

LAMPIRAN

Lampiran 1. Data Input Variabel Penelitian Per Tahun Periode 2009-2018 (%)

TAHUN	BEP (%)	WCTA (%)	TATO (%)	FLM (%)	COST EXP (%)	OP EXP (%)	SIZE (%)	INFLASI (%)	SBI (%)	EXC. RATE
2009	9.03	10.75	156.56	310.91	66.35	28.68	14.44	2.78	6.50	9.447
2010	14.93	12.56	156.61	283.23	66.87	24.69	14.69	6.96	6.50	9.036
2011	12.08	11.47	187.03	343.10	66.84	26.45	14.66	3.79	6.00	9.113
2012	17.88	16.20	181.88	237.29	66.90	23.75	14.86	4.30	5.75	9.718
2013	18.43	18.76	194.19	196.54	66.54	25.00	15.00	8.38	7.50	12.189
2014	16.30	19.17	190.37	436.41	66.91	25.54	15.13	8.36	7.75	12.440
2015	13.83	17.80	208.84	290.85	69.75	24.51	15.47	3.35	7.50	13.795
2016	12.18	22.21	179.34	269.87	66.28	27.72	15.30	3.02	4.75	12.436
2017	7.69	16.99	180.77	297.77	67.14	28.28	15.36	3.60	4.25	13.557
2018	6.75	21.43	188.02	298.65	66.04	29.53	14.71	3.13	6.00	14.481

Lampiran 2. Data Input Variabel untuk Pengolahan STATA 15.0

KODE TATO	FLM	BEP = OP/(ca +	COST EXP = co:	OPERATING EX	SBI	INFLASI	EXCHANGE RATIO	size	WCTA	
ACES	140.00	111.85	20.230	59.343	27.542	6.500	2.780	9447	13.79	72.39
ACES	136.99	116.93	20.209	56.822	29.772	6.500	6.960	9036	14.00	60.53
ACES	167.14	117.85	30.695	53.175	31.540	6.000	3.790	9113	14.19	46.86
ACES	168.15	118.47	33.806	51.864	30.686	5.750	4.300	9718	14.47	52.72
ACES	157.14	129.41	29.697	50.364	32.919	7.500	8.380	12889	14.72	52.76
ACES	154.09	124.77	27.193	51.699	32.529	7.750	8.360	12440	14.90	59.19
ACES	145.14	124.30	26.292	52.479	31.308	7.500	3.350	13795	15.00	62.89
ACES	132.29	122.38	25.817	52.354	29.805	4.750	3.020	13436	15.13	65.22
ACES	134.09	126.16	26.049	52.266	31.428	4.250	3.610	13548	15.30	65.03
ACES	136.06	125.63	26.490	52.441	30.946	6.000	3.130	14481	15.49	65.12
AMRT	369.00	321.01	8.389	84.986	13.022	6.500	2.780	9447	14.87	-11.33
AMRT	329.90	392.86	8.564	84.744	13.045	6.500	6.960	9036	15.27	-14.32
AMRT	363.46	343.38	11.694	84.523	12.750	6.000	3.790	9113	15.43	-10.32
AMRT	311.39	242.10	9.697	84.594	12.809	5.750	4.300	9718	15.83	0.03
AMRT	318.34	421.02	11.908	81.892	15.401	7.500	8.380	12889	16.21	-11.41
AMRT	298.54	465.40	9.873	81.635	15.568	7.750	8.360	12440	16.45	-5.21
AMRT	317.62	313.30	9.213	80.920	16.710	7.500	3.350	13795	16.54	4.70
AMRT	288.11	367.80	7.963	80.622	17.111	4.750	3.020	13436	16.78	-6.10
AMRT	280.64	422.47	5.896	80.475	17.838	4.250	3.610	13548	16.90	-6.90
AMRT	301.44	368.35	7.674	80.211	17.689	6.000	3.130	14481	16.91	7.51

