

LAMPIRAN**Lampiran 1. Data Input Variabel Perusahaan Industri Farmasi periode
2009 – 2018**

TAHUN	ROA	CR	TATO	NPM	FLM	INFLASI	SBI	NILAI TUKAR
2009	14.94	320.45	145.37	10.49	151.03	2.78	6.50	9.447
2010	14.55	396.57	143.82	11.07	144.45	6.96	6.50	9.036
2011	16.91	396.34	131.78	13.53	137.68	3.79	6.00	9.113
2012	14.67	335.95	132.11	11.86	141.86	4.30	5.75	9.718
2013	13.57	621.42	114.04	11.91	190.37	8.38	7.50	12.889
2014	13.11	323.25	122.96	11.00	149.85	8.36	7.75	12.440
2015	12.01	277.04	126.50	9.62	158.58	3.35	7.50	13.795
2016	12.06	279.25	124.40	9.83	158.78	3.02	4.75	13.436
2017	11.60	277.68	118.36	9.72	170.26	3.61	4.25	13.548
2018	21.37	243.29	110.94	21.07	190.49	3.13	6.00	14.481

Lampiran 2. Data Input Variabel untuk Pengolahan STATA 15.0

KODE	NPM	TATO	FLM	SBI	INFLASI	Exchange rate	ROA	CR
DVLA	8.315	110.918	141.211	6.50	2.78	9,447	9.22	305.021
DVLA	11.933	108.791	133.329	6.50	6.96	9,036	12.98	371.675
DVLA	12.436	104.741	127.527	6.00	3.79	9,113	13.03	483.036
DVLA	13.694	101.181	127.704	5.75	4.30	9,718	13.86	431.020
DVLA	11.419	92.574	434.618	7.50	8.38	12,889	10.57	424.175
DVLA	7.332	89.288	128.451	7.75	8.36	12,440	6.55	518.131
DVLA	8.261	94.901	141.372	7.50	3.35	13,795	7.84	352.291
DVLA	10.479	94.775	141.848	4.75	3.02	13,436	9.93	285.493
DVLA	10.297	96.024	146.993	4.25	3.61	13,548	9.89	266.213
DVLA	11.805	101.000	140.205	6.00	3.13	14,481	11.92	288.899
INAF	0.189	154.533	243.718	6.50	2.78	9,447	0.29	154.207
INAF	1.197	142.776	235.797	6.50	6.96	9,036	1.71	155.155
INAF	3.068	107.944	183.013	6.00	3.79	9,113	3.31	153.799
INAF	3.666	97.260	182.836	5.75	4.30	9,718	3.57	210.247
INAF	-4.054	103.321	219.114	7.50	8.38	12,889	-4.19	120.628
INAF	0.084	110.662	210.882	7.75	8.36	12,440	0.09	130.358
INAF	0.405	105.750	258.763	7.50	3.35	13,795	0.43	126.151
INAF	-1.037	121.212	239.968	4.75	3.02	13,436	-1.26	121.077
INAF	-2.837	106.631	290.624	4.25	3.61	13,548	-3.03	104.220
INAF	-0.002	110.443	290.418	6.00	3.13	14,481	0.00	104.866
KAEF	2.190	182.645	156.998	6.50	2.78	9,447	4.00	199.838
KAEF	4.357	192.110	148.766	6.50	6.96	9,036	8.37	242.549
KAEF	4.934	194.019	143.252	6.00	3.79	9,113	9.57	274.754
KAEF	5.389	179.535	144.778	5.75	4.30	9,718	9.68	282.505
KAEF	13.276	65.712	152.180	7.50	8.38	12,889	8.72	242.670
KAEF	5.232	152.316	163.885	7.75	8.36	12,440	7.97	238.699
KAEF	5.205	150.186	173.795	7.50	3.35	13,795	7.82	193.023
KAEF	4.673	125.993	203.071	4.75	3.02	13,436	5.89	171.367
KAEF	5.413	100.514	236.972	4.25	3.61	13,548	5.44	154.551
KAEF	5.390	78.793	281.857	6.00	3.13	14,481	4.25	142.266

