Appendix
Chapter 3
Econometric Estimation Output

TABLES 3 and 4 - Elections and Fiscal Balance

```
. *OLS
. regress  def def_1 def_2 def_3 growth lggp ele, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =   21.28
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.3627
                                                       Root MSE      =  .02471

------------------------------------------------------------------------------
             |               Robust
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .4501836   .0612624     7.35   0.000     .3296268    .5707405
       def_2 |   .0273253   .0706419     0.39   0.699    -.1116893    .1663398
       def_3 |   .1371861   .0657659     2.09   0.038     .0077669    .2666053
        grow |   .0964675   .0203988     4.73   0.000      .056325    .1366099
        lggp |   .0008223   .0022823     0.36   0.719     -.003669    .0053136
         ele |  -.0036922   .0031471    -1.17   0.242    -.0098854     .002501
       _cons |  -.0178905   .0197735    -0.90   0.366    -.0568022    .0210212
------------------------------------------------------------------------------

. regress  def def_1 def_2 def_3 grow lggp pbc, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =   25.03
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.3817
                                                       Root MSE      =  .02434

------------------------------------------------------------------------------
             |               Robust
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .4580231   .0589188     7.77   0.000     .3420781    .5739681
       def_2 |   .0400662   .0694408     0.58   0.564    -.0965847    .1767171
       def_3 |   .1196514   .0653006     1.83   0.068    -.0088522     .248155
        grow |   .0877438   .0202285     4.34   0.000     .0479367    .1275509
        lggp |   .0008499   .0022743     0.37   0.709    -.0036257    .0053254
         pbc |  -.0064528   .0020012    -3.22   0.001    -.0103908   -.0025147
       _cons |  -.0190134   .0196672    -0.97   0.334     -.057716    .0196891
------------------------------------------------------------------------------

. regress  def def_1 def_2 def_3 grow lggp ele ele1,robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =   23.47
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.3965
                                                       Root MSE      =  .02408

------------------------------------------------------------------------------
             |               Robust
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .4963217   .0581574     8.53   0.000     .3818737    .6107697
       def_2 |    .043854   .0675271     0.65   0.517    -.0890327    .1767407
       def_3 |   .0789868   .0658754     1.20   0.231    -.0506495    .2086232
        grow |   .0823988   .0196784     4.19   0.000     .0436736    .1211239
        lggp |   .0009685   .0022395     0.43   0.666    -.0034385    .0053756
         ele |   .0019633   .0032787     0.60   0.550    -.0044889    .0084155
        ele1 |   .0140562   .0035301     3.98   0.000     .0071093    .0210031
       _cons |  -.0238065   .0195584    -1.22   0.224    -.0622954    .0146824
------------------------------------------------------------------------------

. test ele=-ele1
```

```
 ( 1)  ele + ele1 = 0

       F(  1,   300) =    8.27
            Prob > F =    0.0043

. regress  def def_1 def_2 def_3 grow lggp ele_1, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =   22.53
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.3704
                                                       Root MSE      =  .02456

------------------------------------------------------------------------------
             |               Robust
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .4554651   .0581458     7.83   0.000     .3410413    .5698889
       def_2 |   .0587623   .0716794     0.82   0.413    -.0822939    .1998184
       def_3 |   .0998277   .0707205     1.41   0.159    -.0393415    .2389969
        grow |   .0965407   .0200904     4.81   0.000     .0570053     .136076
        lggp |   .0008047   .0022336     0.36   0.719    -.0035908    .0052002
       ele_1 |  -.0079034   .0031948    -2.47   0.014    -.0141905   -.0016164
       _cons |  -.0168815   .0192939    -0.87   0.382    -.0548496    .0210865
------------------------------------------------------------------------------

.
.
. *FE
. xtreg  def def_1 def_2 def_3 grow lggp ele,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.2168                         Obs per group: min =        14
       between = 0.1758                                        avg =      14.0
       overall = 0.1926                                        max =        14

                                                F(6,280)           =     12.92
corr(u_i, Xb)  = -0.2074                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .3177049    .057287     5.55   0.000     .2049371    .4304727
       def_2 |  -.0530212   .0610658    -0.87   0.386    -.1732275    .0671851
       def_3 |    .024791   .0575514     0.43   0.667    -.0884974    .1380794
        grow |   .0828221   .0199167     4.16   0.000     .0436166    .1220276
        lggp |   .0237088   .0111388     2.13   0.034     .0017824    .0456352
         ele |  -.0030769    .003379    -0.91   0.363    -.0097283    .0035745
       _cons |  -.2222733   .0965414    -2.30   0.022    -.4123124   -.0322341
-------------+----------------------------------------------------------------
     sigma_u |  .01619047
     sigma_e |  .02383394
         rho |   .3157495   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     2.07             Prob > F = 0.0045

. xtreg  def def_1 def_2 def_3 grow lggp pbc,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.2402                         Obs per group: min =        14
       between = 0.1815                                        avg =      14.0
       overall = 0.2099                                        max =        14
```

```
                                                F(6,280)           =     14.75
corr(u_i, Xb)  = -0.2075                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .3254006   .0558988     5.82   0.000     .2153653    .4354359
       def_2 |   -.039916   .0602769    -0.66   0.508    -.1585694    .0787373
       def_3 |   .0106597   .0563708     0.19   0.850    -.1003047    .1216241
        grow |   .0739673   .0198411     3.73   0.000     .0349106    .1130241
        lggp |   .0240468   .0109716     2.19   0.029     .0024495    .0456441
         pbc |   -.005962   .0019374    -3.08   0.002    -.0097757   -.0021483
       _cons |  -.2258234   .0950851    -2.37   0.018    -.4129958    -.038651
-------------+----------------------------------------------------------------
     sigma_u |  .01616389
     sigma_e |  .02347551
         rho |  .32161581   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     2.07             Prob > F = 0.0045

. xtreg  def def_1 def_2 def_3 grow lggp ele ele1,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.2606                         Obs per group: min =        14
       between = 0.1755                                        avg =      14.0
       overall = 0.2205                                        max =        14

                                                F(7,279)           =     14.05
corr(u_i, Xb)  = -0.2158                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .3626414   .0568463     6.38   0.000     .2507393    .4745436
       def_2 |  -.0362964   .0595818    -0.61   0.543    -.1535834    .0809906
       def_3 |  -.0304867   .0576452    -0.53   0.597    -.1439614    .0829881
        grow |   .0681588    .019719     3.46   0.001     .0293419    .1069756
        lggp |   .0246348   .0108446     2.27   0.024     .0032873    .0459824
         ele |     .00233   .0035477     0.66   0.512    -.0046536    .0093137
        ele1 |   .0134629   .0033113     4.07   0.000     .0069445    .0199812
       _cons |  -.2346324   .0940198    -2.50   0.013    -.4197106   -.0495542
-------------+----------------------------------------------------------------
     sigma_u |  .01631482
     sigma_e |  .02319926
         rho |   .3309053   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     2.11             Prob > F = 0.0036

. test ele=-ele1

 ( 1)  ele + ele1 = 0

       F(  1,   279) =    7.71
            Prob > F =    0.0059

. xtreg def def_1 def_2 def_3 grow lggp ele_1, fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.2296                         Obs per group: min =        14
       between = 0.1707                                        avg =      14.0
       overall = 0.1995                                        max =        14

                                                F(6,280)           =     13.91
corr(u_i, Xb)  = -0.2044                        Prob > F           =    0.0000
```

```
------------------------------------------------------------------------------
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .3204663   .0563163     5.69   0.000     .2096092    .4313233
       def_2 |  -.0205643   .0623507    -0.33   0.742       -.1433    .1021714
       def_3 |  -.0139053   .0583848    -0.24   0.812    -.1288342    .1010235
        grow |   .0827858   .0197053     4.20   0.000     .0439964    .1215752
        lggp |   .0236165   .0110473     2.14   0.033     .0018702    .0453629
       ele_1 |  -.0081503   .0034749    -2.35   0.020    -.0149907     -.00131
       _cons |  -.2204952   .0957485    -2.30   0.022    -.4089734    -.032017
-------------+----------------------------------------------------------------
     sigma_u |  .01624652
     sigma_e |  .02363812
         rho |  .32082923   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     2.14             Prob > F = 0.0031

.
. *GMM
. xtabond def l(0).ele , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =     81.59

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
def          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
def          |
          LD |   .3408471   .0566994     6.01   0.000     .2297183    .4519759
         L2D |  -.0208584   .0558308    -0.37   0.709    -.1302847    .0885679
grow         |
          D1 |   .0475126    .046633     1.02   0.308    -.0438864    .1389115
          LD |    .016412   .0204578     0.80   0.422    -.0236846    .0565085
lggp         |
          D1 |     .04739   .0457473     1.04   0.300    -.0422731    .1370532
          LD |  -.0469277   .0442286    -1.06   0.289    -.1336142    .0397587
ele          |
          D1 |  -.0030125   .0030957    -0.97   0.330      -.00908     .003055
_cons        |   .0007439    .000439     1.69   0.090    -.0001166    .0016044
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   283.73     Prob > chi2 = 0.9994

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.96   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.04   Pr > z = 0.9677

. xtabond def l(0).pbc , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =     94.84

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
```

```
------------------------------------------------------------------------------
def          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
def          |
          LD |   .3450258   .0551634     6.25   0.000     .2369075    .4531441
         L2D |  -.0058309   .0546304    -0.11   0.915    -.1129046    .1012427
grow         |
          D1 |   .0553255   .0456648     1.21   0.226     -.034176    .1448269
          LD |   .0277843   .0203464     1.37   0.172     -.012094    .0676626
lggp         |
          D1 |   .0283867    .044903     0.63   0.527    -.0596215    .1163949
          LD |  -.0306544   .0433259    -0.71   0.479    -.1155715    .0542628
pbc          |
          D1 |  -.0061786   .0018565    -3.33   0.001    -.0098174   -.0025399
_cons        |    .000723   .0004296     1.68   0.092    -.0001191     .001565
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   285.22     Prob > chi2 = 0.9993

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.18   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   0.21   Pr > z = 0.8359

. xtabond def l(0).ele ele1, lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =    103.48

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
def          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
def          |
          LD |   .3785501   .0564379     6.71   0.000     .2679338    .4891663
         L2D |    -.01835   .0548835    -0.33   0.738    -.1259197    .0892198
grow         |
          D1 |   .0466037   .0458397     1.02   0.309    -.0432405     .136448
          LD |   .0323178   .0204377     1.58   0.114    -.0077395     .072375
lggp         |
          D1 |   .0358335   .0450477     0.80   0.426    -.0524583    .1241254
          LD |  -.0394206   .0435052    -0.91   0.365    -.1246892    .0458479
ele          |
          D1 |   .0016323   .0032359     0.50   0.614      -.00471    .0079745
ele1         |
          D1 |   .0141011    .003246     4.34   0.000     .0077391    .0204631
_cons        |   .0008327   .0004321     1.93   0.054    -.0000142    .0016796
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   277.02     Prob > chi2 = 0.9998

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.40   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.25   Pr > z = 0.2131

. test D1.ele=-D1.ele1

 ( 1)  D.ele + D.ele1 = 0

           chi2(  1) =    8.78
         Prob > chi2 =    0.0030
```

```
. xtabond def l(0).ele_1 , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =     84.27

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
def          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
def          |
          LD |   .3477119   .0565205     6.15   0.000     .2369337      .45849
         L2D |  -.0147656   .0559278    -0.26   0.792     -.124382    .0948509
grow         |
          D1 |   .0433804   .0466379     0.93   0.352    -.0480282     .134789
          LD |   .0126031   .0204134     0.62   0.537    -.0274065    .0526127
lggp         |
          D1 |   .0567226   .0452583     1.25   0.210     -.031982    .1454273
          LD |  -.0541481   .0437954    -1.24   0.216    -.1399854    .0316893
ele_1        |
          D1 |  -.0072052   .0033172    -2.17   0.030    -.0137068   -.0007036
_cons        |   .0007185    .000441     1.63   0.103    -.0001459    .0015829
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   276.99     Prob > chi2 = 0.9998
Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -13.21   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.59   Pr > z = 0.1118
```

TABLES 5 and 6 - Elections and Total Expenditure

```
. *OLS
. regress  te te_1 te_2 te_3 grow lggp ele, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =  127.26
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8975
                                                       Root MSE      =  .03556

------------------------------------------------------------------------------
             |               Robust
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .8529785    .121196     7.04   0.000     .6144797    1.091477
        te_2 |  -.1169038   .1443267    -0.81   0.419     -.400921    .1671133
        te_3 |   .1654418   .0681497     2.43   0.016     .0313317     .299552
        grow |  -.1441292   .0274022    -5.26   0.000    -.1980534    -.090205
        lggp |   .0015893   .0037383     0.43   0.671    -.0057672    .0089458
         ele |   .0114646     .00458     2.50   0.013     .0024518    .0204774
       _cons |   .0078443   .0348913     0.22   0.822    -.0608174    .0765061
------------------------------------------------------------------------------

. regress  te te_1 te_2 te_3 grow lggp pbc, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =  115.39
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8984
                                                       Root MSE      =  .03542

------------------------------------------------------------------------------
             |               Robust
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .8758927   .1205354     7.27   0.000      .638694    1.113091
        te_2 |  -.1268693   .1412937    -0.90   0.370    -.4049177    .1511792
        te_3 |   .1526218   .0657014     2.32   0.021     .0233295    .2819141
        grow |  -.1394992   .0269941    -5.17   0.000    -.1926203   -.0863781
        lggp |   .0014448   .0036981     0.39   0.696    -.0058325    .0087221
         pbc |   .0082134   .0026115     3.15   0.002     .0030743    .0133525
       _cons |   .0120095   .0346679     0.35   0.729    -.0562126    .0802317
------------------------------------------------------------------------------

. regress  te te_1 te_2 te_3 grow lggp ele ele1,robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =  118.04
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8984
                                                       Root MSE      =  .03547

------------------------------------------------------------------------------
             |               Robust
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .8744431   .1288108     6.79   0.000      .620956     1.12793
        te_2 |  -.1257908   .1460104    -0.86   0.390    -.4131252    .1615435
        te_3 |    .152989   .0654962     2.34   0.020     .0240987    .2818792
        grow |  -.1395424   .0269902    -5.17   0.000    -.1926564   -.0864284
        lggp |   .0014549   .0036944     0.39   0.694    -.0058152    .0087251
         ele |   .0086581   .0053059     1.63   0.104    -.0017835    .0190996
        ele1 |  -.0078012    .005399    -1.44   0.150     -.018426    .0028236
       _cons |   .0117077   .0342289     0.34   0.733    -.0556516    .0790669
------------------------------------------------------------------------------

. test ele=-ele1
```

```
 ( 1)  ele + ele1 = 0

       F(  1,   300) =    0.01
            Prob > F =    0.9271

. regress  te te_1 te_2 te_3 grow lggp ele_1, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =  116.88
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8958
                                                       Root MSE      =  .03586

------------------------------------------------------------------------------
             |               Robust
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |    .866813   .1196696     7.24   0.000      .631318    1.102308
        te_2 |  -.1362872   .1422076    -0.96   0.339    -.4161343    .1435598
        te_3 |   .1712412   .0734229     2.33   0.020      .026754    .3157285
        grow |  -.1519528   .0270019    -5.63   0.000    -.2050892   -.0988164
        lggp |   .0014792   .0037438     0.40   0.693    -.0058881    .0088464
       ele_1 |   .0017953   .0042057     0.43   0.670    -.0064809    .0100716
       _cons |   .0111131   .0350294     0.32   0.751    -.0578204    .0800465
------------------------------------------------------------------------------

.
.
