" != "" {
                `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                }
              - if `j'!=. {
              = if 5!=. {
              - if `fill'[1,`j'] {
              = if __00000E[1,5] {
                _ms_parse_parts `name'
                if !r(omit) {
                if "`eq'"=="_" {
                di in red `"`error'duplicate "' `"entries for `name' found"'
                else di in red `"`error'"' `"duplicate entries for `eq':`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 00000E[1,5] = 1
              - mat `new'[1, `j'] = `mat'[1, `i']
              = mat __00000D[1,5] = __00000C[1,5]
              - }
              - else if "`skip'"=="" {
              = else if ""=="" {
                if "`eq'"=="_" {
                local spec : copy local name
                }
                di in red `"`error'extra parameter "' `"`spec' found"' _n "spe
> cify skip option if necessary"
                exit 111
                }
              - local i = i' + 1
              = local i = 5 + 1
              - }
              - while `i' <= `dim' {</pre>
              = while 6 <= 8 {</pre>
              - mat `x' = `mat'[1,`i'..`i']
              = mat __00000F = __00000C[1,6..6]
              - local eq : coleq `x'
              = local eq : coleq __00000F
              - local name : colname `x'
              = local name : colname __00000F
              - if "`eq'" == "/" {
              = if "piq_timing_max" == "/" {
                local spec "/`name'"
                }
              - else {
              - local spec "'eq':'name'"
              = local spec "piq_timing_max:open"
              - if (usubstr("`eq'",1,1) != "/") {
              = if (usubstr("piq_timing_max",1,1) != "/") {
              - local sspec "/`eq':`name'"
              = local sspec "/piq_timing_max:open"
              - }
              - }
              local oname
              local ospec
              - capture _msparse `name', noomit
              = capture _msparse open, noomit
              - if c(rc) == 0 {
              - if r(omit) {
                local oname `"`r(stripe)'"'
```

```
local ospec "`eq':`oname'"
                }
              - }
              - `vv' local j = colnumb(`new',`"`spec'"')
              = version 18: local j = colnumb(__00000D,`"piq_timing_max:open"'
> )
              - if `j' == . & "`oname'" != "" {
              = if 6 == . & "" != "" {
                `vv' local j = colnumb(`new',`"`ospec'"')
              - if `j' == . & "`sspec'" != "" {
              = if 6 == . & "/piq_timing_max:open" != "" {
                `vv' local j = colnumb(`new',`"`sspec'"')
                }
              - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
              = if 6==. & `"piq_timing_max"'=="_" & `"piq_timing_max:"'!="" {
                `vv' local j = colnumb(`new',`"`eq1'`name'"')
                if `j' == . & "`oname'" != "" {
                `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                }
              - if `j'!=. {
              = if 6!=. {
              - if `fill'[1,`j'] {
              = if __00000E[1,6] {
                _ms_parse_parts `name'
                if !r(omit) {
                if "`eq'"=="_" {
                di in red `"`error'duplicate "' `"entries for `name' found"'
                else di in red `"`error'"' `"duplicate entries for `eq':`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 __00000E[1,6] = 1
              - mat `new'[1, `j'] = `mat'[1, `i']
              = mat __00000D[1,6] = __00000C[1,6]
              - }
              - else if "`skip'"=="" {
              = else if ""=="" {
                if "`eq'"=="_" {
```

```
local spec : copy local name
                }
                di in red `"`error'extra parameter "' `"`spec' found"' _n "spe
> cify skip option if necessary"
                exit 111
                }
              - local i = i' + 1
              = local i = 6 + 1
              - while `i' <= `dim' {</pre>
              = while 7 <= 8 {</pre>
              - mat `x' = `mat'[1,`i'..`i']
              = mat __00000F = __00000C[1,7..7]
              - local eq : coleq `x'
              = local eq : coleq __00000F
              - local name : colname `x'
              = local name : colname __00000F
              - if "`eq'" == "/" {
              = if "piq_timing_max" == "/" {
                local spec "/`name'"
                }
              - else {
              - local spec "'eq':'name'"
              = local spec "piq_timing_max:_cons"
              - if (usubstr("`eq'",1,1) != "/") {
              = if (usubstr("piq_timing_max",1,1) != "/") {
              - local sspec "/`eq':`name'"
              = local sspec "/piq_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,`"piq_timing_max:_cons"
> ')
              - if `j' == . \& "`oname'" != "" {
              = if 7 == . & "" != "" {
                `vv' local j = colnumb(`new',`"`ospec'"')
```

```
- if `j' == . & "`sspec'" != "" {
              = if 7 == . & "/piq_timing_max:_cons" != "" {
                `vv' local j = colnumb(`new',`"`sspec'"')
                }
              - if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
              = if 7==. & `"piq_timing_max"'=="_" & `"piq_timing_max:"'!="" {
                `vv' local j = colnumb(`new',`"`eq1'`name'"')
                if `j' == . & "`oname'" != "" {
                `vv' local j = colnumb(`new',`"`eq1'`oname'"')
                }
              - if `j'!=. {
              = if 7!=. {
              - if `fill'[1,`j'] {
              = if __00000E[1,7] {
                _ms_parse_parts `name'
                if !r(omit) {
                if "`eq'"==" " {
                di in red `"`error'duplicate "' `"entries for `name' found"'
                else di in red `"`error'"' `"duplicate entries for `eq':`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 _{-}00000E[1,7] = 1
              - mat `new'[1, `j'] = `mat'[1, `i']
              = mat __00000D[1,7] = __00000C[1,7]
              - }
              - else if "`skip'"=="" {
              = else if ""=="" {
                if "`eq'"=="_" {
                local spec : copy local name
                di in red `"`error'extra parameter "' `"`spec' found"' _n "spe
> cify skip option if necessary"
                exit 111
                }
              - local i = i' + 1
              = local i = 7 + 1
              - }
```

```
- while `i' <= `dim' {</pre>
= while 8 <= 8 {
- mat `x' = `mat'[1,`i'...`i']
= mat __00000F = __00000C[1,8..8]
- 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 8 == . & "" != "" {
  `vv' local j = colnumb(`new',`"`ospec'"')
- if `j' == . & "`sspec'" != "" {
= if 8 == . & "/piq_timing_max:_cons" != "" {
  `vv' local j = colnumb(`new',`"`sspec'"')
  }
- if `j'==. & `"`eq'"'=="_" & `"`eq1'"'!="" {
= if 8==. & `"/"'=="_" & `"piq_timing_max:"'!="" {
  `vv' local j = colnumb(`new',`"`eq1'`name'"')
  if `j' == . & "`oname'" != "" {
  `vv' local j = colnumb(`new',`"`eq1'`oname'"')
  }
  }
```

```
- if `j'!=. {
              = if 8!=. {
              - if `fill'[1,`j'] {
              = if __00000E[1,8] {
                _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':`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 \__00000E[1,8] = 1
              - mat `new'[1, `j'] = `mat'[1, `i']
              = mat __00000D[1,8] = __00000C[1,8]
              - }
              - else if "`skip'"=="" {
              = else if ""=="" {
                if "`eq'"=="_" {
                local spec : copy local name
                di in red `"`error'extra parameter "' `"`spec' found"' _n "spe
> cify skip option if necessary"
                exit 111
              - local i = i' + 1
              = local i = 8 + 1
              - }
              - while `i' <= `dim' {</pre>
              = while 9 <= 8 {
                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':`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 "spe
> cify skip option if necessary"
                exit 111
                local i = i' + 1
              - mat `fill' = `fill'*`fill''
              = mat __00000E = __00000E*__00000E'
              sret clear
              - sret local k_fill = `fill'[1,1]
              = sret local k_fill = __00000E[1,1]
              - mat `mat' = `new'
              = mat __00000C = __00000D
                                          — end _mkvec.ChkNames —
            - local fill `s(k_fill)'
            = local fill 8
            - }
            - }
            - }
            - 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 "8"!="" {
            - sret local k_fill `fill'
            = sret local k_fill 8
```

```
- }
            - 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
                                                    oxdot end oxdotmkvec oxdot
          - }
          - tempname bomit
          - matrix `bomit' = J(1,`:list sizeof colna',0)
          = matrix ___00000C = J(1,8,0)
          - matrix colna `bomit' = `colna'
          = matrix colna __00000C = piq_timing_max:wlth piq_timing_max:stky_p
> r_rotemberg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_t
> iming_max:wg_ndx_other piq_timing_max:open piq_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 : `wt'
          = _vce_parse, argoptlist(CLuster) optlist(OIM OPG Robust) old : , vc
> e(robust) robust
                                           ----- begin _vce_parse -----
            - version 10
            - _on_colon_parse `0'
            = _on_colon_parse , argoptlist(CLuster) optlist(OIM OPG Robust) ol
> d : , 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) quote
> S
              - 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) quote
> S
```

```
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 R
> obust) 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(n
> amelist) 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 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'
= .___00000D.addopt OPG
                            --- begin _optlist.addopt ----
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("OPG")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
  - .options.Arrpush "`optspec'"
 = .options.Arrpush "OPG"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "opg"
                           ----- end _optlist.addopt ----
- }
- .`o'.addopt `name'
= ___00000D.addopt Robust
                      ------ begin _optlist.addopt ------
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("Robust")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
    }
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "Robust"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "robust"
                               — end _optlist.addopt ——
- .`a' = ._optlist.new
```

```
= .__00000E = ._optlist.new
- local argoptlist : list uniq argoptlist
- foreach name of local argoptlist {
- .`a'.addopt `name'
= ___00000E.addopt CLuster
                           ---- begin _optlist.addopt ---
  - version 9
  - syntax name(name=optspec) [, PASSthru]
  - local mname = lower("`optspec'")
  = local mname = lower("CLuster")
  - if "`passthru'" != "" {
  = if "" != "" {
    local optspec `optspec'(passthru)
  - .options.Arrpush "`optspec'"
  = .options.Arrpush "CLuster"
  - .names.Arrpush "`mname'"
  = .names.Arrpush "cluster"
                              --- end _optlist.addopt ----
- local OPTNAMES `"`.`o'.dumpnames'"'
                      ----- begin _optlist.dumpnames ---
  - version 9
  - forval i = 1/`.names.arrnels' {
  = forval i = 1/3 {
  - local namelist `namelist' `.names[`i']'
  = local namelist oim
  - local namelist `namelist' `.names[`i']'
  = local namelist oim opg
  - local namelist `namelist' `.names[`i']'
  = local namelist oim opg robust
  - local namelist : list uniq namelist
  - sreturn local namelist `"`namelist'"'
  = sreturn local namelist `"oim opg robust"'
  - class exit `"`namelist'"'
  = class exit `"oim opg robust"'
                            — end _optlist.dumpnames —
= local OPTNAMES `"oim opg robust"'
- local ARGOPTNAMES `"`.`a'.dumpnames'"'
```

```
— begin _optlist.dumpnames —
              - version 9
              - forval i = 1/`.names.arrnels' {
              = forval i = 1/1 {
              - local namelist `namelist' `.names[`i']'
              = local namelist cluster
              - }
              local namelist : list uniq namelist
              - sreturn local namelist `"`namelist'"'
              = sreturn local namelist `"cluster"'
              - class exit `"`namelist'"'
              = class exit `"cluster"'
                                       --- end _optlist.dumpnames --
            = local ARGOPTNAMES `"cluster"'
            - local AND : list OPTNAMES & ARGOPTNAMES
            - if `:list sizeof AND' {
            = if 0 {
              di as err "vcetype '`:word 1 of `AND''' specified twice"
              exit 198
              }

    local pwallowed : list uniq pwallowed

            - local pwlist robust cluster
            - foreach n of local pwallowed {
              local lc = lower("`n'")
              local pwlist `pwlist' `lc'
              }
            - if "`old_is_ok'" != "" {
            = if "old is ok" != "" {
            local ROBUST robust
            - if `:list ROBUST in OPTNAMES' {
            = if 1 {

    local robust Robust

            - }

    local CLUSTER cluster

            - if `:list CLUSTER in ARGOPTNAMES' {
            = if 1 {
            - local cluster CLuster(varname)
            - }
            - }
            - local 0 `"`user'"'
            = local 0 `" , vce(robust) robust"'
            - syntax [fw aw pw iw] [, VCE(string asis) `robust' `cluster' ]
            = syntax [fw aw pw iw] [, VCE(string asis) Robust CLuster(varname)
> ]
```

```
- if `"`vce'"' != "" {
= if `"robust"' != "" {
- gettoken name args : vce, parse(" ,")
local args: list retok args
- capture ParseVCE `o' `a' , `name'
= capture ParseVCE __00000D __00000E , robust
                       --- begin _vce_parse.ParseVCE ----
  - gettoken 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'
```

```
}
              - }
              - 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","oim"
> ,"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'" != "" {
```

continue, break

```
if !`:list args == cluster' {
  di as err "options cluster() and vce(cluster) are in conflict"
  exit 100
  }
  }
- else if "`cluster'" != "" & !inlist("`name'","eim","oim") {
= else if "" != "" & !inlist("robust","eim","oim") {
  opts_exclusive "cluster() vce(`name')"
- if `"`args'"' != "" {
= if `""' != "" {
  if ! `:list name in ARGOPTNAMES' {
  di as err "invalid vce() option"
  exit 198
  }
  if "`name'" == "hc2" {
  confirm var `args'
  unab args : `args'
  local markout `args'
  return local vceargs `"`:list retok args'"'
  }
- else if `:list name in ARGOPTNAMES' {
= else if 0 {
  if "`noargopt_is_ok'" == "" {
  di as err "invalid vce() option"
  exit 198
  }
  }
- }
- else {
  if "`weight'" == "pweight" | "`robust'" != "" {
  local vce robust
  }
  if "`cluster'" != "" {
  local vce cluster
  local args `cluster'
  local markout `cluster'
  return local vce `"`vce'"'
  return local vceargs `"`args'"'
- if "`return(vce)'" != "" {
= if "robust" != "" {
- if `"`return(vceargs)'"' != "" {
```

```
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
  }
```

= if `"" != "" {

```
else {
            global ML_grp : tempvar
            if `"`moptobj'"' != "" {
            global ML_grp `moptobj'$ML_grp
            }
            quietly egen $ML_grp = group(`group')
            if ! `:length local cluster' {
            local cluster : copy global ML_grp
            }
            else {
            if ! `:length local cluster' {
            local cluster : copy global ML_group
            }
            }
            }
          - if "$ML_samp" != "$ML_sample" {
          = if "__000006" != "__000006" {
            quietly replace $ML_samp = 0 if $ML_samp & $ML_sample == 0
            }
          - if `:length local vce' == 0 {
          = if 6 == 0 {
            if `"`technique'"' == "bhhh" {
            local vce opg
            }
            else local vce oim
          - if inlist("`vce'", "robust", "cluster") & bsubstr("`evaltype'",1,1
> ) == "d" {
          = if inlist("robust", "robust", "cluster") & bsubstr("e2",1,1) == "d
> " {
            local optname = cond("`svy'"=="","vce(`vce')","svy")
            di as err "option `optname' is not allowed with evaltype `evaltype
> '''
            exit 198
          - if `:length local crittype' == 0 {
          = if 0 == 0 {
          - if inlist("`vce'", "cluster", "robust", "svy") {
          = if inlist("robust", "cluster", "robust", "svy") {
          - local crittype "log pseudolikelihood"
          - else local crittype "log likelihood"
          - }
          - global ML_waldtest `waldtest'
```

```
= global ML_waldtest -1
- if `:length local svy' | `:length local weight' {
= if 0 | 0 {
  if `interactive' {
  SetGlobalVar ML_w : _MLw
  }
  else {
  global ML_w : tempvar
  if `"`moptobj'"' != "" {
  global ML_w `moptobj'$ML_w
  }
- if `:length local weight' {
= if 0 {
  if `"`moptobj'"' != "" {
  cap drop $ML_w
  quietly gen double $ML_w `exp' if $ML_samp
  local wtype `"`weight'"'
  local wexp `"`exp'"'
  global ML_wtyp : copy local wtype
  global ML_wexp : copy local wexp
  if "`wtype'" == "iweight" | "`svy'" != "" {
  local zeroweight zeroweight
  }
  }
- if inlist("`vce'", "svy", "cluster") {
= if inlist("robust", "svy", "cluster") {
  if `interactive' {
  SetGlobalVar ML_subv : _MLsu
  }
  else {
  global ML_subv : tempvar
  if `"`moptobj'"' != "" {
  global ML_subv `moptobj'$ML_subv
  }
- quietly count if $ML_sample
= quietly count if __000006
- if r(N) == 0 {
  error 2000
  }
- if `"`weight'"' != "" {
= if `""' != "" {
```

```
quietly count if $ML_sample & $ML_w != 0
  if r(N) == 0 {
  di in gr "all observation have zero weights"
  exit 2000
  }
  }
- if `:length local lf0' {
= if 20 {
- if `:list sizeof lf0' != 2 {
= if 2 != 2 {
  di as err "lf0(`lf0') invalid"
  exit 198
- global ML_k0 : word 1 of `lf0'
= global ML_k0 : word 1 of 2 -442.7295221007071
- global ML_ll_0 : word 2 of `lf0'
= global ML_ll_0 : word 2 of 2 -442.7295221007071
- confirm integer number $ML_k0
= confirm integer number 2
- confirm number $ML_ll_0
= confirm number -442.7295221007071
- \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 `:length local derivh' {
          = if 0 {
            confirm matrix `derivh'
            }
          - local l : strlen local deriv
          - ParseUsemin, `deriv' len(`l')
          = ParseUsemin,
                         len(0)
                                    ----- begin mopt.ParseUsemin --
            - capture syntax [, LEN(integer 0), MIN1(numlist min=2 max=2 missi
> ngokay) NOMIN MIN]
            - if (_rc) {
              syntax [, LEN(integer 0) MIN1(string) NOMIN MIN]
            - if `"`min1'"' != "" & `"`nomin'"' != "" {
            = if `""' != "" & `""' != "" {
              di as err "options {bf:min()} and {bf:nomin} are mutually exclus
> ive"
              exit 198
            - if `"`min'"' != "" & `"`nomin'"' != "" {
            = if `"" != "" & `"" != "" {
              di as err "options {bf:min} and {bf:nomin} are mutually exclusiv
> e"
              exit 198
            - if (`"`min1'"' != "") {
            = if (`""' != "") {
              if (_rc) {
              capture confirm matrix `min1'
              if (_rc) {
              di as err "option {bf:min()} requires that either two numbers or
> a 1X2 matrix be specified"
              exit 198
              }
              local deriv `min1'
            - else if (`"`min'"' != "") {
```

```
= else if (`""' != "") {
              if (`len' > length(`"`min'"')) {
              di as err "option {bf:min()} requires that either two numbers or
> a 1X2 matrix be specified"
              exit 198
              }
              local deriv 1
              }
            - else {
            - if (`len' > 0) {
            = if (0 > 0) {
              if ("`nomin'" == "") {
              di as err "option {bf:min()} requires that either two numbers or
> a 1X2 matrix be specified"
              exit 198
              else if (`len' > length(`"`nomin'"')) {
              di as err "options {bf:min()} and {bf:nomin} are mutually exclus
> ive"
              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 nbreq lf
            - if !c(rc) {
            - exit
                                        — end mopt_check_program —
          global ML_stat model
          - if !`interactive' {
          = if !0 {
          - `vv' MaxMin `maxmin', nooutput `score' `options' moptobj(`moptobj'
> )
          = 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 do
> ne something to drop" _n "temporary variables ml added to your data. You mu
> st start again."
                Clear
                exit 111
                }
                                            end mopt.ChkMacros -
           - syntax name(name=maxmin) [, NEGH TOLerance(numlist max=1 >=0) LT
> OLerance(numlist max=1 >=0) NONRTOLerance NRTOLerance(numlist max=1 >=0) OTO
> Lerance(numlist max=1 >=0) GTOLerance(numlist max=1 >=0) ITERate(numlist max
> =1 >=0) NOTCONCAVE(numlist max=1 >=0) ndami DIFficult HALFSTEPonly DOOPT SEA
> rch(name) Repeat(passthru) Bounds(string) SCore(string) noWARNing noCLEAR NO
> LOg LOg DOTs SHOWTOLerance SHOWNRtolerance SHOWSTEP TRace COEFDIffs GRADient
> 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 "$ML_preserve" != "no" {
            = if "no" != "no" {
              if `:length local score' {
              di as smcl as err "May not specify {bf:score()} option unless" ;
          a) estimation subsample is the entire data in memory, or" _n "
> ) you specify option {bf:nopreserve} on {bf:ml model} statement (meaning" _n
             your evaluation program explicitly restricts itself to obs" _n "
          for which {bf:$}" "{bf:ML samp==1}."
              exit 198
              }
              preserve
              local N = c(N)
              quietly keep if $ML_sample
              if (N' != c(N)) {
              mata: Mopt_init_regetviews()
```

```
}
              }
            - if `:length local score' {
            = if 0 {
              SetupScore `"$ML_evaltype"' `"`score'"' $ML_n $ML_dim
              local scores "`s(scores)'"
            - _parse_iterlog, `nolog' `log'
            = _parse_iterlog,
                                         --- begin _parse_iterlog ----
              - version 16
              - syntax [, NOLOG LOG]
              - if "`log'`nolog'" != "" {
              = if "" != "" {
                opts_exclusive "`log' `nolog'"
                }
              - else if "`c(iterlog)'" == "on" {
              = else if "on" == "on" {
              local log log
              - }
              - else {
                local nolog nolog
              sreturn local log `log'
              = sreturn local log log
              sreturn local nolog `nolog'
              = sreturn local nolog
                                       <del>-----</del> end _parse_iterlog <del>-----</del>
            - local log "`s(nolog)'"
            = local log ""
            - local tropts `log' `dots' `showtolerance' `showstep' `trace' `co
> efdiffs'
            = 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 "piq_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+piq_timing_max) - lngamma(pi
> q timing max+1) - lngamma( 00000W) - 00000W*ln1p(exp( 00000U+ 00000V))
> - piq_timing_max*ln1p(exp(-__00000U-__00000V))
              - }
              - if `todo' == 0 | `lnf'==. { exit }
              = if 2 == 0 \mid \__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 __000006
              - 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*(piq_timing_max-__00000Y) if __000
> 006
              - \text{ replace `sc2'} = \text{`m'*(digamma(`m')} - \text{digamma(`y'+`m')} - \text{ln(`p')}
> ) + `p'*(`y'-`mu') if $ML_samp
              = replace __00000S = __00000W*(digamma(__00000W) - digamma(piq_t
> iming_max + __00000W) - ln(__00000Z)) + __00000Z*(piq_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 \__000000 == . \{ 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 {
              - \text{ mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1), eq}
> (1)
              = mlmatsum __000000 __000011 = __00000Y*__00000Z*(__000010*__000
> 00Z*(piq_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*(pig
> _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) - dig
> amma(piq_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(piq_timing_max))
> _max+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z
> *(piq_timing_max-__00000Y)-1), eq(2)
              - }
              - matrix `H' = (`d11', `d12' \ `d12'', `d22')
              = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                                                   — end nbreg_lf ——
Iteration 0: Log pseudolikelihood = -395.28442
                                                 — 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 "piq_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+pig timing max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 \__0000006
              - 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*(piq_timing_max-__00000Y) if __000
> 006
              - \text{ replace `sc2'} = \text{`m'*(digamma(`m')} - \text{digamma(`y'+`m')} - \text{ln(`p')}
> ) + p'*(y'-mu') if ML_samp
              = replace __00000S = __00000W*(digamma(__00000W) - digamma(piq_t
> iming_max + __00000W) - ln(__00000Z)) + __00000Z*(piq_timing_max - __00000Y) if
> __000006
              - }
              - }
              - $ML_ec tempname g1 g2
              = * tempname g1 g2
              - \ML_ec \ mlvecsum \inf' \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{000000} == \{ 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 {
              - \text{ mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1), eq}
> (1)
              = mlmatsum __000000 __000011 = __00000Y*__00000Z*(__000010*__000
> 00Z*(piq_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*(piq
> _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) - dig
> amma(piq_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(piq_timing
> _max+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z
> *(piq_timing_max-__00000Y)-1), eq(2)
              - }
              - \text{ matrix `H'} = (`d11',`d12' \setminus `d12'',`d22')
              = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                                                     - end nbreg lf -
Iteration 1: Log pseudolikelihood = -380.58526
                                                   – begin nbreg lf <del>–</del>
              - 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 "$ML_y1"
              = local y "pig timing max"
             - scalar `m' = exp(-`lnalpha')
              = scalar __00000W = exp(-__00000V)
              - if `lnalpha' < -20 {</pre>
              = if __00000V < -20 {
               mlsum \ \ lnf' = -lngamma(\ y'+1) - exp(\ xb') + \ y'*xb'
                }
              - else {
              - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m')
  - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
              = mlsum __000000 = lngamma(__00000W+piq_timing_max) - lngamma(pi
> q_{timing_max+1} - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_timing_max*ln1p(exp(-__00000U-__00000V))
              - if `todo' == 0 | `lnf'==. { exit }
              = if 0 == 0 \mid \__0000000 == . { exit }
                                                  — end nbreg_lf ————
                                             ---- begin nbreg_lf ----
              - version 6.0
              - args todo b lnf g H sc1 sc2
              tempvar xb
              - tempname lnalpha m
              - mleval `xb' = `b', eq(1)
              = mleval __00000U = __00000N, eq(1)
              - mleval `lnalpha' = `b', eq(2) scalar
              = mleval \__{00000V} = \__{00000N}, eq(2) scalar
              - local y "$ML_y1"
              = local y "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 __000006
              - if `lnalpha'<-20 {</pre>
              = if __00000V < -20 {
                replace `sc1' = `y'-`mu' if $ML_samp
                replace `sc2' = 0 if $ML_samp
                }
              - else {
```

Thursday, May 8, 2025 at 8:06 PM Page 688

= replace \_\_00000R = \_\_00000Z\*(piq\_timing\_max-\_\_00000Y) if \_\_000

- replace  $\sc1' = \p'*(\y'-\mu')$  if \$ML\_samp

> 006

