

## LAMPIRAN

### Lampiran 1 Uji Chow Test Model Pertama

**Hipotesis: Ho: Pooled Least Square**

**Ha: Fixed Effect Method**

**Decision Rule: Tolak Ho apabila P-value <  $\alpha$**

|                                   |                    |                                   |                               |
|-----------------------------------|--------------------|-----------------------------------|-------------------------------|
| Fixed-effects (within) regression | Number of obs      | =                                 | 364                           |
| Group variable (i): kode          | Number of groups   | =                                 | 26                            |
| R-sq: within = 0.4869             | Obs per group: min | =                                 | 14                            |
| between = 0.6365                  | avg                | =                                 | 14.0                          |
| overall = 0.5603                  | max                | =                                 | 14                            |
|                                   | F(2,336)           | =                                 | 159.41                        |
| corr(u_i, Xb) = 0.1372            | Prob > F           | =                                 | 0.0000                        |
| -----                             |                    |                                   |                               |
| lnpdrb_1                          | Coef.              | Std. Err.                         | t P> t  [95% Conf. Interval]  |
| -----+                            |                    |                                   |                               |
| lnmodal_1                         | .4902825           | .0296395                          | 16.54 0.000 .4319802 .5485848 |
| lnhumcap_1                        | .1398917           | .0467401                          | 2.99 0.003 .0479516 .2318318  |
| _cons                             | 8.143564           | .4733422                          | 17.20 0.000 7.212477 9.074652 |
| -----+                            |                    |                                   |                               |
| sigma_u                           | .45854983          |                                   |                               |
| sigma_e                           | .52956566          |                                   |                               |
| rho                               | .42849935          | (fraction of variance due to u_i) |                               |
| -----                             |                    |                                   |                               |
| F test that all u_i=0:            | F(25, 336) =       | 10.20                             | Prob > F = 0.0643             |

## Lampiran 2 LM Test Model Pertama

**Hipotesis: Ho: Pooled Least Square**  
**Ha: Random Effect Method**

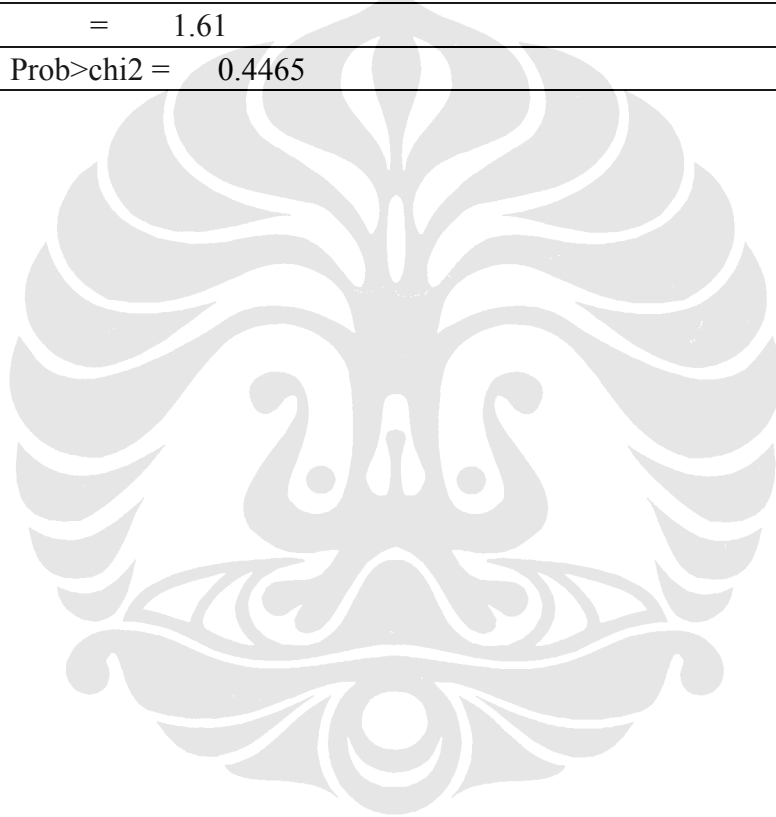
**Decision Rule: Tolak Ho apabila P-value <  $\alpha$**

