LAMPIRAN 4

UJI STATA

```
  ___  ____  ____  ____  ____ (R)
 /__    /   ____/   /   ____/
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Notes:
      1.  Unicode is supported; see help unicode_advice.
      2.  Maximum number of variables is set to 5000; see help set_maxvar.


. *(11 variables, 216 observations pasted into data editor)

. set more off

.
. drop firm

.  encode kode, gen(firm)

.
.  sort kode tahun

.
.  *panel identifier

.
.  iis firm

.
.  tis tahun

.
.  xtset firm tahun
       panel variable:  firm (weakly balanced)
        time variable:  tahun, 1 to 216
                delta:  1 unit
```

```
. reg irs ldr npl roa car pdb inflasi kurs
```

Source	SS	df	MS		
Model	2531.66808	7	361.666869	Number of obs	= 216
Residual	763.925773	208	3.67272006	F(7, 208)	= 98.47
				Prob > F	= 0.0000
				R-squared	= 0.7682
				Adj R-squared	= 0.7604
Total	3295.59385	215	15.3283435	Root MSE	= 1.9164

irs	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ldr	-.0231061	.0078225	-2.95	0.004	-.0385277	-.0076845
npl	.3582468	.0380926	9.40	0.000	.2831498	.4333439
roa	3.13098	.1402575	22.32	0.000	2.854472	3.407489
car	-.2194673	.0546774	-4.01	0.000	-.3272602	-.1116744
pdb	-.3332521	.2564479	-1.30	0.195	-.8388225	.1723182
inflasi	.0652869	.0437068	1.49	0.137	-.0208782	.1514521
kurs	-.0001328	.0001098	-1.21	0.228	-.0003493	.0000837
_cons	8.414896	2.344216	3.59	0.000	3.793428	13.03636

```
. estimates store ols

. xtreg irs ldr npl roa car pdb inflasi kurs,  fe

Fixed-effects (within) regression               Number of obs      =       216
Group variable: firm                            Number of groups   =         4

R-sq:                                           Obs per group:
     within  = 0.7492                                         min =        54
     between = 0.9507                                         avg =      54.0
     overall = 0.7615                                         max =        54

                                                F(7,205)           =     87.49
corr(u_i, Xb)  = -0.4627                        Prob > F           =    0.0000
```

irs	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ldr	-.0381391	.0098079	-3.89	0.000	-.0574764	-.0188018
npl	.3472479	.0375519	9.25	0.000	.2732105	.4212852
roa	3.329034	.1572565	21.17	0.000	3.018987	3.639081
car	-.128329	.0593332	-2.16	0.032	-.2453106	-.0113474
pdb	-.3595285	.253176	-1.42	0.157	-.8586912	.1396342
inflasi	.060013	.0435624	1.38	0.170	-.0258749	.1459008
kurs	-.0001238	.0001111	-1.11	0.266	-.0003429	.0000953
_cons	7.848222	2.295012	3.42	0.001	3.323368	12.37308
sigma_u	.75128409					
sigma_e	1.8665086					
rho	.13942402	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(3, 205) = 4.76                     Prob > F = 0.0031

. estimates store fe
```

```
. xtreg irs ldr npl roa car pdb inflasi kurs, re

Random-effects GLS regression                   Number of obs      =       216
Group variable: firm                            Number of groups   =         4

R-sq:                                           Obs per group:
     within  = 0.7434                                         min =        54
     between = 0.9691                                         avg =      54.0
     overall = 0.7682                                         max =        54

                                                Wald chi2(7)       =    689.32
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000
```

irs	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ldr	-.0231061	.0078225	-2.95	0.003	-.038438	-.0077742
npl	.3582468	.0380926	9.40	0.000	.2835868	.4329069
roa	3.13098	.1402575	22.32	0.000	2.856081	3.40588
car	-.2194673	.0546774	-4.01	0.000	-.326633	-.1123016
pdb	-.3332521	.2564479	-1.30	0.194	-.8358808	.1693766
inflasi	.0652869	.0437068	1.49	0.135	-.0203768	.1509507
kurs	-.0001328	.0001098	-1.21	0.227	-.0003481	.0000825
_cons	8.414896	2.344216	3.59	0.000	3.820317	13.00947
sigma_u	0					
sigma_e	1.8665086					
rho	0	(fraction of variance due to u_i)				

```
. estimates store re

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        irs[firm,t] = Xb + u[firm] + e[firm,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                 -------------------------------------
                     irs |   15.32834        3.915143
                       e |   3.483855        1.866509
                       u |         0               0

        Test:   Var(u) = 0
                                 chibar2(01) =     0.00
                              Prob > chibar2 =   1.0000
```

```
. hausman fe re
```

	Coefficients (b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
ldr	-.0381391	-.0231061	-.015033	.0059163
npl	.3472479	.3582468	-.010999	.
roa	3.329034	3.13098	.1980537	.0711157
car	-.128329	-.2194673	.0911383	.0230394
pdb	-.3595285	-.3332521	-.0262764	.
inflasi	.060013	.0652869	-.005274	.
kurs	-.0001238	-.0001328	8.95e-06	.0000169

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(7) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 17.01
Prob>chi2 = 0.0174

```
. xtreg irs ldr npl roa car pdb inflasi kurs, fe

Fixed-effects (within) regression               Number of obs      =       216
Group variable: firm                            Number of groups   =         4

R-sq:                                           Obs per group:
     within  = 0.7492                                         min =        54
     between = 0.9507                                         avg =      54.0
     overall = 0.7615                                         max =        54

                                                F(7,205)           =     87.49
corr(u_i, Xb)  = -0.4627                        Prob > F           =    0.0000
```

irs	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ldr	-.0381391	.0098079	-3.89	0.000	-.0574764	-.0188018
npl	.3472479	.0375519	9.25	0.000	.2732105	.4212852
roa	3.329034	.1572565	21.17	0.000	3.018987	3.639081
car	-.128329	.0593332	-2.16	0.032	-.2453106	-.0113474
pdb	-.3595285	.253176	-1.42	0.157	-.8586912	.1396342
inflasi	.060013	.0435624	1.38	0.170	-.0258749	.1459008
kurs	-.0001238	.0001111	-1.11	0.266	-.0003429	.0000953
_cons	7.848222	2.295012	3.42	0.001	3.323368	12.37308
sigma_u	.75128409					
sigma_e	1.8665086					
rho	.13942402	(fraction of variance due to u_i)				

F test that all u_i=0: F(3, 205) = 4.76 Prob > F = 0.0031

```
. vif, uncentered
```

Variable	VIF	1/VIF
car	55.86	0.017903
kurs	38.98	0.025655
pdb	36.43	0.027451
ldr	23.59	0.042396
inflasi	6.43	0.155505
roa	4.10	0.243746
npl	3.66	0.273044
Mean VIF	24.15	

```
. xtgls irs ldr npl roa car pdb inflasi kurs

Cross-sectional time-series FGLS regression

Coefficients:  generalized least squares
Panels:        homoskedastic
Correlation:   no autocorrelation

Estimated covariances      =         1          Number of obs      =       216
Estimated autocorrelations =         0          Number of groups   =         4
Estimated coefficients     =         8          Time periods       =        54
                                                Wald chi2(7)       =    715.83
Log likelihood             = -442.9155          Prob > chi2        =    0.0000
```

irs	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ldr	-.0231061	.0076763	-3.01	0.003	-.0381514	-.0080608
npl	.3582468	.0373805	9.58	0.000	.2849824	.4315113
roa	3.13098	.1376356	22.75	0.000	2.861219	3.400741
car	-.2194673	.0536553	-4.09	0.000	-.3246297	-.1143048
pdb	-.3332521	.2516541	-1.32	0.185	-.8264851	.1599808
inflasi	.0652869	.0428898	1.52	0.128	-.0187755	.1493494
kurs	-.0001328	.0001078	-1.23	0.218	-.000344	.0000785
_cons	8.414896	2.300395	3.66	0.000	3.906205	12.92359