

## LAMPIRAN

### LAMPIRAN 1 : Daftar populasi perusahaan Sub sektor otomotif dan Komponen yang terdaftar di Bursa Efek Indonesia 2016-2020.

NO.	Kode Emiten	Daftar Kriteria		
		1(*)	2(**)	3(***)
1.	ASII	✓	✓	✓
2.	AUTO	✓	✓	✓
3.	BOLT	✓	✓	✓
4.	BRAM	✓	✗	✓
5.	GDYR	✓	✗	✗
6.	GJTL	✓	✓	✓
7.	INDS	✓	✓	✓
8.	LPIN	✓	✓	✗
9.	MASA	✓	✗	✓
10.	NIPS	✓	✓	✗
11.	IMAS	✓	✓	✓
12.	PRAS	✓	✓	✓
13.	SMSM	✓	✓	✓

#### Keterangan kriteria sampel:

1. (\*) Perusahaan Sub sektor Otomotif dan Komponen yang terdaftar di BEI periode penelitian 2016-2020 berturut turut berdasarkan data saham.com
2. (\*\*) Perusahaan Sub sektor Otomotif dan Komponen yang annual reportnya dalam satuan rupiah bukan mata uang asing pada periode penelitian 2016-2020.
2. (\*\*\*)Sub sektor Otomotif dan Komponen yang memiliki data laporan keuangan lengkap berdasarkan perhitungan variabel penelitian yaitu struktur

modal, likuiditas, pertumbuhan penjualan dan ukuran perusahaan pada periode penelitian 2016-2020.

### LAMPIRAN 2 : Daftar Perusahaan yang menjadi sampel

No.	Nama Emiten	Nama Perusahaan
1.	ASII	Astra Internatioanl Tbk
2.	AUTO	Astra Ostoparts Tbk
3.	BOLT	Garuda Metalindo Tbk
4.	GJTL	Gajah Tunggal Tbk
5.	INDS	Indospring Tbk
6.	IMAS	Indomobil Sukses Internatioanl Tbk
7.	PRAS	Prima Alloy Steel Universal Tbk
8.	SMSM	Selamat Sempurna Tbk

### LAMPIRAN 3 : Perhitungan kinerja keuangan *Return On assets(ROA)*

NO	KODE	TAHUN	LABA BERSIH	TOTAL ASET	ROA
1.	ASII	2016	18,302	261,855	6.989364
		2017	23,121	295,830	7.815637
		2018	27,,372	344,711	7.940565
		2019	26,625	351,958	7.563687
		2020	18,571	338,203	5.491081
2.	AUTO	2016	483,421	14,612,274	3.308321
		2017	551,406	14,762,309	3.735229
		2018	680,801	15,889,648	4.284557
		2019	816,971	16,015,709	5.10106
		2020	-37,864	15,180,094	-0.24943
3.	BOLT	2016	108,483,415,987	938,141,687,362	11.56365
		2017	93,225,253,756	1,188,798,795,362	7.841971
		2018	75,738,099,614	1,312,376,999,120	5.771063
		2019	51,492,605,525	1,265,912,330,625	4.067628
		2020	-57,388,292,245	1,119,076,870,425	-5.12818
4.	GJTL	2016	626,561	18,697,779	3.350992
		2017	45,028	18,191,176	0.247527
		2018	-74,557	19,711,478	-0.37824

		2019	269,107	18,856,075	1.427163
		2020	320,376	17,781,660	1.801722
5.	INDS	2016	49,556,367,334	2,477,272,502,538	2.000441
		2017	113,639,539,901	2,434,617,337,849	4.667655
		2018	110,686,883,366	2,482,337,567,967	4.458978
		2019	101,465,560,351	2,834,422,741,208	3.579761
		2020	58,751,009,229	2,826,260,084,696	2.078755
6.	IMAS	2016	-312,881,005,784	25,633,342,258,679	-1.2206
		2017	-59,777,940,857	31,440,443,615,533	-0.19013
		2018	98,774,620,340	40,955,996,273,862	0.241173
		2019	155,830,717,982	44,697,971,458,665	0.34863
		2020	-675,710,445,502	48,408,700,495,082	-1.39585
7.	PRAS	2016	-2,690,964,318	1,596,466,547,662	-0.16856
		2017	-3,226,268,273	1,542,243,721,302	-0.20919
		2018	8,159,520,050	1,635,543,021,515	22.73068
		2019	-43,624,116,829	1,657,127,269,798	22.61707
		2020	-4,948,479,351	1,668,922,580,521	-0.29651
8.	SMSM	2016	502,192	2,254,740	22.27272
		2017	555,388	2,443,341	22.73068
		2018	633,550	2,801,203	22.61707
		2019	638,676	3,106,981	20.55616
		2020	539,116	3,375,526	15.97132