```
- replace sc2' = m'*(digamma(m') - digamma(y'+m') - ln(p')
>) + p'*(y'-mu') if ML_samp
              = replace 00000S = 00000W*(digamma(00000W) - digamma(pig t)
> iming_max+__00000W) - ln(__00000Z)) + __00000Z*(piq_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 {
              - \text{ mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1), eq}
> (1)
              = mlmatsum __000000 __000011 = __00000Y*__00000Z*(__000010*__000
> 00Z*(piq_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*(pig
> _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) - dig
> amma(piq_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(piq_timing)
> _max+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z
> *(piq_timing_max-__00000Y)-1), eq(2)
              - }
              - matrix `H' = (`d11',`d12' \ `d12'',`d22')
              = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                                                  — 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 "$ML_y1"
              = local y "piq_timing_max"
              - scalar `m' = exp(-`lnalpha')
              = scalar ___00000W = exp(-__00000V)
              - if `lnalpha' < -20 {</pre>
              = if 00000V < -20  {
                mlsum \ \ lnf' = -lngamma(\ y'+1) - exp(\ xb') + \ y'*xb'
                }
              - else {
              - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m')
> - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
              = mlsum __000000 = lngamma(__00000W+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_timing_max*ln1p(exp(-__00000U-__00000V))
              - }
              - if `todo' == 0 | `lnf'==. { exit }
              = if 0 == 0 \mid \__0000000 == . { exit }
                                     -----end nbreg_lf -----
                                             ---- begin nbreg_lf ----
              - version 6.0
              - args todo b lnf g H sc1 sc2
              - tempvar xb
              - tempname lnalpha m
              - mleval xb' = b', eq(1)
              = mleval __00000U = __00000N, eq(1)
              - mleval `lnalpha' = `b', eq(2) scalar
              = mleval \__{00000V} = \__{00000N}, eq(2) scalar
              - local y "$ML_y1"
              = local y "piq_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+pig timing max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_timing_max*ln1p(exp(-__00000U-__00000V))
              - }
              - if `todo' == 0 | `lnf'==. { exit }
              = if 2 == 0 \mid __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 __000006
              - 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*(piq_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(piq_t
> iming_max + __00000W) - ln(__00000Z)) + __00000Z*(piq_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*__000
> 00Z*(piq_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*(piq
> _timing_max-__00000Y), eq(1,2)
              > ln(`p') - `m'*(trigamma(`y'+`m') - trigamma(`m'))) + `mu'*`p'*(`alpha'*`p'*(
```

```
> y'-mu'-1), eq(2)
              = mlmatsum __000000 __000013 = __00000W*(digamma(__00000W) - dig
> amma(pig timing max+ 00000W) - ln( 00000Z) - 00000W*(trigamma(pig timing
> _max+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z
> *(piq_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 = -371.57366
                                              ---- 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 "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 "$ML_y1"
              = local y "pig timing max"
              - scalar `m' = exp(-`lnalpha')
              = scalar __00000W = exp(-__00000V)
              - if `lnalpha' < -20 {</pre>
              = if 00000V < -20  {
                mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                }
              - else {
              - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m')
 - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
              = mlsum __000000 = lngamma(__00000W+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_timing_max*ln1p(exp(-__00000U-__00000V))
              - if `todo' == 0 | `lnf'==. { exit }
              = if 0 == 0 \mid \__0000000 == . { exit }
                                                    - end nbreg_lf ------
                                              ----- begin nbreg_lf ------
              - version 6.0
              args todo b lnf g H sc1 sc2
              tempvar xb
              - tempname lnalpha m
              - mleval `xb' = `b', eq(1)
              = mleval \__00000U = \__00000N, eq(1)
              - mleval `lnalpha' = `b', eq(2) scalar
              = mleval \__{00000V} = \__{00000N}, eq(2) scalar
              - local y "$ML_y1"
              = local y "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
```

```
> - piq_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 \__0000006
               - 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*(piq_timing_max-__00000Y) if __000
> 006
               - \text{ replace `sc2'} = \text{`m'*(digamma(`m')} - \text{digamma(`y'+`m')} - \text{ln(`p')}
> ) + p'*(y'-mu') if ML_samp
               = replace __00000S = __00000W*(digamma(__00000W) - digamma(piq_t
> iming_max + __00000W) - ln(__00000Z)) + __00000Z*(piq_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 | __000000==. { 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 {
              - \text{ mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1), eq}
> (1)
              = mlmatsum __000000 __000011 = __00000Y*__00000Z*(__000010*__000
> 00Z*(piq_timing_max-__00000Y)+1), eq(1)
              - \text{ mlmatsum `lnf' `d12' = `alpha'*`mu'*`p'^2*(`y'-`mu'), eq(1,2)}
              = mlmatsum __000000 __000012 = __000010*__00000Y*__00000Z^2*(piq
> _{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) - dig
> amma(piq_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(piq_timing_max))
> _max+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z
> *(piq_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 = -371.54765
                                                — 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 "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 "$ML_y1"
              = local y "piq_timing_max"
              - scalar `m' = exp(-`lnalpha')
              = scalar \__{00000W} = \exp(-\__{00000V})
              - if `lnalpha' < -20 {</pre>
              = if 00000V < -20 {
                mlsum `lnf' = -lngamma(`y'+1) - exp(`xb') + `y'*`xb'
                }
              - else {
              - mlsum `lnf' = lngamma(`m'+`y') - lngamma(`y'+1) - lngamma(`m')
> - `m'*ln1p(exp(`xb'+`lnalpha')) - `y'*ln1p(exp(-`xb'-`lnalpha'))
              = mlsum __000000 = lngamma(__00000W+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_timing_max*ln1p(exp(-__00000U-__00000V))
              - }
              - if `todo' == 0 | `lnf'==. { exit }
              = if 0 == 0 \mid \underline{000000} == . { exit }
                                                    — end nbreg_lf ——
                                           ----- begin nbreg_lf ----
              - version 6.0
              - args todo b lnf g H sc1 sc2
              tempvar xb
              - tempname lnalpha m
              - mleval xb' = b', eq(1)
              = mleval \__00000U = \__00000N, eq(1)
              - mleval `lnalpha' = `b', eq(2) scalar
              = mleval \__{00000V} = \__{00000N}, eq(2) scalar
              - local y "$ML_y1"
              = local y "piq_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+piq_timing_max) - lngamma(pi
> q_timing_max+1) - lngamma(__00000W) - __00000W*ln1p(exp(__00000U+__00000V))
> - piq_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 \__000006
              - 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*(piq_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(piq_t
> iming_max + 00000W) - ln(00000Z)) + 000000Z*(piq_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{000000} == \{ 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 {
              - \text{ mlmatsum `lnf' `d11' = `mu'*`p'*(`alpha'*`p'*(`y'-`mu')+1), eq}
> (1)
              = mlmatsum __000000 __000011 = __00000Y*__00000Z*(__000010*__000
> 00Z*(piq_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*(piq
> _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) - dig
> amma(piq_timing_max+__00000W) - ln(__00000Z) - __00000W*(trigamma(piq_timing_max))
> _max+__00000W) - trigamma(__00000W))) + __00000Y*__00000Z*(__000010*__00000Z
> *(piq_timing_max-__00000Y)-1), eq(2)
              - }
              - \text{ matrix `H'} = (`d11',`d12' \setminus `d12'',`d22')
              = matrix __00000Q = (__000011,__000012 \ __000012',__000013)
                                                   — end nbreg lf ———
Iteration 5: Log pseudolikelihood = -371.54762
                                                 — begin mopt_post —

    args b V C wgt touse depvar

              - if `:length local touse' {
              = if 8 {
              - tempname esamp
              - quietly gen byte `esamp' = `touse'
              = quietly gen byte 00000W = 000006
              - ereturn post `b' `V' `C' `wgt', esample(`esamp') depname(`depv
> ar') buildfvinfo
              = ereturn post __00000U __00000V [], esample(__00000W) depname(
> piq_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 11.0 = -442.7295221007071
            - 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) - $ML_k0
            = else ereturn scalar df_m = e(rank) - 2
            - if !`:length global ML_ll_0' | inlist(e(vce), "robust", "cluster
> ", "linearized") {
            = if !18 | inlist(e(vce), "robust", "cluster", "linearized") {
            - if "$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
                                ---- begin is_svy ----
  - version 8
  - syntax [, Regression]
  - if `"`e(prefix)'"' == "svy" {
 = if `""" == "svv" {
    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'
```

```
——— 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" "' "optio
> n 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 eqns `"`"`eqns'"'"
                    }

    syntax [, Accumulate noSVYadjust common CONStant MINimum M

> test Mtest2(passthru) noTest COEF matvlc(passthru) DF(numlist max=1 >0) ]
                  - if "`df'" != "" {
                  = if "" != "" {
                    local dof = `df'
                    }
                  - else if "`e(df_r)'" !="" {
                  = else if "" !="" {
                    local dof = e(df_r)
                  - else {
                  - local dof = .
                  - if `"`mtest'`mtest2'"' != "" {
                  = if `"" != "" {
                    if inlist("`e(cmd)'", "svymean", "svytotal", "svyratio") {
                    di as err `"mtest option not allowed after `e(cmd)'"'
                    exit 301
                    _mtest syntax, `mtest' `mtest2'
                    local mtmethod `r(method)'
                  - if "`mtmethod'" != "" {
                  = if "" != "" {
                    if "`test'" != "" {
                    di as err "options mtest and notest may not be combined"
                    exit 198
                    if "`accumulate'" != "" {
                    di as err "options mtest and accumulate may not be combine
> d"
                    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 dat
> a"
                    exit 198
                    }
                  - local svy_adjust = `is_svy' & "`svyadjust'" == ""
                  = local svy_adjust = 0 & "" == ""
                  - if `svy_adjust' & missing(`dof') & (missing(e(N_psu)) | mi
> ssing(e(N_strata))) {
                  = if 0 & missing(.) & (missing(e(N_psu)) | missing(e(N_strat
> a))) {
                    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(local n
```

```
> ch) all
                      - if `nch' <= 1 {</pre>
                      = if 0 <= 1 {
                       - return local explist `"`"`exp'"'"
                      = return local explist `"`"[#1]"'"'
                       - return local nexp 1
                       - exit
                                                 	extstyle - end test.Expand 	extstyle -
                     - local explist `"`explist' `r(explist)'"'
                     = local explist `" `"[#1]"'"'
                     - local nexp = `nexp' + `r(nexp)'
                     = local nexp = + 1
                     - gettoken exp expns : expns
                     - while `"`exp'"' != "" {
                     = while `""' != "" {
                       Expand `"`exp'"' "`common'" "`constant'"
                       local explist `"`explist' `r(explist)'"'
                       local nexp = `nexp' + `r(nexp)'
                       gettoken exp expns : expns
                       }
                     - return local explist `"`explist'"'
                    = return local explist `" `"[#1]"'"'
                     - return local nexp `nexp'
                     = return local nexp 1
                                           — end test.ExpandExpns —
                  - local explist `"`r(explist)'"'
                  = local explist `" `"[#1]"'"'
                  - local nexp `r(nexp)'
                  = local nexp 1
                  - local acc `accumulate'
                  = local acc
                  - foreach exp of local explist {
                  - quietly _test `exp' , `acc' `common' `constant' notest
                  = quietly _test [#1] , notest
                  - local acc acc
                  - }
                  - if "`test'" == "notest" {
                  = if "" == "notest" {
                     _test , notest
                     exit
                     }
                  - quietly _test , `matvlc'
                  = quietly _test ,
```

```
- if `dof' < . {</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)
- scalar `df1' = r(df)
= scalar __00000Z = r(df)
- scalar p' = r(p)
= scalar __000010 = r(p)
- scalar `drop' = r(drop)
= scalar __000011 = r(drop)
- }
- local i 1
- while "`r(dropped_`i')'" != "" {
= while "" != "" {
  local dropped_`i' `r(dropped_`i')'
  local ++i
- if `svy_adjust' {
= if 0 {
  if "`df'" != "" {
  local svy_d = `df'
  }
  else if !missing(e(df r)) {
  local svy_d = e(df_r)
  else local svy_d = e(N_psu) - e(N_strata)
  if missing(`svy_d') {
  di as err "internal error in adjustment for svy"
  exit 10001
  }
```

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

```
else local pindex 3
                 - _test, notest
                 - local i 1
                 - while "`dropped_`i''" != "" {
                 = while "" != "" {
                                    Constraint `dropped_`i'' dropped"
                   di as txt "
                   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 __00000Z ") =" as res %8.
> 2f __00000Y
                 - di as txt _col(10) "Prob > chi2 = " as res %8.4f `p'
                 = di as txt _col(10) "Prob > chi2 = " as res %8.4f __000010
                 - }
                 - 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 "
                                    > ip'}"
                   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 ``testtype'
> ' 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
```

\_\_\_\_\_\_

- end test  $-\!-$ 

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

}

```
- end _prefix_model_test --
            - }
            - else {
              _prefix_model_test, $ML_svy $ML_noadj
            - }
            - else if `:length global ML_ll_0' {
            = else if 18 {
              if `"`maxmin'"' == "minimize" {
              ereturn scalar chi2 = -2*(e(ll)-e(ll_0))
              else {
              ereturn scalar chi2 = 2*(e(ll)-e(ll_0))
              ereturn scalar p = chi2tail(e(df_m), e(chi2))
              ereturn local chi2type "LR"
            - if `:length global ML_wexp' {
            = if 0 {
              ereturn local wtype `"$ML_wtyp"'
              ereturn local wexp `"$ML_wexp"'
            - if `:length global ML_group' {
            = if 0 {
              ereturn local group `"$ML_group"'
              if `"`e(clustvar)'"' == "$ML_grp" & "$ML_grp" != "" {
              ereturn local clustvar `"$ML_group"'
              }
              }
            - ereturn local cmd "ml"
            - if `:length local score' {
            = if 0 {
              mata: Mopt_score(0)
              ereturn local scorevars `scores'
            - if "$ML_preserve" != "no" {
            = if "no" != "no" {
              if "`e(prefix)'" == "svy" & e(N_strata_omit) {
              tempname v
              quietly _svy2 $ML_sample if $ML_sample, type(total) svy v(`v') s
> ubpop(`e(subpop)') touse($ML_sample)
              ereturn repost, esample($ML_sample)
```