KODE	NPM	TATO	FLM	SBI	INFLASI	Exchange rate	ROA	CR
MERK	19.523	173.146	122.527	6.50	2.78	9,447	33.80	503.822
MERK	14.930	183.015	119.765	6.50	6.96	9,036	27.32	757.312
MERK	25.166	157.178	118.254	6.00	3.79	9,113	39.56	751.518
MERK	11.594	163.299	136.639	5.75	4.30	9,718	18.93	387.124
MERK	14.694	171.312	136.064	7.50	8.38	12,889	25.17	397.945
MERK	21.023	120.459	129.422	7.75	8.36	12,440	25.32	458.588
MERK	14.494	153.269	135.499	7.50	3.35	13,795	22.22	365.218
MERK	14.867	139.099	127.676	4.75	3.02	13,436	20.68	421.660
MERK	12.743	136.547	137.637	4.25	3.61	13,548	17.40	308.097
MERK	101.812	90.858	243.712	6.00	3.13	14,481	92.51	137.195
PYFA	2.858	132.084	136.851	6.50	2.78	9,447	3.78	209.931
PYFA	2.981	140.036	130.252	6.50	6.96	9,036	4.17	300.869
PYFA	3.423	128.009	143.250	6.00	3.79	9,113	4.38	253.997
PYFA	3.003	130.093	154.894	5.75	4.30	9,718	3.91	241.337
PYFA	3.218	109.957	186.493	7.50	8.38	12,889	3.54	153.679
PYFA	1.196	128.694	178.893	7.75	8.36	12,440	1.54	162.679
PYFA	1.417	136.193	158.021	7.50	3.35	13,795	1.93	199.119
PYFA	2.372	129.862	158.340	4.75	3.02	13,436	3.08	219.081
PYFA	3.196	139.757	146.583	4.25	3.61	13,548	4.47	352.277
PYFA	3.373	133.888	157.287	6.00	3.13	14,481	4.52	275.735
KLBF	11.551	140.184	150.390	6.50	2.78	9,447	16.19	298.647
KLBF	13.140	145.422	130.867	6.50	6.96	9,036	19.11	439.281
KLBF	13.957	131.872	126.990	6.00	3.79	9,113	18.41	365.275
KLBF	13.017	144.792	127.759	5.75	4.30	9,718	18.85	340.540
KLBF	12.314	141.423	133.119	7.50	8.38	12,889	17.41	2839.259
KLBF	12.221	139.627	127.398	7.75	8.36	12,440	17.06	340.364
KLBF	11.504	130.600	125.215	7.50	3.35	13,795	15.02	369.778
KLBF	12.134	127.244	122.161	4.75	3.02	13,436	15.44	413.114
KLBF	12.156	121.460	119.593	4.25	3.61	13,548	14.76	450.940
KLBF	11.852	116.136	118.637	6.00	3.13	14,481	13.76	465.770