#### LAMPIRAN 4 : Perhitungan Struktur Modal (DER)

NO.	KODE	TAHUN	TOTAL LIABILITAS	TOTAL EKUITAS	DER
1.	ASII	2016	121,949	139,906	0.871649536
		2017	139,317	156,505	0.890176033
		2018	170,348	174,363	0.976973326
		2019	139,325	186,763	0.74599894
		2020	142,749	195,454	0.730345759
2.	AUTO	2016	4,075,716	10,536,558	0.386816644
		2017	4,003,233	10,759,076	0.372079628
		2018	4,626,013	11,263,635	0.410703383
		2019	4,365,175	11,650,534	0.374675959
		2020	3,909,303	11,270,791	0.346852586
3.	BOLT	2016	123,816,707,010	814,324,980,352	0.152048273
		2017	468,122,101,794	720,676,693,568	0.649559096

		2018	574,341,524,938	738,035,474,182	0.778203142
		2019	504,884,505,918	761,027,824,707	0.663424502
		2020	419,042,779,063	700,034,091,362	0.598603388
4.	GJTL	2016	12,849,602	5,848,177	2.197197862
		2017	12,501,710	5,689,466.00	2.197343301
		2018	13,835,648	5,875,830	2.354671255
		2019	12,620,444	6,235,631	2.023924123
		2020	10,926,513	6,855,147	1.593913741
5.	INDS	2016	409,208,624,907	2,068,063,877,631	0.197870399
		2017	289,798,419,319	2,144,818,918,530	0.135115565
		2018	288,105,732,114	2,194,231,835	131.3014092
		2019	262,135,613,148	2,572,287,128,060	0.101907602
		2020	262,519,771,935	2,563,740,312,761	0.102397178
6.	IMAS	2016	18,923,523,905,726	6,709,818,352,953	2.820273651
		2017	22,149,722,400,577	9,290,721,214,956	2.384069211
		2018	30,632,253,308,636	10,323,742,965,226	2.967165437
		2019	35,289,833,838,956	9,408,137,619,709	3.750990394
		2020	35,692,364,334,428	12,716,336,160,654	2.806811953
7.	PRAS	2016	903,464,665,102	693,001,882,560	1.303697274
		2017	865,838,417,894	675,405,303,408	1.281953834
		2018	947,413,833,530	688,129,187,984	1.376796465
		2019	1,011,402,296,453	645,724,973,345	1.566305065
		2020	1,149,071,273,337	519,851,307,184	2.210384503
8.	SMSM	2016	674,475	1,580,055	0.426868052
		2017	615,157	1,828,184	0.336485277
		2018	650,926	2,150,277	0.302717278
		2019	664,678	2,442,303	0.272152145
		2020	727,016	2,648,510	0.274500002

#### LAMPIRAN 5 : Perhitungan Likuiditas (*Current Ratio*)

NO.	KODE	TAHUN	Aktiva lancar	Hutang Lancar	Current ratio
1.	ASII	2016	110,403	89,079	1.23938302
		2017	121,528	98,722	1.231012338
		2018	131,180	116,467	1.126327629
		2019	129,058	99,962	1.291070607
		2020	132,308	85,736	1.543202389
2.	AUTO	2016	4,903,902	3,258,146	1.505120397
		2017	5,228,541	3,041,502	1.719065449