. *FE
. xtreg  te te_1 te_2 te_3 grow lggp ele,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3810                         Obs per group: min =        14
       between = 0.7690                                        avg =      14.0
       overall = 0.6013                                        max =        14

                                                F(6,280)           =     28.72
corr(u_i, Xb)  = 0.6280                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |     .47562   .0472501    10.07   0.000     .3826095    .5686305
        te_2 |  -.1371475   .0525041    -2.61   0.009    -.2405003   -.0337947
        te_3 |  -.1069057   .0418403    -2.56   0.011    -.1892671   -.0245443
        grow |  -.1179495   .0225352    -5.23   0.000    -.1623093   -.0735896
        lggp |  -.0282712   .0127286    -2.22   0.027    -.0533271   -.0032152
         ele |   .0057427   .0038351     1.50   0.135    -.0018066     .013292
       _cons |   .4229095   .1145549     3.69   0.000     .1974114    .6484075
-------------+----------------------------------------------------------------
     sigma_u |  .08462865
     sigma_e |  .02712363
         rho |   .9068474   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    11.30            Prob > F = 0.0000

. xtreg  te te_1 te_2 te_3 grow lggp pbc,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3902                         Obs per group: min =        14
       between = 0.7525                                        avg =      14.0
       overall = 0.5922                                        max =        14
```

```
                                                F(6,280)          =     29.86
corr(u_i, Xb)  = 0.6150                         Prob > F          =    0.0000

------------------------------------------------------------------------------
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .4894211   .0470915    10.39   0.000     .3967228    .5821193
        te_2 |  -.1395606   .0516395    -2.70   0.007    -.2412115   -.0379096
        te_3 |  -.1182188   .0418429    -2.83   0.005    -.2005853   -.0358522
        grow |  -.1124959   .0225231    -4.99   0.000     -.156832   -.0681599
        lggp |  -.0295899    .012621    -2.34   0.020    -.0544339   -.0047458
         pbc |   .0057465   .0022564     2.55   0.011     .0013048    .0101881
       _cons |   .4357615   .1134771     3.84   0.000      .212385     .659138
-------------+----------------------------------------------------------------
     sigma_u |  .08470662
     sigma_e |  .02692198
         rho |  .90825408   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    11.47             Prob > F = 0.0000

. xtreg  te te_1 te_2 te_3 grow lggp ele ele1,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3921                         Obs per group: min =        14
       between = 0.7295                                        avg =      14.0
       overall = 0.5751                                        max =        14

                                                F(7,279)           =     25.71
corr(u_i, Xb)  = 0.5971                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |    .497696   .0479183    10.39   0.000     .4033686    .5920234
        te_2 |  -.1474147    .052323    -2.82   0.005    -.2504126   -.0444168
        te_3 |  -.1227199   .0421252    -2.91   0.004    -.2056435   -.0397963
        grow |  -.1116561   .0225456    -4.95   0.000    -.1560371   -.0672751
        lggp |  -.0307563   .0126846    -2.42   0.016    -.0557259   -.0057867
         ele |   .0025798   .0040573     0.64   0.525    -.0054069    .0105666
        ele1 |   -.008665   .0038406    -2.26   0.025    -.0162252   -.0011049
       _cons |   .4482897   .1142822     3.92   0.000      .223325    .6732545
-------------+----------------------------------------------------------------
     sigma_u |  .08528202
     sigma_e |  .02692765
         rho |  .90934139   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    11.51             Prob > F = 0.0000

. test ele=-ele1

 ( 1)  ele + ele1 = 0

       F(  1,   279) =    0.88
            Prob > F =    0.3484

. xtreg te te_1 te_2 te_3 grow lggp ele_1, fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3782                         Obs per group: min =        14
       between = 0.7292                                        avg =      14.0
       overall = 0.5681                                        max =        14

                                                F(6,280)           =     28.38
corr(u_i, Xb)  = 0.5971                         Prob > F           =    0.0000
```

```
------------------------------------------------------------------------------
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .4804651   .0474058    10.14   0.000     .3871481     .573782
        te_2 |  -.1400705   .0528345    -2.65   0.008    -.2440737   -.0360672
        te_3 |  -.1180047   .0440876    -2.68   0.008    -.2047899   -.0312195
        grow |  -.1215008   .0224652    -5.41   0.000     -.165723   -.0772786
        lggp |  -.0297466   .0127572    -2.33   0.020    -.0548588   -.0046344
       ele_1 |   .0039702   .0040691     0.98   0.330    -.0040398    .0119802
       _cons |    .438336   .1146815     3.82   0.000     .2125887    .6640833
-------------+----------------------------------------------------------------
     sigma_u |  .08593566
     sigma_e |  .02718584
         rho |  .90902645   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    11.61             Prob > F = 0.0000

.
. *GMM
. xtabond te l(0).ele , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    261.18

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
te           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
te           |
          LD |   .6642248   .0520248    12.77   0.000      .562258    .7661915
         L2D |  -.2526925   .0519487    -4.86   0.000      -.35451    -.150875
grow         |
          D1 |  -.1017775   .0638095    -1.60   0.111    -.2268418    .0232868
          LD |   .1231811   .0287537     4.28   0.000     .0668249    .1795374
lggp         |
          D1 |  -.0872688    .062897    -1.39   0.165    -.2105447     .036007
          LD |  -.0131114   .0604702    -0.22   0.828    -.1316307     .105408
ele          |
          D1 |   .0100806   .0043157     2.34   0.020      .001622    .0185392
_cons        |   .0022204   .0005992     3.71   0.000     .0010461    .0033947
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   254.35     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -9.70   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.00   Pr > z = 0.3166

. xtabond te l(0).pbc , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    262.49

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
```

```
------------------------------------------------------------------------------
te           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
te           |
          LD |   .6816699   .0517816    13.16   0.000     .5801799    .7831599
         L2D |  -.2665863   .0507628    -5.25   0.000    -.3660795    -.167093
grow         |
          D1 |  -.1016196   .0638553    -1.59   0.112    -.2267738    .0235345
          LD |   .1157484     .02918     3.97   0.000     .0585566    .1729401
lggp         |
          D1 |  -.0825743   .0629637    -1.31   0.190    -.2059809    .0408323
          LD |  -.0163862   .0604938    -0.27   0.786    -.1349519    .1021794
pbc          |
          D1 |   .0073755   .0026063     2.83   0.005     .0022673    .0124837
_cons        |   .0021614   .0005987     3.61   0.000      .000988    .0033349
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   250.02     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -9.86   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.41   Pr > z = 0.1600

. xtabond te l(0).ele ele1, lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =    261.95

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
te           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
te           |
          LD |   .6826108   .0533813    12.79   0.000     .5779854    .7872361
         L2D |   -.265755   .0528449    -5.03   0.000    -.3693291   -.1621809
grow         |
          D1 |  -.1016882   .0640968    -1.59   0.113    -.2273157    .0239392
          LD |   .1155703    .029261     3.95   0.000     .0582198    .1729208
lggp         |
          D1 |  -.0823109    .063254    -1.30   0.193    -.2062865    .0416647
          LD |   -.016232   .0607757    -0.27   0.789    -.1353502    .1028863
ele          |
          D1 |   .0073918   .0046407     1.59   0.111    -.0017038    .0164873
ele1         |
          D1 |  -.0073544   .0045725    -1.61   0.108    -.0163164    .0016077
_cons        |    .002157   .0006031     3.58   0.000      .000975     .003339
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   249.74     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -10.20   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.42   Pr > z = 0.1568

. test D1.ele=-D1.ele1

 ( 1)  D.ele + D.ele1 = 0

           chi2(  1) =    0.00
         Prob > chi2 =    0.9961
```

```
. xtabond te l(0).ele_1 , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    250.92

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
te           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
te           |
          LD |   .6882782   .0531348    12.95   0.000     .5841358    .7924205
         L2D |  -.2839229   .0512149    -5.54   0.000    -.3843022   -.1835436
grow         |
          D1 |   -.087486    .064571    -1.35   0.175    -.2140429    .0390709
          LD |   .1358809   .0288623     4.71   0.000     .0793119    .1924499
lggp         |
          D1 |  -.1172843   .0627715    -1.87   0.062    -.2403143    .0057457
          LD |    .011062   .0605704     0.18   0.855    -.1076537    .1297777
ele_1        |
          D1 |   .0038208   .0046096     0.83   0.407    -.0052139    .0128555
_cons        |   .0021637   .0006088     3.55   0.000     .0009705     .003357
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   248.75     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -10.29   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.72   Pr > z = 0.0848
```

TABLES 7 and 8 - Elections and Composition Effect

```
. *OLS
. regress  ce ce_1 ce_2 ce_3 grow lggp ele, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =   68.17
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.5964
                                                       Root MSE      =  .04868

------------------------------------------------------------------------------
             |               Robust
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |    .597824   .0629698     9.49   0.000      .4739073    .7217407
        ce_2 |  -.0213287   .0697938    -0.31   0.760     -.1586743     .116017
        ce_3 |   .1615112   .0522125     3.09   0.002      .0587634     .264259
        grow |   .0682283   .0422724     1.61   0.108     -.0149585    .1514152
        lggp |  -.0076872   .0052917    -1.45   0.147     -.0181006    .0027262
         ele |   .0000105   .0068845     0.00   0.999     -.0135374    .0135585
       _cons |   .2929964    .058347     5.02   0.000      .1781766    .4078161
------------------------------------------------------------------------------

. regress  ce ce_1 ce_2 ce_3 grow lggp pbc, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =   67.85
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.5976
                                                       Root MSE      =   .0486

------------------------------------------------------------------------------
             |               Robust
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .5959227   .0627891     9.49   0.000      .4723615    .7194839
        ce_2 |  -.0103155   .0694357    -0.15   0.882     -.1469564    .1263255
        ce_3 |    .154159   .0525895     2.93   0.004      .0506694    .2576485
        grow |   .0619434   .0422938     1.46   0.144     -.0212857    .1451724
        lggp |   -.007643   .0052931    -1.44   0.150     -.0180592    .0027731
         pbc |  -.0038566   .0039057    -0.99   0.324     -.0115425    .0038293
       _cons |   .2911026   .0585234     4.97   0.000      .1759358    .4062695
------------------------------------------------------------------------------

. regress  ce ce_1 ce_2 ce_3 grow lggp ele ele1,robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =   57.92
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.5998
                                                       Root MSE      =  .04855

------------------------------------------------------------------------------
             |               Robust
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .6108055   .0649001     9.41   0.000      .4830884    .7385227
        ce_2 |  -.0137019   .0694034    -0.20   0.844     -.1502811    .1228773
        ce_3 |   .1427931   .0535513     2.67   0.008      .0374092    .2481769
        grow |   .0602011   .0417522     1.44   0.150     -.0219632    .1423655
        lggp |  -.0074531   .0052384    -1.42   0.156     -.0177616    .0028555
         ele |   .0039174   .0074204     0.53   0.598     -.0106852      .01852
        ele1 |    .010833   .0066074     1.64   0.102     -.0021697    .0238357
       _cons |   .2854962   .0585507     4.88   0.000      .1702741    .4007183
------------------------------------------------------------------------------

. test ele=-ele1
```

```
 ( 1)  ele + ele1 = 0

       F(  1,   300) =    1.60
            Prob > F =    0.2073

. regress  ce ce_1 ce_2 ce_3 grow lggp ele_1, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =   74.50
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.6071
                                                       Root MSE      =  .04802

------------------------------------------------------------------------------
             |               Robust
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .6079164    .063583     9.56   0.000     .4827928    .7330399
        ce_2 |  -.0003787   .0705679    -0.01   0.996    -.1392477    .1384903
        ce_3 |   .1317214   .0521353     2.53   0.012     .0291255    .2343173
        grow |   .0686702   .0403819     1.70   0.090    -.0107963    .1481368
        lggp |  -.0076549   .0051607    -1.48   0.139    -.0178105    .0025007
       ele_1 |  -.0197734   .0069432    -2.85   0.005    -.0334368   -.0061101
       _cons |   .2954732   .0567027     5.21   0.000     .1838893     .407057
------------------------------------------------------------------------------


.
. *FE
. xtreg  ce ce_1 ce_2 ce_3 grow lggp ele,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3691                         Obs per group: min =        14
       between = 0.9242                                        avg =      14.0
       overall = 0.5915                                        max =        14

                                                F(6,280)           =     27.30
corr(u_i, Xb)  = 0.5274                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .4984037   .0555412     8.97   0.000     .3890724    .6077351
        ce_2 |  -.0463806   .0640028    -0.72   0.469    -.1723684    .0796072
        ce_3 |   .1227309   .0530716     2.31   0.021     .0182609    .2272008
        grow |   .0790595   .0386179     2.05   0.042     .0030412    .1550779
        lggp |  -.0134477   .0224803    -0.60   0.550    -.0576995     .030804
         ele |   .0013865   .0066562     0.21   0.835     -.011716     .014489
       _cons |   .4740116   .1804386     2.63   0.009     .1188232    .8291999
-------------+----------------------------------------------------------------
     sigma_u |  .02265106
     sigma_e |  .04678539
         rho |  .18988946   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     2.18             Prob > F = 0.0025

. xtreg  ce ce_1 ce_2 ce_3 grow lggp pbc,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3699                         Obs per group: min =        14
       between = 0.9239                                        avg =      14.0
       overall = 0.5927                                        max =        14
```

```
                                                F(6,280)           =     27.40
corr(u_i, Xb)  = 0.5258                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .4960342   .0550021     9.02   0.000     .3877641    .6043044
        ce_2 |  -.0365872   .0640198    -0.57   0.568    -.1626085    .0894341
        ce_3 |   .1183684   .0534819     2.21   0.028     .0130907     .223646
        grow |    .073767   .0389992     1.89   0.060    -.0030019     .150536
        lggp |  -.0136598   .0224256    -0.61   0.543    -.0578038    .0304843
         pbc |  -.0025314    .003918    -0.65   0.519    -.0102439    .0051811
       _cons |   .4736657    .180086     2.63   0.009     .1191713      .82816
-------------+----------------------------------------------------------------
     sigma_u |  .02249727
     sigma_e |  .04675418
         rho |  .18800595   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     2.16             Prob > F = 0.0028

. xtreg  ce ce_1 ce_2 ce_3 grow lggp ele ele1,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3733                         Obs per group: min =        14
       between = 0.9385                                        avg =      14.0
       overall = 0.5967                                        max =        14

                                                F(7,279)           =     23.74
corr(u_i, Xb)  = 0.5514                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .5094768   .0560442     9.09   0.000     .3991537       .6198
        ce_2 |  -.0405547   .0640459    -0.63   0.527    -.1666293    .0855199
        ce_3 |   .1060174   .0543826     1.95   0.052    -.0010348    .2130696
        grow |   .0706142   .0390503     1.81   0.072    -.0062564    .1474848
        lggp |  -.0107449   .0225325    -0.48   0.634    -.0551002    .0336103
         ele |   .0046506   .0070621     0.66   0.511    -.0092511    .0185522
        ele1 |   .0089791   .0065703     1.37   0.173    -.0039546    .0219128
       _cons |   .4473069   .1812163     2.47   0.014      .090582    .8040317
-------------+----------------------------------------------------------------
     sigma_u |  .02252725
     sigma_e |  .04671307
         rho |   .1886821   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     2.15             Prob > F = 0.0030

. test ele=-ele1
 ( 1)  ele + ele1 = 0

       F(  1,   279) =    1.49
            Prob > F =    0.2228

. xtreg ce ce_1 ce_2 ce_3 grow lggp ele_1, fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3877                         Obs per group: min =        14
       between = 0.9431                                        avg =      14.0
       overall = 0.6036                                        max =        14

                                                F(6,280)           =     29.55
corr(u_i, Xb)  = 0.5532                         Prob > F           =    0.0000
```

```
------------------------------------------------------------------------------
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .5064715   .0543087     9.33   0.000     .3995664    .6133766
        ce_2 |  -.0247478   .0624277    -0.40   0.692    -.1476349    .0981394
        ce_3 |   .0898578   .0534849     1.68   0.094    -.0154258    .1951415
        grow |   .0772384   .0378411     2.04   0.042     .0027493    .1517276
        lggp |  -.0101332   .0221414    -0.46   0.648     -.053718    .0334516
       ele_1 |  -.0194332   .0066483    -2.92   0.004    -.0325203   -.0063462
       _cons |   .4520359   .1776843     2.54   0.011     .1022692    .8018026
-------------+----------------------------------------------------------------
     sigma_u |  .02273794
     sigma_e |  .04609108
         rho |  .19573466   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     2.23             Prob > F = 0.0019

.