```
}
    - if `"`moptobj'"' != "" {
   = if `""' != "" {
      local clear noclear
      }
   - if !`:length local clear' {
   = if !0 {
    - Clear
                                       — begin mopt.Clear —
      - syntax [, NOTANOPTION]
      capture drop $ML_w
      = capture drop __000006
      - capture drop $ML_samp
      = capture drop ___000006
      - capture drop $ML_sample
      = capture drop ___000006
      - capture drop $ML_subv
      = capture drop
      - capture drop $ML_grp
      = capture drop
      - mata: Mopt_drop_external()
      - macro drop ML_*
                                     ----- end mopt.Clear ---
   - }
    - else {
      capture confirm var $ML_sample
      if c(rc) {
      quietly gen byte $ML_sample = e(sample)
      }
    - if `:length local output' == 0 {
   = if 8 == 0 {
      Display, level(`level') `options'
      }
                                      --- end mopt.MaxMin -----
  - }
                                       --- end mopt.Model -----
- if c(rc) {
  local rc = c(rc)
  Clear
  exit `rc'
  }
```

```
- exit
```

```
------end mopt -----
 exit
                                         -----end ml —
est local cmd
- if "`score'"!="" {
= if ""!="" {
 label var `scvar1' "Score index for x*b from nbreg"
 rename `scvar1' `scname1'
 label var `scvar2' "Score index for /ln`parm' from nbreg"
 rename `scvar2' `scname2'
 est local scorevars `scname1' `scname2'
- _b_pclass PCDEF : default
                     - 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'
```

```
- 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(1,8,0)
- matrix `pclass'[1, `dim'] = `PCAUX'
= matrix __000006[1,8] = 2
- est hidden matrix b_pclass `pclass'
= est hidden matrix b_pclass __000006
- if "`llp'"!="" {
= if ""!="" {
  est local chi2_ct "LR"
  est scalar ll_c = `llp'
  if (e(ll) < e(ll_c)) | (_b[/ln`parm'] < -20) {
  est scalar chi2_c = 0
  else est scalar chi2_c = 2*(e(ll)-e(ll_c))
- est scalar r2_p = 1 - e(ll)/e(ll_0)
- est scalar k_aux = 1
est hidden local diparm_opt2 noprob
- est scalar `parm' = exp(_b[/ln`parm'])
= est scalar alpha = exp(_b[/lnalpha])
- est local dispers "`dispers'"
= est local dispers "mean"
```

```
- est local offset "`offvar'"
   = est local offset ""
    - est local offset1
    - est hidden local marginsderiv default N IR
   - est local predict "nbreg_p"
   - est local cmd "nbreg"
   - global S_E_ll = e(ll)
   - global S_E_ll0 `e(ll_0)'
   = global S_E_ll0 -442.7295221007071
   - 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 .1607796576974707
   - 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 piq_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 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 `""' != "" {
    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)
        - }
        - 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 `sname' = s(`sname')
        = local S_deriv = s(deriv)
        - }
        - local S `sname' = s(`sname')
        = local S_namelist = s(namelist)
        - }
        - local S_`sname' = s(`sname')
        = local S_optlist = s(optlist)
        - }
        - local S_`sname' = s(`sname')
        = local S_k_fill = s(k_fill)
        - }
        - local S_`sname' = s(`sname')
        = local S_k = s(k)
        - }

    sreturn clear

    GetDiopts DEFAULT

                              begin _get_diopts.GetDiopts —

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels 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
```

= local S\_log = s(log)

```
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
                                <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
```

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

gettoken item`n' opts : opts, bind

}

 $- if `n' < 2 {$ 

= if "" == "" {

- if c(lstretch) == "off" {
 local lstretch nolstretch

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

```
di as err "invalid fvwrapon() option;"
              syntax [, WOrd WIdth]
              exit 198
              }
            - opts_exclusive "`word' `width'" fvwrapon
            = opts_exclusive " " fvwrapon
                                           – begin opts_exclusive —
              - version 8.2

    args opts optname errcode optslab

              - local opts `opts'
              = local opts
              - local n 0
              - while `"`opts'"' != "" {
              = while `""' != "" {
                local ++n
                gettoken item`n' opts : opts, bind
              - if `n' < 2 {
              = if 0 < 2 
              - exit
                                             — end opts_exclusive —
            - local fvwrapon `word' `width'
            = local fvwrapon
            - if `:length local fvwrapon' {
            = if 0 {
              c_local fvwrapon fvwrapon(`fvwrapon')
              }
                                      ---- end _get_diopts.Wrapon ----
          - if "`fvwrap'" != "" {
          = if "" != "" {
            FVWrap, `fvwrap'
            }
          - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `baselevel
> s' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coeflegend
> ' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare' `fvwr
> ap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbrev'
          = c_local DEFAULT
          - if `K' == 2 {
          = if 1 == 2 {
            c_local `c_opts' `"`options'"'
            }
          - sreturn local coding `coding'
          = sreturn local coding
```

```
- sreturn local versus `versus'
          = sreturn local versus
          sreturn local compare `compare'
          = sreturn local compare
          - sreturn local level `level'
          = sreturn local level 95
                                 ----- end _get_diopts.GetDiopts --
        - if `"`name2'"' == "" {
        = if `""" == "" {
        - GetDiopts DUPS, `options'
       = GetDiopts DUPS,
                               ----- begin _get_diopts.GetDiopts ------

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBASElevels

> NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYcells NO
> OMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string) sfor
> mat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVWRAPON(
> string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOABBREV
> ABBREV
          - syntax namelist(max=2) [, `DIOPTS' *]
          = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASElevels A
> LLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells
> EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat
> (string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passth
> ru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passth
> ru) NOABBREV ABBREV *]
          - opts_exclusive "`allbaselevels' `noallbaselevels'"
          = opts_exclusive " "
                                       ——— begin opts_exclusive ———
            - version 8.2
            - args opts optname errcode optslab
            - local opts `opts'
            = local opts
            - local n 0
            - while `"`opts'"' != "" {
            = while `""' != "" {
              local ++n
              gettoken item`n' opts : opts, bind
              }
            - if `n' < 2 {
            = if 0 < 2 {
            - exit
```

--- end opts\_exclusive ---

```
- opts_exclusive "`allbaselevels' `nobaselevels'"
= opts_exclusive " "
                                — begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

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

```
- local n 0
 - while `"`opts'"' != "" {
 = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
 - if `n' < 2 {
 = if 0 < 2 {
  - exit
                              ---- end opts_exclusive ----
- opts_exclusive "`fvlabel' `nofvlabel'"
= opts_exclusive " "
                            ——— begin opts_exclusive ——
  - version 8.2

    args opts optname errcode optslab

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

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

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                               ---- end opts_exclusive -----
- opts_exclusive "`coeflegend' `selegend'"
= opts_exclusive " "
                                — begin opts_exclusive ——
  - version 8.2
```

```
    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  - if `n' < 2 {
  = if 0 < 2 {
  - exit
                              ----- end opts_exclusive -----
- opts_exclusive "`noci' `nopvalues'"
= opts_exclusive " "
                        ------ begin opts_exclusive -----
  - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
```

```
local ++n
    gettoken item`n' opts : opts, bind
  - if `n' < 2 {
 = if 0 < 2 {
  - exit
                              ----- end opts_exclusive ----
- opts_exclusive "`versus' `compare'"
= opts_exclusive " "
                            ——— begin opts_exclusive ——
  - version 8.2

    args opts optname errcode optslab

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

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

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

```
── begin opts_exclusive ─
              - version 8.2

    args opts optname errcode optslab

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

```
— end _get_diopts.GetDiopts -
- }
- else {
  GetDiopts DUPS options, `options'
  c_local `name2' `"`options'"'
- local DUPS : list DUPS - DEFAULT
- gettoken DUPS : DUPS
- if `"`DUPS'"' != "" {
= if `""' != "" {
  if (strpos(`"`DUPS'"', "(")) {
  gettoken DUPS : DUPS, parse("(")
  local DUPS `"`DUPS'()"'
  di as err "duplicate {bf:`DUPS'} option not allowed"
  exit 198
  }
sreturn clear
- foreach sname of local snames {
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local level = `"95"'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local after = `"aux"'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local before = `"PCAUX "'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local log = `"log"'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local deriv = `"0"'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local namelist = `"cluster"'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local optlist = `"CLuster"'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local k_fill = `"8"'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local k = `"8"'
- }
```

```
— end _get_diopts ——
- if "`irr'"!="" {
= if ""!="" {
  local eopt "eform(IRR)"
- if "`e(dispers)'"=="mean" {
= if "mean"=="mean" {
- local parm alpha
- }
else local parm delta
- version 9: ml di, level(`level') `eopt' nofootnote `diopts'
= version 9: ml di, level(95) nofootnote
                                                 — begin ml —
  - if _caller()>=11 {
    mopt `0'
    exit
    }
  - version 8.2, missing
  - version 6, missing
  - if _caller()<6 {</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" {
```

```
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'"' == bsubs
> tr("mlout", 1,max(3,`l')) {
        = if `"di"' == bsubstr("display",1,max(2,2)) | `"di"' == bsubstr("mlou
> t'', 1, max(3,2)) {
        - if "`e(opt)'" == "moptimize" {
        = if "moptimize" == "moptimize" {
        - mopt display `0'
        = mopt display , level(95) nofootnote
```

ml\_unhold `0'

── 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(intege
> r -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 <del>-</del>
```

```
- 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 ALLBASEl

> evels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYce
> lls NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string
> ) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVW
> RAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOA
> BBREV ABBREV
                - syntax namelist(max=2) [, `DIOPTS' *]
                = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEle
> vels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTY
> cells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND c
> format(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(
> passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(
> 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 "%9.0q"
  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, `fvwrap'
                - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `bas
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
> `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> V 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 diopts `""'
              - local snames : s(macros)
```

```
- foreach sname of local snames {
- local S_`sname' = s(`sname')
= local S level = s(level)
- }
- local S_`sname' = s(`sname')
= local S k = s(k)
- }
- local S_`sname' = s(`sname')
= local S_k_fill = s(k_fill)
- }
- local S_`sname' = s(`sname')
= local S_optlist = s(optlist)
- }
- local S_`sname' = s(`sname')
= local S_namelist = s(namelist)
- }
- local S_`sname' = s(`sname')
= local S_deriv = s(deriv)
- }
- local S_`sname' = s(`sname')
= local S_log = s(log)
- }
- local S_`sname' = s(`sname')
= local S_before = s(before)
- }
- local S_`sname' = s(`sname')
= local S_after = s(after)
- }
- sreturn clear
- GetDiopts DEFAULT
```

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

    args opts optname errcode optslab

  - local opts `opts'
  = local opts
  - local n 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' `bas
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
 `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> v'
                = 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 ALLBASEl

> evels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTYce
> lls NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(string
> ) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) FVW
> RAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) NOA
> BBREV ABBREV
                - syntax namelist(max=2) [, `DIOPTS' *]
                = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASEle
> vels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTY
> cells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND c
> format(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(
> passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(
> 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 ——
```

```
= local opts
  - 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

- local opts `opts'

- 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' `bas
> elevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `coef
> legend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compare'
```

```
> `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abbre
> V'
                = 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 = `"8"'
              - sreturn local `sname' = `"`S_`sname''"'
              = sreturn local k_fill = `"8"'
              - sreturn local `sname' = `"`S_`sname''"'
              = sreturn local optlist = `"CLuster"'
              - }
```

```
- sreturn local `sname' = `"`S_`sname''"'
              = sreturn local namelist = `"cluster"'
              - sreturn local `sname' = `"`S_`sname''"'
              = sreturn local deriv = `"0"'
              - sreturn local `sname' = `"`S_`sname''"'
              = sreturn local log = `"log"'
              - }
              - sreturn local `sname' = `"`S_`sname''"'
              = sreturn local before = `"PCAUX "'
              - }
              - sreturn local `sname' = `"`S_`sname''"'
              = sreturn local after = `"aux"'
              - }
                                              --- end _get_diopts ------
            - _get_eformopts , eformopts(`options') soptions allowed(__all__)
            = _get_eformopts , eformopts() soptions allowed(__all__)
                                          — begin _get_eformopts —
              - version 8.0
              - syntax [, eformopts(string asis) soptions ALLOWed(string) ]
              - local 0 , `eformopts'
              = local 0 ,
              - local EFALL NOHR hr NOSHR shr or IRr RRr tr TRatio
              - if "`soptions'" != "" {
              = if "soptions" != "" {
              - syntax [, EForm1(passthru) EForm `EFALL' * ]
              = syntax [, EForm1(passthru) EForm NOHR hr NOSHR shr or IRr 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"
```

```
}
              - 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 l
              - foreach ef of local efopts {
              - local eform `eform' ``ef''
              = local eform
              - }
              - local eform `eform' ``ef''
              = local eform
              - }
              - local eform `eform' ``ef''
              = local eform
              - }
```