|  |                    |   |                               |
|--|--------------------|---|-------------------------------|
| Random-effects GLS regression                                    | Number of obs      | =   | 364                           |
| Group variable (i): kode   | Number of groups   | =   | 26                            |
| R-sq: within = 0.4868  | Obs per group: min | =   | 14                            |
| between = 0.6376   | avg                | =   | 14.0                          |
| overall = 0.5607   | max                | =   | 14                            |
| Random effects u <sub>i</sub> ~ Gaussian                         | Wald chi2(2)       | =   | 360.08                        |
| corr(u <sub>i</sub> , X) = 0 (assumed)                           | Prob > chi2        | =   | 0.0000                        |
| -----  |                    |   |                               |
| lnpdrb_1   | Coef.              | Std. Err.                                     | z P> z  [95% Conf. Interval]  |
| -----+-----  |                    |   |                               |
| lnmodal_1  | .4959077           | .0283831                                      | 17.47 0.000 .4402778 .5515375 |
| lnhumcap_1   | .1495893           | .0457942                                      | 3.27 0.001 .0598344 .2393442  |
| _cons  | 8.066971           | .4622445                                      | 17.45 0.000 7.160988 8.972953 |
| -----+-----  |                    |   |                               |
| sigma_u  | .43858841          |   |                               |
| sigma_e  | .52956566          |   |                               |
| rho  | .40685271          | (fraction of variance due to u <sub>i</sub> ) |                               |
| -----  |                    |   |                               |
| . xttest0  |                    |   |                               |
| Breusch and Pagan Lagrangian multiplier test for random effects: |                    |   |                               |
| lnpdrb_1[kode,t] = Xb + u[kode] + e[kode,t]                      |                    |   |                               |
| Estimated results:   |                    |   |                               |
|  | Var                | sd = sqrt(Var)                                |                               |
| -----+-----  |                    |   |                               |
| lnpdrb_1   | 1.042718           | 1.021136                                      |                               |
| e  | .2804398           | .5295657                                      |                               |
| u  | .1923598           | .4385884                                      |                               |
| Test: Var(u) = 0   |                    |   |                               |
| chi2(1) = 341.72   |                    |   |                               |
| Prob > chi2 = 0.0204   |                    |   |                               |

### Lampiran 3 Hausman Test Model Pertama

|   |                    |           |                                   |
|---|--------------------|-----------|-----------------------------------|
| Fixed-effects (within) regression         | Number of obs      | =         | 364                               |
| Group variable (i): kode                  | Number of groups   | =         | 26                                |
| R-sq: within = 0.4869                     | Obs per group: min | =         | 14                                |
| between = 0.6365                          | avg                | =         | 14.0                              |
| overall = 0.5603                          | max                | =         | 14                                |
|   | F(2,336)           | =         | 159.41                            |
| corr(u_i, Xb) = 0.1372                    | Prob > F           | =         | 0.0000                            |
| -----                                     |                    |           |                                   |
| lnpdrb_1                                  | Coef.              | Std. Err. | t P> t  [95% Conf. Interval]      |
| -----+-----                               |                    |           |                                   |
| lnmodal_1                                 | .4902825           | .0296395  | 16.54 0.000 .4319802 .5485848     |
| lnhumcap_1                                | .1398917           | .0467401  | 2.99 0.003 .0479516 .2318318      |
| _cons                                     | 8.143564           | .4733422  | 17.20 0.000 7.212477 9.074652     |
| -----+-----                               |                    |           |                                   |
| sigma_u                                   | .45854983          |           |                                   |
| sigma_e                                   | .52956566          |           |                                   |
| rho                                       | .42849935          |           | (fraction of variance due to u_i) |
| -----                                     |                    |           |                                   |
| F test that all u_i=0:                    | F(25, 336) =       | 10.20     | Prob > F = 0.0643                 |
| . est store fixed                         |                    |           |                                   |
| . xtreg lnpdrb_1 lnmodal_1 lnhumcap_1, re |                    |           |                                   |
| Random-effects GLS regression             | Number of obs      | =         | 364                               |
| Group variable (i): kode                  | Number of groups   | =         | 26                                |
| R-sq: within = 0.4868                     | Obs per group: min | =         | 14                                |
| between = 0.6376                          | avg                | =         | 14.0                              |
| overall = 0.5607                          | max                | =         | 14                                |
| Random effects u_i ~ Gaussian             | Wald chi2(2)       | =         | 360.08                            |
| corr(u_i, X) = 0 (assumed)                | Prob > chi2        | =         | 0.0000                            |
| -----                                     |                    |           |                                   |
| lnpdrb_1                                  | Coef.              | Std. Err. | z P> z  [95% Conf. Interval]      |
| -----+-----                               |                    |           |                                   |
| lnmodal_1                                 | .4959077           | .0283831  | 17.47 0.000 .4402778 .5515375     |
| lnhumcap_1                                | .1495893           | .0457942  | 3.27 0.001 .0598344 .2393442      |
| _cons                                     | 8.066971           | .4622445  | 17.45 0.000 7.160988 8.972953     |
| -----+-----                               |                    |           |                                   |
| sigma_u                                   | .43858841          |           |                                   |
| sigma_e                                   | .52956566          |           |                                   |
| rho                                       | .40685271          |           | (fraction of variance due to u_i) |
| -----                                     |                    |           |                                   |
| . est store random                        |                    |           |                                   |

|  |          |          |            |                     |
|--|----------|----------|------------|---------------------|
| . hausman fixed random   |          |          |            |                     |
| ---- Coefficients ----   |          |          |            |                     |
|  | (b)      | (B)      | (b-B)      | sqrt(diag(V_b-V_B)) |
|  | fixed    | random   | Difference | S.E.                |
| -----+-----  |          |          |            |                     |
| Inmodal_1  | .4902825 | .4959077 | -.0056252  | .0085381            |
| Inhumcap_1   | .1398917 | .1495893 | -.0096976  | .0093559            |
| -----  |          |          |            |                     |
| b = consistent under Ho and Ha; obtained from xtreg                |          |          |            |                     |
| B = inconsistent under Ha, efficient under Ho; obtained from xtreg |          |          |            |                     |
| Test: Ho: difference in coefficients not systematic                |          |          |            |                     |
| chi2(2) = (b-B)'[(V_b-V_B)^(-1)](b-B)                              |          |          |            |                     |
| = 1.61   |          |          |            |                     |
| Prob>chi2 = 0.4465   |          |          |            |                     |