KODE	NPM	TATO	FLM	SBI	INFLASI	Exchange rate	ROA	CR
TSPC	8.024	137.842	135.462	6.50	2.78	9,447	11.061	346.837
TSPC	9.636	143.031	137.844	6.50	6.96	9,036	13.783	336.847
TSPC	10.144	136.004	139.542	6.00	3.79	9,113	13.796	308.297
TSPC	9.579	143.122	138.168	5.75	4.30	9,718	13.710	309.331
TSPC	9.315	126.756	139.995	7.50	8.38	12,889	11.807	296.194
TSPC	7.778	134.319	135.341	7.75	8.36	12,440	10.447	300.219
TSPC	6.468	130.180	144.905	7.50	3.35	13,795	8.421	253.755
TSPC	5.969	138.757	142.080	4.75	3.02	13,436	8.283	265.214
TSPC	5.827	128.656	146.298	4.25	3.61	13,548	7.496	252.138
TSPC	5.357	128.185	144.859	6.00	3.13	14,481	6.866	251.617
SQBB	31.275	131.593	121.061	6.50	2.78	9,447	41.156	545.27
SQBB	30.350	95.384	118.945	6.50	6.96	9,036	28.949	568.86
SQBB	35.124	94.488	119.589	6.00	3.79	9,113	33.188	580.05
SQBB	34.900	97.580	122.063	5.75	4.30	9,718	34.055	485.46
SQBB	35.063	101.246	121.362	7.50	8.38	12,889	35.500	496.79
SQBB	33.127	108.305	124.527	7.75	8.36	12,440	35.878	437.00
SQBB	29.183	110.922	131.062	7.50	3.35	13,795	32.370	357.00
SQBB	29.157	118.223	135.060	4.75	3.02	13,436	34.471	337.00
SQBB	30.996	117.269	137.363	4.25	3.61	13,548	36.348	333.00
SQBB	28.937	128.255	146.968	6.00	3.13	14,481	37.113	280.00

Lampiran 3. Hasil pengolahan Data pada STATA 15.0 untuk Variabel Dependen Return On Asset (ROA)

1. Hasil Pengolahan Analisis Deskriptif

```
. xtset firm tahun
      panel variable:  firm (strongly balanced)
      time variable:  tahun, 2009 to 2018
      delta: 1 unit

. summarize roa cr npm tato flm inflasi sbi exchangerate
```

Variable	Obs	Mean	Std. Dev.	Min	Max
roa	80	14.46725	14.35725	-4.19	92.51
cr	80	347.1239	314.0539	104.22	2839.259
npm	80	12.00809	14.00163	-4.054	101.812
tato	80	127.0272	26.16859	65.712	194.019
flm	80	159.3328	52.69319	118.254	434.618
inflasi	80	4.768	2.134034	2.78	8.38
sbi	80	6.25	1.108083	4.25	7.75
exchangerate	80	11790.3	2092.188	9036	14481

2. Hasil Analisis Model Generalised Least Squared

```
. xtglm roa cr npm tato flm inflasi sbi exchangerate

Cross-sectional time-series FGLS regression

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

Estimated covariances = 1          Number of obs = 80
Estimated autocorrelations = 0      Number of groups = 8
Estimated coefficients = 8          Time periods = 10
Wald chi2(7) = 2573.71
Log likelihood = -186.0848          Prob > chi2 = 0.0000
```

roa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
cr	.0021635	.0009681	2.23	0.025	.0002661 .004061
npm	1.008727	.0213621	47.22	0.000	.9668585 1.050596
tato	.0895684	.0122161	7.33	0.000	.0656253 .1135114
flm	-.0136653	.0059601	-2.29	0.022	-.0253468 -.0019838
inflasi	-.0492063	.1685206	-0.29	0.770	-.3795005 .281088
sbi	-.0040336	.3154197	-0.01	0.990	-.6222448 .6141776
exchangerate	.0000732	.0001459	0.50	0.616	-.0002128 .0003592
_cons	-8.200081	3.317031	-2.47	0.013	-14.70134 -1.698819

3. Hasil Analisis Model *Common Effect*

```
. reg roa cr npm tato flm inflasi sbi exchangerate
```

Source	SS	df	MS	Number of obs	=	80
Model	15793.3961	7	2256.19944	F(7, 72)	=	330.91
Residual	490.914511	72	6.8182571	Prob > F	=	0.0000
				R-squared	=	0.9699
				Adj R-squared	=	0.9669
Total	16284.3106	79	206.130514	Root MSE	=	2.6112

roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
cr	.0021635	.0010205	2.12	0.037	.0001293	.0041978
npm	1.008727	.0225176	44.80	0.000	.9638393	1.053615
tato	.0895684	.0128769	6.96	0.000	.0638988	.1152379
flm	-.0136653	.0062825	-2.18	0.033	-.0261892	-.0011415
inflasi	-.0492063	.1776363	-0.28	0.783	-.4033177	.3049052
sbi	-.0040336	.3324815	-0.01	0.990	-.6668234	.6587562
exchangerate	.0000732	.0001538	0.48	0.636	-.0002335	.0003798
_cons	-8.200081	3.496458	-2.35	0.022	-15.17014	-1.230019

```
. estimates store ols
```