exit 198

```
- 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 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 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(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 `", "'
              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 `""" == """ {
  - 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 i
> nteger >=0) head2right(numlist max=1 integer >=0) head2start(numlist max=1 i
> nteger >=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
                                                = "display"
                        string newline
                         double opt_dvheader
                                                = 0
                         double opt_modeltest
                                                = 0
                         double opt_cluster
                                                = 0
                         double opt_rules
                                                = 0
                         double opt_tvar
                                                = 0
                         double opt_septitle
                                                = 0
                         double linesize
                                                = 0
                                                = ""
                         string title
                                                = ""
                         string title2
                                                = ""
                         string groupvar
                                                = ""
                         string intmethod
                         double intpoints
                                                = -1
                                                = ""
                         string cmd
                                                = ""
                         string cmd2
                                                = ""
                         string prefix
                         double is_prefix
                                                = 0
                         double is_svy
                                                = 0
                         double is_margins
                                                = 0
                         double is_gsem
                                                = 0
```

```
double is_gsem_group
         double is_sem
                                 = 0
         double is areq
                                 = 0
         double is_demand
                                 = 0
         double is_demandn
                                 = 0
         double is bacon
                                 = 0
         double
                is_htedid
                                 = 0
         double is_sum
                                 = 0
         double is_tab
                                 = 0
                                 = 1
         double
                is_r2_p
         double is_multclust
                                 = 0
         double is_stintcox
                                 = 0
         double is_bmareg
                                 = 0
         double prop_pushtitle = 0
         double prop_groupvar
                                 = 0
         double prop_censlimits = 0
         double prop_censored
                                 = 0
                                          = 0
         double prop_nouncensored
         double prop_iselected
                                 = 0
         double prop_selected
                                 = 0
         double prop_groups
                                 = 0
         double prop_balance
                                 = 0
         double ablen
                                 = 16
         double width
                                 = 78
                                 = 1
         double c1
                                 = 16
         double c2
         double c2a
                                 = 16
         double c3
                                 = 49
         double c4
                                 = 67
         double c2wfmt
                                 = 10
         double c4wfmt
                                 = 10
         string scheme
                                 = "ml"
                                 = 0
         double lalignr
         double ralignr
                                 = 0
         double lalignl
                                 = 0
         double ralignl
                                 = 0
         double lalignla
                                 = 0
         double ralignla
                                 = 0
                 left
         array
         array
                 right
-}
                  - begin _coef_table__header.new -
- version 16
```

Thursday, May 8, 2025 at 8:06 PM Page 789

> ocluster noRULES noTVAR SEPTITLE linesize(int 0) ]

syntax [, rclass noDVHeader noMODELtest TItle(string asis) n

```
- if "`rclass'" != "" {
= if "" != "" {
  .result = "r"
- if "`dvheader'" == "" {
= if "" == "" {
- .opt_dvheader = 1
- }
- if "`modeltest'" == "" {
= if "" == "" {
- .opt_modeltest = 1
- if "`cluster'" == "" {
= if "" == "" {
- .opt_cluster = 1
- }
- if "`rules'" == "" {
= if "" == "" {
- .opt_rules = 1
- }
- if "`tvar'" == "" {
= if "" == "" {
- .opt_tvar = 1
- if "`septitle'" != "" {
= if "" != "" {
  .opt_septitle = 1
- .linesize = `linesize'
= .linesize = 0
- .title = `"`title'"'
= .title = `"""
- if `"`.result'"' == "e" {
= if `"e"' == "e" {
- New4e
              — begin _coef_table__header.New4e —
  - version 16
  - .cmd = "`e(cmd)'"
 = .cmd = "nbreg"
  - .cmd2 = "`e(cmd2)'"
  = .cmd2 = ""
  - .prefix = "`e(prefix)'"
 = .prefix = ""
  - if `"`.prefix'"' != "" {
  = if `""' != "" {
```

```
.is_prefix = 1
  }
- if "`.prefix'" == "svy" {
= if "" == "svy" {
  is_sy = 1
- if "`.cmd'" == "margins" {
= if "nbreg" == "margins" {
  .is_margins = 1
- if inlist("`.cmd'", "contrast", "pwcompare") {
= if inlist("nbreg", "contrast", "pwcompare") {
  if "`.cmd2'" == "margins" {
  .is_margins = 1
  }
  }
- if "`.cmd'" == "gsem" | "`.cmd2'" == "gsem" {
= if "nbreg" == "gsem" | "" == "gsem" {
  .is_gsem = 1
  }
- if "`.cmd'" == "sem" {
= if "nbreg" == "sem" {
  .is_sem = 1
- if "`.cmd'" == "areg" {
= if "nbreg" == "areg" {
  .is_areg = 1
- if ("`.cmd'" == "demandsys" & `"`e(doheader)'"'=="yes") {
= if ("nbreg" == "demandsys" & `""'=="yes") {
  .is_demand = 1
  }
- if ("`.cmd'" == "demandsys") {
= if ("nbreg" == "demandsys") {
  .is_demandn = 1
  }
- if ("`.cmd'" == "xthdidregress" & "`e(inestat)'"=="") {
= if ("nbreg" == "xthdidregress" & ""=="") {
  .is htedid = 1
- if "`.cmd'" == "stintcox" {
= if "nbreg" == "stintcox" {
  .is_stintcox = 1
  }
- if "`.cmd'" == "bdecomp" {
= if "nbreg" == "bdecomp" {
```

```
.is_bacon = 1
                    }
                  - if "`.cmd'" == "bmaregress" {
                  = if "nbreg" == "bmaregress" {
                    .is_bmareg = 1
                  - is_svysum `.cmd'
                  = is_svysum nbreg
                                                — begin is_svysum —
                    - version 9

    local SvySum mean prop proportion ratio total

                    - if `"`0'"' != "" & `:list 0 in SvySum' {
                    = if `"nbreg"' != "" & 0 {
                      return scalar is_svysum = 1
                      }
                    - else return scalar is_svysum = 0
                                                ---- end is_svysum --
                  - .is_sum = r(is_svysum)
                  - if `.is_svy' {
                  = if 0 {
                    if "`.cmd'" == "tabulate" {
                    .is_tab = 1
                    }
                  - if `.is_gsem' {
                  = if 0 {
                    if `"`e(groupvar)'"' != "" & "`.cmd2'" == "" {
                    .is_gsem_group = 1
                    }
                  - local clustvars `e(clustvar)'
                  = local clustvars
                  - local kclvar : list sizeof clustvars
                  - .is_multclust = ((`kclvar'>1) & ("`e(kcluster)'"=="matrix"
> ))
                  = .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)'"'
```

```
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'
                    c2wfmt = 7
                     .c4wfmt = 10
                    .scheme = "compact"
                  - else if `.is_prefix' | `.is_sem' | `.is_gsem_group' {
                  = else if 0 | 0 | 0 {
                     width = 78
                     .c2 = `c2pfix'
                     .c3 = 49
                     .c4 = 67
                    c2wfmt = 9
                     .c4wfmt = 10
                    scheme = "svy"
                    }
                  - if `.is_svy' {
                  = if 0 {
                    local maxlen = `.width'-`.c2'-(`.c2wfmt'+2)-2-(`.c4'-`.c3'
> )-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'
                     }
```

local crlen: smcllength local crlen

```
}
                               --- 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" i
> n 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'" i
> n list2' | `:list posof "censlimits" in props' {
                = if 0 | 0 | 0 {
                  .prop_censlimits = !missing(e(N_unc))
                  }
                - local list intreg tobit cpoisson ivtobit eintreg xtintreg xt
> tobit
                - local list2 meintreg metobit stintreg
                - if `:list posof "`.cmd'" in list' | `:list posof "`.cmd2'" i
> n 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 "iselected"
 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 xtint

> reg xtnbreg
                local list `list' xtpoisson xttobit xtmlogit xtrc
                = local list xtreg xtprobit xtlogit xtcloglog xtfrontier xtint
> reg xtnbreg xtpoisson xttobit xtmlogit xtrc

    local list2 xtlogit xtoprobit xtologit xtmlogit

                - if `:list posof "`.cmd'" in list' | `:list posof "`.cmd2'" i
> n 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'" == "xtmlogit
> " | "`.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')
```

```
}
                  }
                - 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
```

.PushLeft "Grouping variable: {res}`grpvar'"

```
- 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_bmareg'
> ) {
                         ----- begin _coef_table__header.Scalar -----
                  - version 16
                  - class exit `"`= `.result'(`0')'"'
                  = class exit `"218"'
                               — end _coef_table__header.Scalar —
                = if (!missing(218) & 0==0 & !0) {
                - .PushRight "Number of obs" " = " "as res" %`.c4wfmt'.0fc `.S
> calar N'
                           ---- begin _coef_table__header.Scalar ---
                  - version 16
                  - class exit `"`= `.result'(`0')'"'
                  = class exit `"218"'
                              --- end _coef_table__header.Scalar ---
                = .PushRight "Number of obs" " = " "as res" %10.0fc 218
                     ------ begin _coef_table__header.PushRight ----
                  - version 16
                  - gettoken tok rest : 0
                  - gettoken eq rest : rest
                  - gettoken dias rest : rest
                  - if `:length local rest' {
                  = if 12 {
                  - local direst = ustrltrim("`: di `rest''")
                  = local direst = ustrltrim(" 218")
                  - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                  = .ralignr = max(0, udstrlen("218"))
                  - 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':218}"
                  - }
                  - 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 `.S
> calar 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" %`.c2wfmt
> '.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'.0fc
> `e(N_groups)'
                  .PushRight "Number of cohorts" " = " "as res" %`.c4wfmt'.0fc
> `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 correl
> ation}" " = " "as res" %`.c4wfmt'.4f e(sampcorr)
                  .PushRight "No. of obs" " = " "as res" %`.c4wfmt'.0fc `.Scal
> ar N'
                  .PushRight "No. of predictors" " = " "as res" %`.c4wfmt'.0fc
> 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(burnin)
                  .PushRight "MCMC sample size" " = " "as res" %`.c4wfmt'.0fc
> 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'.0fc
> 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'.0f
> c `.Scalar N_sub'
                - if `.is_areg' {
                = if 0 {
                  .PushRight "No. of categories" " = " "as res" %`.c4wfmt'.0fc
> e(k_absorb)
                  }
                - if `.is_sem' | `.is_gsem_group' {
                = if 0 | 0 {
                  if `"`.Macro groupvar'"' != "" {
                  .PushRight "Number of groups" " = " "as res" %`.c4wfmt'.0fc
> `.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 `"6"'
      ------ end _coef_table__header.Scalar -----
= if missing(6) {
 exit
 }
- if `"`.Macro chi2'"' != "" | `"`.Macro df_r'"' == "" {
        ----- begin _coef_table__header.Macro -----
 - version 16
 - class exit `"``.result'(`0')'"'
  = class exit `"208.3437211779982"'
            ---- end _coef_table__header.Macro -----
          ---- begin _coef_table__header.Macro ----
 - version 16
 - class exit `"``.result'(`0')'"'
 = class exit `""'
       ------ end _coef_table__header.Macro -
= if `"208.3437211779982"' != "" | `""' == "" {
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("6")
 - if !missing(e(chi2)) {
```

```
- .PushRight "`type' chi2({res:`didf'})" " = " "as res" %`
> .c4wfmt'.2f e(chi2)
                    = .PushRight "Wald chi2({res:6})" " = " "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(" 208.34")
                      - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                      = .ralignr = max(3, udstrlen("208.34"))
                      - local len : di `"`tok'"'
                      = local len : di `"Wald chi2({res:6})"'

    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({r
> es:6})}"' `.C4' " = " as res "{ralign `.ralignr':208.34}"
                      - }
                      - 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 ch
> i2tail(e(df_m),e(chi2))
                    = .PushRight "Prob > chi2" " = " "as res" %10.4f chi2tail(
> e(df m),e(chi2))
                      ----- begin _coef_table__header.PushRight -----
                      - version 16
                      - gettoken tok rest : 0
                      - gettoken eq rest : rest
                      - gettoken dias rest : rest
                      - if `:length local rest' {
```

```
= if 33 {
                      - local direst = ustrltrim("`: di `rest''")
                      = local direst = ustrltrim("
                                                      0.0000")
                      - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                      = .ralignr = max(6, udstrlen("0.0000"))
                      - local len : di `"`tok'"'
                      = local len : di `"Prob > chi2"'
                      local len: smcllength local len
                      - .lalignr = max(`.lalignr', `len')
                      = .lalignr = max(13, 11)
                      - .right.Arrpush \`.C3' `"{lalign \`.lalignr':`tok'}"' \
> `.C4' "`eq'" `dias' "{ralign \`.ralignr':`direst'}"
                      = .right.Arrpush `.C3' `"{lalign `.lalignr':Prob > chi2}
> "' `.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' chi
> 2(`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 --
                            — 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("
                                                   0.1608")
                    - .ralignr = max(`.ralignr', udstrlen("`direst'"))
                    = .ralignr = max(6, udstrlen("0.1608"))
                    - 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':0.1608}"
                    - 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(rmse)
    }
              - end _coef_table__header.Build4r2 --
Build4title
      —— begin _coef_table__header.Build4title ——
 - version 16
 - if `.opt_septitle' {
 = if 0 {
   exit
   }
 - if `"`.title'"' == "" {
 = if `"Negative binomial regression"' == "" {
   exit
   }
 - if `.left.arrnels' {
 = if 0 {
   exit
   }
 - local title `.title'
 = local title Negative binomial regression
 - local title2 `.title2'
 = local title2
 - local len : smcllength local title
 - local len2 : smcllength local title2
 - if `len2' > `len' {
 = if 0 > 28 {
    local len = `len2'
 - if `len' < (`.c3' - 2) - (`.c1' - 1) {
 = if 28 < (49 - 2) - (1 - 1) {
 - PushLeft `"`.title'"'
 = PushLeft `"Negative binomial regression"'
           — begin _coef_table__header.PushLeft —
    - version 16
   - gettoken tok rest: 0
   - gettoken eg 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'}"' \`.C
> 2' "`eq'" `dias' "{ralign \`.ralignl':`direst'}"
                      }
                    - else if `:length local tok' {
                    = else if 28 {
                    - .left.Arrpush \`.C1' `"`tok'"'
                    = .left.Arrpush `.C1' `"Negative binomial regression"'
                    - }
                    - else {
                      .left.Arrpush
                      }
                             --- end _coef_table__header.PushLeft ----
                  - .title = ""
                  - if `len2' {
                  = if 0 {
                    PushLeft `"`.title2'"'
                    .title2 = ""
                    }
                  - }
                  - .opt_septitle = 1
                         ---- end _coef_table__header.Build4title --
                - if `.prop_censlimits' {
                = if 0 {
                  .Build4censlimits 1
                - .c2 = `.lalignl' + 1
                = .c2 = 0 + 1
                - .c3 = `.width'-`.lalignr'-`.ralignr'-3+1
                = .c3 = 78-13-6-3+1
                - .c4 = `.c3' + `.lalignr'
                = .c4 = 57 + 13
                - if `.is_gsem' {
                = if 0 {
                  if `.opt_dvheader' {
                  gsem_depvar_header, left(`.left.objkey') right(`.right.objke
> y') 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(crit
> type)'"')
                  = local hascrit = !missing(`"-371.5476210847906"') & !missin
> g(`"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 "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'}"' \`.C
> 2' "`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)) + bsu
> bstr(`"`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(critval
> ue)
                    }
                  - else if `hascrit' {
                  = else if 1 {
                  - if `.is_gsem_group' {
                  = if 0 {
                    local dill = strtrim("`: di %10.0g e(ll)'")
```

