

LAMPIRAN

Lampiran 1 Hasil Uji Statistik Deskriptif

. xtsum FRF KPA TKN PBN KMP KHI FKA						
Variable		Mean	Std. dev.	Min	Max	Observations
FRF	overall	.5757671	1.18376	-1.73183	3.01514	N = 240
	between		.9660619	-1.73183	2.75528	n = 48
	within		.6954365	-1.752722	3.40745	T = 5
KPA	overall	-.1231875	1.299383	-13.453	6.612	N = 240
	between		.5761476	-3.3784	.3638	n = 48
	within		1.16705	-10.19779	9.867213	T = 5
TKN	overall	.1039792	.4744351	-.584	6.247	N = 240
	between		.2031358	-.1836	1.1736	n = 48
	within		.4295522	-1.653621	5.177379	T = 5
PBN	overall	.6272042	.809889	-.056	10.999	N = 240
	between		.5396388	.0024	3.0026	n = 48
	within		.6079342	-2.280396	8.623604	T = 5
KMP	overall	.7416667	.438633	0	1	N = 240
	between		.428671	0	1	n = 48
	within		.1082381	-.0583333	1.541667	T = 5
KHI	overall	.0073417	.0551207	-.083	.096	N = 240
	between		.0331874	-.0752	.0672	n = 48
	within		.044219	-.1122583	.1193417	T = 5
FKA	overall	7.795833	5.736544	1	25	N = 240
	between		5.567151	2.6	23.2	n = 48
	within		1.559959	1.795833	16.39583	T = 5

Lampiran 2 Hasil Uji Common Effect Model

. reg FRF KPA TKN PBN KMP KHI

Source	SS	df	MS	Number of obs	=	240
Model	52.8606923	5	10.5721385	F(5, 234)	=	8.77
Residual	282.047113	234	1.20532954	Prob > F	=	0.0000
				R-squared	=	0.1578
				Adj R-squared	=	0.1398
Total	334.907806	239	1.40128789	Root MSE	=	1.0979

FRF	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
KPA	-.1923691	.0548726	-3.51	0.001	-.3004766	-.0842616
TKN	.5495552	.1500788	3.66	0.000	.2538768	.8452335
PBN	.0421584	.0886397	0.48	0.635	-.1324754	.2167922
KMP	.0632065	.1630394	0.39	0.699	-.2580061	.3844191
KHI	-5.383037	1.294759	-4.16	0.000	-7.933911	-2.832163
_cons	.4611278	.1489331	3.10	0.002	.1677067	.7545489

Lampiran 3 Hasil Uji Fixed Effect Model

. xtreg FRF KPA TKN PBN KMP KHI, fe

Fixed-effects (within) regression				Number of obs	=	240
Group variable: ID				Number of groups	=	48
R-squared:				Obs per group:		
Within = 0.0789				min =		5
Between = 0.0624				avg =		5.0
Overall = 0.0669				max =		5
corr(u_i, Xb) = 0.0421				F(5,187)	=	3.20
				Prob > F	=	0.0084

FRF	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
KPA	-.0859512	.0418821	-2.05	0.042	-.1685733	-.003329
TKN	.375157	.1141054	3.29	0.001	.1500577	.6002563
PBN	-.0023118	.0813818	-0.03	0.977	-.1628561	.1582326
KMP	-.3507789	.4563669	-0.77	0.443	-1.251068	.5495103
KHI	-.8529812	1.133663	-0.75	0.453	-3.089393	1.383431
_cons	.7940437	.348213	2.28	0.024	.1071132	1.480974

sigma_u	.93721401	
sigma_e	.75454468	
rho	.60673163	(fraction of variance due to u_i)

F test that all u_i=0: F(47, 187) = 6.56	Prob > F = 0.0000
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Lampiran 4 Hasil Uji Random Effect Model

. xtreg FRF KPA TKN PBN KMP KHI, re

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Random-effects GLS regression              Number of obs   =       240
Group variable: ID                        Number of groups  =       48