4. Hasil Analisis Model *Fixed Effect*

```
. xtreg roa cr npm tato flm inflasi sbi exchangerate, fe
```

```
Fixed-effects (within) regression      Number of obs   =      80
Group variable: firm                  Number of groups =       8
```

```
R-sq:                                Obs per group:
  within = 0.9547                      min       =      10
  between = 0.9964                      avg       =     10.0
  overall  = 0.9645                      max       =      10
```

```
corr(u_i, Xb) = 0.7416                  F(7,65)         =     195.88
                                          Prob > F        =      0.0000
```

roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
cr	.0006152	.0007797	0.79	0.433	-.0009419	.0021723
npm	.8548655	.024616	34.73	0.000	.8057039	.904027
tato	.0706037	.0123184	5.73	0.000	.0460021	.0952053
flm	.0019377	.0056292	0.34	0.732	-.0093045	.01318
inflasi	-.0982962	.1257193	-0.78	0.437	-.3493749	.1527825
sbi	.1043917	.2334298	0.45	0.656	-.3617999	.5705832
exchangerate	-.0000859	.000116	-0.74	0.462	-.0003176	.0001459
_cons	-4.460315	2.878287	-1.55	0.126	-10.20865	1.288021
sigma_u	3.3874921					
sigma_e	1.8257694					
rho	.77489782	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(7, 65) = 11.75          Prob > F = 0.0000
```

```
. estimates store fe
```

5. Hasil Uji Model Random Effect

```
. xtreg roa cr npm tato film inflasi sbi exchangerate, re
Random-effects GLS regression           Number of obs   =       80
Group variable: firm                   Number of groups =        8

R-sq:                                  Obs per group:
    within = 0.9497                      min =          10
    between = 0.9958                     avg =         10.0
    overall = 0.9697                      max =          10

Wald chi2(7) = 1702.47
corr(u_i, X) = 0 (assumed)              Prob > chi2    =    0.0000
```

roa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
cr	.0016931	.0009557	1.77	0.076	-.0001799	.0035662
npm	.9641031	.024028	40.12	0.000	.9170092	1.011197
tato	.0857978	.0134226	6.39	0.000	.05949	.1121056
film	-.0113402	.0062225	-1.82	0.068	-.0235361	.0008557
inflasi	-.0570685	.160521	-0.36	0.722	-.3716839	.2575469
sbi	.0229483	.2993832	0.08	0.939	-.563832	.6097287
exchangerate	.0000493	.0001421	0.35	0.729	-.0002292	.0003279
_cons	-7.242333	3.392611	-2.13	0.033	-13.89173	-.592938
sigma_u	.65863295					
sigma_e	1.8257694					
rho	.11515018	(fraction of variance due to u_i)				

```
. estimates store re
```

6. Hasil Uji Chow (Memilih antara Pooled Least Square atau Fixed Effect)

```
. xtreg roa cr npm tato film inflasi sbi exchangerate, fe
Fixed-effects (within) regression       Number of obs   =       80
Group variable: firm                   Number of groups =        8

R-sq:                                  Obs per group:
    within = 0.9547                      min =          10
    between = 0.9964                     avg =         10.0
    overall = 0.9645                      max =          10