KOIN	116.12	450.22	3.471	80.852	16.444	6.500	2.780	9447	13.19	11.81
KOIN	143.19	408.58	4.065	80.534	16.909	6.500	6.960	9036	13.14	10.99
KOIN	228.22	1744.63	-38.092	79.590	34.872	6.000	3.790	9113	12.64	-8.60
KOIN	261.16	658.35	11.585	80.542	15.141	5.750	4.300	9718	12.73	12.61
KOIN	330.49	383.00	12.798	81.720	14.506	7.500	8.380	12889	12.73	24.21
KOIN	229.30	459.60	6.718	80.701	16.479	7.750	8.360	12440	13.17	16.21
KOIN	213.58	556.26	3.106	80.786	17.832	7.500	3.350	13795	13.44	12.63
KOIN	204.52	584.09	0.049	80.956	19.022	4.750	3.020	13436	13.47	12.74
KOIN	215.83	666.69	-1.153	83.125	17.393	4.250	3.610	13548	13.52	12.25
KOIN	204.62	830.01	-1.013	86.060	14.418	6.000	3.130	14481	13.66	8.01
LPPF	40.52	637.90	-1.542	38.274	65.078	6.500	2.780	9447	14.24	-23.76
LPPF	75.58	503.97	53.505	35.649	37.632	6.500	6.960	9036	15.50	0.12
LPPF	194.05	-89.64	56.675	33.936	39.658	6.000	3.790	9113	14.70	-5.82
LPPF	191.72	-151.68	64.980	34.018	37.775	5.750	4.300	9718	14.89	-14.54
LPPF	229.98	-375.86	74.678	35.404	37.727	7.500	8.380	12889	14.89	-6.37
LPPF	232.53	1919.24	73.288	36.307	37.400	7.750	8.360	12440	15.04	-11.77
LPPF	231.58	351.60	74.223	37.034	37.012	7.500	3.350	13795	15.17	-4.27
LPPF	203.69	261.90	64.086	37.236	37.161	4.750	3.020	13436	15.40	7.94
LPPF	184.69	233.14	60.208	37.530	38.760	4.250	3.610	13548	15.51	6.69
LPPF	203.42	277.37	36.749	37.746	46.961	6.000	3.130	14481	8.52	5.45
MAPI	121.68	262.37	10.407	49.957	42.560	6.500	2.780	9447	15.03	16.86
MAPI	128.39	249.84	14.127	49.572	40.898	6.500	6.960	9036	15.12	10.80
MAPI	133.39	246.10	12.569	48.341	43.431	6.000	3.790	9113	15.30	2.06
MAPI	126.62	275.72	11.332	49.125	42.996	5.750	4.300	9718	15.61	9.68
MAPI	124.67	321.61	6.957	50.189	44.827	7.500	8.380	12889	15.87	6.01
MAPI	136.10	332.88	2.305	53.734	44.763	7.750	8.360	12440	15.98	15.20
MAPI	135.33	318.76	1.821	54.938	43.908	7.500	3.350	13795	16.07	25.37
MAPI	132.44	333.49	4.339	51.426	45.736	4.750	3.020	13436	16.18	22.79
MAPI	142.71	269.31	6.034	51.820	44.516	4.250	3.610	13548	16.25	19.55
MAPI	149.78	208.38	10.881	52.161	41.638	6.000	3.130	14481	16.35	14.99

RALS	134.31	129.79	13.559	65.865	25.632	6.500	2.780	9447	14.98	35.30
RALS	136.98	130.05	11.953	65.260	26.974	6.500	6.960	9036	15.06	36.13
RALS	135.30	132.30	11.516	65.179	27.398	6.000	3.790	9113	15.14	35.99
RALS	139.93	133.91	12.678	65.348	26.820	5.750	4.300	9718	15.22	35.54
RALS	137.05	136.10	10.438	64.334	29.021	7.500	8.380	12889	15.29	32.23
RALS	128.69	135.58	7.331	65.062	29.847	7.750	8.360	12440	15.33	37.93
RALS	120.94	137.23	6.020	63.925	31.544	7.500	3.350	13795	15.34	40.88
RALS	126.04	139.24	8.957	62.396	31.319	4.750	3.020	13436	15.35	39.20
RALS	114.94	140.00	8.704	60.654	32.644	4.250	3.610	13548	15.40	41.80
RALS	109.47	136.98	12.854	56.328	33.098	6.000	3.130	14481	15.47	47.00
SONA	104.09	268.82	14.743	55.331	35.848	6.500	2.780	9447	13.13	-10.87
SONA	92.60	247.53	19.855	53.598	31.464	6.500	6.960	9036	13.34	0.42
SONA	114.30	155.56	14.257	57.808	29.894	6.000	3.790	9113	13.43	47.17
SONA	92.21	176.36	14.088	56.982	27.903	5.750	4.300	9718	13.74	50.83
SONA	106.42	172.06	10.091	54.458	36.897	7.500	8.380	12889	13.76	49.82
SONA	111.82	165.90	14.788	53.348	34.190	7.750	8.360	12440	13.90	45.67
SONA	317.62	313.30	9.213	80.920	16.710	7.500	3.350	13795	16.54	4.70
SONA	138.65	176.39	-0.150	55.003	45.097	4.750	3.020	13436	13.85	42.42
SONA	138.65	179.21	9.527	53.776	39.998	4.250	3.610	13548	13.95	39.94
SONA	158.06	164.13	16.834	51.895	38.136	6.000	3.130	14481	14.04	48.66