- .PushLeft `DISPERS'

```
.PushLeft "`crtype' = {res:`dill'}"
                    }
                  - else {
                  - .PushLeftRalign "`crtype'" " = " "as res" %10.0g e(ll)
                  = .PushLeftRalign "Log pseudolikelihood" " = " "as res" %10.
> 0g e(ll)
                      — begin _coef_table__header.PushLeftRalign ----
                    - version 16
                    gettoken tok rest: 0
                    - gettoken eq rest : rest
                    - gettoken dias rest : rest
                    - if `:length local rest' {
                    = if 13 {
                    - local direst : di `rest'
                    = local direst : di %10.0g e(ll)
                    - local direst = strtrim("`direst'")
                    = local direst = strtrim("-371.54762")

    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 pseudolike
> lihood}"' `.C2a' " = " as res "{ralign `.ralignla':-371.54762}"
                    - 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'.ralig
> nr' + 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 regressio
> n"' as txt _col(57) `"{lalign 13:Number of obs}"' _col(70) " = " as res "{ra
> lign 6:218}"
Negative binomial regression
                                                       Number of obs =
                                                                          218
               - }
                - 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 ch
> i2({res:6})}"' _col(70) " = " as res "{ralign 6:208.34}"
                                                      Wald chi2(6) = 208.34
               - }
               - display as smcl as txt `.left[`i']' as txt `.right[`i']'
                             ----- begin _coef_table__header.C1 -----
                 - version 16
                 - class exit `"_col(`.c1')"'
                 = class exit `"_col(1)"'
                              ----- end _coef_table__header.C1
                              begin _coef_table__header.C3
                 - version 16
                 - class exit `"_col(`.c3')"'
                 = class exit `"_col(57)"'
                                ---- end _coef_table__header.C3 -----
                            ------ begin _coef_table__header.C4 ------
                 - version 16
                 - class exit `"_col(`.c4')"'
                 = class exit `"_col(70)"'
                            ------ end _coef_table__header.C4 -----
               = display as smcl as txt _col(1) `"Dispersion: {res:mean}"' as
> txt _col(57) `"{lalign 13:Prob > chi2}"' _col(70) " = " as res "{ralign 6:0
> .0000}"
Dispersion: mean
                                                      Prob > chi2 = 0.0000
                - display as smcl as txt `.left[`i']' as txt `.right[`i']'
                            ----- begin _coef_table__header.C1 -----
                 - version 16
                 - class exit `"_col(`.c1')"'
```

```
= class exit `"_col(1)"'
                                  ---- end _coef_table__header.C1 -----
                               ── begin _coef_table__header.C2a ──
                  - version 16
                  - class exit `"_col(`.c2a')"'
                  = class exit `"_col(21)"'
                                ---- end _coef_table__header.C2a -----
                                --- begin _coef_table__header.C3 ----
                  - version 16
                  - class exit `"_col(`.c3')"'
                  = class exit `"_col(57)"'
                                 ---- end _coef_table__header.C3 -----
                                --- begin _coef_table__header.C4 ----
                  - version 16
                  - class exit `"_col(`.c4')"'
                  = class exit `"_col(70)"'
                                ----- end _coef_table__header.C4 -----
                = display as smcl as txt _col(1) `"{lalign 20:Log pseudolikeli
> hood}"' _col(21) " = " as res "{ralign 10:-371.54762}" as txt _col(57) `"{la
> lign 13:Pseudo R2}"' _col(70) " = " as res "{ralign 6:0.1608}"
Log pseudolikelihood = -371.54762
                                                        Pseudo R2
                                                                      = 0.1608
                - }
                          ----- 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' `sh
> oweqns' `diopts' `options' `notest'
            = _coef_table, level(95)
                                            ── begin _coef_table ──
              - version 11
              - local vv : di "version " string(max(11,_caller())) ", missing:
              - if (!c(noisily) & c(coeftabresults) == "off") {
                exit
                }
              - _check_eclass
              - syntax [, BMATrix(passthru) VMATrix(passthru) * ]
              - if "`e(b)'" == "" & "`e(V)'" == "" & "`bmatrix'`vmatrix'"==""
> {
              = if "matrix" == "" & "matrix" == "" & ""=="" {
                exit
                }
              local mc_cmds contrast margins pwcompare pwmean
              - local cmd "`e(cmd)'"
              = local cmd "nbreg"
              - local keepmc : list cmd in mc_cmds
              - if inlist("`cmd'", "pwcompare", "pwmean") {
              = if inlist("nbreg", "pwcompare", "pwmean") {
                local groups GROUPS
              - if "`cmd'" == "regress" {
              = if "nbreg" == "regress" {
                local beta Beta
                }
              - if "`cmd'" == "gsem" {
              = if "nbreg" == "gsem" {
                local fvignore fvignore(int 0)
                local flignore flignore
              - if "`cmd'" == "sem" {
              = if "nbreg" == "sem" {
                local standardized STANDARDIZED
                local showginvariant SHOWGINVariant
                local nolabel NOLABel LABel NOFVLABel FVLABel
                local nofootnote NOFOOTnote
```

```
local wrap wrap(numlist max=1) fvwrap(passthru)
                }
              - if "`e(mi)'"=="mi" {
              = if ""=="mi" {
                local dftable DFTable
                local dfonly DFONLY
                local noclustreport NOCLUSTReport
                local pisematrix PISEMATrix(string)
              - syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(st
> ring) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) R
> OWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(stri
> ng) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string) P
> CLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(stri
> ng asis) `beta' `standardized' NOCI NOPValues `dftable' `dfonly' dfci DFPVal
> ues dfmissing `groups' COEFLegend selegend `fvignore' `flignore' `showginvar
> iant' `nolabel' `nofootnote' `wrap' sort `pisematrix' depname(string) COEFTi
> tle(string) coeftitle2(string) ptitle(string) cititle(string) NOMCLEGend noC
> NSReport FULLCNSReport `noclustreport' cformat(passthru) sformat(passthru) p
> format(passthru) NOFirst First SHOWEQns neq(integer -1) NODIPARM NOTEST SEPa
> rator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFORMALL CITYPE(string) e
> qselect(string) noEFORMNOTE * ]
              = syntax [, cmdextras BMATrix(string) VMATrix(string) EMATrix(st
> ring) DFMATrix(string) EQMATrix(string) ROWMATrix(string) CIMATrix(string) R
> OWCFormat(string) ROWPFormat(string) ROWSFormat(string) NOROWCI MMATrix(stri
> ng) MVMATrix(string) MEMATrix(string) BSTDMATrix(string) CNSMATrix(string) P
> CLASSMATrix(string) Level(cilevel) prefix(name) suffix(name) OFFSETlist(stri
> ng asis)
            NOCI NOPValues
                              dfci DFPValues dfmissing COEFLegend selegend
      sort depname(string) COEFTitle(string) coeftitle2(string) ptitle(string
> ) cititle(string) NOMCLEGend noCNSReport FULLCNSReport cformat(passthru) sf
> ormat(passthru) pformat(passthru) NOFirst First SHOWEQns neq(integer -1) NOD
> IPARM NOTEST SEParator(integer 0) NOSKIP OFFSETONLY1 PLus NOEQCHECK EFORMALL
> 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 "`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' `group
> s' `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
                                            <del>----</del> end opts_exclusive <del>--</del>
              - opts_exclusive "`first' `nofirst'"
              = opts_exclusive " "
                                   ------ begin opts_exclusive -----
                - version 8.2

    args opts optname errcode optslab

                - local opts `opts'
                = local opts
                - local n 0
                - while `"`opts'"' != "" {
                = while `""' != "" {
                   local ++n
                  gettoken item`n' opts : opts, bind
                  }
```

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

    args opts optname errcode optslab

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

```
= if `""' != "" {
                local nofirst nofirst
              - if `"`ematrix'`noeqcheck'"' == "" {
              = if `""' == "" {
              - if `"`e(error)'"' == "matrix" {
              = if `""' == "matrix" {
                local ematrix e(error)
                }
              - }
              - _get_mcompare, `options'
              = _get_mcompare,
                                         ---- begin _get_mcompare --
                - version 11
                - local cmd `"`e(cmd)'"'
                = local cmd `"nbreg"'
                - syntax [name(name=caller)] [, *]
                - local is_pwc = inlist("pwcompare", "`cmd'", "`caller'") | in
> list("pwmean", "`cmd'", "`caller'")
                = local is_pwc = inlist("pwcompare", "nbreg", "") | inlist("pw
> mean", "nbreg", "")
                - local is_marg = inlist("margins", "`cmd'", "`e(cmd2)'", "`ca
> ller'")
                = local is_marg = inlist("margins", "nbreg", "", "")
                - 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 `""'
                - 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 --
              - 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 ALLBAS

> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> nq) 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) vsguish 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 <del>––</del>
  - version 8.2
```

```
- 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" {
```

args opts optname errcode optslab

local opts `opts'

= local opts
- local n 0

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

```
- Wrapon , `fvwrapon'
                  = Wrapon ,
                                      — begin _get_diopts.Wrapon —
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                                         — begin opts_exclusive —
                      - version 8.2

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                        ---- end opts_exclusive ---
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                                        — end _get_diopts.Wrapon —
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
```

```
> rev'
                  = c_local diopts
                  - if `K' == 2 {
                  = if 2 == 2 {
                  - c_local `c_opts' `"`options'"'
                  = c local options `""'
                  - }
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                     — end _get_diopts.GetDiopts -
                - c_local `name1' `"`diopts'"'
                = c_local diopts `""'
                - local snames : s(macros)
                - foreach sname of local snames {
                - local S_`sname' = s(`sname')
                = local S_level = s(level)
                - local S_`sname' = s(`sname')
                = local S_method = s(method)
                - }
                - sreturn clear

    GetDiopts DEFAULT

                                    – begin _get_diopts.GetDiopts -

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
> cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
```

```
— begin opts_exclusive ——
  - version 8.2

    args opts optname errcode optslab

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

    args opts optname errcode optslab

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

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

    args opts optname errcode optslab

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

```
----- end opts_exclusive ----
- opts_exclusive "`omitted' `noomitted'"
= opts_exclusive " "
                       — begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
 = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
  - if `n' < 2 {
  = if 0 < 2 {
  – exit
                       ---- end opts_exclusive ----
- opts_exclusive "`lstretch' `nolstretch'"
= opts_exclusive " "
                   begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

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

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

    args opts optname errcode optslab

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

    args opts optname errcode optslab

 - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
  - if `n' < 2 {
```

```
= if 0 < 2 {
  - exit
                         — end opts_exclusive —

    local K : list sizeof namelist

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

    args opts optname errcode optslab

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

```
— begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

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

**-** }

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