## Lampiran 4 Uji Chow Test Model Ketiga

**Hipotesis: Ho: Pooled Least Square**  
**Ha: Fixed Effect Method**

**Decision Rule: Tolak Ho apabila P-value <  $\alpha$**

|                                   |   |           |                                |
|-----------------------------------|---|-----------|--------------------------------|
| Fixed-effects (within) regression | Number of obs                               | =         | 307                            |
| Group variable (i): thn           | Number of groups                            | =         | 14                             |
| R-sq: within = 0.2072             | Obs per group: min =                        |           | 17                             |
| between = 0.0914                  | avg =                                       |           | 21.9                           |
| overall = 0.0443                  | max =                                       |           | 26                             |
|                                   | F(5,288)                                    | =         | 15.06                          |
| corr(u_i, Xb) = -0.7889           | Prob > F                                    | =         | 0.0000                         |
| -----                             |   |           |                                |
| lnhd                              | Coef.                                       | Std. Err. | t P> t  [95% Conf. Interval]   |
| -----+-----                       |   |           |                                |
| lninumcap                         | .2906831                                    | .0606094  | 4.80 0.000 0.1713897 0.4099766 |
| lngdp_cap                         | .0489198                                    | .1728127  | 0.28 0.778 -.2932667 .3911063  |
| lnopenness                        | .0651930                                    | .0318124  | 3.50 0.001 .0427514 .1679798   |
| gini                              | -.000424                                    | .0002449  | -1.73 0.085 -.000906 .0000581  |
| educ_gdp                          | .0314102                                    | .0619479  | 0.51 0.612 -.0900053 .1528258  |
| _cons                             | 13.09068                                    | 1.271058  | 10.30 0.000 10.58894 15.59242  |
| -----+-----                       |   |           |                                |
| sigma_u                           | .65160597                                   |           |                                |
| sigma_e                           | .82091781                                   |           |                                |
| rho                               | .38651955 (fraction of variance due to u_i) |           |                                |
| -----                             |   |           |                                |
| F test that all u_i=0:            | F(13, 288) =                                | 2.52      | Prob > F = 0.0228              |

## Lampiran 5 LM Test Model Ketiga

**Hipotesis: Ho: Pooled Least Square**  
**Ha: Random Effect Method**

**Decision Rule: Tolak Ho apabila P-value <  $\alpha$**

|  |                      |   |                |       |       |                      |
|--|----------------------|---|----------------|-------|-------|----------------------|
| Random-effects GLS regression                                    | Number of obs        | =   | 307            |       |       |                      |
| Group variable (i): kode   | Number of groups     | =   | 14             |       |       |                      |
| R-sq: within = 0.1471  | Obs per group: min = |   | 17             |       |       |                      |
| between = 0.2318   | avg =                |   | 21.9           |       |       |                      |
| overall = 0.1504   | max =                |   | 26             |       |       |                      |
| Random effects u <sub>i</sub> ~ Gaussian                         | Wald chi2(5)         | =   | 53.27          |       |       |                      |
| corr(u <sub>i</sub> , X) = 0 (assumed)                           | Prob > chi2          | =   | 0.0000         |       |       |                      |
| -----  |                      |   |                |       |       |                      |
| lnhd   |                      | Coef.   | Std. Err.      | z     | P> z  | [95% Conf. Interval] |
| -----+-----  |                      |   |                |       |       |                      |
| lninumcap  |                      | .2373688  | .0600378       | 3.95  | 0.000 | .1196968 .3550408    |
| lngdp_cap  |                      | .0836455  | .0604376       | 1.38  | 0.166 | -.03481 .202101      |
| lnopenness   |                      | .0913011  | .0126731       | -0.29 | 0.852 | -.0275599 .0221178   |
| gini   |                      | -.0005145                                       | .0002514       | -2.05 | 0.041 | -.0010073 -.0000217  |
| educ_gdp   |                      | -.0921099                                       | .0209517       | -4.40 | 0.000 | -.1331745 -.0510453  |
| _cons  |                      | 9.264133  | .984846        | 9.41  | 0.000 | 7.33387 11.1944      |
| -----+-----  |                      |   |                |       |       |                      |
| sigma_u  |                      | 0   |                |       |       |                      |
| sigma_e  |                      | .82091781                                       |                |       |       |                      |
| rho  |                      | 0 (fraction of variance due to u <sub>i</sub> ) |                |       |       |                      |
| -----  |                      |   |                |       |       |                      |
| Breusch and Pagan Lagrangian multiplier test for random effects: |                      |   |                |       |       |                      |
| lnhd[kode,t] = Xb + u[kode] + e[kode,t]                          |                      |   |                |       |       |                      |
| -----  |                      |   |                |       |       |                      |
| Estimated results:   |                      |   |                |       |       |                      |
|  |                      | Var   | sd = sqrt(Var) |       |       |                      |
| -----+-----  |                      |   |                |       |       |                      |
| lnhd   |                      | .8313336  | .911775        |       |       |                      |
| e  |                      | .2352621  | .4850383       |       |       |                      |
| u  |                      | .4631147  | .6805253       |       |       |                      |
| Test: Var(u) = 0   |                      |   |                |       |       |                      |
| chi2(1) = 411.67   |                      |   |                |       |       |                      |
| Prob > chi2 = 0.0103   |                      |   |                |       |       |                      |