CSAP	207.44	317.11	3.762	87.681	10.605	6.500	2.780	9447	14.14	15.55
CSAP	196.26	362.55	5.082	87.721	9.833	6.500	6.960	9036	14.35	10.64
CSAP	207.34	337.91	6.538	87.288	9.695	6.000	3.790	9113	14.51	11.24
CSAP	196.31	387.52	6.201	87.178	9.778	5.750	4.300	9718	14.74	6.47
CSAP	203.39	433.53	5.939	86.785	10.396	7.500	8.380	12889	14.95	4.99
CSAP	215.90	404.08	7.593	86.958	9.659	7.750	8.360	12440	15.01	8.76
CSAP	206.80	412.71	4.652	86.558	11.313	7.500	3.350	13795	15.07	5.94
CSAP	183.10	300.39	4.995	85.842	11.581	4.750	3.020	13436	15.26	15.14
CSAP	187.60	336.87	4.599	86.171	11.508	4.250	3.610	13548	15.45	9.78
CSAP	188.22	298.11	4.835	85.874	11.700	6.000	3.130	14481	15.57	13.54
HERO	235.08	305.42	10.326	75.774	20.394	6.500	2.780	9447	14.86	-16.66
HERO	245.33	272.10	11.142	76.688	19.165	6.500	6.960	9036	14.96	-11.76
HERO	240.67	261.54	11.844	76.067	19.642	6.000	3.790	9113	15.13	-10.32
HERO	199.18	318.31	9.062	76.812	18.990	5.750	4.300	9718	15.48	-20.11
HERO	153.39	144.86	10.601	76.077	17.348	7.500	8.380	12889	15.86	18.19
HERO	163.51	152.11	0.152	77.026	22.885	7.750	8.360	12440	15.93	5.97
HERO	178.45	154.24	-1.191	76.823	23.812	7.500	3.350	13795	15.90	6.82
HERO	182.69	137.18	2.578	73.896	24.755	4.750	3.020	13436	15.83	11.30
HERO	177.01	141.63	-3.672	73.588	28.343	4.250	3.610	13548	15.81	7.38
HERO	206.80	159.12	-21.809	71.516	38.144	6.000	3.130	14481	15.65	12.68
MPPA	97.35	304.58	6.961	65.409	29.685	6.500	2.780	9447	16.17	18.19
MPPA	80.92	147.87	0.782	78.152	21.217	6.500	6.960	9036	16.17	22.07
MPPA	86.42	181.37	3.124	82.516	15.639	6.000	3.790	9113	16.15	6.38
MPPA	132.13	213.88	5.339	82.540	14.581	5.750	4.300	9718	15.92	28.80
MPPA	181.06	199.68	11.199	84.145	10.916	7.500	8.380	12889	15.70	17.18
MPPA	233.22	204.56	13.747	82.676	12.088	7.750	8.360	12440	15.58	19.81
MPPA	221.30	226.77	4.944	83.082	14.989	7.500	3.350	13795	15.66	18.37
MPPA	201.85	275.82	3.118	83.041	15.650	4.750	3.020	13436	15.72	11.47
MPPA	231.48	462.20	-39.253	92.014	20.397	4.250	3.610	13548	15.51	-25.62
MPPA	222.36	418.41	-26.028	86.145	22.547	6.000	3.130	14481	15.39	-8.62

Lampiran 3. Hasil pengolahan Data pada STATA 15.0 untuk Variabel Dependen *Basic Earning Power (BEP)*

1. Hasil Pegolahan analisis Deskriptif

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

. summarize bepopcafa wcta tato flm size costexpcostsales operatingexposales sbi inflasi exchangerate
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Variable	Obs	Mean	Std. Dev.	Min	Max
bepopcafa	100	12.9093	19.30803	-39.25	74.68
wcta	100	16.7353	22.83324	-25.62	72.39
tato	100	182.3606	67.87163	40.52	369
flm	100	296.4614	276.3861	-375.86	1919.24
size	100	14.9618	1.191367	8.52	16.91
costexpcos-s	100	66.9618	16.70122	33.94	92.01
operatinge-s	100	26.4161	11.72999	9.66	65.08
sbi	100	6.25	1.106683	4.25	7.75
inflasi	100	4.768	2.131338	2.78	8.38
exchangerate	100	11.7903	2.089545	9.036	14.481