R-squared:                                Obs per group:
    Within = 0.0721                          min =           5
    Between = 0.3434                         avg =          5.0
    Overall = 0.1418                         max =           5

corr(u_i, X) = 0 (assumed)                Wald chi2(5)     =      22.67
                                           Prob > chi2      =      0.0004

```

FRF	Coefficient	Std. err.	z	P> z	[95% conf. interval]	
KPA	-.1122649	.0423032	-2.65	0.008	-.1951776	-.0293522
TKN	.4190952	.1154403	3.63	0.000	.1928363	.6453541
PBN	.0028964	.0784437	0.04	0.971	-.1508504	.1566432
KMP	-.018678	.2388931	-0.08	0.938	-.4868999	.4495439
KHI	-2.009561	1.101469	-1.82	0.068	-4.1684	.1492781
_cons	.5451501	.2179317	2.50	0.012	.1180117	.9722884
sigma_u	.71053646					
sigma_e	.75454468					
rho	.469989	(fraction of variance due to u_i)				



Lampiran 5 Hasil Uji Chow Test

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. xtreg FRF KPA TKN PBN KMP KHI, fe
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Fixed-effects (within) regression      Number of obs   =      240
Group variable: ID                    Number of groups =       48

R-squared:                            Obs per group:
    Within = 0.0789                      min =          5
    Between = 0.0624                     avg =         5.0
    Overall = 0.0669                      max =          5

F(5,187) = 3.20
corr(u_i, Xb) = 0.0421                  Prob > F = 0.0084
```

FRF	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
KPA	-.0859512	.0418821	-2.05	0.042	-.1685733	-.003329
TKN	.375157	.1141054	3.29	0.001	.1500577	.6002563
PBN	-.0023118	.0813818	-0.03	0.977	-.1628561	.1582326
KMP	-.3507789	.4563669	-0.77	0.443	-1.251068	.5495103
KHI	-.8529812	1.133663	-0.75	0.453	-3.089393	1.383431
_cons	.7940437	.348213	2.28	0.024	.1071132	1.480974
sigma_u	.93721401					
sigma_e	.75454468					
rho	.60673163	(fraction of variance due to u_i)				

F test that all u_i=0: F(47, 187) = 6.56 Prob > F = 0.0000

Lampiran 6 Hasil Uji Hausman Test

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. hausman fe re, sigmamore
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	Coefficients			
	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) Std. err.
KPA	-.0859512	-.1122649	.0263137	.0090791
TKN	.375157	.4190952	-.0439382	.023844
PBN	-.0023118	.0028964	-.0052082	.0302431
KMP	-.3507789	-.018678	-.3321008	.4064441
KHI	-.8529812	-2.009561	1.156579	.3978995

b = Consistent under H0 and Ha; obtained from xtreg.
B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

```
chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
          = 19.42
Prob > chi2 = 0.0016
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Lampiran 7 Hasil Uji Normalitas Data

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. predict resid, resid
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. swilk resid
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Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
resid	240	0.99378	1.089	0.197	0.42178

```
. sfrancia residual
```

Shapiro-Francia W' test for normal data

Variable	Obs	W'	V'	z	Prob>z
residual	240	0.99083	1.745	1.165	0.12210

```
. sktest residual
```

Skewness and kurtosis tests for normality

Variable	Obs	Pr(skewness)	Pr(kurtosis)	Joint test	
				Adj chi2(2)	Prob>chi2
residual	240	0.7868	0.1689	1.98	0.3711

Lampiran 8 Hasil Uji Heteroskedastisitas

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. estat imtest, white
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White's test

H0: Homoskedasticity

Ha: Unrestricted heteroskedasticity

chi2(19) = 26.17

Prob > chi2 = 0.1255

Cameron & Trivedi's decomposition of IM-test

Source	chi2	df	p
Heteroskedasticity	26.17	19	0.1255
Skewness	9.44	5	0.0926
Kurtosis	1.35	1	0.2455
Total	36.96	25	0.0582

Lampiran 9 Hasil Uji Autokorelasi

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. xtserial FRF KPA TKN PBN KMP KHI
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Wooldridge test for autocorrelation in panel data

H0: no first-order autocorrelation

F(1, 47) = 0.010

Prob > F = 0.9221

Lampiran 10 Hasil Uji Multikolinieritas

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. vif, uncentered
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Variable	VIF	1/VIF
KMP	1.53	0.652358
PBN	1.48	0.674117
TKN	1.03	0.971739
KHI	1.02	0.985035
KPA	1.01	0.985318
Mean VIF	1.22	



Lampiran 11 Hasil Uji Regresi

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. xtreg FRF KPA TKN PBN KMP KHI, fe
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Fixed-effects (within) regression
Group variable: ID

Number of obs = 240
Number of groups = 48

R-squared:

Within = 0.0789
Between = 0.0624
Overall = 0.0669

Obs per group:

min = 5
avg = 5.0
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corr(u_i, Xb) = 0.0421

F(5,187) = 3.20
Prob > F = 0.0084

FRF	Coefficient	Std. err.	t	P> t	[95% conf. interval]	
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F test that all u_i=0: F(47, 187) = 6.56

Prob > F = 0.0000