## Lampiran 6 Hausman Test Model Ketiga

Hipotesis: Ho: *Random Effect Method*

Ha: *Fixed Effect Method*

Decision Rule: Tolak Ho apabila P-value <  $\alpha$

|  |   |           |                      |
|--|---|-----------|----------------------|
| Fixed-effects (within) regression        | Number of obs   | =         | 307                  |
| Group variable (i): thn                  | Number of groups  | =         | 14                   |
| R-sq: within = 0.2072                    | Obs per group: min =                                    |           | 17                   |
| between = 0.0914                         | avg =   |           | 21.9                 |
| overall = 0.0443                         | max =   |           | 26                   |
|  | F(5,288)  | =         | 15.06                |
| corr(u <sub>i</sub> , Xb) = -0.7889      | Prob > F  | =         | 0.0000               |
| -----                                    |   |           |                      |
| lnhd                                     | Coef.   | Std. Err. | t                    |
|  |   |           | P> t                 |
|  |   |           | [95% Conf. Interval] |
| -----+                                   |   |           |                      |
| lninumcap                                | .2906831  | .0606094  | 4.80                 |
|  |   |           | 0.000                |
|  |   |           | 0.1713897            |
|  |   |           | 0.4099766            |
| lngdp_cap                                | .0489198  | .1728127  | 0.28                 |
|  |   |           | 0.778                |
|  |   |           | -.2932667            |
|  |   |           | .3911063             |
| lnopenness                               | .0651930  | .0318124  | 3.50                 |
|  |   |           | 0.001                |
|  |   |           | .0427514             |
|  |   |           | .1679798             |
| gini                                     | -.000424  | .0002449  | -1.73                |
|  |   |           | 0.085                |
|  |   |           | -.000906             |
|  |   |           | .0000581             |
| educ_gdp                                 | .0314102  | .0619479  | 0.51                 |
|  |   |           | 0.612                |
|  |   |           | -.0900053            |
|  |   |           | .1528258             |
| _cons                                    | 13.09068  | 1.271058  | 10.30                |
|  |   |           | 0.000                |
|  |   |           | 10.58894             |
|  |   |           | 15.59242             |
| -----+                                   |   |           |                      |
| sigma_u                                  | .65160597   |           |                      |
| sigma_e                                  | .82091781   |           |                      |
| rho                                      | .38651955 (fraction of variance due to u <sub>i</sub> ) |           |                      |
| -----                                    |   |           |                      |
| F test that all u <sub>i</sub> =0:       | F(13, 288) =  | 2.52      | Prob > F = 0.0228    |
| -----                                    |   |           |                      |
| Random-effects GLS regression            | Number of obs   | =         | 307                  |
| Group variable (i): kode                 | Number of groups  | =         | 14                   |
| R-sq: within = 0.1471                    | Obs per group: min =                                    |           | 17                   |
| between = 0.2318                         | avg =   |           | 21.9                 |
| overall = 0.1504                         | max =   |           | 26                   |
| Random effects u <sub>i</sub> ~ Gaussian | Wald chi2(5)  | =         | 53.27                |
| corr(u <sub>i</sub> , X) = 0 (assumed)   | Prob > chi2   | =         | 0.0000               |
| -----                                    |   |           |                      |
| lnhd                                     | Coef.   | Std. Err. | z                    |
|  |   |           | P> z                 |
|  |   |           | [95% Conf. Interval] |

|             |  |                                     |          |       |       |                     |
|-------------|--|-------------------------------------|----------|-------|-------|---------------------|
| -----+----- |  |                                     |          |       |       |                     |
| lninumcap   |  | .2373688                            | .0600378 | 3.95  | 0.000 | .1196968 .3550408   |
| lngdp_cap   |  | .0836455                            | .0604376 | 1.38  | 0.166 | -.03481 .202101     |
| lnopenness  |  | .0913011                            | .0126731 | -0.29 | 0.852 | -.0275599 .0221178  |
| gini        |  | -.0005145                           | .0002514 | -2.05 | 0.041 | -.0010073 -.0000217 |
| educ_gdp    |  | -.0921099                           | .0209517 | -4.40 | 0.000 | -.1331745 -.0510453 |
| _cons       |  | 9.264133                            | .984846  | 9.41  | 0.000 | 7.33387 11.1944     |
| -----+----- |  |                                     |          |       |       |                     |
| sigma_u     |  | 0                                   |          |       |       |                     |
| sigma_e     |  | .82091781                           |          |       |       |                     |
| rho         |  | 0 (fraction of variance due to u_i) |          |       |       |                     |