```
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
  local levelopt level(`level')
- Wrapon , `fvwrapon'
= Wrapon ,
                ----- begin _get_diopts.Wrapon --
  - capture syntax [, WOrd WIdth]
  - if c(rc) {
    di as err "invalid fvwrapon() option;"
    syntax [, WOrd WIdth]
    exit 198
    }
  - opts_exclusive "`word' `width'" fvwrapon
  = opts_exclusive " " fvwrapon
                      --- begin opts_exclusive ---
    - version 8.2

    args opts optname errcode optslab

    - local opts `opts'
   = local opts
    - local n 0
    - while `"`opts'"' != "" {
   = while `""' != "" {
      local ++n
      gettoken item`n' opts : opts, bind
   - if `n' < 2 {
   = if 0 < 2 {
    - exit
                           – end opts_exclusive —
  - local fvwrapon `word' `width'
  = local fvwrapon
  - if `:length local fvwrapon' {
  = if 0 {
    c_local fvwrapon fvwrapon(`fvwrapon')
    }
                    --- end _get_diopts.Wrapon ---
- if "`fvwrap'" != "" {
= if "" != "" {
  FVWrap, `fvwrap'
- c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
```

```
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                  - sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                    — end _get_diopts.GetDiopts —
                - if `"`name2'"' == "" {
                = if `"options"' == "" {
                  GetDiopts DUPS, `options'
                  }
                - else {
                GetDiopts DUPS options, `options'
                = GetDiopts DUPS options,
                                    - begin _get_diopts.GetDiopts -

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> nq) 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) vsguish 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 " "
                      <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 "`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
```

```
- 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" {
```

args opts optname errcode optslab

local opts `opts'

= local opts
- local n 0

```
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 method = `"noadjust"'
                - }
                                              --- end _get_diopts --
              - local legend coeflegend selegend
              local legend : list legend & diopts
              - local diopts : list diopts - legend

    local lstretch lstretch nolstretch

              - local lstretch : list lstretch & diopts
```

```
local diopts : list diopts - lstretch

    local markdown markdown

              - local markdown : list markdown & diopts
              - local diopts : list diopts - markdown
              - _get_diopts ignore, `diopts' `cformat' `sformat' `pformat'
              = get diopts ignore,
                                              — begin _get_diopts —
                - version 11
                - syntax namelist(max=2) [, *]
                - gettoken name1 namelist : namelist
                - gettoken name2 namelist : namelist
                - GetDiopts diopts options, `options'
                = GetDiopts diopts options,
                                   begin _get_diopts.GetDiopts -

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels 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 fylabel
- 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
```

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

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                       ----- end opts_exclusive ---
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                                       --- end _get_diopts.Wrapon --
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local diopts
                  - if `K' == 2 {
                  = if 2 == 2 {
                  - c_local `c_opts' `"`options'"'
                  = c_local options `""'
                  - }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
```

```
= sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                      end _get_diopts.GetDiopts -
                - c_local `name1' `"`diopts'"'
                = c_local 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 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 -
- 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 " "
                       <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 "`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 ,
```

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

Thursday, May 8, 2025 at 8:06 PM Page 874

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

    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 -
```

Thursday, May 8, 2025 at 8:06 PM Page 879

- local allbaselevels `allbaselevels' `noallbaselevels'

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

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

```
- version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                        }
                      - if `n' < 2 {
                      = if 0 < 2 {
                      exit
                                            end opts_exclusive —
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                                       --- end _get_diopts.Wrapon -
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DUPS
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  - sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
```

```
── end _get_diopts.GetDiopts ─
                - }
                - else {
                  GetDiopts DUPS options, `options'
                  c_local `name2' `"`options'"'
                local DUPS : list DUPS - DEFAULT
                - gettoken DUPS : DUPS
                - if `"`DUPS'"' != "" {
                = if `""' != "" {
                  if (strpos(`"`DUPS'"', "(")) {
                  gettoken DUPS : DUPS, parse("(")
                  local DUPS `"`DUPS'()"'
                  }
                  di as err "duplicate {bf:`DUPS'} option not allowed"
                  exit 198
                  }
                sreturn clear
                - foreach sname of local snames {
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local level = `"95"'
                - sreturn local `sname' = `"`S_`sname''"'
                = sreturn local method = `"noadjust"'
                                               — 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__) soption
> S
              = _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 RR
> r tr TRatio * ]
                - local opts `"`options'"'
                = local opts `""'
                - local 0 , `eform1' `eform' `nohr' `hr' `noshr' `shr' `or' `i
> rr' `rrr' `tr' `tratio'
                = local 0 ,
                - }
                - if "`allowed'" == "__all__" {
                = if "__all__" == "__all__" {
                local allowed `EFALL'
                = local allowed NOHR hr NOSHR shr or IRr RRr tr TRatio
                - foreach ef of local allowed {
                - capture confirm name `ef'
                = capture confirm name NOHR
                - if rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr
                - }
                - capture confirm name `ef'
                = capture confirm name hr
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr
                - }
                - capture confirm name `ef'
                = capture confirm name NOSHR
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
                  }
                - local efopts `efopts' `=lower("`ef'")'
                = local efopts nohr hr noshr
                - }
                - capture confirm name `ef'
                = capture confirm name shr
                - if _rc {
                  di as err "`ef' is not a valid name"
                  exit 198
```

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

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

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

```
else if ("`eform'"=="tratio") {
                  local eform1 = "Time ratio"
                  local eform cons ti = "Time"
                  local eform_cons_note = "time ratios"
                  }
                  else if ("`eform'"=="or") {
                  local eform1 = "Odds ratio"
                  if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cm
> d)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                  local eform_cons_ti = "Rel. risk"
                  local eform_cons_note = "relative-risk ratios"
                  local eform_cons_ti2 = "relative risk"
                  else {
                  local eform_cons_ti = "Odds"
                  local eform_cons_note = "odds ratios"
                  }
                  }
                  else if ("`eform'"=="irr") {
                  local eform1 = "IRR"
                  local eform_cons_ti = "Inc. rate"
                  local eform_cons_note = "incidence-rate ratios"
                  local eform_cons_ti2 = "incidence rate"
                  else if ("`eform'"=="rrr") {
                  local eform1 = "RRR"
                  local eform_cons_ti = "Rel. risk"
                  local eform_cons_note = "relative-risk ratios"
                  local eform_cons_ti2 = "relative risk"
                  else if ("`eform'"!="nohr") & ("`eform'"!="noshr") {
                  local eform1 = upper("`eform'")
                  }
                  }

    sreturn clear

                - sreturn local options `"`opts'"'
                = sreturn local options `""'
                - sreturn local opt `eform'
                = sreturn local opt
                - sreturn local str `eform1'
                = sreturn local str
                - if `"`eform1'"' != "" {
                = if `"" != "" {
                  sreturn local eform eform(`"`eform1'"')
                  }
                - else sreturn local eform ""
```

```
- sreturn local eform_cons_ti `eform_cons_ti'
                = sreturn local eform_cons_ti
                - sreturn local eform_cons_note `eform_cons_note'
                = sreturn local eform_cons_note
                - sreturn local eform_cons_ti2 `eform_cons_ti2'
                = sreturn local eform cons ti2
                                          ---- end _get_eformopts --
              - local 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'"', `"`ef
> ormdi''')
              = 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 pl
```

```
> us SYNTAXonly * ]
                - local goptions `options'
                = local goptions level(95)
                SpliceGlobals junk , `goptions'
                = SpliceGlobals junk , level(95)
                          --- begin _get_diparmopts.SpliceGlobals --
                  - syntax name(id="macro name" name=c_diparm) [, diparm(strin
> g asis) Level(cilevel) dof(passthru) syntaxonly ]
                  - if `"`dof'"' == "" & `"`e(df_r)'"' != "" {
                  = if `"" == "" & `"" != "" {
                    capture confirm integer number `e(df_r)'
                    if !c(rc) {
                    local gdof dof(`e(df_r)')
                    capture
                    }
                  - else local gdof `"`dof'"'
                  = else local gdof `""'
                  - local glevel `level'
                  = local glevel 95
                  - local lopt level(`glevel')
                  = local lopt level(95)
                  - if (`"`diparm'"' == "") exit
                  = if (`""' == "") exit
                              – end _get_diparmopts.\mathsf{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 diparmopts `"`diparmopts' : `diparm'"'
    if `single' | `"`:list retok after'"' == "" {
    local 0 `", `options'"'
    syntax [, diparm(string asis) * ]
    }
    else {
    local diparm `"`after'"'
    }
  - if `"`soptions'"' == "" {
  = if `""" == "" {
  - syntax [, diparm(string asis) ]
  - }
  - if ("`execute'" == "") {
  = if ("" == "") {
  sreturn clear
  - sreturn local options `"`options'"'
  = sreturn local options `""'
  - sreturn local diparm `"`diparmopts'"'
 = sreturn local diparm `""'
  - forval i = 1/`k' {
  = forval i = 1/0 {
    sreturn local diparm`i' `"`diparm`i''"'
  - sreturn local k `k'
  = sreturn local k 0
  - exit
                          ---- end _get_diparmopts ---

    local NODIPARM : length local nodiparm

- if `NODIPARM' {
= if 0 {
 local options
  }
- local GTOPTS parse(":") bind quotes
- local k 0
- if !`NODIPARM' {
= if !0 {
- if `"`e(diparm)'"' != "" {
= if `""' != "" {
  local i 0
  local diparm `"`e(diparm)'"'
  }
- else if `"`e(diparm1)'"' != "" {
= else if `"lnalpha, exp label("alpha")"' != "" {
```

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

```
- local i 1
- local diparm `"`e(diparm1)'"'
= local diparm `"lnalpha, exp label("alpha")"'
- while `:length local diparm' {
= while 27 {
- gettoken diparm rest : diparm, `GTOPTS'
= gettoken diparm rest : diparm, parse(":") bind quotes
- while `:length local rest' {
= while 0 {
  local ++k
  local diparm`k' : copy local diparm
  gettoken COLON rest : rest, `GTOPTS'
  gettoken diparm rest : rest, `GTOPTS'
  }
- local ++k
- local diparm`k' : copy local diparm
= local diparm1 : copy local diparm
- local ++i
- local diparm `"`e(diparm`i')'"'
= local diparm `""'
- }
- while `:length local diparm' {
= while 0 {
  gettoken diparm rest : diparm, `GTOPTS'
  while `:length local rest' {
  local ++k
  local diparm`k' : copy local diparm
  gettoken COLON rest : rest, `GTOPTS'
  gettoken diparm rest : rest, `GTOPTS'
  local ++k
  local diparm`k' : copy local diparm
  local ++i
  local diparm `"`e(diparm`i')'"'
  }
- }
- if `:length local options' {
= if 0 {
  local 0 `", `options'"'
  syntax [, diparm(string asis) *]
  if `k' & `:length local diparm' {
  local ++k
  local diparm`k' __sep__
  }
  while `:length local diparm' {
```

```
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 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 " "
```

gettoken diparm rest : diparm, `GTOPTS'

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

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 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
                        <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
                        <del>-----</del> end opts_exclusive <del>-</del>
- opts_exclusive "`abbrev' `noabbrev'"
= opts_exclusive " "
```

```
—— begin opts_exclusive —
  - version 8.2

    args opts optname errcode optslab

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

- if "`omitted'" == "" {

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

```
= if reldif(95, c(level)) > 1e-3 {
                    local levelopt level(`level')
                  - Wrapon , `fvwrapon'
                  = Wrapon ,
                                    ---- begin _get_diopts.Wrapon ---
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                                         --- begin opts_exclusive ---
                      - version 8.2
                      - args opts optname errcode optslab
                      - local opts `opts'
                      = local opts
                      - local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                      - if `n' < 2 {
                      = if 0 < 2 {
                      – exit
                                             end opts_exclusive —
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                                      ── end _get_diopts.Wrapon ─
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
```

```
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local diopts
                  - if `K' == 2 {
                  = if 2 == 2 {
                  - c_local `c_opts' `"`options'"'
                  = c_local options `""'
                  - }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                      - end _get_diopts.GetDiopts -
                - c_local `name1' `"`diopts'"'
                = c_local ___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 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 " "
                       — begin opts_exclusive —
  - version 8.2
  - args opts optname errcode optslab
  - local opts `opts'
  = local opts
  - 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
```

- opts\_exclusive "`abbrev' `noabbrev'"

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

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

```
- c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
                  = c_local DEFAULT
                  - if `K' == 2 {
                  = if 1 == 2 {
                    c_local `c_opts' `"`options'"'
                    }
                  sreturn local coding `coding'
                  = sreturn local coding
                  - sreturn local versus `versus'
                  = sreturn local versus
                  sreturn local compare `compare'
                  = sreturn local compare
                  - sreturn local level `level'
                  = sreturn local level 95
                                     — end _get_diopts.GetDiopts —
                - if `"`name2'"' == "" {
                = if `""' == "" {
                GetDiopts DUPS, `options'
                = GetDiopts DUPS,
                                 —— begin _get_diopts.GetDiopts —

    local DIOPTS Level(cilevel) vsquish NOALLBASElevels ALLBAS

> Elevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMPTYcells EMPTY
> cells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND cformat(stri
> ng) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRAP(passthru) F
> VWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYPE(passthru) N
> OABBREV ABBREV
                  - syntax namelist(max=2) [, `DIOPTS' *]
                  = syntax namelist(max=2) [, Level(cilevel) vsquish NOALLBASE
> levels ALLBASElevels NOBASElevels BASElevels noCNSReport FULLCNSReport NOEMP
> TYcells EMPTYcells NOOMITted OMITted NOLSTRETCH LSTRETCH COEFLegend SELEGEND
> cformat(string) sformat(string) pformat(string) CODING VERSUS COMPARE FVWRA
> P(passthru) FVWRAPON(string) NOFVLABel FVLABel NOCI NOPValues MARKDOWN CITYP
> E(passthru) NOABBREV ABBREV *]
                  - opts_exclusive "`allbaselevels' `noallbaselevels'"
                  = opts_exclusive " "
                                        --- begin opts_exclusive ---
                    - version 8.2

    args opts optname errcode optslab
```

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

    args opts optname errcode optslab

  - local opts `opts'
 = local opts
  - local n 0
  - while `"`opts'"' != "" {
  = while `""' != "" {
    local ++n
    gettoken item`n' opts : opts, bind
    }
```

```
= if 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 " "
```