		2018	6,013,683	4,066,699	1.478762751
		2019	5,544,549	3,438,999	1.612256648
		2020	5,153,633	2,775,650	1.856730135
3.	BOLT	2016	495,059,194,797	64,455,224,010	7.680668284
		2017	540,253,003,059	352,222,592,938	1.533839719
		2018	633,450,427,483	540,253,003,059	1.172506999
		2019	588,364,013,036	293,371,404,511	2.005526115
		2020	468,643,906,952	291,939,087,063	1.605279758
4.	GJTL	2016	7,517,152	4,434,805	1.69503552
		2017	7,168,378	4,397,957	1.629933626
		2018	8,673,407	5,797,360	1.496095982
		2019	8,097,861	5,420,942	1.49381067
		2020	7,624,956	4,749,681	1.605361707
5.	INDS	2016	981,694,103,645	323,699,362,103	3.032734131
		2017	1,044,177,985,635	203,724,817,070	5.125433419
		2018	1,134,664,034,610	217,729,909,744	5.211337459
		2019	959,368,453,499	164,608,081,444	5.828197772
		2020	1,001,966,532,378	162,477,563,520	6.166799346
6.	IMAS	2016	11,673,284,260,270	12,594,693,691,894	0.926841458
		2017	13,266,572,774,739	15,821,001,840,441	0.838541889
		2018	16,377,048,870,513	21,333,832,691,448	0.767656197
		2019	16,510,005,076,111	21,306,840,214,446	0.77486877
		2020	18,108,746,875,857	23,959,545,959,761	0.755805094
7.	PRAS	2016	687,016,688,458	682,161,682,936	1.007117089
		2017	622,231,971,388	650,095,154,148	0.957139839
		2018	639,455,076,770	776,997,095,215	0.822982583
		2019	545,073,353,346	906,030,161,468	0.60160619
		2020	478,672,990,906	201,156,971,704	2.379599309
8.	SMSM	2016	1,454,387	508,482	2.860252674
		2017	1,570,110	419,913	3.739131677
		2018	1,853,782	470,116	3.943243795
		2019	2,138,324	461,192	4.636515811
		2020	2,294,976	398,392	5.760597602

**LAMPIRAN 6 : Perhitungan Pertumbuhan Penjualan (Sales Growth)**

No.	Kode	Tahun	penjualan t(tahun sekarang)	penjualan tahun lalu	Salest Growth
1.	ASII	2016	181,084	184,196	-0.01689505
		2017	206,057	181,084	0.137908374
		2018	239,205	206,057	0.160868109
		2019	237,166	239,205	-0.00852407
		2020	175,046	237,166	-0.26192625
2.	AUTO	2016	12,806,867	11,723,787	0.092383118
		2017	13,549,857	12,806,867	0.05801497
		2018	15,356,381	13,549,857	0.133324211
		2019	15,444,775	15,356,381	0.005756174
		2020	11,869,221	15,444,775	-0.23150574
3.	BOLT	2016	888,942,483,043	858,650,225,152	0.035278926
		2017	1,047,701,082,078	888,942,483,043	0.178592656
		2018	1,187,195,058,022	1,047,701,082,078	0.133142915
		2019	1,206,818,443,326	1,187,195,058,022	0.016529201
		2020	788,873,091,221	1,206,818,443,326	-0.34631999
4.	GJTL	2016	13,633,556	12,970,237	0.051141625
		2017	14,146,918	13,633,556	0.037654299
		2018	15,349,939	14,146,918	0.085037674
		2019	15,939,421	15,349,939	0.038402889
		2020	13,434,592	15,939,421	-0.1571468
5.	INDS	2016	1,637,036,790,119	1,659,505,639,261	-0.01353948
		2017	1,967,982,902,772	1,637,036,790,119	0.202161683
		2018	2,400,062,227,790	1,967,982,902,772	0.21955441
		2019	2,091,491,715,532	2,400,062,227,790	-0.12856771
		2020	1,626,190,564,290	2,091,491,715,532	-0.22247334
6.	IMAS	2016	15,049,532,331,662	18,099,979,783,215	-0.1685332
		2017	15,417,255,791,983	15,049,532,331,662	0.024434212
		2018	17,544,709,521,983	15,417,255,791,983	0.137991726
		2019	18,615,129,696,492	17,544,709,521,983	0.061010994
		2020	15,230,426,162,673	18,615,129,696,492	-0.18182541
7.	PRAS	2016	366,709,612,329	469,645,085,826	-0.21917715
		2017	348,471,154,143	366,709,612,329	-0.04973542
		2018	574,869,742,811	348,471,154,143	0.649691046

		2019	340,551,346,399	574,869,742,811	-0.40760259
		2020	300,527,048,812	340,551,346,399	-0.11752794
8.	SMSM	2016	2,879,876	2,802,924	0.027454187
		2017	3,339,964	2,879,876	0.159759656
		2018	3,933,353	3,339,964	0.177663292
		2019	3,935,811	3,933,353	0.000624912
		2020	3,233,693	3,935,811	-0.1783922