F(7,65) = 195.88
corr(u_i, Xb) = 0.7416                  Prob > F        =    0.0000
```

roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
cr	.0006152	.0007797	0.79	0.433	-.0009419	.0021723
npm	.8548655	.024616	34.73	0.000	.8057039	.904027
tato	.0706037	.0123184	5.73	0.000	.0460021	.0952053
film	.0019377	.0056292	0.34	0.732	-.0093045	.01318
inflasi	-.0982962	.1257193	-0.78	0.437	-.3493749	.1527825
sbi	.1043917	.2334298	0.45	0.656	-.3617999	.5705832
exchangerate	-.0000859	.000116	-0.74	0.462	-.0003176	.0001459
_cons	-4.460315	2.878287	-1.55	0.126	-10.20865	1.288021
sigma_u	3.3874921					
sigma_e	1.8257694					
rho	.77489782	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(7, 65) = 11.75          Prob > F = 0.0000
```

```
. estimates store fe
```

7. Hasil Uji LM (Memilih antara Pooled Least Square atau Random Effect)

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

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

Estimated results:
-----
                Var      sd = sqrt(Var)
-----
roa             206.1305    14.35725
e                3.333434    1.825769
u                .4337974    .658633

Test:  Var(u) = 0
      chibar2(01) =    10.45
      Prob > chibar2 =    0.0006

. quietly xtreg roa cr npm tato flm inflasi sbi exchangerate, re
. estimates store re
. quietly xtreg roa cr npm tato flm inflasi sbi exchangerate, fe
. estimates store fe
. hausman fe re
```

8. Hasil Uji Hausman (Memilih antara Fixed Effect atau Random Effect)

```
. hausman fe re

----- Coefficients -----
      (b)      (B)      (b-B)      sqrt(diag(V_b-V_B))
      fe      re      Difference      S.E.
-----
cr      .0006152    .0016931    -.0010779      .
npm     .8548655    .9641031    -.1092377    .0053483
tato    .0706037    .0857978    -.0151941      .
flm     .0019377    -.0113402    .013278      .
inflasi -.0982962    -.0570685    -.0412277      .
sbi     .1043917    .0229483    .0814433      .
exchangerate -.0000859    .0000493    -.0001352      .

      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)
      =      89.71
      Prob>chi2 =    0.0000
      (V_b-V_B is not positive definite)
```


9. Hasil Uji Multikolonieritas Untuk Model Terpilih *Fixed Effect*

```
. corr roa cr npm tato flm inflasi sbi exchangerate
(obs=80)
```

	roa	cr	npm	tato	flm	inflasi	sbi
roa	1.0000						
cr	0.2427	1.0000					
npm	0.9657	0.1690	1.0000				
tato	-0.0350	0.1062	-0.2174	1.0000			
flm	-0.2784	-0.2878	-0.1743	-0.2802	1.0000		
inflasi	-0.0384	0.2254	-0.0320	-0.0480	0.0267	1.0000	
sbi	0.0054	0.1412	0.0002	0.0257	0.0055	0.5999	1.0000
exchangerate	-0.0179	-0.0848	0.0470	-0.3575	0.2602	-0.0828	-0.0599

	exchan~e
exchangerate	1.0000

```
. vif, uncentered
```

Variable	VIF	1/VIF
sbi	43.75	0.022859
exchangerate	24.37	0.041027
tato	17.28	0.057884
flm	11.70	0.085459
inflasi	10.07	0.099268
cr	2.65	0.376873
npm	1.89	0.529154
Mean VIF	15.96	

10. Hasil Uji Heteroskedastisitas untuk Model Terpilih *Fixed Effect*

```
. xttest3
```

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: $\sigma(i)^2 = \sigma^2$ for all i

chi2 (8) = 5155.95
Prob>chi2 = 0.0000

11. Hasil Uji Auto Korelasi untuk Model Terpilih *Fixed Effect*

```
. xtserial roa cr npm tato flm inflasi sbi exchangerate
```

wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
F(1, 7) = 0.700
Prob > F = 0.4303

12. Hasil Uji F Setelah *Treatment* (Model GLS) & Uji t setelah *treatment* (Model GLS)

```
. xtglm roa cr npm tato flm inflasi sbi exchangerate
```

Cross-sectional time-series FGLS regression

Coefficients: generalized least squares

Panels: homoskedastic

Correlation: no autocorrelation

