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```
   9   Create ; relWy   = Wy  / defr $
  10   Create ; relWam  = Wam / defr $
  11   Create ; relWaf  = Waf / defr $
  12   Create ; LrelWy  = log(relWy)  $
  13   Create ; LrelWam = log(relWam) $
  14   Create ; LrelWaf = log(relWaf) $
  15   Create ; RWy     = Wy   * ipd $
  16   Create ; RWam    = Wam  * ipd $
  17   Create ; RWaf    = Waf  * ipd $
  18   Create ; RWk     = defr * ipd $
  19   Create ; LRWy     = log(RWy)   $
  20   Create ; LRWam    = log(RWam)  $
  21   Create ; LRWaf    = log(RWaf)  $
  22   Create ; LRWk     = log(RWk)   $
  23   Create ; LQ       = log(Q)     $
  24   Namelist ; Price = LRWy, LRWam, LRWaf, LRWk
       ; relPrice = LrelWy, LrelWam, LrelWaf
       ; Costshar = Cy, Cam, Caf
       ; Educate = Edy, Edam, Edaf
       ; Ind = Inda, Indc, Inde, Indf, Indh, Indi, Indp $
  25   Sure; LHS = Costshar
       ; Labels =
       ay,  byy,  byam,  byaf,  byk,   byq,
       aam, bamy, bamam, bamaf, bamk,  bamq,
       aaf, bafy, bafam, bafaf, bafk,  bafq
       ; RHS = one, Price, LQ
       ; Pattern =
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       ; Labels = ay,  byy,  byam,  byaf,  byq,
       aam, bamy, bamam, bamaf, bamq,
       aaf, bafy, bafam, bafaf, bafq
       ; RHS = one, relPrice, LQ
       ; Pattern =
       ay,  byy,   byam,  byaf,  byq,
       aam, bamy,  bamam, bamaf, bamq,
       aaf, bafy,  bafam, bafaf, bafq $
       Results begin on page   8 in output.
       Exit status for this model command is  0.0.
  29   Dstat ; Rhs = relPrice, LQ ; Output = 3 $
       Results begin on page  10 in output.
       Exit status for this model command is  0.0.
  30   Sure; LHS = Costshar
       ; Labels = ay, byy, byam, byaf, byq,
       aam, bamam, bamaf, bamq,
       aaf, bafaf, bafq
       ; RHS = one, relPrice, LQ
       ; Pattern =
       ay,  byy,  byam,  byaf,  byq,
       aam, byam, bamam, bamaf, bamq,
       aaf, byaf, bamaf, bafaf, bafq $
       Results begin on page  13 in output.
       Exit status for this model command is  0.0.
  31   Sure; LHS = Costshar
       ; Labels = ay, byy, byam, byaf, byq,
       aam, bamam, bamaf, bamq,
       aaf, bafaf, bafq,
       Da, Dc, De, Df, Dh, Di, Dp
       ; RHS = one, relPrice, LQ, Ind
       ; Pattern =
       ay,  byy,  byam,  byaf,  byq,  Da, Dc, De, Df, Dh, Di, Dp,
       aam, byam, bamam, bamaf, bamq, Da, Dc, De, Df, Dh, Di, Dp,
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Eaf,
       aam, byam, bamam, bamaf, bamq, Da, Dc, De, Df, Dh, Di, Dp, Ey,
Eam, Eaf,
       aaf, byaf, bamaf, bafaf, bafq, Da, Dc, De, Df, Dh, Di, Dp, Ey,
Eam, Eaf
       $
       Error:   Models - Maximum iterations exceeded by Newton
iterations.
       Results begin on page  17 in output.
       Exit status for this model command is  1.0.
       End command entry from editor.
  33   stop
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  BAFAF      0.2822805E-01   0.23244        0.121   0.90334
  BAFK      -0.1944174E-02   0.22362       -0.009   0.99306
  BAFQ      -0.2632170       0.13040E-01  -20.186   0.00000

                         Residual covariance matrix

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```
                LRWY       LRWAM       LRWAF        LRWK          LQ
LRWY          0.1365
LRWAM         0.1284      0.1277
LRWAF         0.1257      0.1237      0.1330
LRWK          0.1319      0.1300      0.1263      0.1467
LQ        0.9292E-02  0.1324E-01  0.1384E-01  0.1345E-01  0.5203E-02
```

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```
  BYY       -0.4058325E-02   0.73565E-01   -0.055   0.95601
  BYAM      -0.3757846E-02   0.93015E-01   -0.040   0.96777
  BYAF       0.9549054E-02   0.55023E-01    0.174   0.86222
  BYK       -0.1746399E-02   0.54646E-01   -0.032   0.97451
  BYQ       -0.4950747E-03   0.32200E-02   -0.154   0.87781
  BAMAM      0.1941272       0.29807        0.651   0.51486
  BAMAF     -0.6146886E-01   0.19521       -0.315   0.75285
  BAMK      -0.1287846       0.20328       -0.634   0.52638
  BAMQ       0.1231989       0.12172E-01   10.121   0.00000
  BAFAF      0.3573237E-01   0.20676        0.173   0.86279
  BAFK       0.1588090E-01   0.17321        0.092   0.92695
  BAFQ      -0.2630692       0.13054E-01  -20.153   0.00000

                         Residual covariance matrix

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104
LQ            9.8942      0.7069  -0.4   1.9      8.5837     10.9884
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º
º CAM AAM BYAM BAMAM BAMAF BAMQ
º
º CAF AAF BYAF BAMAF BAFAF BAFQ
º
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º Number of observations used in estimation = 104
º
º Model specification is given in run log
º
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º Constrained MLE for Multivariate Regression Model
º
º First iter: 0 F= 201.6227 log|ä|= -12.39099 g'inv(H)g=   2.6422
º
º Last iter: 51 F= 570.1130 log|ä|= -19.47734 g'inv(H)g=   0.0022
º
º Number of observations used in estimation =   104
º
º Model specification is given in run log
º
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