. *GMM
. xtabond ce l(0).ele , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    142.57

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
ce           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ce           |
          LD |   .5204356   .0568682     9.15   0.000     .4089759    .6318952
         L2D |  -.0343043   .0569018    -0.60   0.547    -.1458298    .0772211
grow         |
          D1 |   .0892711   .0950972     0.94   0.348     -.097116    .2756583
          LD |   -.069051   .0411043    -1.68   0.093     -.149614    .0115121
lggp         |
          D1 |   .0052189   .0929107     0.06   0.955    -.1768827    .1873206
          LD |  -.0666234   .0900221    -0.74   0.459    -.2430635    .1098168
ele          |
          D1 |  -.0057964   .0064121    -0.90   0.366    -.0183639     .006771
_cons        |   .0049174    .001014     4.85   0.000       .00293    .0069048
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   244.93     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.35   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.89   Pr > z = 0.3739

. xtabond ce l(0).pbc , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    145.08

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
```

```
ce           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ce           |
          LD |   .5213213   .0559603     9.32   0.000     .4116411    .6310014
         L2D |  -.0292606   .0561441    -0.52   0.602    -.1393011    .0807799
grow         |
          D1 |   .0920027   .0947985     0.97   0.332     -.093799    .2778045
          LD |  -.0585332   .0416931    -1.40   0.160    -.1402502    .0231838
lggp         |
          D1 |  -.0067717   .0926874    -0.07   0.942    -.1884357    .1748924
          LD |   -.056363   .0897739    -0.63   0.530    -.2323166    .1195905
pbc          |
          D1 |  -.0065655   .0038776    -1.69   0.090    -.0141655    .0010344
_cons        |   .0048776    .001011     4.82   0.000     .0028961    .0068591
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   243.05     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.41   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.52   Pr > z = 0.6014

. xtabond ce l(0).ele ele1, lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =    145.53

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
ce           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ce           |
          LD |   .5329169   .0572878     9.30   0.000     .4206349    .6451989
         L2D |  -.0366249    .057022    -0.64   0.521     -.148386    .0751362
grow         |
          D1 |   .0879901   .0952772     0.92   0.356    -.0987497      .27473
          LD |  -.0559375   .0419735    -1.33   0.183     -.138204     .026329
lggp         |
          D1 |  -.0017589   .0931851    -0.02   0.985    -.1843983    .1808805
          LD |  -.0604062   .0902535    -0.67   0.503    -.2372998    .1164874
ele          |
          D1 |  -.0015722   .0068145    -0.23   0.818    -.0149284    .0117839
ele1         |
          D1 |   .0111912   .0066819     1.67   0.094    -.0019051    .0242874
_cons        |   .0048946   .0010158     4.82   0.000     .0029037    .0068854
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   244.37     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.55   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.36   Pr > z = 0.7182

. test D1.ele=-D1.ele1

 ( 1)  D.ele + D.ele1 = 0

           chi2(  1) =    0.76
         Prob > chi2 =    0.3831
```

```
. xtabond ce l(0).ele_1 , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    148.01

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
ce           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ce           |
          LD |   .5460397   .0559632     9.76   0.000     .4363538    .6557256
         L2D |  -.0449919   .0550667    -0.82   0.414    -.1529206    .0629368
grow         |
          D1 |   .0807695   .0943044     0.86   0.392    -.1040637    .2656027
          LD |  -.0788889   .0406327    -1.94   0.052    -.1585274    .0007497
lggp         |
          D1 |   .0262696   .0910579     0.29   0.773    -.1522006    .2047398
          LD |  -.0790056   .0883866    -0.89   0.371    -.2522403     .094229
ele_1        |
          D1 |  -.0148937   .0067283    -2.21   0.027     -.028081   -.0017064
_cons        |   .0046604   .0010169     4.58   0.000     .0026673    .0066536
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   242.60     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.32   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.50   Pr > z = 0.6165
```

TABLES 9 and 10 - Elections and Total Revenue

```
. *OLS
. regress tr tr_1 tr_2 tr_3 grow lggp ele, robust

Regression with robust standard errors                Number of obs =     308
                                                       F(  6,   301) =   72.19
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8920
                                                       Root MSE      =   .0332

------------------------------------------------------------------------------
             |               Robust
          tr|      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   1.007357   .1669972     6.03   0.000       .678727    1.335987
        tr_2 |   -.280931   .2239186    -1.25   0.211     -.7215751    .1597131
        tr_3 |    .158464   .0864167     1.83   0.068     -.0115934    .3285214
        grow |   -.051079   .0274964    -1.86   0.064     -.1051884    .0030304
        lggp |   .0007143   .0031351     0.23   0.820     -.0054552    .0068839
         ele |   .0111455    .004261     2.62   0.009      .0027604    .0195306
       _cons |   .0141335   .0306862     0.46   0.645     -.0462533    .0745202
------------------------------------------------------------------------------

. regress tr tr_1 tr_2 tr_3 grow lggp pbc, robust

Regression with robust standard errors                Number of obs =     308
                                                       F(  6,   301) =   65.81
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8903
                                                       Root MSE      =  .03347

------------------------------------------------------------------------------
             |               Robust
          tr|      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   1.011438   .1685758     6.00   0.000       .679702    1.343175
        tr_2 |   -.299546   .2214875    -1.35   0.177      -.735406     .136314
        tr_3 |   .1719821   .0842619     2.04   0.042      .0061651    .3377991
        grow |   -.053444   .0276693    -1.93   0.054     -.1078938    .0010058
        lggp |   .0006089   .0031729     0.19   0.848     -.0056351    .0068528
         pbc |   .0024608    .002744     0.90   0.371      -.002939    .0078606
       _cons |   .0179009   .0312325     0.57   0.567     -.0435607    .0793626
------------------------------------------------------------------------------

. regress tr_1 tr_2 tr_3 grow lggp ele ele1,robust

Regression with robust standard errors                Number of obs =     308
                                                       F(  7,   300) =   77.98
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8930
                                                       Root MSE      =   .0331

------------------------------------------------------------------------------
             |               Robust
          tr|      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .9937757   .1704347     5.83   0.000      .6583768    1.329175
        tr_2 |  -.2660834   .2282896    -1.17   0.245     -.7153353    .1831684
        tr_3 |   .1580741   .0865007     1.83   0.069     -.0121509    .3282991
        grow |  -.0556565   .0270965    -2.05   0.041     -.1089799   -.0023332
        lggp |   .0008512    .003169     0.27   0.788      -.005385    .0070873
         ele |   .0137865   .0047429     2.91   0.004      .0044529    .0231202
        ele1 |   .0075717    .005269     1.44   0.152     -.0027971    .0179405
       _cons |   .0101636   .0305855     0.33   0.740     -.0500258     .070353
------------------------------------------------------------------------------

. test ele=-ele1
```

```
 ( 1)  ele + ele1 = 0

       F(  1,   300) =    6.30
            Prob > F =    0.0126

. regress trtr_1 tr_2 tr_3 grow lggp ele_1, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =   65.24
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8901
                                                       Root MSE      =  .03349

------------------------------------------------------------------------------
             |               Robust
          tr|      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   1.001558   .1695455     5.91   0.000     .6679135    1.335203
        tr_2 |  -.2998994   .2223525    -1.35   0.178    -.7374615    .1376628
        tr_3 |   .1814686   .0844263     2.15   0.032     .0153281    .3476092
        grow |    -.05567   .0278415    -2.00   0.046    -.1104586   -.0008815
        lggp |   .0006317    .003206     0.20   0.844    -.0056773    .0069406
       ele_1 |  -.0029734   .0039099    -0.76   0.448    -.0106675    .0047207
       _cons |   .0183559   .0314147     0.58   0.559    -.0434643    .0801762
------------------------------------------------------------------------------

.
.
. *FE
. xtreg tr tr_1 tr_2 tr_3 grow lggp ele,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4882                         Obs per group: min =        14
       between = 0.9475                                        avg =      14.0
       overall = 0.5713                                        max =        14

                                                F(6,280)           =     44.51
corr(u_i, Xb)  = 0.6137                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          tr|      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .5988355   .0416372    14.38   0.000     .5168737    .6807972
        tr_2 |  -.2727789   .0490768    -5.56   0.000    -.3693852   -.1761727
        tr_3 |  -.1350257   .0384525    -3.51   0.001    -.2107184    -.059333
        grow |  -.0559339   .0186706    -3.00   0.003    -.0926865   -.0191813
        lggp |  -.0076158   .0100646    -0.76   0.450    -.0274277    .0121962
         ele |   .0051387    .003222     1.59   0.112    -.0012036    .0114811
       _cons |   .2346181   .0887453     2.64   0.009     .0599255    .4093107
-------------+----------------------------------------------------------------
     sigma_u |  .07997137
     sigma_e |  .02275159
         rho |  .92512213   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    17.19             Prob > F = 0.0000

. xtreg tr tr_1 tr_2 tr_3 grow lggp pbc,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4836                         Obs per group: min =        14
       between = 0.9417                                        avg =      14.0
       overall = 0.5554                                        max =        14
```

```
                                                F(6,280)          =     43.70
corr(u_i, Xb)  = 0.6010                         Prob > F          =    0.0000

------------------------------------------------------------------------------
         tr|      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .5962759   .0420166    14.19   0.000     .5135674    .6789843
        tr_2 |  -.2815121   .0489819    -5.75   0.000    -.3779317   -.1850926
        tr_3 |   -.129584   .0385897    -3.36   0.001    -.2055468   -.0536211
        grow |  -.0580038   .0188756    -3.07   0.002    -.0951599   -.0208476
        lggp |  -.0078138   .0101177    -0.77   0.441    -.0277301    .0121025
         pbc |   .0004041   .0019049     0.21   0.832    -.0033457    .0041539
       _cons |   .2387625   .0891719     2.68   0.008     .0632301    .4142948
-------------+----------------------------------------------------------------
     sigma_u |  .08059363
     sigma_e |  .02285287
         rho |  .92557934   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    17.41             Prob > F = 0.0000

. xtreg trtr_1 tr_2 tr_3 grow lggp ele ele1,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4938                         Obs per group: min =        14
       between = 0.9606                                        avg =      14.0
       overall = 0.5816                                        max =        14

                                                F(7,279)          =     38.87
corr(u_i, Xb)  = 0.6222                         Prob > F          =    0.0000

------------------------------------------------------------------------------
         tr|      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .5906884   .0417431    14.15   0.000      .508517    .6728599
        tr_2 |  -.2623382   .0492571    -5.33   0.000    -.3593009   -.1653756
        tr_3 |  -.1337519   .0383177    -3.49   0.001    -.2091804   -.0583234
        grow |  -.0599213   .0187403    -3.20   0.002    -.0968115    -.023031
        lggp |  -.0062672    .010057    -0.62   0.534    -.0260644      .01353
         ele |   .0070712    .003394     2.08   0.038     .0003902    .0137522
        ele1 |   .0054775   .0031235     1.75   0.081    -.0006712    .0116262
       _cons |    .220364    .088791     2.48   0.014     .0455785    .3951494
-------------+----------------------------------------------------------------
     sigma_u |  .07961596
     sigma_e |  .02266774
         rho |  .92501649   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    17.18             Prob > F = 0.0000

. test ele=-ele1

 ( 1)  ele + ele1 = 0

       F(  1,   279) =    5.59
            Prob > F =    0.0187

. xtregtrtr_1 tr_2 tr_3 grow lggp ele_1, fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4846                         Obs per group: min =        14
       between = 0.9470                                        avg =      14.0
       overall = 0.5572                                        max =        14

                                                F(6,280)          =     43.87
corr(u_i, Xb)  = 0.6028                         Prob > F          =    0.0000
```

```
------------------------------------------------------------------------------
          it |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .5911466   .0420922    14.04   0.000     .5082893    .6740038
        tr_2 |  -.2812704    .048933    -5.75   0.000    -.3775937   -.1849472
        tr_3 |  -.1250099    .038729    -3.23   0.001    -.2012468    -.048773
        grow |  -.0579308   .0186826    -3.10   0.002    -.0947069   -.0211547
        lggp |  -.0073739   .0101109    -0.73   0.466    -.0272769    .0125291
       ele_1 |  -.0024626   .0032909    -0.75   0.455    -.0089406    .0040154
       _cons |    .235504   .0890983     2.64   0.009     .0601165    .4108916
-------------+----------------------------------------------------------------
     sigma_u |  .08055516
     sigma_e |  .02283188
         rho |  .92564008   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    17.50             Prob > F = 0.0000

.
. *GMM
. xtabond it l(0).ele , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    268.76

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
it           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
it           |
          LD |   .7139933   .0506127    14.11   0.000     .6147942    .8131923
         L2D |  -.2993771   .0483703    -6.19   0.000    -.3941812    -.204573
grow         |
          D1 |  -.0576599   .0589354    -0.98   0.328    -.1731712    .0578514
          LD |    .111362    .025856     4.31   0.000     .0606853    .1620388
lggp         |
          D1 |  -.0320426   .0577771    -0.55   0.579    -.1452835    .0811984
          LD |   -.053781   .0558419    -0.96   0.336     -.163229    .0556671
ele          |
          D1 |   .0095186    .003906     2.44   0.015      .001863    .0171741
_cons        |    .002413   .0005494     4.39   0.000     .0013363    .0034898
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   270.19     Prob > chi2 = 0.9999

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -8.33   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.25   Pr > z = 0.2096

. xtabond it l(0).pbc , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    261.15

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
```

```
------------------------------------------------------------------------------
it           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
it           |
          LD |   .7187746   .0508761    14.13   0.000     .6190594    .8184898
         L2D |  -.3142351   .0481481    -6.53   0.000    -.4086036   -.2198665
grow         |
          D1 |  -.0472061   .0590767    -0.80   0.424    -.1629943    .0685821
          LD |   .1147523   .0263393     4.36   0.000     .0631282    .1663765
lggp         |
          D1 |  -.0489422   .0579701    -0.84   0.399    -.1625614    .0646771
          LD |  -.0374842   .0559705    -0.67   0.503    -.1471844     .072216
pbc          |
          D1 |   .0019902   .0023928     0.83   0.406    -.0026996    .0066801
_cons        |   .0022855    .000549     4.16   0.000     .0012095    .0033615
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   273.64     Prob > chi2 = 0.9999

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -8.24   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   0.98   Pr > z = 0.3289

. xtabond it l(0).ele ele1, lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =    280.15

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
it           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
it           |
          LD |   .7011586   .0502729    13.95   0.000     .6026256    .7996916
         L2D |  -.2851209   .0482156    -5.91   0.000    -.3796218     -.19062
grow         |
          D1 |  -.0580364   .0581288    -1.00   0.318    -.1719667    .0558939
          LD |   .1213578   .0259548     4.68   0.000     .0704874    .1722283
lggp         |
          D1 |  -.0375077   .0570538    -0.66   0.511    -.1493311    .0743158
          LD |  -.0497497   .0551136    -0.90   0.367    -.1577704     .058271
ele          |
          D1 |   .0124942   .0041004     3.05   0.002     .0044575    .0205308
ele1         |
          D1 |   .0084908   .0040986     2.07   0.038     .0004578    .0165238
_cons        |   .0024929   .0005433     4.59   0.000      .001428    .0035578
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   274.97     Prob > chi2 = 0.9999

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -8.22   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.00   Pr > z = 0.3194
.
. test D1.ele=-D1.ele1

 ( 1)  D.ele + D.ele1 = 0

           chi2(  1) =    9.76
         Prob > chi2 =    0.0018
```

```
. xtabond it l(0).ele_1 , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    263.49

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14
One-step results
------------------------------------------------------------------------------
it           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
it           |
          LD |   .7136762   .0515131    13.85   0.000     .6127124      .81464
         L2D |  -.3121723   .0484659    -6.44   0.000    -.4071637   -.2171808
grow         |
          D1 |   -.043272   .0587091    -0.74   0.461    -.1583397    .0717957
          LD |   .1189453   .0257069     4.63   0.000     .0685607    .1693298
lggp         |
          D1 |   -.057316   .0569039    -1.01   0.314    -.1688457    .0542137
          LD |  -.0301892   .0550328    -0.55   0.583    -.1380515    .0776732
ele_1        |
          D1 |  -.0017399   .0042163    -0.41   0.680    -.0100036    .0065239
_cons        |   .0022668   .0005479     4.14   0.000     .0011929    .0033408
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   276.45     Prob > chi2 = 0.9998

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -8.13   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   0.88   Pr > z = 0.3768
```

TABLES 11 and 12 - Elections and Revenue from Federal Government

```
. *OLS
. regress  fr fr_1 fr_2 fr_3 grow lggp ele, robust

Regression with robust standard errors                Number of obs =     308
                                                       F(  6,   301) =  131.61
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.9049
                                                       Root MSE      =  .03052

------------------------------------------------------------------------------
             |               Robust
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   1.004842   .1443267     6.96   0.000     .7208247    1.288859
        fr_2 |  -.2122897   .1985607    -1.07   0.286    -.6030325    .1784532
        fr_3 |   .1084967   .0781301     1.39   0.166    -.0452537    .2622471
        grow |  -.0498083    .025191    -1.98   0.049    -.0993811   -.0002355
        lggp |  -.0004904    .003127    -0.16   0.875     -.006644    .0056632
         ele |   .0113934   .0039385     2.89   0.004     .0036429    .0191439
       _cons |   .0182307   .0305493     0.60   0.551    -.0418866    .0783479
------------------------------------------------------------------------------

. regress  fr fr_1 fr_2 fr_3 grow lggp pbc, robust

Regression with robust standard errors                Number of obs =     308
                                                       F(  6,   301) =  119.05
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.9030
                                                       Root MSE      =  .03081

------------------------------------------------------------------------------
             |               Robust
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   1.008407   .1462416     6.90   0.000     .7206219    1.296193
        fr_2 |  -.2309958   .1985459    -1.16   0.246    -.6217095     .159718
        fr_3 |   .1225613   .0766267     1.60   0.111    -.0282305    .2733532
        grow |  -.0518731   .0256435    -2.02   0.044    -.1023363   -.0014098
        lggp |  -.0006274   .0031662    -0.20   0.843    -.0068581    .0056033
         pbc |   .0027726   .0025483     1.09   0.277    -.0022422    .0077874
       _cons |   .0223104   .0311374     0.72   0.474    -.0389641    .0835849
------------------------------------------------------------------------------

. regress  fr fr_1 fr_2 fr_3 grow lggp ele ele1,robust

Regression with robust standard errors                Number of obs =     308
                                                       F(  7,   300) =  122.71
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.9058
                                                       Root MSE      =  .03042

------------------------------------------------------------------------------
             |               Robust
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .9891585   .1484102     6.67   0.000     .6971016    1.281215
        fr_2 |  -.1942327   .2037218    -0.95   0.341    -.5951374    .2066719
        fr_3 |   .1068462   .0783029     1.36   0.173    -.0472463    .2609387
        grow |  -.0543071   .0250902    -2.16   0.031    -.1036823   -.0049319
        lggp |  -.0003557   .0031491    -0.11   0.910    -.0065528    .0058414
         ele |   .0138578   .0042657     3.25   0.001     .0054633    .0222522
        ele1 |   .0071179   .0046235     1.54   0.125    -.0019807    .0162165
       _cons |   .0144918   .0303717     0.48   0.634    -.0452767    .0742604
------------------------------------------------------------------------------

. test ele=-ele1
```

```
 ( 1)  ele + ele1 = 0

       F(  1,   300) =    8.03
            Prob > F =    0.0049

. regress  fr fr_1 fr_2 fr_3 grow lggp ele_1, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =  117.48
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.9029
                                                       Root MSE      =  .03083

------------------------------------------------------------------------------
             |               Robust
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .9940371   .1472625     6.75   0.000     .7042428    1.283832
        fr_2 |  -.2296705   .2000504    -1.15   0.252     -.623345    .1640039
        fr_3 |   .1345786   .0779217     1.73   0.085    -.0187618     .287919
        grow |   -.054518   .0256805    -2.12   0.035    -.1050541   -.0039819
        lggp |   -.000635    .003203    -0.20   0.843    -.0069381    .0056681
       ele_1 |  -.0038346   .0037698    -1.02   0.310     -.011253    .0035838
       _cons |   .0232096   .0312747     0.74   0.459    -.0383351    .0847544
------------------------------------------------------------------------------

.