|                        |  |          |           |            |                     |
|------------------------|--|----------|-----------|------------|---------------------|
| ---- Coefficients ---- |  |          |           |            |                     |
|                        |  | (b)      | (B)       | (b-B)      | sqrt(diag(V_b-V_B)) |
|                        |  | fixed    | random    | Difference | S.E.                |
| -----+-----            |  |          |           |            |                     |
| lninumcap              |  | .2906831 | .2373688  | .0533143   | .0083039            |
| lngdp_cap              |  | .0489198 | .0836455  | -.0347257  | .0877409            |
| lnopenness             |  | .0651930 | .0913011  | -0.0261081 | .0291791            |
| gini                   |  | -.000424 | -.0005145 | .0000906   | 1.134113            |
| educ_gdp               |  | .0314102 | -.0921099 | .1235201   | .0131802            |
| -----+-----            |  |          |           |            |                     |

**b = consistent under Ho and Ha; obtained from xtreg**

**B = inconsistent under Ha, efficient under Ho; obtained from xtreg**

**Test: Ho: difference in coefficients not systematic**

$$\begin{aligned}
 \text{chi2}(5) &= (\mathbf{b}-\mathbf{B})'[(\mathbf{V}_b-\mathbf{V}_B)^{-1}](\mathbf{b}-\mathbf{B}) \\
 &= 30.28 \\
 \text{Prob}>\text{chi2} &= 0.0000
 \end{aligned}$$



## Lampiran 7 Uji Chow Test Model Keempat

**Hipotesis: Ho: Pooled Least Square**

**Ha: Fixed Effect Method**

**Decision Rule: Tolak Ho apabila P-value <  $\alpha$**

|                                   |                    |                                   |                                 |
|-----------------------------------|--------------------|-----------------------------------|---------------------------------|
| Fixed-effects (within) regression | Number of obs      | =                                 | 364                             |
| Group variable (i): kode          | Number of groups   | =                                 | 26                              |
| R-sq: within = 0.1338             | Obs per group: min | =                                 | 14                              |
| between = 0.0019                  | avg                | =                                 | 14.0                            |
| overall = 0.0329                  | max                | =                                 | 14                              |
| F(3,335)                          | =                  | 17.25                             |                                 |
| corr(u_i, Xb) = -0.0590           | Prob > F           | =                                 | 0.0000                          |
| -----                             |                    |                                   |                                 |
| kota_pop                          | Coef.              | Std. Err.                         | t P> t  [95% Conf. Interval]    |
| -----+-----                       |                    |                                   |                                 |
| se_pop1                           | .5884557           | .0829456                          | 7.09 0.000 .4252959 .7516155    |
| co_pop1                           | .0032096           | .0118997                          | 0.27 0.788 -.0201979 .0266171   |
| em_pop                            | -.0700806          | .0327364                          | -2.14 0.033 -.1344754 -.0056857 |
| _cons                             | 64.91399           | 1.327741                          | 48.89 0.000 62.30223 67.52575   |
| -----+-----                       |                    |                                   |                                 |
| sigma_u                           | 7.5866097          |                                   |                                 |
| sigma_e                           | 4.4621936          |                                   |                                 |
| rho                               | .74297493          | (fraction of variance due to u_i) |                                 |
| -----                             |                    |                                   |                                 |
| F test that all u_i=0:            | F(25, 335) =       | 35.02                             | Prob > F = 0.0000               |