```
Estimated covariances      =          1      Number of obs      =          80
Estimated autocorrelations =          0      Number of groups   =          8
Estimated coefficients     =          8      Time periods      =          10
Log likelihood             = -186.0848     Wald chi2(7)      = 2573.71
                          =                   Prob > chi2      = 0.0000
```

roa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
cr	.0021635	.0009681	2.23	0.025	.0002661	.004061
npm	1.008727	.0213621	47.22	0.000	.9668585	1.050596
tato	.0895684	.0122161	7.33	0.000	.0656253	.1135114
flm	-.0136653	.0059601	-2.29	0.022	-.0253468	-.0019838
inflasi	-.0492063	.1685206	-0.29	0.770	-.3795005	.281088
sbi	-.0040336	.3154197	-0.01	0.990	-.6222448	.6141776
exchangerate	.0000732	.0001459	0.50	0.616	-.0002128	.0003592
_cons	-8.200081	3.317031	-2.47	0.013	-14.70134	-1.698819

Lampiran 4. Hasil Pengolahan data STATA 15.0 untuk Variabel Dependen *Current Ratio (CR)*

1. Hasil Pengolahan Analisis Deskriptif

```
. summarize cr roa npm tato flm inflasi sbi exchangerate
```

Variable	Obs	Mean	Std. Dev.	Min	Max
cr	80	347.1239	314.0539	104.22	2839.259
roa	80	14.46725	14.35725	-4.19	92.51
npm	80	12.00809	14.00163	-4.054	101.812
tato	80	127.0272	26.16859	65.712	194.019
flm	80	159.3328	52.69319	118.254	434.618
inflasi	80	4.768	2.134034	2.78	8.38
sbi	80	6.25	1.108083	4.25	7.75
exchangerate	80	11790.3	2092.188	9036	14481

2. Hasil Analisis Model Generalised Least Squares

```
. xtglm cr roa npm tato flm inflasi sbi exchangerate
```

```
Cross-sectional time-series FGLS regression
```

```
Coefficients: generalized least squares
```

```
Panels: homoskedastic
```

```
Correlation: no autocorrelation
```

```
Estimated covariances = 1 Number of obs = 80
Estimated autocorrelations = 0 Number of groups = 8
Estimated coefficients = 8 Time periods = 10
Wald chi2(7) = 21.15
Log likelihood = -563.5952 Prob > chi2 = 0.0036
```

	cr	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
roa		27.1602	12.15313	2.23	0.025	3.340504 50.9799
npm		-24.18868	12.57321	-1.92	0.054	-48.83171 .4543468
tato		-1.409136	1.762799	-0.80	0.424	-4.864158 2.045886
flm		-1.026348	.679755	-1.51	0.131	-2.358644 .3059471
inflasi		35.6125	18.46721	1.93	0.054	-.5825603 71.80756
sbi		-1.688083	35.34	-0.05	0.962	-70.95321 67.57704
exchangerate		.0015973	.0163758	0.10	0.922	-.0304987 .0336934
_cons		409.0972	382.861	1.07	0.285	-341.2965 1159.491

3. Hasil Analisis Model *Common Effect*

```
. reg cr roa npm tato flm inflasi sbi exchangerate
```

Source	SS	df	MS	Number of obs =	80
Model	1629029.77	7	232718.538	F(7, 72)	= 2.72
Residual	6162726.19	72	85593.4193	Prob > F	= 0.0147
				R-squared	= 0.2091
				Adj R-squared	= 0.1322
Total	7791755.95	79	98629.8222	Root MSE	= 292.56

cr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
roa	27.1602	12.81052	2.12	0.037	1.622889	52.69752
npm	-24.18868	13.25332	-1.83	0.072	-50.6087	2.231332
tato	-1.409136	1.858153	-0.76	0.451	-5.113297	2.295024
flm	-1.026348	.7165247	-1.43	0.156	-2.454714	.4020176
inflasi	35.6125	19.46614	1.83	0.071	-3.192551	74.41755
sbi	-1.688083	37.25163	-0.05	0.964	-75.94785	72.57168
exchangerate	.0015973	.0172617	0.09	0.927	-.0328131	.0360078
_cons	409.0972	403.5709	1.01	0.314	-395.4067	1213.601

4. Hasil Analisis Model *Fixed Effect*