.
. *FE
. xtreg  fr fr_1 fr_2 fr_3 grow lggp ele,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4508                         Obs per group: min =        14
       between = 0.8928                                        avg =      14.0
       overall = 0.6720                                        max =        14

                                                F(6,280)           =     38.30
corr(u_i, Xb)  = 0.6993                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .5847009   .0443512    13.18   0.000     .4973967     .672005
        fr_2 |  -.2077448   .0521033    -3.99   0.000    -.3103086    -.105181
        fr_3 |  -.1474463    .039764    -3.71   0.000    -.2257207   -.0691719
        grow |  -.0452483   .0175997    -2.57   0.011    -.0798927   -.0106038
        lggp |  -.0154633   .0096178    -1.61   0.109    -.0343955     .003469
         ele |   .0052995   .0030445     1.74   0.083    -.0006936    .0112925
       _cons |   .2719578   .0849833     3.20   0.002     .1046705    .4392452
-------------+----------------------------------------------------------------
     sigma_u |  .07463975
     sigma_e |  .02151267
         rho |   .9233007   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    15.51             Prob > F = 0.0000

. xtreg  fr fr_1 fr_2 fr_3 grow lggp pbc,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4449                         Obs per group: min =        14
       between = 0.8817                                        avg =      14.0
       overall = 0.6561                                        max =        14
```

```
                                                F(6,280)           =     37.41
corr(u_i, Xb)  = 0.6870                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .5799352   .0448884    12.92   0.000     .4915736    .6682968
        fr_2 |  -.2158632   .0521866    -4.14   0.000    -.3185911   -.1131353
        fr_3 |  -.1418172   .0399137    -3.55   0.000    -.2203862   -.0632482
        grow |  -.0472567   .0178163    -2.65   0.008    -.0823276   -.0121857
        lggp |  -.0158394   .0096719    -1.64   0.103    -.0348782    .0031995
         pbc |   .0004165   .0018057     0.23   0.818     -.003138     .003971
       _cons |   .2777569   .0854076     3.25   0.001     .1096343    .4458794
-------------+----------------------------------------------------------------
     sigma_u |   .0753887
     sigma_e |   .0216267
         rho |  .92396341   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    15.76             Prob > F = 0.0000

. xtreg  fr fr_1 fr_2 fr_3 grow lggp ele ele1,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4579                         Obs per group: min =        14
       between = 0.9099                                        avg =      14.0
       overall = 0.6823                                        max =        14

                                                F(7,279)           =     33.67
corr(u_i, Xb)  = 0.7090                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .5738351   .0445019    12.89   0.000      .486233    .6614373
        fr_2 |  -.1935724   .0523787    -3.70   0.000    -.2966799   -.0904649
        fr_3 |  -.1474734   .0395749    -3.73   0.000    -.2253766   -.0695701
        grow |  -.0495832    .017661    -2.81   0.005     -.084349   -.0148175
        lggp |  -.0140664   .0095996    -1.47   0.144    -.0329633    .0048305
         ele |   .0072865   .0032021     2.28   0.024     .0009832    .0135897
        ele1 |   .0056745   .0029569     1.92   0.056    -.0001462    .0114953
       _cons |   .2573784   .0849196     3.03   0.003     .0902138    .4245429
-------------+----------------------------------------------------------------
     sigma_u |  .07433849
     sigma_e |  .02141034
         rho |   .9234031   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    15.55             Prob > F = 0.0000

. test ele=-ele1

 ( 1)  ele + ele1 = 0

       F(  1,   279) =    6.69
            Prob > F =    0.0102

. xtreg fr fr_1 fr_2 fr_3 grow lggp ele_1, fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4474                         Obs per group: min =        14
       between = 0.8895                                        avg =      14.0
       overall = 0.6592                                        max =        14

                                                F(6,280)           =     37.79
corr(u_i, Xb)  = 0.6903                         Prob > F           =    0.0000
```

```
------------------------------------------------------------------------------
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .5722638   .0446705    12.81   0.000     .4843313    .6601964
        fr_2 |   -.215896   .0520624    -4.15   0.000    -.3183795   -.1134126
        fr_3 |  -.1346562   .0401207    -3.36   0.001    -.2136326   -.0556798
        grow |  -.0471067   .0176013    -2.68   0.008    -.0817543    -.012459
        lggp |  -.0152872   .0096545    -1.58   0.114    -.0342919    .0037174
       ele_1 |  -.0035662   .0031072    -1.15   0.252    -.0096826    .0025502
       _cons |    .273778   .0852407     3.21   0.001      .105984     .441572
-------------+----------------------------------------------------------------
     sigma_u |  .07535224
     sigma_e |  .02157805
         rho |  .92421147   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =    15.93             Prob > F = 0.0000

.
. *GMM
. xtabond fr l(0).ele , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    267.16

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
fr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
fr           |
          LD |   .7235389    .052213    13.86   0.000     .6212032    .8258746
         L2D |  -.2624027   .0488318    -5.37   0.000    -.3581113   -.1666942
grow         |
          D1 |  -.0632153   .0539575    -1.17   0.241    -.1689701    .0425394
          LD |    .085278   .0236323     3.61   0.000     .0389594    .1315965
lggp         |
          D1 |  -.0199589   .0528216    -0.38   0.706    -.1234874    .0835696
          LD |  -.0494736   .0511049    -0.97   0.333    -.1496373    .0506901
ele          |
          D1 |   .0097197   .0035651     2.73   0.006     .0027323    .0167071
_cons        |   .0017769   .0005019     3.54   0.000     .0007931    .0027607
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   254.86     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -9.18   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.49   Pr > z = 0.1355

. xtabond fr l(0).pbc , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    257.36

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
```

```
------------------------------------------------------------------------------
fr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
fr           |
          LD |   .7270714   .0526907    13.80   0.000     .6237995    .8303434
         L2D |  -.2765132   .0488825    -5.66   0.000    -.3723211   -.1807053
grow         |
          D1 |  -.0532748   .0542056    -0.98   0.326    -.1595159    .0529662
          LD |   .0879425   .0241098     3.65   0.000     .0406882    .1351968
lggp         |
          D1 |  -.0355654   .0531379    -0.67   0.503    -.1397138    .0685829
          LD |  -.0345157   .0513627    -0.67   0.502    -.1351847    .0661534
pbc          |
          D1 |   .0023271   .0021952     1.06   0.289    -.0019755    .0066297
_cons        |    .001648   .0005025     3.28   0.001     .0006631    .0026329
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   258.41     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -9.14   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.25   Pr > z = 0.2115

. xtabond fr l(0).ele ele1, lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =    278.28

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
fr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
fr           |
          LD |     .70871   .0519173    13.65   0.000     .6069539    .8104661
         L2D |  -.2466791   .0487802    -5.06   0.000    -.3422866   -.1510716
grow         |
          D1 |  -.0631314   .0532212    -1.19   0.236     -.167443    .0411801
          LD |   .0944206   .0237134     3.98   0.000     .0479431    .1408981
lggp         |
          D1 |  -.0255887     .052176   -0.49   0.624    -.1278518    .0766744
          LD |  -.0451149   .0504519    -0.89   0.371    -.1439988    .0537689
ele          |
          D1 |   .0124454   .0037407     3.33   0.001     .0051138    .0197769
ele1         |
          D1 |    .007851   .0037595     2.09   0.037     .0004826    .0152195
_cons        |   .0018506   .0004965     3.73   0.000     .0008775    .0028237
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   258.52     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -9.13   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.30   Pr > z = 0.1944

. test D1.ele=-D1.ele1

 ( 1)  D.ele + D.ele1 = 0

           chi2(  1) =   10.92
         Prob > chi2 =    0.0010
```

```
. xtabond fr l(0).ele_1 , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    260.19

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
fr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
fr           |
          LD |   .7153949   .0530404    13.49   0.000     .6114376    .8193522
         L2D |  -.2702834   .0490696    -5.51   0.000    -.3664579   -.1741088
grow         |
          D1 |  -.0482444   .0537563    -0.90   0.369    -.1536049    .0571161
          LD |   .0922413   .0235113     3.92   0.000       .04616    .1383226
lggp         |
          D1 |   -.044831   .0520502    -0.86   0.389    -.1468474    .0571855
          LD |  -.0255652   .0504065    -0.51   0.612    -.1243602    .0732298
ele_1        |
          D1 |  -.0033428   .0038497    -0.87   0.385    -.0108879    .0042024
_cons        |   .0016022   .0005006     3.20   0.001      .000621    .0025833
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   260.82     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -9.00   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.16   Pr > z = 0.2458
```

TABLES 13 and 14 - Elections and Revenue from Provincial Taxes

```
. *OLS
. regress  ptr ptr_1 ptr_2 ptr_3 grow lggp ele, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =  132.20
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8422
                                                       Root MSE      =  .00561

------------------------------------------------------------------------------
             |               Robust
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |    .942762    .144488     6.52   0.000      .6584275    1.227096
       ptr_2 |  -.3730599   .1568082    -2.38   0.018     -.6816391   -.0644808
       ptr_3 |   .2536957   .0794738     3.19   0.002      .0973011    .4100903
        grow |  -.0033285   .0048578    -0.69   0.494      -.012888     .006231
        lggp |   .0026659   .0009725     2.74   0.006      .0007522    .0045796
         ele |   .0001689   .0007483     0.23   0.822     -.0013037    .0016416
       _cons |  -.0178248   .0074551    -2.39   0.017     -.0324954   -.0031541
------------------------------------------------------------------------------

. regress  ptr ptr_1 ptr_2 ptr_3 grow lggp pbc, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =  128.07
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8424
                                                       Root MSE      =  .00561

------------------------------------------------------------------------------
             |               Robust
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .9453385    .144014     6.56   0.000      .6619368     1.22874
       ptr_2 |  -.3809934   .1547589    -2.46   0.014     -.6855398    -.076447
       ptr_3 |   .2592307   .0804054     3.22   0.001      .1010028    .4174587
        grow |   -.003823   .0047544    -0.80   0.422     -.0131792    .0055331
        lggp |   .0026665   .0009774     2.73   0.007       .000743    .0045899
         pbc |  -.0002816   .0005121    -0.55   0.583     -.0012894    .0007261
       _cons |  -.0177999    .007467    -2.38   0.018     -.0324942   -.0031057
------------------------------------------------------------------------------

. regress  ptr ptr_1 ptr_2 ptr_3 grow lggp ele ele1,robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =  114.91
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8430
                                                       Root MSE      =   .0056

------------------------------------------------------------------------------
             |               Robust
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .9415359   .1426356     6.60   0.000      .6608429    1.222229
       ptr_2 |  -.3741504   .1539818    -2.43   0.016     -.6771716   -.0711292
       ptr_3 |   .2574332   .0800395     3.22   0.001      .0999233    .4149431
        grow |  -.0039038   .0047272    -0.83   0.410     -.0132066    .0053989
        lggp |   .0026621   .0009674     2.75   0.006      .0007583    .0045659
         ele |   .0004969   .0007576     0.66   0.512     -.0009939    .0019878
        ele1 |   .0009575   .0008671     1.10   0.270     -.0007489    .0026639
       _cons |  -.0181551   .0074988    -2.42   0.016      -.032912   -.0033983
------------------------------------------------------------------------------

. test ele=-ele1
```

```
 ( 1)  ele + ele1 = 0

       F(  1,   300) =    1.30
            Prob > F =    0.2559

. regress  ptr ptr_1 ptr_2 ptr_3 grow lggp ele_1, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  6,   301) =  125.68
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8435
                                                       Root MSE      =  .00559

------------------------------------------------------------------------------
             |               Robust
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .9546462   .1469553     6.50   0.000     .6654564    1.243836
       ptr_2 |  -.3821857   .1534544    -2.49   0.013    -.6841649   -.0802064
       ptr_3 |   .2529327   .0776832     3.26   0.001     .1000618    .4058037
        grow |  -.0037868   .0048006    -0.79   0.431    -.0132338    .0056603
        lggp |   .0026233   .0009849     2.66   0.008     .0006851    .0045615
       ele_1 |    .001259   .0007054     1.78   0.075    -.0001291    .0026471
       _cons |  -.0177284   .0074827    -2.37   0.018    -.0324535   -.0030033
------------------------------------------------------------------------------

.
.
. *FE
. xtreg  ptr ptr_1 ptr_2 ptr_3 grow lggp ele,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.5246                         Obs per group: min =        14
       between = 0.9070                                        avg =      14.0
       overall = 0.7956                                        max =        14

                                                F(6,280)           =     51.50
corr(u_i, Xb)  = 0.5065                         Prob > F           =    0.0000

------------------------------------------------------------------------------
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .7615754   .0479806    15.87   0.000      .667127    .8560239
       ptr_2 |  -.3799457   .0562935    -6.75   0.000     -.490758   -.2691335
       ptr_3 |   .1011362   .0482906     2.09   0.037     .0060776    .1961949
        grow |      -.006   .0044446    -1.35   0.178    -.0147491    .0027491
        lggp |      .0077   .0023265     3.31   0.001     .0031205    .0122796
         ele |   .0001654    .000737     0.22   0.823    -.0012853    .0016161
       _cons |  -.0515511   .0197267    -2.61   0.009    -.0903826   -.0127196
-------------+----------------------------------------------------------------
     sigma_u |  .00462312
     sigma_e |  .00520647
         rho |  .44086209   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     3.30             Prob > F = 0.0000

. xtreg  ptr ptr_1 ptr_2 ptr_3 grow lggp pbc,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.5250                         Obs per group: min =        14
       between = 0.9060                                        avg =      14.0
       overall = 0.7953                                        max =        14
```

```
                                                F(6,280)           =     51.58
corr(u_i, Xb)  = 0.5007                         Prob > F           =    0.0000

------------------------------------------------------------------------------
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |    .763964   .0478951    15.95   0.000     .6696838    .8582441
       ptr_2 |  -.3867665   .0560174    -6.90   0.000    -.4970352   -.2764978
       ptr_3 |   .1059282   .0484006     2.19   0.029      .010653    .2012035
        grow |   -.006467   .0044717    -1.45   0.149    -.0152695    .0023355
        lggp |   .0077662    .002328     3.34   0.001     .0031836    .0123488
         pbc |  -.0002204   .0004341    -0.51   0.612    -.0010749    .0006342
       _cons |   -.052095   .0197446    -2.64   0.009    -.0909617   -.0132284
-------------+----------------------------------------------------------------
     sigma_u |  .00461705
     sigma_e |  .00520454
         rho |  .44039739   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     3.30             Prob > F = 0.0000

. xtreg  ptr ptr_1 ptr_2 ptr_3 grow lggp ele ele1,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.5268                         Obs per group: min =        14
       between = 0.9050                                        avg =      14.0
       overall = 0.7955                                        max =        14

                                                F(7,279)           =     44.36
corr(u_i, Xb)  = 0.4922                         Prob > F           =    0.0000

------------------------------------------------------------------------------
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .7613549   .0479597    15.87   0.000     .6669461    .8557636
       ptr_2 |  -.3811856   .0562794    -6.77   0.000    -.4919719   -.2703994
       ptr_3 |   .1051559   .0484029     2.17   0.031     .0098746    .2004372
        grow |   -.006579   .0044727    -1.47   0.142    -.0153837    .0022256
        lggp |   .0078497   .0023293     3.37   0.001     .0032645    .0124349
         ele |   .0004351   .0007752     0.56   0.575    -.0010908     .001961
        ele1 |   .0007915   .0007082     1.12   0.265    -.0006026    .0021857
       _cons |  -.0531774   .0197716    -2.69   0.008    -.0920978    -.014257
-------------+----------------------------------------------------------------
     sigma_u |  .00459919
     sigma_e |  .00520415
         rho |   .4385246   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     3.28             Prob > F = 0.0000

. test ele=-ele1

 ( 1)  ele + ele1 = 0

       F(  1,   279) =    1.04
            Prob > F =    0.3083

. xtreg ptr ptr_1 ptr_2 ptr_3 grow lggp ele_1, fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.5281                         Obs per group: min =        14
       between = 0.9093                                        avg =      14.0
       overall = 0.7978                                        max =        14

                                                F(6,280)           =     52.21
corr(u_i, Xb)  = 0.5150                         Prob > F           =    0.0000
```

```
------------------------------------------------------------------------------
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .7724179   .0481472    16.04   0.000     .6776415    .8671943
       ptr_2 |  -.3878745   .0552707    -7.02   0.000    -.4966733   -.2790756
       ptr_3 |   .1005916    .047777     2.11   0.036     .0065439    .1946393
        grow |  -.0064194    .004407    -1.46   0.146    -.0150944    .0022556
        lggp |   .0075677   .0023198     3.26   0.001     .0030012    .0121342
       ele_1 |   .0010658   .0007395     1.44   0.151    -.0003899    .0025215
       _cons |   -.050653   .0196658    -2.58   0.011    -.0893645   -.0119414
-------------+----------------------------------------------------------------
     sigma_u |  .00461188
     sigma_e |  .00518773
         rho |  .44143963   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 280) =     3.28             Prob > F = 0.0000

.