## Lampiran 8 LM Test Model Keempat

**Hipotesis: Ho: Pooled Least Square**  
**Ha: Random Effect Method**

**Decision Rule: Tolak Ho apabila P-value <  $\alpha$**

|  |                    |                                   |                                |
|--|--------------------|-----------------------------------|--------------------------------|
| Random-effects GLS regression                                    | Number of obs      | =                                 | 364                            |
| Group variable (i): kode   | Number of groups   | =                                 | 26                             |
| R-sq: within = 0.1322  | Obs per group: min | =                                 | 14                             |
| between = 0.0426   | avg                | =                                 | 14.0                           |
| overall = 0.0668   | max                | =                                 | 14                             |
| Random effects u_i ~ Gaussian                                    | Wald chi2(3)       | =                                 | 51.87                          |
| corr(u_i, X) = 0 (assumed)                                       | Prob > chi2        | =                                 | 0.0000                         |
| -----  |                    |                                   |                                |
| kota_pop   | Coef.              | Std. Err.                         | z P> z  [95% Conf. Interval]   |
| -----+-----  |                    |                                   |                                |
| se_pop1  | .5942262           | .0825331                          | 7.20 0.000 .4324643 .755988    |
| co_pop1  | .0051867           | .0118942                          | 0.44 0.663 -.0181255 .0284989  |
| em_pop   | -.0449388          | .0295676                          | -1.52 0.129 -.1028903 .0130126 |
| _cons  | 63.92107           | 1.825267                          | 35.02 0.000 60.34361 67.49852  |
| -----+-----  |                    |                                   |                                |
| sigma_u  | 6.9890826          |                                   |                                |
| sigma_e  | 4.4621936          |                                   |                                |
| rho  | .71041854          | (fraction of variance due to u_i) |                                |
| -----  |                    |                                   |                                |
| . xttest0  |                    |                                   |                                |
| Breusch and Pagan Lagrangian multiplier test for random effects: |                    |                                   |                                |
| kota_pop[kode,t] = Xb + u[kode] + e[kode,t]                      |                    |                                   |                                |
| Estimated results:   |                    |                                   |                                |
|  | Var                | sd = sqrt(Var)                    |                                |
| -----+-----  |                    |                                   |                                |
| kota_pop   | 76.18543           | 8.728426                          |                                |
| e  | 19.91117           | 4.462194                          |                                |
| u  | 48.84728           | 6.989083                          |                                |
| Test: Var(u) = 0   |                    |                                   |                                |
| chi2(1)  | =                  | 1092.68                           |                                |
| Prob > chi2  | =                  | 0.0000                            |                                |

## Lampiran 9 Metode Robust untuk Menghilangkan Pelanggaran Asumsi Heteroskedastisitas dan Autokorelasi

|  |                     |           |       |       |                      |          |
|--|---------------------|-----------|-------|-------|----------------------|----------|
| Regression with robust standard errors | Number of obs = 364 |           |       |       |                      |          |
|  | F( 3, 360) = 10.21  |           |       |       |                      |          |
|  | Prob > F = 0.0000   |           |       |       |                      |          |
|  | R-squared = 0.1285  |           |       |       |                      |          |
|  | Root MSE = 8.182    |           |       |       |                      |          |
| -----                                  |                     |           |       |       |                      |          |
|  | Robust              |           |       |       |                      |          |
| kota_pop                               | Coef.               | Std. Err. | t     | P> t  | [95% Conf. Interval] |          |
| -----+-----                            |                     |           |       |       |                      |          |
| se_pop1                                | .4919454            | .1914339  | 2.57  | 0.011 | .1154761             | .8684146 |
| co_pop1                                | .0434335            | .0342941  | 1.27  | 0.206 | -.0240085            | .1108754 |
| em_pop                                 | .051704             | .0331243  | 1.56  | 0.119 | -.0134375            | .1168455 |
| _cons                                  | 60.77534            | 1.02892   | 59.07 | 0.000 | 58.75189             | 62.79878 |
| -----                                  |                     |           |       |       |                      |          |



## Lampiran 10 Hasil Regresi Hubungan Tingkat Output dengan Tingkat Modal, Tenaga Kerja, dan Kemajuan Teknologi.

(a)  $R^2$  adjusted  $R^2$ , Probabilitas, F-Stat, dan keterangan-keterangan lain

|                                   |                    |                   |        |
|-----------------------------------|--------------------|-------------------|--------|
| Fixed Effect GLS Regressions      |                    | Number of obs     | 364    |
| Group variable (i): thn           |                    | Number of groups  | 26     |
| R-Square                          | Within:<br>0.4869  | per group:<br>min | 12     |
|                                   | Between:<br>0.6365 | avg               | 13.9   |
|                                   | Overall:<br>0.5603 | max               | 14     |
| Fixed effects $u_i \sim$ Gaussian |                    | F(2,336)          | 159.41 |
| corr( $u_i$ , Xb)                 | 0.1372             | Prob > chi2       | 0.0643 |

(b) Koefisien-koefisien, Standard Error, t-Stat, P-value, dan Confidence Interval