```
. estimates store ols
```

```
. xtreg cr roa npm tato flm inflasi sbi exchangerate, fe
```

```
Fixed-effects (within) regression      Number of obs =      80
Group variable: firm                  Number of groups =    8

R-sq:                                  Obs per group:
    within = 0.0967                    min =      10
    between = 0.5106                    avg =     10.0
    overall = 0.1722                    max =      10

                                F(7,65) =      0.99
corr(u_i, Xb) = 0.2401              Prob > F =     0.4440
```

cr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
roa	15.4227	19.54519	0.79	0.433	-23.61174	54.45715
npm	-14.13931	17.14536	-0.82	0.413	-48.38095	20.10233
tato	.3466475	2.392638	0.14	0.885	-4.43178	5.125075
flm	-.2987639	.891318	-0.34	0.739	-2.078849	1.481321
inflasi	35.14906	19.51769	1.80	0.076	-3.830461	74.12858
sbi	-1.781711	37.0154	-0.05	0.962	-75.70658	72.14316
exchangerate	.0000369	.0184503	0.00	0.998	-.0368109	.0368846
_cons	140.4655	463.7377	0.30	0.763	-785.6826	1066.614
sigma_u	124.26389					
sigma_e	289.07648					
rho	.15596431	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(7, 65) = 1.25      Prob > F = 0.2893
```

5. Hasil Uji Model Random Effect

```
. estimates store fe
. xtreg cr roa npm tato flm inflasi sbi exchangerate, re

Random-effects GLS regression           Number of obs   =       80
Group variable: firm                   Number of groups =        8

R-sq:                                  Obs per group:
    within = 0.0867                    min =           10
    between = 0.6422                   avg =          10.0
    overall = 0.2088                   max =           10

Wald chi2(7) =          16.49
corr(u_i, X) = 0 (assumed)             Prob > chi2      =       0.0210
```

cr	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
roa	26.39943	13.10668	2.01	0.044	.7108037 52.08805
npm	-23.30425	13.38998	-1.74	0.082	-49.54812 2.939628
tato	-1.189015	1.914222	-0.62	0.535	-4.940821 2.562791
flm	-.933726	.7324808	-1.27	0.202	-2.369362 .5019099
inflasi	35.75536	19.25868	1.86	0.063	-1.990951 73.50167
sbi	-1.958393	36.83192	-0.05	0.958	-74.14764 70.23085
exchangerate	.0016067	.0172052	0.09	0.926	-.0321148 .0353282
_cons	367.6619	408.9592	0.90	0.369	-433.8833 1169.207
sigma_u	48.738654				
sigma_e	289.07648				
rho	.02764066	(fraction of variance due to u_i)			

```
. estimates store re
```

6. Hasil Uji Chow (Memilih antara Pooled Least Square atau Fixed Effect)

```
. estimates store ols
. xtreg cr roa npm tato flm inflasi sbi exchangerate, fe

Fixed-effects (within) regression       Number of obs   =       80
Group variable: firm                   Number of groups =        8

R-sq:                                  Obs per group:
    within = 0.0967                    min =           10
    between = 0.5106                   avg =          10.0
    overall = 0.1722                   max =           10

F(7,65) =          0.99
corr(u_i, Xb) = 0.2401                 Prob > F        =       0.4440
```

