Arellano-Bond Estimator

Linear regression function:

$$Y_{i,t} = \beta_0 + \beta_1 * Y_{i,t-1} + \beta_2 * T_{i,t} + \beta_3 * T_{i,t}^2 + \beta_4 * P_{i,t} + \beta_5 * P_{i,t}^2 + \epsilon_{i,t}$$

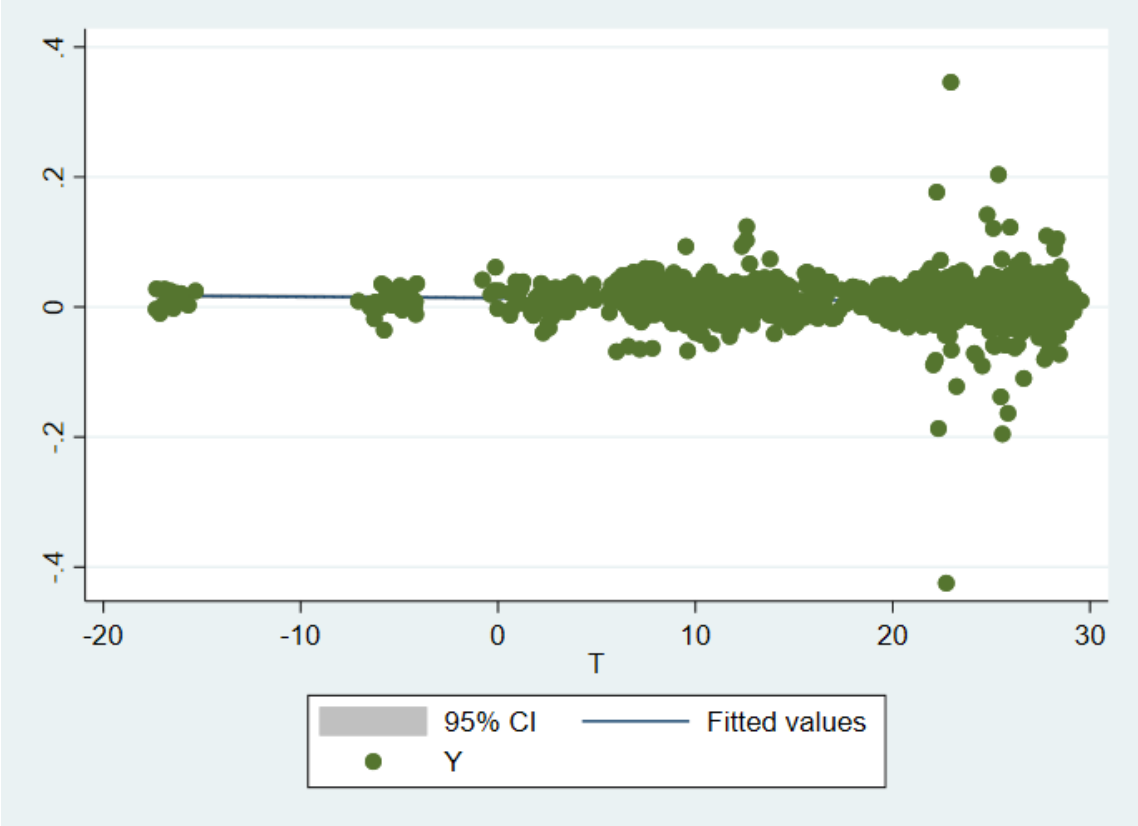
where

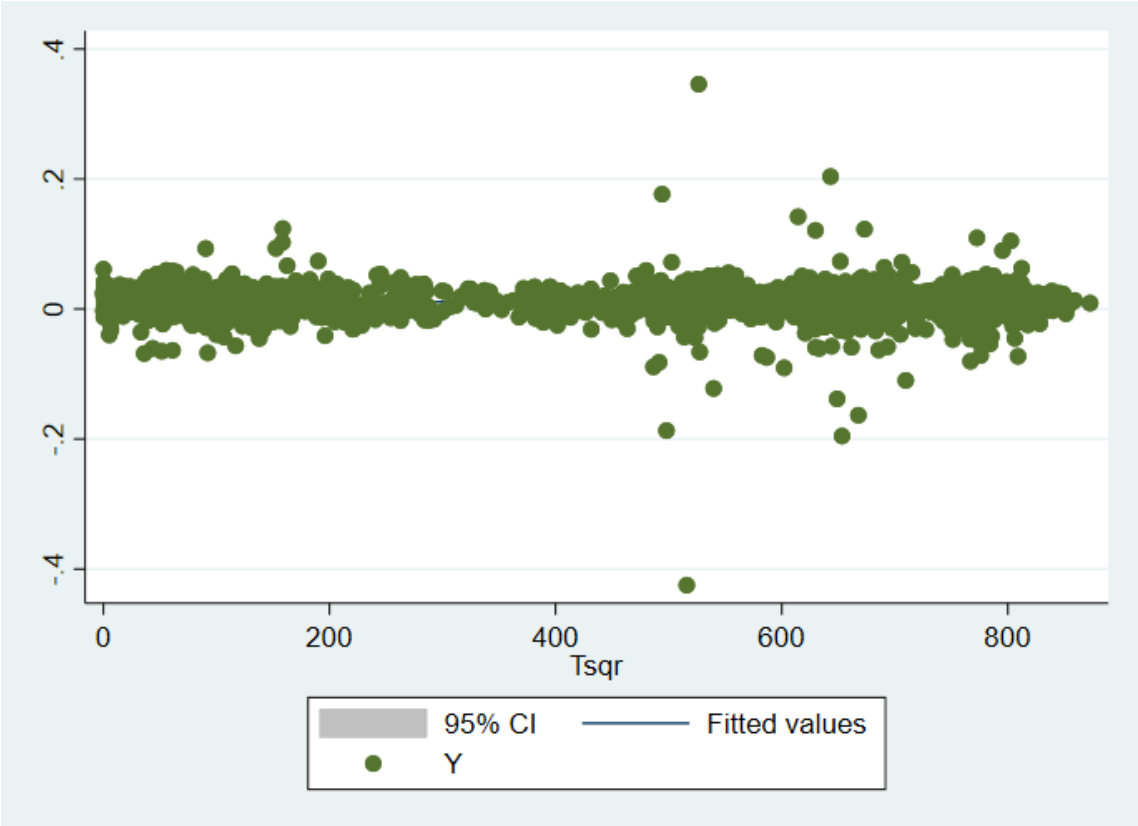
- Y: growth rate of GDP per capita
- T: temperature
- P: precipitation

Results:

```
Arellano-Bond dynamic panel-data estimation     Number of obs     =      1,994
Group variable: id                              Number of groups  =        167
Time variable: year
                                                Obs per group:
                                                              min =          2
                                                              avg =   11.94012
                                                              max =         12

Number of instruments =     84                  Wald chi2(6)      =      20.04
                                                Prob > chi2       =     0.0027
One-step results
                                    (Std. Err. adjusted for clustering on id)
------------------------------------------------------------------------------
             |               Robust
           y |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
           y |
          L1. |  -.0105582   .1735573    -0.06   0.951    -.3507243    .3296079
              |
        lagy |  -.0309451   .0184456    -1.68   0.093    -.0670978    .0052077
           t |   .0028114   .0016825     1.67   0.095    -.0004863    .0061091
        tsqr |  -.0001935   .0000562    -3.44   0.001    -.0003036   -.0000834
           p |   .0000938   .0000713     1.31   0.189    -.0000461    .0002336
        psqr |  -1.81e-07   1.50e-07    -1.21   0.226    -4.75e-07    1.12e-07
       _cons |   .0377637    .026301     1.44   0.151    -.0137852    .0893127
------------------------------------------------------------------------------
Instruments for differenced equation
        GMM-type: L(2/.).y
        Standard: D.lagy D.t D.tsqr D.p D.psqr
Instruments for level equation
        Standard: _cons
```


.4
.2
0
-.2
-.4
-20
-10
0
10
20
30
T
95% CI
Fitted values
Y


.4
.2
0
-.2
-.4
0
200
400
600
800
Tsqr
95% CI
Fitted values
Y

In [ ]: