

## LAMPIRAN

### MODEL POOLED LEAST SQUARE

```
. reg roe em opm ib tb tato ldr npl size
```

Source	SS	df	MS	Number of obs	=	460
				F(8, 451)	=	105.48
Model	13724.0283	8	1715.50354	Prob > F	=	0.0000
Residual	7334.83848	451	16.2635	R-squared	=	0.6517
				Adj R-squared	=	0.6455
Total	21058.8668	459	45.879884	Root MSE	=	4.0328

roe	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
em	.0075239	.0008356	9.00	0.000	.0058817 .0091661
opm	.359619	.0178688	20.13	0.000	.3245026 .3947354
ib	.0086985	.0065221	1.33	0.183	-.0041189 .0215159
tb	.0756035	.0202721	3.73	0.000	.0357639 .1154431
tato	.0105135	.0128724	0.82	0.415	-.0147837 .0358108
ldr	-.0629555	.015851	-3.97	0.000	-.0941066 -.0318045
npl	-1.064859	.1550884	-6.87	0.000	-1.369644 -.7600734
size	.7215174	.1344019	5.37	0.000	.4573856 .9856491
_cons	-13.77221	3.145737	-4.38	0.000	-19.95433 -7.590091

### MODEL FIXED EFFECT (FE)

```
. xtreg roe em opm ib tb tato ldr npl size, fe
```

```
Fixed-effects (within) regression      Number of obs   =    460
Group variable: firm                  Number of groups =    23
```

```
R-sq:                                Obs per group:
    within = 0.4692                    min       =    20
    between = 0.0277                   avg       =   20.0
    overall = 0.1936                    max       =    20
```

```
corr(u_i, Xb) = -0.2265                F(8,429)       =    47.39
                                          Prob > F       =    0.0000
```

roe	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
em	.0074425	.0009822	7.58	0.000	.0055119	.0093731
opm	.2086767	.0238548	8.75	0.000	.1617899	.2555634
ib	.0162914	.0061588	2.65	0.008	.0041863	.0283966
tb	.0034156	.0192554	0.18	0.859	-.034431	.0412622
tato	-.0013685	.0115262	-0.12	0.906	-.0240234	.0212863
ldr	.0477795	.0282786	1.69	0.092	-.0078024	.1033613
npl	-1.597526	.189651	-8.42	0.000	-1.970286	-1.224765
size	-1.586589	.6109861	-2.60	0.010	-2.787487	-.3856901
_cons	23.33933	9.322261	2.50	0.013	5.016344	41.66232
sigma_u	5.2893051					
sigma_e	3.5159249					
rho	.69354995	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(22, 429) = 7.47                Prob > F = 0.0000
```

### MODEL RANDOM EFFECT

```
. xtreg roe em opm ib tb tato ldr npl size, re
```

```
Random-effects GLS regression      Number of obs   =      460
Group variable: firm                Number of groups =      23
```

```
R-sq:                                Obs per group:
    within = 0.4339                    min =          20
    between = 0.8554                    avg =         20.0
    overall = 0.6450                    max =          20
```

```
Wald chi2(8) = 556.95
corr(u_i, X) = 0 (assumed)           Prob > chi2    = 0.0000
```

roe	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
em	.0072537	.0009045	8.02	0.000	.0054809	.0090265
opm	.3084834	.0203849	15.13	0.000	.2685297	.3484372
ib	.0117842	.0063831	1.85	0.065	-.0007265	.0242948
tb	.042572	.0198252	2.15	0.032	.0037153	.0814286
tato	.0071261	.0121471	0.59	0.557	-.0166818	.0309339
ldr	-.0503085	.0189464	-2.66	0.008	-.0874428	-.0131741
npl	-1.308292	.1722203	-7.60	0.000	-1.645838	-.9707464
size	.7931465	.184967	4.29	0.000	.4306179	1.155675
_cons	-12.30019	3.777378	-3.26	0.001	-19.70371	-4.896663
sigma_u	.97714932					
sigma_e	3.5159249					
rho	.07170182	(fraction of variance due to u_i)				

### UJI GENERALIZED LEAST SQUARE

```
. xtgls roe em opm ib tb tato ldr npl size
```

Cross-sectional time-series FGLS regression

Coefficients: generalized least squares

Panels: homoskedastic

Correlation: no autocorrelation

```
Estimated covariances   =      1      Number of obs   =      460
Estimated autocorrelations =      0      Number of groups  =      23
Estimated coefficients   =      9      Time periods    =      20
Log likelihood          = -1289.619    Wald chi2(8)    =     860.69
                          Prob > chi2    =      0.0000
```

roe	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
em	.0075239	.0008274	9.09	0.000	.0059022	.0091456
opm	.359619	.0176931	20.33	0.000	.3249411	.3942969
ib	.0086985	.0064579	1.35	0.178	-.0039589	.0213558
tb	.0756035	.0200728	3.77	0.000	.0362614	.1149455
tato	.0105135	.0127458	0.82	0.409	-.0144678	.0354949
ldr	-.0629555	.0156952	-4.01	0.000	-.0937176	-.0321935
npl	-1.064859	.1535637	-6.93	0.000	-1.365838	-.7638796
size	.7215174	.1330806	5.42	0.000	.4606841	.9823506
_cons	-13.77221	3.114811	-4.42	0.000	-19.87713	-7.667294

### UJI HAUSMAN ( FE atau RE)

```
. quietly xtreg roe em opm ib tb tato ldr npl size, fe
. estimates store fe
. quietly xtreg roe em opm ib tb tato ldr npl size, re
. estimates store re
. hausman fe re
```

	— Coefficients —			
	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
em	.0074425	.0072537	.0001888	.0003829
opm	.2086767	.3084834	-.0998068	.0123897
ib	.0162914	.0117842	.0045073	.
tb	.0034156	.042572	-.0391564	.
tato	-.0013685	.0071261	-.0084946	.
ldr	.0477795	-.0503085	.0980879	.0209931
npl	-1.597526	-1.308292	-.2892336	.0794208
size	-1.586589	.7931465	-2.379735	.5823154

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(8) = (b-B)'[(V_b-V_B)^(-1)](b-B)
          = 49.99
Prob>chi2 = 0.0000
(V_b-V_B is not positive definite)
```

## UJI LM TEST (PLS aatau RE)

```
. xttest0
```

Breusch and Pagan Lagrangian multiplier test for random effects

$$\text{roe}[\text{firm},t] = Xb + u[\text{firm}] + e[\text{firm},t]$$

Estimated results:

	Var	sd = sqrt(Var)
roe	45.87988	6.773469
e	12.36173	3.515925
u	.9548208	.9771493

Test:  $\text{Var}(u) = 0$

$\text{chibar2}(01) = 79.37$   
 $\text{Prob} > \text{chibar2} = 0.0000$

```

. estimates store fe
. estimates store re
. estimates store pls
. estimates store gls
. estimates table fe re pls gls, star stats (N r2 r2_a)

```

Variable	fe	re	pls	gls
em	.00752388***	.00752388***	.00752388***	.00752388***
opm	.35961899***	.35961899***	.35961899***	.35961899***
ib	.00869847	.00869847	.00869847	.00869847
tb	.07560347***	.07560347***	.07560347***	.07560347***
tato	.01051354	.01051354	.01051354	.01051354
ldr	-.06295554***	-.06295554***	-.06295554***	-.06295554***
npl	-1.0648589***	-1.0648589***	-1.0648589***	-1.0648589***
size	.72151737***	.72151737***	.72151737***	.72151737***
_cons	-13.772212***	-13.772212***	-13.772212***	-13.772212***
N	460	460	460	460
r2				
r2_a				

legend: \* p<0.05; \*\* p<0.01; \*\*\* p<0.001

## UJI MULTIKOLINEARITAS

. vif, uncentered

Variable	VIF	1/VIF
size	108.60	0.009208
tb	55.19	0.018118
ldr	33.90	0.029501
em	13.85	0.072225
ib	12.23	0.081762
opm	3.72	0.268642
npl	3.17	0.315869
tato	1.96	0.509333
Mean VIF	29.08	



## UJI HETEROKEDASTISITAS

```
. hettest
```

```
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
```

```
Ho: Constant variance
```

```
Variables: fitted values of roe
```

```
chi2(1) = 9.21
```

```
Prob > chi2 = 0.0024
```