2. Hasil Analisis Model Generalised Least Squares

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. xtglm bepopcafa wcta tato flm size costexpcostsales operatingexposales sbi inflasi exchangerate
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Cross-sectional time-series FGLS regression

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

Estimated covariances = 1 Number of obs = 100
 Estimated autocorrelations = 0 Number of groups = 10
 Estimated coefficients = 10 Time periods = 10
 Wald chi2(9) = 2475.95
 Log likelihood = -275.0033 Prob > chi2 = 0.0000

bepopcafa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
wcta	-.1303471	.0220681	-5.91	0.000	-.1735997	-.0870945
tato	.0330282	.0082169	4.02	0.000	.0169233	.0491331
flm	.0010776	.0015947	0.68	0.499	-.002048	.0042032
size	.3069975	.3467796	0.89	0.376	-.3726781	.9866731
costexpcostsales	-2.395358	.0547217	-43.77	0.000	-2.50261	-2.288105
operatingexposales	-2.375234	.0824853	-28.80	0.000	-2.536903	-2.213566
sbi	.6304369	.431614	1.46	0.144	-.215511	1.476385
inflasi	-.1333324	.2271286	-0.59	0.557	-.5784963	.3118314
exchangerate	.4558642	.2034168	2.24	0.025	.0571747	.8545537
_cons	218.6176	8.048715	27.16	0.000	202.8424	234.3928

5. Hasil Uji Model Random Effect

. xtreg bepopcafa wcta tato flm size costexpcostsales operatingexposales sbi inflasi exchangerate, re

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Random-effects GLS regression      Number of obs   =      100
Group variable: firm              Number of groups =       10

R-sq:                             Obs per group:
    within = 0.8995                min =           10
    between = 0.9869                avg =          10.0
    overall = 0.9602                max =           10

                                Wald chi2(9)      =    1616.01
                                Prob > chi2         =     0.0000

corr(u_i, X) = 0 (assumed)
    
```

bepopcafa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
wcta	-.1007607	.0266918	-3.77	0.000	-.1530758	-.0484457
tato	.0385816	.0093837	4.11	0.000	.02019	.0569733
flm	.0006501	.0016671	0.39	0.697	-.0026173	.0039175
size	.4745929	.3977755	1.19	0.233	-.3050328	1.254219
costexpcostsales	-2.350244	.0639151	-36.77	0.000	-2.475516	-2.224973
operatingexposales	-2.30079	.0921352	-24.97	0.000	-2.481372	-2.120209
sbi	.6371116	.4344584	1.47	0.143	-.2144113	1.488635
inflasi	-.1117446	.2288935	-0.49	0.625	-.5603676	.3368783
exchangerate	.3403321	.2116305	1.61	0.108	-.0744561	.7551203
_cons	210.959	9.365596	22.52	0.000	192.6028	229.3153
sigma_u	1.019705					
sigma_e	3.4157534					
rho	.08182768	(fraction of variance due to u_i)				

6. Hasi Ujil Chow (Memilih antara *Pooled Least Square* atau *Fixed Effect*)

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. xtreg bepopcafa wcta tato flm size costexpcostsales operatingexposales sbi inflasi exchangerate, fe
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Fixed-effects (within) regression      Number of obs   =    100
Group variable: firm                  Number of groups =    10

R-sq:                                Obs per group:
    within = 0.9139                    min =          10
    between = 0.9442                   avg =         10.0
    overall = 0.9347                   max =          10

                                F(9,81)         =    95.56
corr(u_i, Xb) = 0.1755              Prob > F        =    0.0000
```

bepopcafa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
wcta	.024339	.0371686	0.65	0.514	-.0496148	.0982928
tato	.0481982	.0110449	4.36	0.000	.0262223	.0701742
flm	-.0003922	.0016359	-0.24	0.811	-.0036471	.0028626
size	1.127715	.4822767	2.34	0.022	.1681355	2.087294
costexpcostsales	-2.174514	.1228221	-17.70	0.000	-2.418891	-1.930136
operatingexposales	-2.092907	.101341	-20.65	0.000	-2.294544	-1.891271
sbi	.6960822	.3934579	1.77	0.081	-.0867755	1.47894
inflasi	-.0701445	.2071559	-0.34	0.736	-.4823199	.3420308
exchangerate	-.0475872	.2091196	-0.23	0.821	-.4636696	.3684951
_cons	184.397	12.47105	14.79	0.000	159.5835	209.2105
sigma_u	4.1007323					
sigma_e	3.4157534					
rho	.59037963	(fraction of variance due to u_i)				

F test that all u_i=0: F(9, 81) = 4.64 Prob > F = 0.0001

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

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. xttest0
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Breusch and Pagan Lagrangian multiplier test for random effects

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

Estimated results:

	Var	sd = sqrt(Var)
bepopcafa	372.8002	19.30803
e	11.66737	3.415753
u	1.039798	1.019705

Test: Var(u) = 0

chibar2(01) = 1.70
 Prob > chibar2 = 0.0961

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

. hausman fe re

	— Coefficients —			
	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
wcta	.024339	-.1007607	.1250997	.025866
tato	.0481982	.0385816	.0096166	.0058256
flm	-.0003922	.0006501	-.0010424	.
size	1.127715	.4745929	.6531219	.2727002
costexpcos~s	-2.174514	-2.350244	.1757307	.1048815
operatinge~s	-2.092907	-2.30079	.207883	.0422031
sbi	.6960822	.6371116	.0589706	.
inflasi	-.0701445	-.1117446	.0416001	.
exchangerate	-.0475872	.3403321	-.3879193	.

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(9) = (b-B)'[(V_b-V_B)^(-1)](b-B)
 = 3.81
 Prob>chi2 = 0.9235
 (V_b-V_B is not positive definite)

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

. corr bepopcfa wcta tato flm size costexpcostsales operatingexposales sbi inflasi exchangerate
 (obs=100)

	bepopc~a	wcta	tato	flm	size	costex~s	operat~s	sbi	inflasi	exchan~e
bepopcfa	1.0000									
wcta	0.0801	1.0000								
tato	-0.0282	-0.4930	1.0000							
flm	-0.1925	-0.3751	0.2506	1.0000						
size	-0.0690	-0.1273	0.1065	-0.1877	1.0000					
costexpcos~s	-0.6834	-0.2734	0.4977	0.2088	0.1396	1.0000				
operatinge~s	0.3009	0.1894	-0.5515	-0.0975	-0.1136	-0.8880	1.0000			
sbi	0.1109	-0.0133	0.0705	0.0439	-0.0286	0.0200	-0.0815	1.0000		
inflasi	0.1445	0.0107	0.0156	0.0198	0.0065	-0.0056	-0.0896	0.5999	1.0000	
exchangerate	-0.0536	0.1456	0.1415	-0.0114	0.1911	0.0114	0.0525	-0.0599	-0.0828	1.0000

. vif, uncentered

Variable	VIF	1/VIF
size	127.00	0.007874
costexpcos~s	59.22	0.016887
sbi	48.63	0.020564
exchangerate	41.24	0.024251
operatinge~s	21.06	0.047493
tato	16.07	0.062230
inflasi	9.79	0.102125
flm	2.89	0.345499
wcta	2.37	0.421568
Mean VIF	36.47	

10. Hasil Uji Heteroskedastisitas untuk Model Terpilih *Random Effect*
 (tidak perlu menguj lagi denga uji *Heteroskedastisiras*, karena sudah terdapat Multikolonieritas.)

11. Hasil Uji Auto Korelasi untuk Model Terpilih *Random Effect*
 (tidak perlu menguj lagi denga uji *Auto korelasi*, karena sudah terdapat Multikolonieritas.)

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

```
. xtgls bepopcafa wcta tato flm size costexpcostsales operatingexpoesales sbi inflasi exchangerate
```

Cross-sectional time-series FGLS regression

Coefficients: generalized least squares

Panels: homoskedastic

Correlation: no autocorrelation

```
Estimated covariances = 1          Number of obs = 100
Estimated autocorrelations = 0      Number of groups = 10
Estimated coefficients = 10         Time periods = 10
                                   Wald chi2(9) = 2475.95
Log likelihood = -275.0033          Prob > chi2 = 0.0000
```

bepopcafa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
wcta	-.1303471	.0220681	-5.91	0.000	-.1735997	-.0870945
tato	.0330282	.0082169	4.02	0.000	.0169233	.0491331
flm	.0010776	.0015947	0.68	0.499	-.002048	.0042032
size	.3069975	.3467796	0.89	0.376	-.3726781	.9866731
costexpcostsales	-2.395358	.0547217	-43.77	0.000	-2.50261	-2.288105
operatingexpoesales	-2.375234	.0824853	-28.80	0.000	-2.536903	-2.213566
sbi	.6304369	.431614	1.46	0.144	-.215511	1.476385
inflasi	-.1333324	.2271286	-0.59	0.557	-.5784963	.3118314
exchangerate	.4558642	.2034168	2.24	0.025	.0571747	.8545537
_cons	218.6176	8.048715	27.16	0.000	202.8424	234.3928

Lampiran 4. Hasil pengolahan Data pada STATA 15.0 untuk Variabel Dependen *Working Capital to Total Asset (WCTA)*

1. Hasil Pegolahan analisis Deskriptif

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

. summarize wcta bepopcafa tato flm size costexpcostsales operatingexposales sbi inflasi exchangerate
```

Variable	Obs	Mean	Std. Dev.	Min	Max
wcta	100	16.7353	22.83324	-25.62	72.39
bepopcafa	100	12.9093	19.30803	-39.25	74.68
tato	100	182.3606	67.87163	40.52	369
flm	100	296.4614	276.3861	-375.86	1919.24
size	100	14.9618	1.191367	8.52	16.91
costexpcos-s	100	66.9618	16.70122	33.94	92.01
operatinge-s	100	26.4161	11.72999	9.66	65.08
sbi	100	6.25	1.106683	4.25	7.75
inflasi	100	4.768	2.131338	2.78	8.38
exchangerate	100	11.7903	2.089545	9.036	14.481

2. Hasil Analisis Model Generalised Least Squares

```
. xtgls wcta bepopcafa tato flm size costsales oesales sbi inflasi exchangerate
```

Cross-sectional time-series FGLS regression

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

Estimated covariances = 1 Number of obs = 100
 Estimated autocorrelations = 0 Number of groups = 10
 Estimated coefficients = 10 Time periods = 10
 Wald chi2(9) = 136.65
 Log likelihood = -411.1435 Prob > chi2 = 0.0000

wcta	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
bepopcafa	-1.984268	.335941	-5.91	0.000	-2.6427 -1.325836
tato	-.0709139	.0338172	-2.10	0.036	-.1371943 -.0046335
flm	-.0123701	.0061124	-2.02	0.043	-.0243502 -.0003901
size	-1.827677	1.345956	-1.36	0.174	-4.465701 .8103477
costsales	-5.144272	.8089515	-6.36	0.000	-6.729788 -3.558756
oesales	-5.451891	.8155871	-6.68	0.000	-7.050412 -3.85337
sbi	1.572048	1.694604	0.93	0.354	-1.749316 4.893411
inflasi	-.3600552	.8869737	-0.41	0.685	-2.098492 1.378381
exchangerate	3.210569	.747301	4.30	0.000	1.745886 4.675252
_cons	528.8206	73.92741	7.15	0.000	383.9256 673.7157

3. Hasil Analisis Model *Common Effect*

. reg wcta bepopcafa tato flm size costsales oesales sbi inflasi exchangerate

Source	SS	df	MS	Number of obs	=	100
				F(9, 90)	=	13.66
Model	29803.4888	9	3311.49876	Prob > F	=	0.0000
Residual	21810.8503	90	242.342782	R-squared	=	0.5774
				Adj R-squared	=	0.5352
Total	51614.3392	99	521.356961	Root MSE	=	15.567

wcta	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bepopcafa	-1.984268	.3541129	-5.60	0.000	-2.687775	-1.280761
tato	-.0709139	.0356464	-1.99	0.050	-.1417318	-.0000961
flm	-.0123701	.006443	-1.92	0.058	-.0251703	.00043
size	-1.827677	1.418762	-1.29	0.201	-4.646295	.9909412
costsales	-5.144272	.8527097	-6.03	0.000	-6.838329	-3.450215
oesales	-5.451891	.8597043	-6.34	0.000	-7.159844	-3.743938
sbi	1.572048	1.78627	0.88	0.381	-1.976689	5.120785
inflasi	-.3600552	.9349523	-0.39	0.701	-2.217501	1.497391
exchangerate	3.210569	.7877244	4.08	0.000	1.645617	4.775521
_cons	528.8206	77.92633	6.79	0.000	374.0064	683.6349

. estimates store ols

4. Hasil Analisis Model *Fixed Effect*

. xtreg wcta bepopcafa tato flm size costsales oesales sbi inflasi exchangerate, fe

```

Fixed-effects (within) regression      Number of obs   =      100
Group variable: firm                  Number of groups =      10

R-sq:                                  Obs per group:
    within = 0.3282                    min =           10
    between = 0.1950                    avg =          10.0
    overall = 0.2214                    max =           10

corr(u_i, Xb) = -0.1882                F(9,81)         =       4.40
                                          Prob > F         =      0.0001
    
```

wcta	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bepopcafa	.216358	.3304047	0.65	0.514	-.4410436	.8737597
tato	-.0800573	.0354998	-2.26	0.027	-.1506908	-.0094238
flm	-.0083403	.0047903	-1.74	0.085	-.0178715	.0011909
size	-1.580844	1.475228	-1.07	0.287	-4.516084	1.354397
costsales	-.5109747	.8061054	-0.63	0.528	-2.114872	1.092922
oesales	-.2201411	.7559152	-0.29	0.772	-1.724175	1.283893
sbi	-.0414918	1.195536	-0.03	0.972	-2.420234	2.33725
inflasi	-.0301323	.6180639	-0.05	0.961	-1.259886	1.199621
exchangerate	2.33358	.5672384	4.11	0.000	1.204954	3.462207
_cons	67.58686	71.11767	0.95	0.345	-73.915	209.0887
sigma_u	19.134301					
sigma_e	10.184078					
rho	.77925226	(fraction of variance due to u_i)				

F test that all u_i=0: F(9, 81) = 14.37 Prob > F = 0.0000

5. Hasil Uji Model Random Effect

```
. estimates store fe
. xtreg wcta bepopcafa tato flm size costsales oesales sbi inflasi exchangerate, re

Random-effects GLS regression           Number of obs   =       100
Group variable: firm                   Number of groups =        10

R-sq:                                  Obs per group:
    within = 0.2772                      min =           10
    between = 0.6182                     avg =          10.0
    overall = 0.4903                     max =           10

Wald chi2(9) =          49.20
corr(u_i, X) = 0 (assumed)              Prob > chi2     =          0.0000
```

	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
bepopcafa	-.5068349	.3468944	-1.46	0.144	-1.186735	.1730656
tato	-.0958036	.0354809	-2.70	0.007	-.1653449	-.0262622
flm	-.0104801	.0052976	-1.98	0.048	-.0208633	-.0000969
size	-1.756767	1.468589	-1.20	0.232	-4.635149	1.121616
costsales	-1.757071	.8175876	-2.15	0.032	-3.359513	-.1546285
oesales	-1.906161	.8090999	-2.36	0.018	-3.491968	-.3203544
sbi	.4683223	1.366794	0.34	0.732	-2.210545	3.147189
inflasi	-.0866227	.7112049	-0.12	0.903	-1.480559	1.307313
exchangerate	2.685843	.6299029	4.26	0.000	1.451256	3.92043
_cons	203.9694	74.88946	2.72	0.006	57.18875	350.75
sigma_u	7.0347382					
sigma_e	10.184078					
rho	.32301945	(fraction of variance due to u_i)				

```
. estimates store re
```

6. Hasi Ujil Chow (Memilih antara Pooled Least Square atau Fixed Effect)

. xtreg wcta bepopcafa tato flm size costsales oesales sbi inflasi exchangerate, fe

```
Fixed-effects (within) regression      Number of obs   =    100
Group variable: firm                  Number of groups =    10

R-sq:                                Obs per group:
    within = 0.3282                    min =         10
    between = 0.1950                   avg =        10.0
    overall = 0.2214                   max =         10