. *GMM
. xtabond ptr l(0).ele , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    235.51

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
ptr          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ptr          |
          LD |   .6402529   .0477316    13.41   0.000     .5467006    .7338051
         L2D |  -.3534784     .04877    -7.25   0.000    -.4490658    -.257891
grow         |
          D1 |    .008156   .0106523     0.77   0.444     -.012722    .0290341
          LD |   .0218891   .0045774     4.78   0.000     .0129175    .0308607
lggp         |
          D1 |  -.0114323   .0105563    -1.08   0.279    -.0321221    .0092576
          LD |  -.0002762   .0102463    -0.03   0.978    -.0203585    .0198062
ele          |
          D1 |   .0001608   .0007098     0.23   0.821    -.0012303    .0015519
_cons        |   .0006998   .0001023     6.84   0.000     .0004992    .0009003
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   338.55     Prob > chi2 = 0.8362

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -7.33   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   0.26   Pr > z = 0.7969

. xtabond ptr l(0).pbc , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    238.17

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
```

```
------------------------------------------------------------------------------
ptr          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ptr          |
          LD |   .6448356   .0472877    13.64   0.000     .5521535    .7375177
         L2D |  -.3611368   .0481671    -7.50   0.000    -.4555426   -.2667311
grow         |
          D1 |   .0091225   .0105771     0.86   0.388    -.0116082    .0298532
          LD |   .0226823   .0046351     4.89   0.000     .0135977    .0317668
lggp         |
          D1 |  -.0133987    .010491    -1.28   0.202    -.0339607    .0071634
          LD |   .0016247   .0101629     0.16   0.873    -.0182943    .0215438
pbc          |
          D1 |  -.0003034   .0004311    -0.70   0.482    -.0011484    .0005416
_cons        |   .0006944   .0001015     6.84   0.000     .0004955    .0008932
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   340.42     Prob > chi2 = 0.8176

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -7.15   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.09   Pr > z = 0.9280

. xtabond ptr l(0).ele ele1, lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =    241.45

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
ptr          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ptr          |
          LD |   .6365623   .0473277    13.45   0.000     .5438018    .7293229
         L2D |  -.3548191   .0483149    -7.34   0.000    -.4495146   -.2601236
grow         |
          D1 |     .00824   .0105553     0.78   0.435    -.0124479     .028928
          LD |   .0234205   .0046409     5.05   0.000     .0143244    .0325165
lggp         |
          D1 |  -.0124237   .0104739    -1.19   0.236    -.0329521    .0081047
          LD |   .0005377   .0101594     0.05   0.958    -.0193743    .0204497
ele          |
          D1 |    .000493   .0007432     0.66   0.507    -.0009636    .0019497
ele1         |
          D1 |   .0011093   .0007332     1.51   0.130    -.0003277    .0025463
_cons        |   .0007102   .0001016     6.99   0.000      .000511    .0009094
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   344.69     Prob > chi2 = 0.7708

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -7.17   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.13   Pr > z = 0.8958

. test D1.ele=-D1.ele1

 ( 1)  D.ele + D.ele1 = 0

           chi2(  1) =    1.78
         Prob > chi2 =    0.1823
```

```
. xtabond ptr l(0).ele_1 , lags(2)  pre(grow, lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(7)       =    240.63

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
ptr          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ptr          |
          LD |    .654307   .0476871    13.72   0.000      .560842     .747772
         L2D |  -.3644378   .0477916    -7.63   0.000    -.4581075   -.2707681
grow         |
          D1 |   .0084525   .0105253     0.80   0.422    -.0121766    .0290816
          LD |   .0222522   .0045305     4.91   0.000     .0133725    .0311319
lggp         |
          D1 |   -.012632   .0102835    -1.23   0.219    -.0327874    .0075234
          LD |    .000438   .0099595     0.04   0.965    -.0190822    .0199582
ele_1        |
          D1 |     .00121   .0007525     1.61   0.108    -.0002649     .002685
_cons        |   .0007078   .0001015     6.97   0.000     .0005087    .0009068
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   338.54     Prob > chi2 = 0.8363

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -7.03   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.18   Pr > z = 0.8538
```

TABLE 15 - Elections and Fiscal Balance conditional on alignment of provincial and federal government

```
.
. *OLS
. regress  def def_1 def_2 def_3 grow lggp ele_nal ele_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =   18.62
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.3681
                                                       Root MSE      =  .02464

------------------------------------------------------------------------------
             |               Robust
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .4480437   .0617306     7.26   0.000      .326564    .5695235
       def_2 |   .0265503   .0704657     0.38   0.707    -.1121194      .16522
       def_3 |   .1342168   .0660242     2.03   0.043     .0042876    .2641459
        grow |   .0958032   .0203864     4.70   0.000     .0556848    .1359216
        lggp |   .0009753   .0023021     0.42   0.672    -.0035551    .0055057
     ele_nal |  -.0105915   .0054873    -1.93   0.055      -.02139     .000207
      ele_al |  -.0003116    .003355    -0.09   0.926    -.0069139    .0062907
       _cons |  -.0193228   .0199505    -0.97   0.334    -.0585834    .0199377
------------------------------------------------------------------------------

. test ele_nal=ele_al

 ( 1)  ele_nal - ele_al = 0

       F(  1,   300) =    2.95
            Prob > F =    0.0869

.
. regress  def def_1 def_2 def_3 grow lggp pbc_nal pbc_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =   21.55
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.3830
                                                       Root MSE      =  .02435

------------------------------------------------------------------------------
             |               Robust
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .4627852   .0584999     7.91   0.000     .3476631    .5779073
       def_2 |   .0383323   .0692571     0.55   0.580    -.0979589    .1746235
       def_3 |   .1185021   .0654454     1.81   0.071    -.0102881    .2472924
        grow |   .0884154   .0201296     4.39   0.000     .0488023    .1280285
        lggp |   .0008753   .0022786     0.38   0.701    -.0036087    .0053594
     pbc_nal |  -.0085363   .0036535    -2.34   0.020    -.0157261   -.0013465
      pbc_al |  -.0052224   .0022566    -2.31   0.021    -.0096632   -.0007817
       _cons |  -.0192706   .0197101    -0.98   0.329    -.0580582    .0195169
------------------------------------------------------------------------------

. test pbc_al=pbc_nal

 ( 1) - pbc_nal + pbc_al = 0

       F(  1,   300) =    0.61
            Prob > F =    0.4344

.
. regress  def def_1 def_2 def_3 grow lggp ele_nal ele_al ele1_nal
ele1_al,robust
```

```
Regression with robust standard errors                 Number of obs =     308
                                                       F(  9,   298) =   18.31
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.4024
                                                       Root MSE      =  .02405

------------------------------------------------------------------------------
             |               Robust
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .4906409    .058432     8.40   0.000     .3756493    .6056326
       def_2 |   .0441476   .0669999     0.66   0.510    -.0877053    .1760005
       def_3 |   .0758215   .0661612     1.15   0.253    -.0543809    .2060238
        grow |   .0810632   .0194898     4.16   0.000     .0427081    .1194183
        lggp |   .0011404   .0022679     0.50   0.615    -.0033228    .0056036
     ele_nal |  -.0050489   .0054465    -0.93   0.355    -.0157674    .0056695
      ele_al |   .0053321   .0035467     1.50   0.134    -.0016477    .0123118
    ele1_nal |   .0126689   .0054326     2.33   0.020     .0019777    .0233601
     ele1_al |   .0149723   .0038884     3.85   0.000     .0073201    .0226245
       _cons |  -.0254291   .0198264    -1.28   0.201    -.0644465    .0135883
------------------------------------------------------------------------------

.
.
. *FE
. xtreg  def def_1 def_2 def_3 grow lggp ele_nal ele_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.2217                         Obs per group: min =        14
       between = 0.1807                                        avg =      14.0
       overall = 0.1970                                        max =        14

                                                F(7,279)           =     11.35
corr(u_i, Xb)  = -0.2134                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .3167075   .0572156     5.54   0.000     .2040785    .4293366
       def_2 |  -.0525461   .0609854    -0.86   0.390    -.1725962    .0675039
       def_3 |   .0233805   .0574846     0.41   0.685    -.0897782    .1365391
        grow |    .081999   .0198999     4.12   0.000      .042826     .121172
        lggp |   .0241361   .0111286     2.17   0.031     .0022293    .0460428
     ele_nal |  -.0091026   .0056708    -1.61   0.110    -.0202657    .0020604
      ele_al |  -.0001709   .0040272    -0.04   0.966    -.0080984    .0077566
       _cons |  -.2259702   .0964533    -2.34   0.020    -.4158388   -.0361017
-------------+----------------------------------------------------------------
     sigma_u |  .01618276
     sigma_e |  .02380216
         rho |  .31612005   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     2.03             Prob > F = 0.0056

. test ele_nal=ele_al

 ( 1)  ele_nal - ele_al = 0

       F(  1,   279) =    1.75
            Prob > F =    0.1872

.
. xtreg  def def_1 def_2 def_3 grow lggp pbc_nal pbc_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22
```

```
R-sq:  within  = 0.2419                         Obs per group: min =        14
       between = 0.1776                                        avg =      14.0
       overall = 0.2087                                        max =        14

                                                F(7,279)           =     12.72
corr(u_i, Xb)  = -0.2181                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |   .3298263   .0562128     5.87   0.000     .2191713    .4404813
       def_2 |  -.0418431   .0603655    -0.69   0.489    -.1606727    .0769866
       def_3 |   .0096215   .0564232     0.17   0.865    -.1014477    .1206908
        grow |   .0744957   .0198654     3.75   0.000     .0353906    .1136008
        lggp |   .0244439   .0109902     2.22   0.027     .0028096    .0460782
     pbc_nal |  -.0079502   .0031667    -2.51   0.013     -.014184   -.0017165
      pbc_al |  -.0047893   .0024372    -1.97   0.050    -.0095868    8.28e-06
       _cons |  -.2292877   .0952479    -2.41   0.017    -.4167835   -.0417919
-------------+----------------------------------------------------------------
     sigma_u |  .01627861
     sigma_e |  .02349101
         rho |  .32442006   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     2.07             Prob > F = 0.0046

. test pbc_nal=pbc_al

 ( 1)  pbc_nal - pbc_al = 0

       F(  1,   279) =    0.63
            Prob > F =    0.4279

.
. xtreg  def def_1 def_2 def_3 grow lggp ele_nal ele_al ele1_nal ele1_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.2661                         Obs per group: min =        14
       between = 0.1835                                        avg =      14.0
       overall = 0.2266                                        max =        14

                                                F(9,277)           =     11.16
corr(u_i, Xb)  = -0.2185                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         def |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       def_1 |    .359114    .057382     6.26   0.000     .2461538    .4720742
       def_2 |  -.0344669   .0596956    -0.58   0.564    -.1519815    .0830478
       def_3 |  -.0320873   .0576502    -0.56   0.578    -.1455755    .0814008
        grow |   .0667094   .0197935     3.37   0.001     .0277446    .1056743
        lggp |   .0249521   .0108543     2.30   0.022     .0035848    .0463194
     ele_nal |  -.0041232   .0057258    -0.72   0.472    -.0153948    .0071483
      ele_al |   .0054027   .0041545     1.30   0.195    -.0027756    .0135811
    ele1_nal |   .0123814    .004699     2.63   0.009     .0031312    .0216316
     ele1_al |   .0142442   .0039573     3.60   0.000     .0064539    .0220345
       _cons |  -.2373958   .0941035    -2.52   0.012    -.4226447   -.0521468
-------------+----------------------------------------------------------------
     sigma_u |  .01625373
     sigma_e |  .02319634
         rho |  .32930193   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 277) =     2.06             Prob > F = 0.0048

.
.
. *GMM
```

```
. xtabond def l(0).ele_nal ele_al , lags(2)  pre(grow, lag(1,.)) pre(lggp,
lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =     84.54

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
def          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
def          |
          LD |   .3408507   .0564977     6.03   0.000     .2301172    .4515842
         L2D |  -.0186403   .0556472    -0.33   0.738    -.1277068    .0904262
grow         |
          D1 |   .0517557    .046549     1.11   0.266    -.0394787      .14299
          LD |     .01787   .0204059     0.88   0.381    -.0221249    .0578649
lggp         |
          D1 |   .0419703   .0457179     0.92   0.359    -.0476351    .1315756
          LD |  -.0411702   .0442312    -0.93   0.352    -.1278618    .0455215
ele_nal      |
          D1 |  -.0083771   .0046536    -1.80   0.072     -.017498    .0007439
ele_al       |
          D1 |   .0003532   .0037823     0.09   0.926      -.00706    .0077664
_cons        |   .0006791   .0004395     1.55   0.122    -.0001823    .0015405
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   283.40     Prob > chi2 = 0.9994

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.70   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.19   Pr > z = 0.8472

. test D1.ele_nal=D1.ele_al

 ( 1)  D.ele_nal - D.ele_al = 0

           chi2(  1) =    2.37
         Prob > chi2 =    0.1238

.
. xtabond def l(0).pbc_nal pbc_al , lags(2)  pre(grow, lag(1,.)) pre(lggp,
lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =     97.05

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
def          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
def          |
          LD |   .3503589   .0551863     6.35   0.000     .2421957    .4585221
         L2D |   -.007449   .0545239    -0.14   0.891    -.1143138    .0994158
grow         |
          D1 |   .0608424   .0457483     1.33   0.184    -.0288226    .1505074
```

```
          LD |   .0291702   .0203258     1.44   0.151    -.0106677    .0690081
lggp         |
          D1 |   .0237321   .0449345     0.53   0.597     -.064338    .1118021
          LD |  -.0261715   .0433608    -0.60   0.546    -.1111572    .0588142
pbc_nal      |
          D1 |  -.0090788   .0028501    -3.19   0.001    -.0146649   -.0034926
pbc_al       |
          D1 |  -.0042633   .0023424    -1.82   0.069    -.0088544    .0003277
_cons        |   .0007186   .0004287     1.68   0.094    -.0001216    .0015588
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   284.92     Prob > chi2 = 0.9993

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -11.96   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   0.10   Pr > z = 0.9165

. test D1.pbc_nal=D1.pbc_al

 ( 1)  D.pbc_nal - D.pbc_al = 0

           chi2(  1) =    1.79
         Prob > chi2 =    0.1810

.
. xtabond def l(0).ele_nal ele_al ele1_nal ele1_al, lags(2)  pre(grow,
lag(1,.)) pre(lggp, lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(10)      =    106.17

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
def          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
def          |
          LD |   .3792731   .0566973     6.69   0.000     .2681484    .4903977
         L2D |  -.0182932   .0549103    -0.33   0.739    -.1259153    .0893289
grow         |
          D1 |   .0516656   .0459368     1.12   0.261    -.0383688       .1417
          LD |   .0337473   .0204248     1.65   0.098    -.0062846    .0737793
lggp         |
          D1 |   .0305162    .045106     0.68   0.499    -.0578899    .1189223
          LD |  -.0331017   .0435865    -0.76   0.448    -.1185297    .0523264
ele_nal      |
          D1 |  -.0034857   .0047616    -0.73   0.464    -.0128184    .0058469
ele_al       |
          D1 |   .0048919    .003899     1.25   0.210      -.00275    .0125339
ele1_nal     |
          D1 |   .0149939   .0047189     3.18   0.001     .0057451    .0242428
ele1_al      |
          D1 |   .0135665   .0039398     3.44   0.001     .0058446    .0212884
_cons        |   .0007661   .0004355     1.76   0.079    -.0000874    .0016196
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(365) =   276.69     Prob > chi2 = 0.9998

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z = -12.24   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   1.08   Pr > z = 0.2792
```

TABLE 16 - Elections and Total Expenditure conditional on alignment of provincial and federal government.