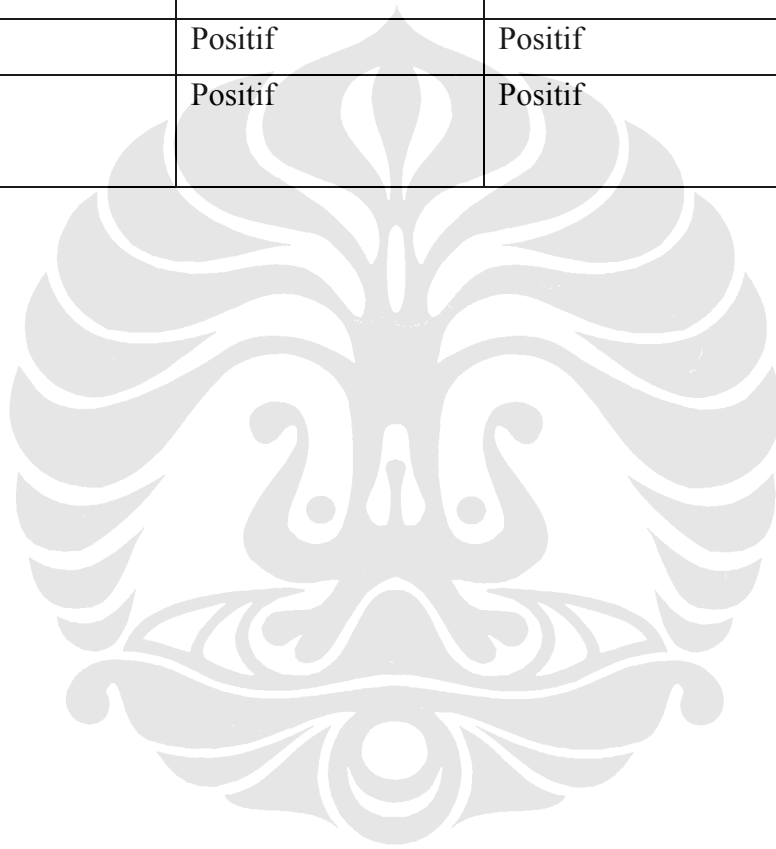
| Inpdrb   | Coef.    | Std. Err. | t     | P> t     | [95% Conf. Interval] |          |
|----------|----------|-----------|-------|----------|----------------------|----------|
| Inhumcap | .1398917 | .0467401  | 2.99  | 0.003    | .0479516             | .2318318 |
| Inmodal  | .4902825 | .0296395  | 16.54 | 0.000*** | .4319802             | .5485848 |
| _cons    | 8.143564 | .4733422  | 17.20 | 0.000*** | 7.212477             | 9.074652 |

## Lampiran 11 Matrik Pengujian Asumsi BLUE Model Pertama

| <i>Multikolinieritas</i>   |         |          |
|--|---------|----------|
|  | Inmodal | Inhumcap |
| Inmodal  | 1.0000  |          |
| Inhumcap   | 0.2831  | 1.0000   |
| <i>Homoskedastisitas/Heteroskedastisitas<br/>(Breusch-Pagan/Cook-Weisberg)</i> |         |          |
| chi2(1)  |         | 341.72   |
| Prob > chi2  |         | 0.0204   |
| <i>Autokorelasi<br/>(Wooldridge Test)</i>                                      |         |          |
| F(25, 336)   |         | 10.20    |
| Prob > F   |         | 0.0643   |

**Lampiran 12 Arah dan Signifikansi Analisa Hubungan Tingkat Output dengan Tingkat Modal, Tenaga Kerja, dan Kemajuan Teknologi**

| Variabel | Estimasi Arah | Arah Pada Hasil Regresi | Keterangan                               |
|----------|---------------|-------------------------|--|
| Inhumcap | Positif       | Positif                 | Signifikan ( $\alpha = 1\%$ ), arah sama |
| Inmodal  | Positif       | Positif                 | Signifikan ( $\alpha = 1\%$ ), arah sama |
| Inlabor  | Positif       | Positif                 |  |
| _cons    | Positif       | Positif                 | Signifikan ( $\alpha = 1\%$ ), arah sama |



### Lampiran 13 Hasil Regresi Model Ketiga

(a)  $R^2$ , adjusted  $R^2$ , Probabilitas, F-Stat, dan keterangan-keterangan lain

|                                   |                    |                   |        |
|-----------------------------------|--------------------|-------------------|--------|
| Fixed-effects (within) regression |                    | Number of obs     | 307    |
| Group variable (i): thn           |                    | Number of groups  | 14     |
| R-Square                          | Within:<br>0.2072  | per group:<br>min | 17     |
|                                   | Between:<br>0.0914 | avg               | 21.9   |
|                                   | Overall:<br>0.0443 | max               | 26     |
|                                   |                    | F(5,288)          | 15.06  |
| corr(u_i, Xb)                     | -0.7889            | Prob > F          | 0.0228 |

(b) Koefisien-koefisien, Standard Error, t-Stat, P-value, dan Confidence Interval

| Inpop      | Coef.    | Std. Err. | t     | P> t  | [95% Conf. Interval] |           |
|------------|----------|-----------|-------|-------|----------------------|-----------|
| lninhumcap | .2906831 | .0606094  | 4.80  | 0.000 | 0.1713897            | 0.4099766 |
| lngdp_cap  | .0489198 | .1728127  | 0.28  | 0.778 | -.2932667            | .3911063  |
| lnopenness | .0651930 | .0318124  | 3.50  | 0.001 | .0427514             | .1679798  |
| gini       | -.000424 | .0002449  | -1.73 | 0.085 | -.000906             | .0000581  |
| educ_gdp   | .0314102 | .0619479  | 0.51  | 0.612 | -.0900053            | .1528258  |
| cons       | 13.09068 | 1.271058  | 10.30 | 0.000 | 10.58894             | 15.59242  |