corr(u_i, Xb) = -0.1882                F(9,81)         =     4.40
                                        Prob > F         =    0.0001
```

wcta	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bepopcafa	.216358	.3304047	0.65	0.514	-.4410436	.8737597
tato	-.0800573	.0354998	-2.26	0.027	-.1506908	-.0094238
flm	-.0083403	.0047903	-1.74	0.085	-.0178715	.0011909
size	-1.580844	1.475228	-1.07	0.287	-4.516084	1.354397
costsales	-.5109747	.8061054	-0.63	0.528	-2.114872	1.092922
oesales	-.2201411	.7559152	-0.29	0.772	-1.724175	1.283893
sbi	-.0414918	1.195536	-0.03	0.972	-2.420234	2.33725
inflasi	-.0301323	.6180639	-0.05	0.961	-1.259886	1.199621
exchangerate	2.33358	.5672384	4.11	0.000	1.204954	3.462207
_cons	67.58686	71.11767	0.95	0.345	-73.915	209.0887
sigma_u	19.134301					
sigma_e	10.184078					
rho	.77925226	(fraction of variance due to u_i)				

F test that all u_i=0: F(9, 81) = 14.37 Prob > F = 0.0000

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

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

$$wcta[firm,t] = Xb + u[firm] + e[firm,t]$$

Estimated results:

	Var	sd = sqrt(Var)
wcta	521.357	22.83324
e	103.7154	10.18408
u	49.48754	7.034738

Test: Var(u) = 0

chibar2(01) = 33.12
 Prob > chibar2 = 0.0000

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

. hausman fe re

	Coefficients			
	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
bepopcafa	.216358	-.5068349	.7231929	.
tato	-.0800573	-.0958036	.0157463	.0011578
flm	-.0083403	-.0104801	.0021397	.
size	-1.580844	-1.756767	.1759231	.1397941
costsales	-.5109747	-1.757071	1.246096	.
oesales	-.2201411	-1.906161	1.68602	.
sbi	-.0414918	.4683223	-.5098141	.
inflasi	-.0301323	-.0866227	.0564905	.
exchangerate	2.33358	2.685843	-.3522626	.

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

$$\begin{aligned} \text{chi2(9)} &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 677.93 \end{aligned}$$

Prob>chi2 = 0.0000

(V_b-V_B is not positive definite)

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

. corr wcta bepopc-a tato flm size costexpcos-sales operatingexposales sbi inflasi exchan-e
(obs=100)

	wcta	bepopc-a	tato	flm	size	costexpcos-sales	operatingexposales	sbi	inflasi	exchan-e
wcta	1.0000									
bepopc-a	0.0801	1.0000								
tato	-0.4930	-0.0282	1.0000							
flm	-0.3751	-0.1925	0.2506	1.0000						
size	-0.1273	-0.0690	0.1065	-0.1877	1.0000					
costexpcos-sales	-0.2734	-0.6834	0.4977	0.2088	0.1396	1.0000				
operatingexposales	0.1894	0.3009	-0.5515	-0.0975	-0.1136	-0.8880	1.0000			
sbi	-0.0133	0.1109	0.0705	0.0439	-0.0286	0.0200	-0.0815	1.0000		
inflasi	0.0107	0.1445	0.0156	0.0198	0.0065	-0.0056	-0.0896	0.5999	1.0000	
exchangerate	0.1456	-0.0536	0.1415	-0.0114	0.1911	0.0114	0.0525	-0.0599	-0.0828	1.0000

```
. vif, uncentered
```

Variable	VIF	1/VIF
size	186.72	0.005356
costsales	140.80	0.007102
sbi	53.02	0.018861
exchangerate	36.70	0.027249
oesales	25.97	0.038512
tato	15.57	0.064228
inflasi	9.79	0.102107
bepopcafa	4.38	0.228096
flm	2.69	0.372112
Mean VIF	52.85	

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 (10) = 277.43
Prob>chi2 = 0.0000

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

```
. xtserial wcta bepopcafa tato flm size costsales oesales sbi inflasi exchangerate
```

wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation

F(1, 9) = 4.662
Prob > F = 0.0592

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

```
. xtglm wcta bepopcafa tato flm size costsales oesales sbi inflasi exchangerate
```

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

```
Coefficients: generalized least squares
```

```
Panels: homoskedastic
```

```
Correlation: no autocorrelation
```

```
Estimated covariances = 1 Number of obs = 100
Estimated autocorrelations = 0 Number of groups = 10
Estimated coefficients = 10 Time periods = 10
Wald chi2(9) = 136.65
Log likelihood = -411.1435 Prob > chi2 = 0.0000
```

wcta	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
bepopcafa	-1.984268	.335941	-5.91	0.000	-2.6427	-1.325836
tato	-.0709139	.0338172	-2.10	0.036	-.1371943	-.0046335
flm	-.0123701	.0061124	-2.02	0.043	-.0243502	-.0003901
size	-1.827677	1.345956	-1.36	0.174	-4.465701	.8103477
costsales	-5.144272	.8089515	-6.36	0.000	-6.729788	-3.558756
oesales	-5.451891	.8155871	-6.68	0.000	-7.050412	-3.85337
sbi	1.572048	1.694604	0.93	0.354	-1.749316	4.893411
inflasi	-.3600552	.8869737	-0.41	0.685	-2.098492	1.378381
exchangerate	3.210569	.747301	4.30	0.000	1.745886	4.675252
_cons	528.8206	73.92741	7.15	0.000	383.9256	673.7157