```
. *OLS
. regress  te te_1 te_2 te_3 grow lggp ele_nal ele_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =  111.40
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8978
                                                       Root MSE      =  .03557

------------------------------------------------------------------------------
             |               Robust
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .8539374   .1215124     7.03   0.000     .6148128    1.093062
        te_2 |  -.119193    .1445241    -0.82   0.410    -.4036024    .1652165
        te_3 |   .1676242   .0684653     2.45   0.015     .0328912    .3023573
        grow |  -.144725    .0272205    -5.32   0.000    -.1982923   -.0911577
        lggp |   .0016833   .0037043     0.45   0.650    -.0056065    .008973
     ele_nal |    .006153   .0088279     0.70   0.486    -.0112195    .0235254
      ele_al |   .0140205   .0045969     3.05   0.002     .0049742    .0230668
       _cons |   .0068581   .0346684     0.20   0.843    -.0613659    .0750822
------------------------------------------------------------------------------

.
. regress  te te_1 te_2 te_3 grow lggp pbc_nal pbc_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =  101.40
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8985
                                                       Root MSE      =  .03545

------------------------------------------------------------------------------
             |               Robust
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |    .877509   .1210146     7.25   0.000      .639364    1.115654
        te_2 |  -.1254512   .1414914    -0.89   0.376    -.4038924    .1529901
        te_3 |   .1502828   .0648306     2.32   0.021     .0227026    .2778631
        grow |  -.1405096   .0272827    -5.15   0.000    -.1941994   -.0868198
        lggp |   .0014054   .0037177     0.38   0.706    -.0059106    .0087214
     pbc_nal |   .0107453   .0051104     2.10   0.036     .0006886     .020802
      pbc_al |   .0067668   .0029336     2.31   0.022     .0009938    .0125398
       _cons |   .0122931    .034825     0.35   0.724    -.0562391    .0808253
------------------------------------------------------------------------------

.
. regress  te te_1 te_2 te_3 grow lggp ele_nal ele_al ele1_nal ele1_al,robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  9,   298) =   96.27
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8995
                                                       Root MSE      =   .0354

------------------------------------------------------------------------------
             |               Robust
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .8804366   .1304036     6.75   0.000      .623808    1.137065
        te_2 |  -.1261447   .1471834    -0.86   0.392    -.4157952    .1635058
        te_3 |   .1517482   .0650154     2.33   0.020     .0238007    .2796956
        grow |    -.14437   .0269612    -5.35   0.000    -.1974284   -.0913116
        lggp |   .0015851   .0036576     0.43   0.665    -.0056129    .0087831
```

```
     ele_nal |   .0033287   .0093622     0.36   0.722    -.0150957     .021753
      ele_al |   .0111605   .0052609     2.12   0.035     .0008072    .0215138
    ele1_nal |  -.0153207   .0079202    -1.93   0.054    -.0309073    .0002659
     ele1_al |  -.0027616   .0056323    -0.49   0.624    -.0138456    .0083225
       _cons |   .0097218   .0340566     0.29   0.775    -.0573001    .0767437
------------------------------------------------------------------------------

.
.
.
. *FE
. xtreg  te te_1 te_2 te_3 grow lggp ele_nal ele_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3833                         Obs per group: min =        14
       between = 0.7705                                        avg =      14.0
       overall = 0.6013                                        max =        14

                                                F(7,279)           =     24.77
corr(u_i, Xb)  = 0.6281                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .4770493   .0472696    10.09   0.000     .3839988    .5700997
        te_2 |  -.1393148   .0525461    -2.65   0.008    -.2427519   -.0358777
        te_3 |  -.1056939    .041856    -2.53   0.012    -.1880876   -.0233002
        grow |  -.1187113    .022547    -5.27   0.000    -.1630951   -.0743274
        lggp |  -.0279396   .0127324    -2.19   0.029    -.0530034   -.0028758
     ele_nal |   .0004721   .0064768     0.07   0.942    -.0122776    .0132218
      ele_al |   .0082504   .0045688     1.81   0.072    -.0007434    .0172442
       _cons |   .4199735   .1145877     3.67   0.000     .1944072    .6455398
-------------+----------------------------------------------------------------
     sigma_u |  .08465536
     sigma_e |  .02712268
         rho |  .90690664   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    11.29             Prob > F = 0.0000

.
. xtreg  te te_1 te_2 te_3 grow lggp pbc_nal pbc_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3908                         Obs per group: min =        14
       between = 0.7483                                        avg =      14.0
       overall = 0.5904                                        max =        14

                                                F(7,279)           =     25.57
corr(u_i, Xb)  = 0.6123                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .4905815   .0472002    10.39   0.000     .3976677    .5834953
        te_2 |  -.1387299   .0517279    -2.68   0.008    -.2405564   -.0369033
        te_3 |  -.1196374   .0419784    -2.85   0.005    -.2022719   -.0370028
        grow |  -.1129704   .0225688    -5.01   0.000    -.1573971   -.0685437
        lggp |  -.0299444   .0126541    -2.37   0.019     -.054854   -.0050349
     pbc_nal |   .0073168   .0036847     1.99   0.048     .0000635    .0145702
      pbc_al |   .0048557   .0027983     1.74   0.084    -.0006527    .0103642
       _cons |   .4387467   .1137557     3.86   0.000     .2148183    .6626752
-------------+----------------------------------------------------------------
     sigma_u |  .08470989
     sigma_e |  .02695613
```

```
         rho |  .90804906   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    11.42             Prob > F = 0.0000

.
. xtreg  te te_1 te_2 te_3 grow lggp ele_nal ele_al ele1_nal ele1_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4004                         Obs per group: min =        14
       between = 0.7163                                        avg =      14.0
       overall = 0.5684                                        max =        14

                                                F(9,277)           =     20.56
corr(u_i, Xb)  = 0.5865                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          te |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        te_1 |   .5054411   .0479296    10.55   0.000     .4110887    .5997936
        te_2 |  -.1485521   .0521958    -2.85   0.005     -.251303   -.0458013
        te_3 |  -.1251661   .0420609    -2.98   0.003    -.2079658   -.0423665
        grow |  -.1158163   .0225742    -5.13   0.000     -.160255   -.0713775
        lggp |   -.031298   .0126577    -2.47   0.014    -.0562155   -.0063804
     ele_nal |  -.0039277   .0065996    -0.60   0.552    -.0169194    .0090641
      ele_al |   .0055675   .0047452     1.17   0.242    -.0037738    .0149087
    ele1_nal |   -.015121   .0054274    -2.79   0.006    -.0258051   -.0044369
     ele1_al |  -.0044441   .0045695    -0.97   0.332    -.0134395    .0045513
       _cons |   .4521684   .1140153     3.97   0.000     .2277219    .6766149
-------------+----------------------------------------------------------------
     sigma_u |  .08531184
     sigma_e |  .02683879
         rho |  .90994223   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 277) =    11.50             Prob > F = 0.0000

.
.
. *GMM
. xtabond te l(0).ele_nal ele_al , lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    218.00

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
te           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
te           |
          LD |   .3542436   .0342517    10.34   0.000     .2871114    .4213757
grow         |
          D1 |  -.0610862   .0510332    -1.20   0.231    -.1611095    .0389371
          LD |  -.0134358   .0516954    -0.26   0.795     -.114757    .0878853
         L2D |   .0458159   .0205939     2.22   0.026     .0054526    .0861792
lggp         |
          D1 |  -.0744527   .0501499    -1.48   0.138    -.1727447    .0238394
          LD |   .0327572    .052699     0.62   0.534     -.070531    .1360454
         L2D |  -.0438775     .04678    -0.94   0.348    -.1355646    .0478095
ele_nal      |
          D1 |   .0015802    .005632     0.28   0.779    -.0094584    .0126187
```

```
ele_al       |
          D1 |   .0101126   .0039015     2.59   0.010     .0024657    .0177595
_cons        |   .0032027    .000501     6.39   0.000     .0022207    .0041847
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   354.41     Prob > chi2 = 0.5287

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -5.76   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.61   Pr > z = 0.5406

.
. xtabond te l(0).pbc_nal pbc_al , lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    213.11

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
te           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
te           |
          LD |   .3574712   .0346565    10.31   0.000     .2895457    .4253966
grow         |
          D1 |   -.058509   .0506359    -1.16   0.248    -.1577536    .0407356
          LD |  -.0090566   .0515688    -0.18   0.861    -.1101296    .0920164
         L2D |   .0446451   .0205946     2.17   0.030     .0042805    .0850097
lggp         |
          D1 |  -.0730087   .0496266    -1.47   0.141    -.1702751    .0242577
          LD |    .023525   .0532392     0.44   0.659     -.080822    .1278719
         L2D |  -.0334326   .0467877    -0.71   0.475    -.1251348    .0582695
pbc_nal      |
          D1 |    .003445   .0032815     1.05   0.294    -.0029866    .0098765
pbc_al       |
          D1 |   .0045548   .0024308     1.87   0.061    -.0002094     .009319
_cons        |   .0031332   .0005037     6.22   0.000      .002146    .0041205
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   350.88     Prob > chi2 = 0.5813

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -5.66   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.59   Pr > z = 0.5567

.
. xtabond te l(0).ele_nal ele_al ele1_nal ele1_al, lags(1)  pre(grow,
lag(2,.)) pre(lggp, lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(11)      =    219.12

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
```

```
te           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
te           |
          LD |   .3642079   .0349848    10.41   0.000     .2956389    .4327769
grow         |
          D1 |  -.0624094   .0513818    -1.21   0.225    -.1631159    .0382971
          LD |   -.007328   .0521566    -0.14   0.888     -.109553     .094897
         L2D |   .0470332   .0206934     2.27   0.023     .0064748    .0875916
lggp         |
          D1 |  -.0741531   .0503219    -1.47   0.141    -.1727822    .0244761
          LD |   .0255778   .0534345     0.48   0.632    -.0791519    .1303074
         L2D |   -.034831   .0478941    -0.73   0.467    -.1287016    .0590397
ele_nal      |
          D1 |  -.0000804   .0058109    -0.01   0.989    -.0114695    .0113087
ele_al       |
          D1 |    .010124   .0040844     2.48   0.013     .0021187    .0181294
ele1_nal     |
          D1 |   -.006566   .0048799    -1.35   0.178    -.0161304    .0029984
ele1_al      |
          D1 |   .0014815   .0039938     0.37   0.711    -.0063462    .0093092
_cons        |   .0031005   .0005069     6.12   0.000      .002107    .0040941
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   352.06     Prob > chi2 = 0.5639

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -5.70   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.70   Pr > z = 0.4836

.
.
```

TABLE 17 - Elections and Composition Effect conditional on alignment of provincial and federal government

```
.
. *OLS
. regress  ce ce_1 ce_2 ce_3 grow lggp ele_nal ele_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =   61.36
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.6031
                                                       Root MSE      =  .04835

------------------------------------------------------------------------------
             |               Robust
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .5995961    .061782     9.71   0.000      .478015    .7211771
        ce_2 |  -.0213828   .0680687    -0.31   0.754    -.1553353    .1125698
        ce_3 |   .1608774   .0507902     3.17   0.002     .0609272    .2608277
        grow |   .0693663   .0414834     1.67   0.096     -.012269    .1510017
        lggp |  -.0080006   .0052204    -1.53   0.126    -.0182739    .0022727
     ele_nal |   .0190341   .0103003     1.85   0.066    -.0012359    .0393041
      ele_al |  -.0092474   .0079625    -1.16   0.246    -.0249168     .006422
       _cons |   .2947636   .0573407     5.14   0.000     .1819227    .4076045
------------------------------------------------------------------------------

.
. regress  ce ce_1 ce_2 ce_3 grow lggp pbc_nal pbc_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =   59.98
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.5989
                                                       Root MSE      =   .0486

------------------------------------------------------------------------------
             |               Robust
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .5976495   .0624706     9.57   0.000     .4747134    .7205857
        ce_2 |  -.0133118   .0690227    -0.19   0.847    -.1491417    .1225181
        ce_3 |   .1532459   .0522022     2.94   0.004     .0505171    .2559747
        grow |   .0601375   .0420054     1.43   0.153    -.0225249       .1428
        lggp |  -.0077647   .0052582    -1.48   0.141    -.0181124     .002583
     pbc_nal |    .001249   .0062511     0.20   0.842    -.0110525    .0135506
      pbc_al |  -.0068275   .0048365    -1.41   0.159    -.0163452    .0026903
       _cons |   .2940792   .0581322     5.06   0.000     .1796808    .4084777
------------------------------------------------------------------------------

. regress  ce ce_1 ce_2 ce_3 grow lggp ele_nal ele_al ele1_nal ele1_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  9,   298) =   46.85
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.6068
                                                       Root MSE      =  .04829

------------------------------------------------------------------------------
             |               Robust
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |      .6113   .0640376     9.55   0.000     .4852768    .7373232
        ce_2 |  -.0117046   .0684177    -0.17   0.864    -.1463477    .1229385
        ce_3 |    .142987   .0521572     2.74   0.006     .0403439    .2456301
        grow |    .062752   .0411132     1.53   0.128    -.0181569    .1436609
        lggp |  -.0077523   .0051948    -1.49   0.137    -.0179754    .0024707
     ele_nal |   .0229098    .010766     2.13   0.034     .0017229    .0440968
```

```
      ele_al |  -.0054081   .0084171    -0.64   0.521    -.0219725    .0111564
    ele1_nal |   .0138903    .008527     1.63   0.104    -.0028904    .0306711
     ele1_al |   .0087037   .0078404     1.11   0.268     -.006726    .0241333
       _cons |    .285859   .0582352     4.91   0.000     .1712548    .4004633
------------------------------------------------------------------------------

.
.
. regress  ce ce_1 ce_2 ce_3 grow lggp ele_1_nal ele_1_al, robust

Regression with robust standard errors                 Number of obs =     307
                                                       F(  7,   299) =   63.23
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.6059
                                                       Root MSE      =  .04819

------------------------------------------------------------------------------
             |               Robust
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .6061938   .0635952     9.53   0.000     .4810429    .7313447
        ce_2 |  -.0017324   .0705638    -0.02   0.980     -.140597    .1371323
        ce_3 |   .1347668    .052169     2.58   0.010     .0321018    .2374317
        grow |   .0683599   .0405587     1.69   0.093    -.0114568    .1481766
        lggp |  -.0073873   .0050994    -1.45   0.148    -.0174227     .002648
   ele_1_nal |  -.0220308   .0109319    -2.02   0.045     -.043544   -.0005175
    ele_1_al |   -.017825    .007972    -2.24   0.026    -.0335135   -.0021366
       _cons |   .2932242   .0562071     5.22   0.000     .1826126    .4038359
------------------------------------------------------------------------------

.
.
. *FE
. xtreg  ce ce_1 ce_2 ce_3 grow lggp ele_nal ele_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3783                         Obs per group: min =        14
       between = 0.9245                                        avg =      14.0
       overall = 0.5972                                        max =        14

                                                F(7,279)           =     24.25
corr(u_i, Xb)  = 0.5238                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .5030042   .0552797     9.10   0.000     .3941859    .6118225
        ce_2 |  -.0473224   .0636497    -0.74   0.458     -.172617    .0779723
        ce_3 |   .1199319   .0527954     2.27   0.024      .016004    .2238597
        grow |   .0812057   .0384184     2.11   0.035      .005579    .1568324
        lggp |  -.0143168   .0223597    -0.64   0.523     -.058332    .0296984
     ele_nal |   .0195942   .0111393     1.76   0.080    -.0023335     .041522
      ele_al |  -.0072665   .0078704    -0.92   0.357    -.0227595    .0082264
       _cons |   .4806433    .179468     2.68   0.008     .1273599    .8339267
-------------+----------------------------------------------------------------
     sigma_u |  .02246686
     sigma_e |  .04652605
         rho |   .1890887   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     2.14             Prob > F = 0.0030

.
. xtreg  ce ce_1 ce_2 ce_3 grow lggp pbc_nal pbc_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22
```

```
R-sq:  within  = 0.3728                         Obs per group: min =        14
       between = 0.9206                                        avg =      14.0
       overall = 0.5932                                        max =        14

                                                F(7,279)           =     23.69
corr(u_i, Xb)  = 0.5188                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .4976502   .0549923     9.05   0.000     .3893977    .6059026
        ce_2 |  -.0399575   .0640558    -0.62   0.533    -.1660516    .0861366
        ce_3 |   .1173338   .0534622     2.19   0.029     .0120933    .2225743
        grow |   .0719694   .0390114     1.84   0.066    -.0048246    .1487634
        lggp |  -.0144201    .022424    -0.64   0.521    -.0585619    .0297217
     pbc_nal |   .0031389   .0063482     0.49   0.621    -.0093575    .0156353
      pbc_al |  -.0058203   .0048717    -1.19   0.233    -.0154103    .0037697
       _cons |   .4826527   .1801676     2.68   0.008     .1279922    .8373132
-------------+----------------------------------------------------------------
     sigma_u |  .02257763
     sigma_e |  .04673016
         rho |  .18925469   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     2.17             Prob > F = 0.0026

.