 $- if `n' < 2 {$ 

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

= while `""' != "" {

- while `"`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 1 == 1 & 0 {
  syntax namelist(max=2) [, `DIOPTS']
- if reldif(`level', c(level)) > 1e-3 {
= if reldif(95, c(level)) > 1e-3 {
  local levelopt level(`level')
  }
```

```
- Wrapon , `fvwrapon'
                  = Wrapon ,
                                    ---- begin _get_diopts.Wrapon -
                    - capture syntax [, WOrd WIdth]
                    - if c(rc) {
                      di as err "invalid fvwrapon() option;"
                      syntax [, WOrd WIdth]
                      exit 198
                      }
                    - opts_exclusive "`word' `width'" fvwrapon
                    = opts_exclusive " " fvwrapon
                                         —— begin opts_exclusive —
                      - version 8.2

    args opts optname errcode optslab

                      - local opts `opts'
                      = local opts
                      local n 0
                      - while `"`opts'"' != "" {
                      = while `""' != "" {
                        local ++n
                        gettoken item`n' opts : opts, bind
                      - if `n' < 2 {
                      = if 0 < 2 {
                      - exit
                                            end opts_exclusive —
                    - local fvwrapon `word' `width'
                    = local fvwrapon
                    - if `:length local fvwrapon' {
                    = if 0 {
                      c_local fvwrapon fvwrapon(`fvwrapon')
                      }
                                      ── end _get_diopts.Wrapon ─
                  - if "`fvwrap'" != "" {
                  = if "" != "" {
                    FVWrap, `fvwrap'
                    }
                  - c_local `c_diopts' `levelopt' `vsquish' `allbaselevels' `b
> aselevels' `cnsreport' `fullcnsreport' `emptycells' `omitted' `lstretch' `co
> eflegend' `selegend' `cformat' `sformat' `pformat' `coding' `versus' `compar
> e' `fvwrap' `fvwrapon' `fvlabel' `noci' `nopvalues' `markdown' `citype' `abb
> rev'
```

```
= c_local DUPS
  - if `K' == 2 {
  = if 1 == 2 {
    c_local `c_opts' `"`options'"'
    }
  sreturn local coding `coding'
  = sreturn local coding
  - sreturn local versus `versus'
 = sreturn local versus
  - sreturn local compare `compare'
  = sreturn local compare
  - sreturn local level `level'
  = sreturn local level 95
                  ---- end _get_diopts.GetDiopts --
- }
- else {
 GetDiopts DUPS options, `options'
  c_local `name2' `"`options'"'
  }
- local DUPS : list DUPS - DEFAULT
- gettoken DUPS : DUPS
- if `"`DUPS'"' != "" {
= if `"" != "" {
  if (strpos(`"`DUPS'"', "(")) {
  gettoken DUPS : DUPS, parse("(")
  local DUPS `"`DUPS'()"'
  di as err "duplicate {bf:`DUPS'} option not allowed"
  exit 198
  }
- sreturn clear
- foreach sname of local snames {
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local level = `"95"'
- sreturn local `sname' = `"`S_`sname''"'
= sreturn local 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(passth
> ru) BMATrix(passthru) VMATrix(passthru) DFMATrix(passthru) COEFLegend SELEGE
> ND * ]
               - tempname T
               - if `:length local notab' {
               = if 5 {
                - .`T' = ._b_diparm.new, level(`level') `dof' `bmatrix' `vmatr
> ix' `dfmatrix' `coeflegend' `selegend'
               = ._{000008} = ._{b_{in}} = ._{in}
                 -class _b_diparm {
                                          = ""
                          string LEVEL
                          double IS_MI
                                          = 0
                          string BMAT
                                          = ""
                          string COLNA
                                          = ""
                          string VMAT
                          string DFMAT
                          string COLFUL = ""
                          double DF
                          double DF HOLD = 0
                          double EXTRA
                                          = 1
                          string METHOD = ""
                          double has_b
                                          = 0
                          double has_v
                                          = 0
                          double has_df = 0
                          double has_Cns = 0
                 -}
                                    ----- begin _b_diparm.new ----
                 - version 11
                 - .IS_MI = `"`e(mi)'"' == "mi" & `"`e(df_mi)'"' == "matrix"
                 = .IS_MI = `""' == "mi" & `""' == "matrix"
                 - if `.IS_MI' {
                 = if 0 {
                    local ALTOPT DFMATrix(string)
                  syntax [, Level(cilevel) DOF(real -1) BMATrix(string) VMAT
> rix(string) EXTRA(real 1) MCOMPARE(passthru) `ALTOPT' ]
                 = syntax [, Level(cilevel) DOF(real −1) BMATrix(string) VMAT
> rix(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", "") | 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
> 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 SCH
> effe 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 the
> 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 fro
> m `cmd'"'
                      exit 322
                      if `"`e(prefix)'"' == "svy" {
                      di as err `"method `opt' is not allowed with results usi
> ng the svy prefix"'
                      exit 322
                      }
                      local vce `"`e(vce)'"'
                      if !inlist("`vce'", "", "ols") {
                      di as err `"method `opt' is not allowed with results usi
> ng 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 method
> `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", "sidak
> ") {
                  = 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 = "piq_timing_max:wlth piq_timing_max:stky_pr_rotem
> berg piq_timing_max:stky_pr_calvo piq_timing_max:wg_ndx_prprice piq_timing_m
> ax:wg_ndx_other piq_timing_max:open piq_timing_max:_cons /lnalpha"
                  - .has_Cns = "`e(Cns)'" == "matrix"
                  = .has_Cns = "" == "matrix"
                  - }
                  - if `:length local vmatrix' {
                  = if 0 {
                    .has_v = 1
                    .VMAT = "`vmatrix'"
                  - if `:length local dfmatrix' {
                  = if 0 {
                    .has_df = 1
                    .DFMAT = "`dfmatrix'"
                  - if `dof' <= 0 {</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)") [, NOProb
> 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 specif
> ied"
                    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
```

Thursday, May 8, 2025 at 8:06 PM Page 928

---- 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(`"8"', "", ".") {
  di as err "parameter named {bf:`EQ'} not found"
  exit 322
  }
- local eqs `eqs' `eq'
= local eqs /lnalpha
- }
- local neq : list sizeof eqs
- if `.has_Cns' {
= if 0 {
  tempname Cns C
  matrix `Cns' = e(Cns)
- if `neq' != 1 {
= if 1 != 1 {
  local el 0
  }
- if `.IS_MI' {
= if 0 {
  if `.has_df' {
  local df = el(`.DFMAT',1,`el')
  }
  else {
  local df = el(e(df_mi),1,`el')
  if missing(`df') {
  local df 0
  }
  }
```

```
- else {
                  - local df = `.DF'
                  = local df = 0
                  - }
                  tempname z alpha
                  - scalar `alpha' = (100 - `.LEVEL')/100
                  = scalar __00000A = (100 - 95)/100
                  - mata: st_numscalar("`z'", _mc_crit("`.METHOD'", `df' == 0
> ? . : `df', st_numscalar("`alpha'"), ., `.EXTRA'))
                  = mata: st_numscalar("__000009", _mc_crit("noadjust", 0 == 0
> ? . : 0, st_numscalar("__00000A"), ., 1))
                  - local isCns 0
                  - if `neq' == 1 {
                  = if 1 == 1 {
                  - tempname b se
                  - if `.has_b' {
                  = if 0 {
                    scalar `b' = el(`.BMAT',1,`el')
                    if `.has_v' {
                    scalar `se' = sqrt(el(`.VMAT', `el', `el'))
                    }
                    else {
                    scalar `se' = 0
                    }
                    }
                  - else {
                  - scalar `b' = _b[`eqs']
                  = scalar __00000B = _b[/lnalpha]
                  - if "`e(V)'" == "matrix" {
                  = if "matrix" == "matrix" {
                  - scalar `se' = _se[`eqs']
                  = scalar __00000C = _se[/lnalpha]
                  - }
                  - else {
                    scalar `se' = 0
                  - if `.has_Cns' & `se' == 0 {
                  = if 0 \& __00000C == 0 {
                    matrix `C' = `Cns'[1..., `el']
                    matrix `C' = `C''*`C'
                    local isCns = `C'[1,1] != 0
                    }
                  - }
                  - if `se' == 0 {
                  = if 00000C == 0 {
                    scalar `se' = .
```

```
}
- if "`function'" != "" {
= if "" != "" {
  .Function `b' `se' `z' "`function'" "`derivative'"
  }
- else if "`builtin'" != "" {
= else if "exp" != "" {
- .`builtin' `b' `se' `z'
= .exp __00000B __00000C __000009
                       ── begin _b_diparm.exp ──
  - version 11
  args b se z
  - return scalar est = exp(`b')
 = return scalar est = exp(__00000B)
  - return scalar se = return(est)*`se'
 = return scalar se = return(est)*__00000C
 - return scalar lb = exp(`b'-`z'*`se')
  = return scalar lb = exp(\__00000B-\__000009*\__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
  piq_timing_max
                 Coefficient std. err. z P>|z| [95% conf. inte
> rval]
            wlth
                     -.55298 .1084162
                                          -5.10
                                                  0.000
                                                          -.7654718
                                                                     -.34
> 04882
stky_pr_rotemberg | -1.916071 .1860891
                                         -10.30
                                                  0.000
                                                          -2.280799
                                                                     -1.5
> 51344
   stky_pr_calvo | -1.564342 .1973985
                                          -7.92
                                                  0.000
                                                          -1.951236
                                                                     -1.1
> 77448
  wg_ndx_prprice
                   .5638435 .1496524
                                           3.77
                                                  0.000
                                                           .2705301
                                                                       . 85
> 71569
    wg_ndx_other | .3333815 .1367955
                                           2.44
                                                  0.015
                                                          .0652672
                                                                     . 60
> 14958
                   -.3849193
            open |
                             .1585616
                                          -2.43
                                                  0.015
                                                          -.6956944
                                                                      -.07
> 41442
           _cons
                    2.163967
                                          12.95
                                                  0.000
                               .1671399
                                                           1.836379
                                                                      2.4
> 91556
        /lnalpha
                    -2.03488
                             .4603172
                                                          -2.937085
                                                                     -1.1
> 32675
           alpha
                    .1306961 .0601617
                                                             .05302
                                                                       .32
```

```
- if "`markdown'" != "" {
              = if "" != "" {
                set linesize `lsize'
              - if "`eqselect'" == "" & "`eformnote'" != "noeformnote" {
              = if "" == "" & "" != "noeformnote" {
              - if `"`eformdi'"'!="" & ("`e(cmd)'"!="qnbreq" | "`e(prefix)'"==
> "svy") {
              = if `""'!="" & ("nbreg"!="gnbreg" | ""=="svy") {
                local k_eform `r(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 cons
> ti'"'!="" & "`e(consonly)'"!="1") {
              = if (`""'!="" & "0"=="0" & `""'!="" & "0"!="1") {
                if ("`e(cmd)'"=="asclogit" | "`e(cmd)'"=="cmclogit" | "`e(cmd)
> '"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                local asvar = `"`e(ranvars)'`e(fixvars)'`e(indvars)'"' != ""
                if `"`e(casevars)'"' != "" & `asvar' {
                local note1 "Exponentiated coefficients represent odds ratios
> for "
                local note2 "alternative-specific variables (first equation) a
> nd "
                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_cons_
> note'`extranote'" _c
                if ("`e(cmd)'"=="mlogit" | "`e(cmd)'"=="asclogit" | "`e(cmd)'"
> =="cmclogit" | "`e(cmd)'"=="cmmixlogit" | "`e(cmd)'"=="cmxtmixlogit" ) {
                di as txt " for each outcome" _c
                di as txt ".{p_end}"
              - }
              return add
              - if !`keepmc' {
              = if !0 {
              - return local mcmethod

    return local mctitle

              - }
                                                — end _coef_table —
            - if "`footnote'" == "" {
            = if "nofootnote" == "" {
              ml_footnote
              }
```

```
end mopt.Display ————
         exit
                                           -----end mopt
       exit
                                             ----- end ml ----
     - if "`e(chi2_ct)'"!="LR" { exit }
     = if ""!="LR" { exit }
                        end nbreg.Display ————
   - }
   - error `e(rc)'
   = error 0
                                    ----- end nbreg.Estimate ----
 - version 10: ereturn local cmdline `"nbreg `0'"'
 = version 10: ereturn local cmdline `"nbreg piq_timing_max wlth stky_pr
> _rotemberg stky_pr_calvo wg_ndx_prprice wg_ndx_other open if piq_timing_max
> <60 , vce(r)"'</pre>
                                             ---- end nbreg ---
log close
     name: <unnamed>
      log: /Users/connorbrennan/Library/CloudStorage/OneDrive-TheUniversityo
> fChicago/mmb/output/stepwise_regressions/piq_timing_max_frics_det.smcl
 log type: smcl
 closed on:
            8 May 2025, 20:06:03
```