## Lampiran 14 Matrik Pengujian Multikolinieritas Model Kedua

|  | lninhumcap | lngdp_cap | lnopenness | gini        | educ_gdp |
|--|------------|-----------|------------|-------------|----------|
| lninhumcap   | 1.0000     |           |            |             |          |
| lngdp_cap  | 0.0398     | 1.0000    |            |             |          |
| lnopenness   | -0.0445    | 0.0686    | 1.0000     |             |          |
| gini   | 0.0311     | 0.1566    | -0.1377    | 1.0000      |          |
| educ_gdp   | -0.0278    | 0.1093    | -0.1366    | -<br>0.0026 | 1.0000   |
| <i>Homoskedastisitas/Heteroskedastisitas<br/>(Breusch-Pagan/Cook-Weisberg)</i> |            |           |            |             |          |
| chi2(1)  |            |           | 411.67     |             |          |
| Prob > chi2  |            |           | 0.0103     |             |          |
| <i>Autokorelasi<br/>(Wooldridge Test)</i>                                      |            |           |            |             |          |
| F(13, 288)   |            |           | 2.52       |             |          |
| Prob > F   |            |           | 0.0228     |             |          |

## Lampiran 15 Arah dan Signifikansi Analisa Hubungan Perkembangan dengan Faktor-Faktor Determinasinya

| Variabel   | Estimasi Arah | Arah Pada Hasil Regresi | Keterangan  |
|------------|---------------|-------------------------|---|
| lninhumcap | Negatif       | Positif                 | Signifikan ( pada $\alpha = 1\%$ ), arah tidak sama |
| lngdp_cap  | Positif       | Positif                 | Tidak signifikan, arah sama                         |
| lnopenness | Positif       | Positif                 | Signifikan (pada $\alpha = 1\%$ ), arah sama        |
| gini       | Negatif       | Negatif                 | Signifikan ( pada $\alpha = 10\%$ ), arah sama      |
| educ_gdp   | Positif       | Positif                 | Tidak signifikan, arah sama                         |
| _cons      | Positif       | Positif                 | signifikan, arah sama                               |

## Lampiran 16 Hasil Regresi Hubungan *City Size* dengan *Human Capital* dan *Spillover Effect* Tenaga Kerja Sektor Manufaktur

(a)  $R^2$ , adjusted  $R^2$ , Probabilitas, F-Stat, dan keterangan-keterangan lain

|                         |                 |                   |        |
|-------------------------|-----------------|-------------------|--------|
| Robust Method           |                 | Number of obs     | 364    |
| Group variable (i): thn |                 | Number of groups  | -      |
| R-Square                | Within: -       | per group:<br>min | -      |
|                         | Between: -      | avg               | -      |
|                         | Overall: 0.1285 | max               | -      |
|                         |                 | F( 3, 360)        | 10.21  |
| Root MSE                | 8.182           | Prob > F          | 0.0000 |

(b) Koefisien-koefisien, Standard Error, t-Stat, P-value, dan Confidence Interval

| kota_pop | Coef.    | Std. Err. | t     | P> t  | [95% Conf. Interval] |          |
|----------|----------|-----------|-------|-------|----------------------|----------|
| se_pop1  | .4919454 | .1914339  | 2.57  | 0.011 | .1154761             | .8684146 |
| co_pop1  | .0434335 | .0342941  | 1.27  | 0.206 | -.0240085            | .1108754 |
| em_pop   | .051704  | .0331243  | 1.56  | 0.119 | -.0134375            | .1168455 |
| _cons    | 60.77534 | 1.02892   | 59.07 | 0.000 | 58.75189             | 62.79878 |



**Lampiran 17 Matrik Pengujian Multikolinieritas Model Keempat (Fixed Effect dan Random Effect)**

|  |         |         |          |
|--|---------|---------|----------|
|  | se_pop1 | co_pop1 | lnem_pop |
| se_pop1  | 1.0000  |         |          |
| co_pop1  | 0.0492  | 1.0000  |          |
| em_pop   | 0.5871  | 0.0282  | 1.0000   |
| <i>Homoskedastisitas/Heteroskedastisitas<br/>(Breusch-Pagan/Cook-Weisberg)</i> |         |         |          |
| chi2(1)  |         |         | 1092.68  |
| Prob > chi2  |         |         | 0.0000   |
| <i>Autokorelasi<br/>(Wooldridge Test)</i>                                      |         |         |          |
| F(25, 335)   |         |         | 35.02    |
| Prob > F   |         |         | 0.0000   |

**Lampiran 18 Arah dan Signifikansi Analisa Hubungan *Human capital* dan *Spillover Effect* terhadap *City Size* (Robust Method)**

| Variabel | Estimasi Arah | Arah Pada Hasil Regresi | Keterangan                                    |
|----------|---------------|-------------------------|---|
| se_pop1  | Positif       | Positif                 | Signifikan ( pada $\alpha = 5\%$ ), arah sama |
| co_pop1  | Positif       | Positif                 | Tidak signifikan, arah sama                   |
| em_pop   | Positif       | Positif                 | Tidak signifikan, arah sama                   |
| _cons    | Positif       | Positif                 | Signifikan ( pada $\alpha = 1\%$ ), arah sama |