cr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
roa	15.4227	19.54519	0.79	0.433	-23.61174 54.45715
npm	-14.13931	17.14536	-0.82	0.413	-48.38095 20.10233
tato	.3466475	2.392638	0.14	0.885	-4.43178 5.125075
flm	-.2987639	.891318	-0.34	0.739	-2.078849 1.481321
inflasi	35.14906	19.51769	1.80	0.076	-3.830461 74.12858
sbi	-1.781711	37.0154	-0.05	0.962	-75.70658 72.14316
exchangerate	.0000369	.0184503	0.00	0.998	-.0368109 .0368846
_cons	140.4655	463.7377	0.30	0.763	-785.6826 1066.614
sigma_u	124.26389				
sigma_e	289.07648				
rho	.15596431	(fraction of variance due to u_i)			

```
F test that all u_i=0: F(7, 65) = 1.25                 Prob > F = 0.2893
```

7. Hasil Uji LM (Memilih antara *Pooled Least Square* atau *Random Effect*)

```
. xttest0
Breusch and Pagan Lagrangian multiplier test for random effects

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

Estimated results:
-----
                Var      sd = sqrt(Var)
-----
cr              98629.82    314.0539
e              83565.21    289.0765
u              2375.456     48.73865

Test:  Var(u) = 0
      chibar2(01) = 0.00
      Prob > chibar2 = 0.4749
```

8. Hasil Uji Hausman (Memilih antara *Fixed Effect* atau *Random Effect*)

```
. quietly xtreg cr roa npm tato flm inflasi sbi exchangerate, re
. estimates store re
. quietly xtreg cr roa npm tato flm inflasi sbi exchangerate, fe
. estimates store fe
. hausman fe re

Note: the rank of the differenced variance matrix (6) does not equal the number
of coefficients being tested (7); be sure this is what you expect, or
there may be problems computing the test. Examine the output of your
estimators for anything unexpected and possibly consider scaling your
variables so that the coefficients are on a similar scale.
```

	Coefficients			
	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
roa	15.4227	26.39943	-10.97672	14.49929
npm	-14.13931	-23.30425	9.164935	10.70849
tato	.3466475	-1.189015	1.535662	1.435434
flm	-.2987639	-.933726	.6349621	.507858
inflasi	35.14906	35.75536	-.6063028	3.169166
sbi	-1.781711	-1.958393	.1766823	3.680971
exchangerate	.0000369	.0016067	-.0015698	.006663

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(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
        = 4.06
Prob>chi2 = 0.6683
(V_b-V_B is not positive definite)
```

9. Hasil Uji Multikolonieritas Untuk Model Terpilih *Random Effect*

```
. corr cr roa npm tato flm inflasi sbi exchangerate
(obs=80)
```

	cr	roa	npm	tato	flm	inflasi	sbi
cr	1.0000						
roa	0.2427	1.0000					
npm	0.1690	0.9657	1.0000				
tato	0.1062	-0.0350	-0.2174	1.0000			
flm	-0.2878	-0.2784	-0.1743	-0.2802	1.0000		
inflasi	0.2254	-0.0384	-0.0320	-0.0480	0.0267	1.0000	
sbi	0.1412	0.0054	0.0002	0.0257	0.0055	0.5999	1.0000
exchangerate	-0.0848	-0.0179	0.0470	-0.3575	0.2602	-0.0828	-0.0599

	exchan-e
exchangerate	1.0000

```
. vif, uncentered
```

Variable	VIF	1/VIF
roa	59.47	0.016815
npm	50.82	0.019677
sbi	44.28	0.022585
tato	29.33	0.034096
exchangerate	24.59	0.040671
flm	12.87	0.077726
inflasi	9.64	0.103701
Mean VIF	33.00	

10. Hasil Uji Heteroskedastisitas untuk Model Terpilih *Random Effect*

(tidak perlu menguji lagi dengan uji *Heteroskedastisitas*, karena sudah terdapat Multikolonieritas.)

11. Hasil Uji Auto Korelasi untuk Model Terpilih *Random Effect*

(tidak perlu menguji lagi dengan uji *Auto korelasi*, karena sudah terdapat Multikolonieritas.)