. xtreg  ce ce_1 ce_2 ce_3 grow lggp ele_nal ele_al ele1_nal ele1_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3827                         Obs per group: min =        14
       between = 0.9392                                        avg =      14.0
       overall = 0.6028                                        max =        14

                                                F(9,277)           =     19.08
corr(u_i, Xb)  = 0.5487                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .5139267   .0558756     9.20   0.000     .4039319    .6239214
        ce_2 |  -.0404036   .0639201    -0.63   0.528    -.1662344    .0854273
        ce_3 |   .1033572   .0541931     1.91   0.058    -.0033254    .2100397
        grow |   .0736409    .039063     1.89   0.060     -.003257    .1505389
        lggp |  -.0115245   .0224492    -0.51   0.608    -.0557172    .0326683
     ele_nal |   .0232328   .0114591     2.03   0.044     .0006748    .0457908
      ele_al |   -.004182   .0082449    -0.51   0.612    -.0204127    .0120487
    ele1_nal |   .0107419   .0091966     1.17   0.244    -.0073623     .028846
     ele1_al |    .007824   .0079533     0.98   0.326    -.0078327    .0234806
       _cons |   .4522695    .180622     2.50   0.013     .0967033    .8078357
-------------+----------------------------------------------------------------
     sigma_u |  .02229704
     sigma_e |  .04652836
         rho |   .1867579   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 277) =     2.09             Prob > F = 0.0040

.
. xtreg  ce ce_1 ce_2 ce_3 grow lggp ele_1_nal ele_1_al,fe

Fixed-effects (within) regression               Number of obs      =       307
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.3874                         Obs per group: min =        13
       between = 0.9402                                        avg =      14.0
       overall = 0.6023                                        max =        14
```

```
                                                F(7,278)          =     25.12
corr(u_i, Xb)  = 0.5479                         Prob > F          =    0.0000

------------------------------------------------------------------------------
          ce |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        ce_1 |   .5036629   .0545102     9.24   0.000     .3963578     .610968
        ce_2 |  -.0270155   .0627164    -0.43   0.667    -.1504749    .0964439
        ce_3 |   .0968443   .0536343     1.81   0.072    -.0087365    .2024252
        grow |   .0764725   .0380743     2.01   0.046      .001522     .151423
        lggp |  -.0093118    .022347    -0.42   0.677    -.0533026    .0346789
   ele_1_nal |  -.0253947   .0111714    -2.27   0.024     -.047386   -.0034034
    ele_1_al |  -.0151406   .0078785    -1.92   0.056    -.0306498    .0003686
       _cons |   .4433675   .1794741     2.47   0.014     .0900666    .7966684
-------------+----------------------------------------------------------------
     sigma_u |  .02271984
     sigma_e |  .04624685
         rho |  .19442504   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 278) =     2.22             Prob > F = 0.0019

.
. *GMM
. xtabond ce l(0).ele_nal ele_al , lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    116.02

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
ce           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ce           |
          LD |   .4244163   .0481967     8.81   0.000     .3299525    .5188802
grow         |
          D1 |   .0437274   .0978521     0.45   0.655    -.1480591    .2355139
          LD |  -.0248147   .0993933    -0.25   0.803     -.219622    .1699925
         L2D |  -.1247953   .0389633    -3.20   0.001    -.2011619   -.0484286
lggp         |
          D1 |   .0241884   .0960115     0.25   0.801    -.1639907    .2123675
          LD |  -.0579368   .1011588    -0.57   0.567    -.2562044    .1403308
         L2D |  -.0017364   .0898229    -0.02   0.985     -.177786    .1743132
ele_nal      |
          D1 |   .0198176    .010916     1.82   0.069    -.0015773    .0412126
ele_al       |
          D1 |  -.0084013   .0074824    -1.12   0.262    -.0230664    .0062639
_cons        |   .0035316   .0010719     3.29   0.001     .0014307    .0056326
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   235.44     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -8.11   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.09   Pr > z = 0.9250

.
. xtabond ce l(0).pbc_nal pbc_al , lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))
```

```
Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    112.68

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
ce           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ce           |
          LD |     .41893   .0483384     8.67   0.000     .3241886    .5136715
grow         |
          D1 |   .0658286   .0973504     0.68   0.499    -.1249746    .2566318
          LD |  -.0115323   .0994981    -0.12   0.908     -.206545    .1834804
         L2D |  -.1214897   .0391498    -3.10   0.002    -.1982219   -.0447574
lggp         |
          D1 |  -.0120289   .0951552    -0.13   0.899    -.1985297    .1744719
          LD |  -.0310876   .1026825    -0.30   0.762    -.2323417    .1701664
         L2D |   .0020614   .0902111     0.02   0.982    -.1747491    .1788719
pbc_nal      |
          D1 |   .0012497   .0062639     0.20   0.842    -.0110272    .0135267
pbc_al       |
          D1 |  -.0073465   .0046828    -1.57   0.117    -.0165246    .0018316
_cons        |   .0036662   .0010789     3.40   0.001     .0015517    .0057808
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   230.71     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -8.15   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =   0.01   Pr > z = 0.9897

.
.
. xtabond ce l(0).ele_1_nal ele_1_al , lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       285
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    114.89

Time variable (t): y                            Obs per group: min =        12
                                                               avg =  12.95455
                                                               max =        13

One-step results
------------------------------------------------------------------------------
ce           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ce           |
          LD |    .428159   .0488848     8.76   0.000     .3323466    .5239713
grow         |
          D1 |   .0587193    .096841     0.61   0.544    -.1310856    .2485241
          LD |  -.0271393   .0998154    -0.27   0.786    -.2227739    .1684954
         L2D |  -.1077007   .0399224    -2.70   0.007    -.1859472   -.0294542
lggp         |
          D1 |   .0098829   .0941948     0.10   0.916    -.1747356    .1945015
          LD |  -.0340245   .1004902    -0.34   0.735    -.2309816    .1629326
         L2D |  -.0076788   .0901485    -0.09   0.932    -.1843667     .169009
ele_1_nal    |
          D1 |  -.0214231   .0109311    -1.96   0.050    -.0428476    1.45e-06
ele_1_al     |
```

```
          D1 |  -.0089575   .0077136    -1.16   0.246    -.0240759    .0061609
_cons        |   .0034386   .0010808     3.18   0.001     .0013202     .005557
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   233.23     Prob > chi2 = 1.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -8.04   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.01   Pr > z = 0.9901

.
.
```

TABLE 18 - Elections and Total Revenue conditional on alignment of provincial and federal government

```
.
. *OLS
. regress  tr tr_1 tr_2 tr_3 grow lggp ele_nal ele_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =   62.69
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8932
                                                       Root MSE      =  .03307

------------------------------------------------------------------------------
             |               Robust
          tr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   1.009453   .1677577     6.02   0.000     .6793225    1.339584
        tr_2 |  -.2862726   .2245212    -1.28   0.203    -.7281084    .1555632
        tr_3 |   .1631853   .0863944     1.89   0.060    -.0068305    .3332011
        grow |  -.0519202   .0272518    -1.91   0.058    -.1055491    .0017087
        lggp |   .0008989   .0030511     0.29   0.768    -.0051053    .0069032
     ele_nal |   .0004781   .0063636     0.08   0.940    -.0120449    .0130011
      ele_al |   .0162604   .0048283     3.37   0.001     .0067587    .0257621
       _cons |   .0122643   .0301458     0.41   0.684    -.0470598    .0715883
------------------------------------------------------------------------------

.
. regress  tr tr_1 tr_2 tr_3 grow lggp pbc_nal pbc_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =   58.50
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8905
                                                       Root MSE      =   .0335

------------------------------------------------------------------------------
             |               Robust
          tr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   1.012568   .1688137     6.00   0.000     .6803589    1.344777
        tr_2 |  -.3035379   .2220007    -1.37   0.173    -.7404138    .1333379
        tr_3 |   .1742855   .0845343     2.06   0.040     .0079302    .3406408
        grow |  -.0524522   .0278074    -1.89   0.060    -.1071745    .0022701
        lggp |   .0006539   .0031627     0.21   0.836      -.00557    .0068779
     pbc_nal |  -.0000464   .0047776    -0.01   0.992    -.0094483    .0093554
      pbc_al |   .0039302   .0033777     1.16   0.246    -.0027167    .0105772
       _cons |   .0175292   .0311409     0.56   0.574     -.043753    .0788114
------------------------------------------------------------------------------

.
. regress  tr tr_1 tr_2 tr_3 grow lggp ele_nal ele_al ele1_nal ele1_al,robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  9,   298) =   62.76
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8945
                                                       Root MSE      =  .03298

------------------------------------------------------------------------------
             |               Robust
          tr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .9943475   .1721787     5.78   0.000     .6555074    1.333188
        tr_2 |  -.2661339   .2315013    -1.15   0.251    -.7217184    .1894505
        tr_3 |   .1605942   .0873215     1.84   0.067    -.0112508    .3324392
        grow |  -.0585203   .0272922    -2.14   0.033      -.11223   -.0048105
        lggp |   .0010462   .0030872     0.34   0.735    -.0050293    .0071216
```

```
     ele_nal |   .0031448   .0068274     0.46   0.645    -.0102913    .0165809
      ele_al |   .0189662   .0052129     3.64   0.000     .0087075    .0292249
    ele1_nal |   .0038419   .0078429     0.49   0.625    -.0115927    .0192765
     ele1_al |   .0102612   .0058747     1.75   0.082    -.0012999    .0218224
       _cons |   .0078894   .0300726     0.26   0.793    -.0512923     .067071
------------------------------------------------------------------------------

.
.
. *FE
. xtreg  tr tr_1 tr_2 tr_3 grow lggp ele_nal ele_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.5016                         Obs per group: min =        14
       between = 0.9384                                        avg =      14.0
       overall = 0.5627                                        max =        14

                                                F(7,279)           =     40.12
corr(u_i, Xb)  = 0.6027                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          tr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .6013849   .0411699    14.61   0.000     .5203418    .6824281
        tr_2 |  -.2775477   .0485447    -5.72   0.000    -.3731081   -.1819873
        tr_3 |  -.1328645   .0380194    -3.49   0.001    -.2077059   -.0580231
        grow |  -.0574305   .0184644    -3.11   0.002    -.0937778   -.0210832
        lggp |  -.0069166   .0099524    -0.69   0.488    -.0265079    .0126748
     ele_nal |  -.0067297   .0053694    -1.25   0.211    -.0172995      .00384
      ele_al |   .0108026   .0037947     2.85   0.005     .0033327    .0182725
       _cons |   .2286671   .0877537     2.61   0.010     .0559237    .4014106
-------------+----------------------------------------------------------------
     sigma_u |  .08015312
     sigma_e |  .02249053
         rho |  .92701321   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    17.60             Prob > F = 0.0000

.
. xtreg  tr tr_1 tr_2 tr_3 grow lggp pbc_nal pbc_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4847                         Obs per group: min =        14
       between = 0.9476                                        avg =      14.0
       overall = 0.5585                                        max =        14

                                                F(7,279)           =     37.48
corr(u_i, Xb)  = 0.6039                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          tr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .5974332   .0420769    14.20   0.000     .5146046    .6802617
        tr_2 |  -.2845449   .0491842    -5.79   0.000    -.3813642   -.1877256
        tr_3 |  -.1274304   .0387248    -3.29   0.001    -.2036604   -.0512004
        grow |  -.0575113   .0189014    -3.04   0.003    -.0947189   -.0203038
        lggp |  -.0072853   .0101497    -0.72   0.473    -.0272649    .0126944
     pbc_nal |  -.0014398   .0030999    -0.46   0.643    -.0075419    .0046623
      pbc_al |   .0014785   .0023797     0.62   0.535    -.0032059    .0061629
       _cons |   .2340775   .0894564     2.62   0.009     .0579824    .4101727
-------------+----------------------------------------------------------------
     sigma_u |  .08050632
     sigma_e |  .02287047
         rho |  .92532352   (fraction of variance due to u_i)
```

```
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    17.36            Prob > F = 0.0000

. regress  tr tr_1 tr_2 tr_3 grow lggp ele_nal ele_al ele1_nal ele1_al,robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  9,   298) =   62.76
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8945
                                                       Root MSE      =  .03298

------------------------------------------------------------------------------
             |               Robust
          tr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .9943475   .1721787     5.78   0.000     .6555074    1.333188
        tr_2 |  -.2661339   .2315013    -1.15   0.251    -.7217184    .1894505
        tr_3 |   .1605942   .0873215     1.84   0.067    -.0112508    .3324392
        grow |  -.0585203   .0272922    -2.14   0.033      -.11223   -.0048105
        lggp |   .0010462   .0030872     0.34   0.735    -.0050293    .0071216
     ele_nal |   .0031448   .0068274     0.46   0.645    -.0102913    .0165809
      ele_al |   .0189662   .0052129     3.64   0.000     .0087075    .0292249
    ele1_nal |   .0038419   .0078429     0.49   0.625    -.0115927    .0192765
     ele1_al |   .0102612   .0058747     1.75   0.082    -.0012999    .0218224
       _cons |   .0078894   .0300726     0.26   0.793    -.0512923     .067071
------------------------------------------------------------------------------

.
.
. *GMM
. xtabond tr l(0).ele_nal ele_al , lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    183.08

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
tr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
tr           |
          LD |   .3500565   .0315188    11.11   0.000     .2882808    .4118322
grow         |
          D1 |   .0255954   .0458895     0.56   0.577    -.0643463    .1155372
          LD |   .0594925   .0465128     1.28   0.201    -.0316708    .1506559
         L2D |   .0162432   .0187645     0.87   0.387    -.0205345    .0530209
lggp         |
          D1 |   -.056169   .0450179    -1.25   0.212    -.1444025    .0320646
          LD |  -.0451783   .0473647    -0.95   0.340    -.1380113    .0476548
         L2D |   .0365996   .0421273     0.87   0.385    -.0459684    .1191676
ele_nal      |
          D1 |  -.0061026   .0051061    -1.20   0.232    -.0161104    .0039052
ele_al       |
          D1 |   .0090788   .0035288     2.57   0.010     .0021624    .0159951
_cons        |   .0033951    .000453     7.49   0.000     .0025072     .004283
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   364.10     Prob > chi2 = 0.3863

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -4.47   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
```

```
         H0: no autocorrelation   z =  -0.75   Pr > z = 0.4523

. xtabond tr l(0).pbc_nal pbc_al , lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    179.14

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
tr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
tr           |
          LD |   .3357761   .0313136    10.72   0.000     .2744025    .3971497
grow         |
          D1 |    .032752    .045178     0.72   0.468    -.0557953    .1212992
          LD |   .0583417   .0461052     1.27   0.206    -.0320229    .1487062
         L2D |    .012797   .0186396     0.69   0.492     -.023736      .04933
lggp         |
          D1 |  -.0671218   .0441787    -1.52   0.129    -.1537104    .0194668
          LD |  -.0295629   .0476002    -0.62   0.535    -.1228577    .0637318
         L2D |   .0305214   .0419206     0.73   0.467    -.0516415    .1126843
pbc_nal      |
          D1 |  -.0057203    .002923    -1.96   0.050    -.0114493    8.76e-06
pbc_al       |
          D1 |  -.0003357   .0021771    -0.15   0.877    -.0046029    .0039314
_cons        |   .0034825   .0004526     7.69   0.000     .0025953    .0043696
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   373.00     Prob > chi2 = 0.2693

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -4.21   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -1.09   Pr > z = 0.2770

.
. xtabond tr l(0). ele_nal ele_al ele1_nal ele1_al, lags(1)  pre(grow,
lag(2,.)) pre(lggp, lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(11)      =    212.53

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
tr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
tr           |
          LD |   .3475647   .0306374    11.34   0.000     .2875165    .4076128
grow         |
          D1 |    .009285   .0446843     0.21   0.835    -.0782947    .0968646
          LD |   .0445231   .0453884     0.98   0.327    -.0444364    .1334827
         L2D |   .0122236   .0182512     0.67   0.503    -.0235482    .0479954
lggp         |
          D1 |  -.0521419   .0436858    -1.19   0.233    -.1377644    .0334807
          LD |  -.0207505   .0464785    -0.45   0.655    -.1118467    .0703457
```

```
         L2D |   .0066651   .0417441     0.16   0.873    -.0751518     .088482
ele_nal      |
          D1 |  -.0024982   .0050867    -0.49   0.623    -.0124679    .0074715
ele_al       |
          D1 |     .01353   .0035753     3.78   0.000     .0065226    .0205374
ele1_nal     |
          D1 |   .0089831   .0041688     2.15   0.031     .0008125    .0171537
ele1_al      |
          D1 |    .013825   .0034746     3.98   0.000      .007015     .020635
_cons        |   .0034533   .0004423     7.81   0.000     .0025864    .0043202
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   369.15     Prob > chi2 = 0.3175

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -4.46   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.58   Pr > z = 0.5640

.
.
```

TABLE 19 - Elections and Revenue from Federal Government conditional on alignment of provincial and federal government

```
. *OLS
. regress  fr fr_1 fr_2 fr_3 grow lggp ele_nal ele_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =  115.80
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.9061
                                                       Root MSE      =  .03036

------------------------------------------------------------------------------
             |               Robust
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |    1.00824   .1446013     6.97   0.000      .7236783    1.292801
        fr_2 |  -.2187173   .1986039    -1.10   0.272     -.6095505     .172116
        fr_3 |   .1128744   .0775378     1.46   0.147     -.0397124    .2654612
        grow |  -.0507363   .0249693    -2.03   0.043     -.0998733   -.0015992
        lggp |  -.0002838   .0030505    -0.09   0.926     -.0062868    .0057192
     ele_nal |   .0006585   .0058137     0.11   0.910     -.0107823    .0120993
      ele_al |   .0165713   .0045323     3.66   0.000      .0076522    .0254904
       _cons |    .016237   .0300383     0.54   0.589     -.0428754    .0753494
------------------------------------------------------------------------------

.
. regress  fr fr_1 fr_2 fr_3 grow lggp pbc_nal pbc_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =  103.34
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.9032
                                                       Root MSE      =  .03083

------------------------------------------------------------------------------
             |               Robust
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   1.010338   .1464464     6.90   0.000       .722146    1.298531
        fr_2 |  -.2361745   .1991115    -1.19   0.237     -.6280066    .1556575
        fr_3 |   .1252573   .0767807     1.63   0.104     -.0258397    .2763543
        grow |  -.0509198    .025696    -1.98   0.048      -.101487   -.0003526
        lggp |  -.0005945   .0031477    -0.19   0.850     -.0067889    .0055998
     pbc_nal |   .0003441   .0041343     0.08   0.934     -.0077919      .00848
      pbc_al |   .0042087   .0032478     1.30   0.196     -.0021827    .0106002
       _cons |   .0220303   .0309912     0.71   0.478     -.0389573     .083018
------------------------------------------------------------------------------

. regress  fr fr_1 fr_2 fr_3 grow lggp ele_nal ele_al ele1_nal ele1_al,robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  9,   298) =   99.72
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.9074
                                                       Root MSE      =  .03027

------------------------------------------------------------------------------
             |               Robust
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .9900392    .149949     6.60   0.000      .6949461    1.285132
        fr_2 |  -.1932028   .2066576    -0.93   0.351     -.5998959    .2134902
        fr_3 |   .1078675   .0783245     1.38   0.169     -.0462716    .2620066
        grow |  -.0573516   .0251816    -2.28   0.023     -.1069079   -.0077953
        lggp |  -.0001107   .0030843    -0.04   0.971     -.0061803     .005959
     ele_nal |   .0031823   .0061115     0.52   0.603     -.0088448    .0152094
```

```
      ele_al |   .0190761   .0048024     3.97   0.000     .0096253     .028527
    ele1_nal |      .0032   .0066132     0.48   0.629    -.0098146    .0162145
     ele1_al |    .009921     .00539     1.84   0.067    -.0006863    .0205283
       _cons |    .011899   .0300007     0.40   0.692    -.0471411    .0709391
------------------------------------------------------------------------------

.
.
.
. *FE
. xtreg  fr fr_1 fr_2 fr_3 grow lggp ele_nal ele_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4671                         Obs per group: min =        14
       between = 0.8886                                        avg =      14.0
       overall = 0.6649                                        max =        14

                                                F(7,279)           =     34.93
corr(u_i, Xb)  = 0.6902                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .5892793    .043795    13.46   0.000     .5030687    .6754899
        fr_2 |   -.213446   .0514539    -4.15   0.000    -.3147332   -.1121589
        fr_3 |  -.1464361   .0392417    -3.73   0.000    -.2236835   -.0691887
        grow |  -.0468293   .0173763    -2.70   0.007    -.0810345   -.0126241
        lggp |  -.0148224   .0094936    -1.56   0.120    -.0335106    .0038657
     ele_nal |  -.0065903   .0050604    -1.30   0.194    -.0165518    .0033711
      ele_al |   .0110163    .003586     3.07   0.002     .0039571    .0180754
       _cons |     .26652   .0838845     3.18   0.002     .1013932    .4316469
-------------+----------------------------------------------------------------
     sigma_u |  .07481693
     sigma_e |  .02122926
         rho |  .92548566   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    15.94             Prob > F = 0.0000

.
. xtreg  fr fr_1 fr_2 fr_3 grow lggp pbc_nal pbc_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.4463                         Obs per group: min =        14
       between = 0.8889                                        avg =      14.0
       overall = 0.6600                                        max =        14

                                                F(7,279)           =     32.12
corr(u_i, Xb)  = 0.6910                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          fr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        fr_1 |   .5818032   .0449729    12.94   0.000     .4932739    .6703324
        fr_2 |  -.2199583   .0524566    -4.19   0.000    -.3232193   -.1166973
        fr_3 |  -.1392907   .0400564    -3.48   0.001    -.2181419   -.0604395
        grow |  -.0467731   .0178366    -2.62   0.009    -.0818846   -.0116617
        lggp |   -.015308   .0096994    -1.58   0.116    -.0344012    .0037852
     pbc_nal |   -.001471   .0029299    -0.50   0.616    -.0072385    .0042964
      pbc_al |   .0015274   .0022599     0.68   0.500    -.0029212    .0059759
       _cons |   .2730504   .0856513     3.19   0.002     .1044455    .4416554
-------------+----------------------------------------------------------------
     sigma_u |  .07530624
     sigma_e |  .02163946
         rho |  .92372636   (fraction of variance due to u_i)
```

```
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =    15.72             Prob > F = 0.0000

.
. xtreg tr tr_1 tr_2 tr_3 grow lggp ele_nal ele_al ele1_nal ele1_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.5132                         Obs per group: min =        14
       between = 0.9240                                        avg =      14.0
       overall = 0.5583                                        max =        14

                                                F(9,277)           =     32.45
corr(u_i, Xb)  = 0.5952                         Prob > F           =    0.0000

------------------------------------------------------------------------------
          tr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        tr_1 |   .5905748   .0411159    14.36   0.000     .5096354    .6715142
        tr_2 |  -.2586676   .0487209    -5.31   0.000    -.3545778   -.1627575
        tr_3 |  -.1376176   .0378614    -3.63   0.000    -.2121502    -.063085
        grow |  -.0641876   .0185117    -3.47   0.001    -.1006291   -.0277461
        lggp |  -.0067447   .0099218    -0.68   0.497    -.0262765    .0127871
     ele_nal |  -.0058484   .0054614    -1.07   0.285    -.0165995    .0049027
      ele_al |   .0133248   .0039312     3.39   0.001      .005586    .0210636
    ele1_nal |  -.0001588   .0043569    -0.04   0.971    -.0087357     .008418
     ele1_al |   .0095074   .0037683     2.52   0.012     .0020894    .0169255
       _cons |   .2246446   .0875908     2.56   0.011     .0522164    .3970729
-------------+----------------------------------------------------------------
     sigma_u |  .08014266
     sigma_e |  .02230825
         rho |  .92808936   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 277) =    17.83             Prob > F = 0.0000

.
. *GMM
. xtabond fr l(0).ele_nal ele_al, lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    185.37

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
fr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
fr           |
          LD |   .3738862   .0329054    11.36   0.000     .3093929    .4383795
grow         |
          D1 |   .0229733   .0429132     0.54   0.592     -.061135    .1070815
          LD |   .0590242   .0435073     1.36   0.175    -.0262485     .144297
         L2D |   .0055715   .0174559     0.32   0.750    -.0286414    .0397844
lggp         |
          D1 |  -.0627462   .0421046    -1.49   0.136    -.1452697    .0197773
          LD |  -.0372138   .0443214    -0.84   0.401    -.1240821    .0496545
         L2D |   .0462688   .0394034     1.17   0.240    -.0309605     .123498
ele_nal      |
          D1 |  -.0064311   .0047781    -1.35   0.178     -.015796    .0029338
ele_al       |
          D1 |   .0082487   .0033091     2.49   0.013      .001763    .0147344
```

```
_cons        |    .002559   .0004199     6.09   0.000      .001736    .0033819
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   346.63     Prob > chi2 = 0.6431

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -5.19   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.36   Pr > z = 0.7156


.
.
. xtabond fr l(0).pbc_nal pbc_al, lags(1)  pre(grow, lag(2,.)) pre(lggp,
lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(9)       =    179.93

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
fr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
fr           |
          LD |   .3576535   .0327499    10.92   0.000     .2934649    .4218421
grow         |
          D1 |   .0281981   .0423676     0.67   0.506    -.0548409    .1112371
          LD |   .0574934   .0432459     1.33   0.184    -.0272671    .1422538
         L2D |   .0023443   .0173902     0.13   0.893    -.0317399    .0364285
lggp         |
          D1 |  -.0715109   .0414332    -1.73   0.084    -.1527186    .0096967
          LD |  -.0241315   .0446573    -0.54   0.589    -.1116582    .0633951
         L2D |   .0403942   .0393127     1.03   0.304    -.0366572    .1174456
pbc_nal      |
          D1 |  -.0051577   .0027407    -1.88   0.060    -.0105293    .0002139
pbc_al       |
          D1 |  -.0004197   .0020449    -0.21   0.837    -.0044275    .0035881
_cons        |   .0026318   .0004205     6.26   0.000     .0018076     .003456
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   353.74     Prob > chi2 = 0.5387

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -5.04   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.58   Pr > z = 0.5629


.
. xtabond fr l(0).ele_nal ele_al ele1_nal ele1_al , lags(1)  pre(grow,
lag(2,.)) pre(lggp, lag(2,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       286
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(11)      =    211.37

Time variable (t): y                            Obs per group: min =        13
                                                               avg =        13
                                                               max =        13

One-step results
------------------------------------------------------------------------------
fr           |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
```

```
-------------+----------------------------------------------------------------
fr           |
          LD |   .3721047   .0321465    11.58   0.000     .3090987    .4351108
grow         |
          D1 |   .0082227   .0420188     0.20   0.845    -.0741327     .090578
          LD |   .0460954    .042689     1.08   0.280    -.0375735    .1297644
         L2D |   .0019717   .0170738     0.12   0.908    -.0314923    .0354358
lggp         |
          D1 |  -.0592305   .0410833    -1.44   0.149    -.1397522    .0212912
          LD |  -.0157837   .0437323    -0.36   0.718    -.1014974    .0699301
         L2D |   .0202422    .039256     0.52   0.606    -.0566981    .0971825
ele_nal      |
          D1 |  -.0033791   .0047862    -0.71   0.480    -.0127598    .0060017
ele_al       |
          D1 |   .0122515   .0033712     3.63   0.000     .0056441    .0188589
ele1_nal     |
          D1 |    .007472   .0039281     1.90   0.057    -.0002269     .015171
ele1_al      |
          D1 |   .0126459   .0032706     3.87   0.000     .0062357    .0190561
_cons        |   .0025978   .0004122     6.30   0.000       .00179    .0034056
------------------------------------------------------------------------------
Sargan test of over-identifying restrictions:
         chi2(357) =   347.76     Prob > chi2 = 0.6270

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
         H0: no autocorrelation   z =  -5.30   Pr > z = 0.0000
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
         H0: no autocorrelation   z =  -0.04   Pr > z = 0.9697
```

TABLE 20 - Elections and Revenue from Provincial Taxes conditional on alignment of provincial and federal government

```
.
. *OLS
. regress  ptr ptr_1 ptr_2 ptr_3 grow lggp ele_nal ele_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =  112.99
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8422
                                                       Root MSE      =  .00562

------------------------------------------------------------------------------
             |               Robust
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .9428694   .1447413     6.51   0.000     .6580326    1.227706
       ptr_2 |  -.3730106    .157066    -2.37   0.018    -.6821013     -.06392
       ptr_3 |   .2532924   .0795903     3.18   0.002     .0966665    .4099184
        grow |  -.0033364   .0048706    -0.69   0.494    -.0129213    .0062485
        lggp |    .002668   .0009754     2.74   0.007     .0007486    .0045874
     ele_nal |   .0002664   .0009324     0.29   0.775    -.0015684    .0021012
      ele_al |   .0001219   .0008605     0.14   0.887    -.0015715    .0018152
       _cons |  -.0178357   .0074739    -2.39   0.018    -.0325436   -.0031278
------------------------------------------------------------------------------

. regress  ptr ptr_1 ptr_2 ptr_3 grow lggp pbc_nal pbc_al, robust

Regression with robust standard errors                 Number of obs =     308
                                                       F(  7,   300) =  113.08
                                                       Prob > F      =  0.0000
                                                       R-squared     =  0.8425
                                                       Root MSE      =  .00561

------------------------------------------------------------------------------
             |               Robust
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .9464471   .1443851     6.56   0.000     .6623113    1.230583
       ptr_2 |  -.3815714   .1550447    -2.46   0.014    -.6866842   -.0764585
       ptr_3 |    .258749   .0803934     3.22   0.001     .1005425    .4169555
        grow |  -.0039578   .0048465    -0.82   0.415    -.0134952    .0055795
        lggp |   .0026596   .0009787     2.72   0.007     .0007337    .0045855
     pbc_nal |  -1.40e-06   .0010759    -0.00   0.999    -.0021186    .0021158
      pbc_al |  -.0004472   .0004581    -0.98   0.330    -.0013488    .0004544
       _cons |  -.0177302   .0074854    -2.37   0.018    -.0324607   -.0029997
------------------------------------------------------------------------------

.
.
.
. *FE
. xtreg  ptr ptr_1 ptr_2 ptr_3 grow lggp ele_nal ele_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.5246                         Obs per group: min =        14
       between = 0.9070                                        avg =      14.0
       overall = 0.7956                                        max =        14

                                                F(7,279)           =     43.99
corr(u_i, Xb)  = 0.5065                         Prob > F           =    0.0000

------------------------------------------------------------------------------
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
```

```
       ptr_1 |   .7615601   .0481035    15.83   0.000     .6668682    .8562519
       ptr_2 |  -.3799494   .0563961    -6.74   0.000    -.4909653   -.2689334
       ptr_3 |   .1011669   .0485239     2.08   0.038     .0056476    .1966863
        grow |      -.006   .0044526    -1.35   0.179    -.0147649     .002765
        lggp |   .0077006   .0023316     3.30   0.001     .0031108    .0122904
     ele_nal |   .0001572   .0012493     0.13   0.900     -.002302    .0026164
      ele_al |   .0001693   .0008805     0.19   0.848     -.001564    .0019026
       _cons |  -.0515562   .0197718    -2.61   0.010     -.090477   -.0126353
-------------+----------------------------------------------------------------
     sigma_u |   .0046232
     sigma_e |  .00521579
         rho |  .43998939   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     3.29             Prob > F = 0.0000

. xtreg  ptr ptr_1 ptr_2 ptr_3 grow lggp pbc_nal pbc_al,fe

Fixed-effects (within) regression               Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

R-sq:  within  = 0.5253                         Obs per group: min =        14
       between = 0.9071                                        avg =      14.0
       overall = 0.7959                                        max =        14

                                                F(7,279)           =     44.11
corr(u_i, Xb)  = 0.5064                         Prob > F           =    0.0000

------------------------------------------------------------------------------
         ptr |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       ptr_1 |   .7649158   .0480094    15.93   0.000     .6704092    .8594224
       ptr_2 |  -.3871655   .0561041    -6.90   0.000    -.4976065   -.2767245
       ptr_3 |   .1051567   .0484995     2.17   0.031     .0096853    .2006281
        grow |  -.0065774   .0044847    -1.47   0.144    -.0154056    .0022508
        lggp |   .0076987   .0023361     3.30   0.001     .0031001    .0122973
     pbc_nal |   .0000305   .0007047     0.04   0.965    -.0013567    .0014178
      pbc_al |  -.0003677   .0005432    -0.68   0.499    -.0014369    .0007016
       _cons |  -.0514966   .0198169    -2.60   0.010    -.0905062    -.012487
-------------+----------------------------------------------------------------
     sigma_u |  .00462108
     sigma_e |  .00521195
         rho |  .44012564   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(21, 279) =     3.28             Prob > F = 0.0000

.
. *GMM
.
. xtabond ptr l(0).ele_nal ele_al , lags(2)  pre(grow, lag(1,.)) pre(lggp,
lag(1,.))

Arellano-Bond dynamic panel-data estimation     Number of obs      =       308
Group variable (i): id                          Number of groups   =        22

                                                Wald chi2(8)       =    235.98

Time variable (t): y                            Obs per group: min =        14
                                                               avg =        14
                                                               max =        14

One-step results
------------------------------------------------------------------------------
ptr          |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
ptr          |
          LD |   .6402771   .0477628    13.41   0.000     .5466637    .7338905
         L2D |  -.3542546   .0488073    -7.26   0.000    -.4499151   -.2585941
grow         |
```