**LAMPIRAN 7 : Perhitungan Ukuran perusahaan (Ln Aset)**

NO	KODE	TAHUN	total asset	LN (Total Aset)
1.	ASII	2016	261,855	12.48
		2017	295,830	12.6
		2018	344,711	12.75
		2019	351,958	12.77
		2020	338,203	12.73
2.	AUTO	2016	14,612,274	16.5
		2017	14,762,309	16.51
		2018	15,889,648	16.58
		2019	16,015,709	16.59
		2020	15,180,094	16.54
3.	BOLT	2016	938,141,687,362	27.57
		2017	1,188,798,795,362	27.8
		2018	1,312,376,999,120	27.9
		2019	1,265,912,330,625	27.87
		2020	1,119,076,870,425	27.74
4.	GJTL	2016	18,697,779	16.74
		2017	18,191,176	16.72
		2018	19,711,478	16.8
		2019	18,856,075	16.75
		2020	17,781,660	16.69
5.	INDS	2016	2,477,272,502,538	28.54
		2017	2,434,617,337,849	28.52
		2018	2,482,337,567,967	28.54
		2019	2,834,422,741,208	28.67

		2020	2,826,260,084,696	28.67
6.	IMAS	2016	25,633,342,258,679	30.87
		2017	31,440,443,615,533	31.08
		2018	40,955,996,273,862	31.34
		2019	44,697,971,458,665	31.43
		2020	48,408,700,495,082	31.51
7.	PRAS	2016	1,596,466,547,662	28.1
		2017	1,542,243,721,302	28.06
		2018	1,635,543,021,515	28.12
		2019	1,657,127,269,798	28.14
		2020	1,668,922,580,521	28.14
8.	SMSM	2016	2,254,740	14.63
		2017	2,443,341	14.71
		2018	2,801,203	14.85
		2019	3,106,981	14.95
		2020	3,375,526	15.03

### LAMPIRAN 8 : Analisis Statistika Deskriptif

Date: 03/08/22

Time: 22:01

Sample: 2016 2020

	Y	X1	X2	X3	X4
Mean	6.149250	4.380250	2.313750	0.005250	22.06325
Median	3.905000	0.760000	1.535000	0.030000	22.18500
Maximum	22.73000	131.3000	7.680000	0.650000	31.51000
Minimum	-5.120000	0.100000	0.600000	-0.410000	12.48000
Std. Dev.	7.846106	20.60483	1.814149	0.189182	7.121650
Skewness	1.155081	6.064012	1.398321	0.434841	-0.023648
Kurtosis	3.166938	37.86015	3.828748	5.031879	1.208090
Jarque-Bera	8.941191	2270.532	14.18004	8.141463	5.355295
Probability	0.011441	0.000000	0.000833	0.017065	0.068725
Sum	245.9700	175.2100	92.55000	0.210000	882.5300
Sum Sq. Dev.	2400.894	16557.80	128.3543	1.395798	1977.998



Observations            40            40            40            40            40

## LAMPIRAN 9: Pemilihan Model Regresi Data Panel

### 1. Uji Chow

Redundant Fixed Effects Tests  
Equation: Untitled  
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.231559	(7,28)	0.0002
Cross-section Chi-square	37.567302	7	0.0000

Cross-section fixed effects test equation:

Dependent Variable: Y

Method: Panel Least Squares

Date: 03/08/22 Time: 22:04

Sample: 2016 2020

Periods included: 5

Cross-sections included: 8

Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	10.01468	3.932796	2.546454	0.0154
X1	-0.053442	0.057593	-0.927928	0.3598
X2	1.455367	0.632503	2.300965	0.0275
X3	12.68638	6.048056	2.097597	0.0432
X4	-0.320230	0.159875	-2.002997	0.0530
R-squared	0.293976	Mean dependent var		6.149250
Adjusted R-squared	0.213287	S.D. dependent var		7.846106
S.E. of regression	6.959248	Akaike info criterion		6.834489
Sum squared resid	1695.090	Schwarz criterion		7.045599
Log likelihood	-131.6898	Hannan-Quinn criter.		6.910819
F-statistic	3.643338	Durbin-Watson stat		1.006477
Prob(F-statistic)	0.013894			

## 2. Uji Hausman

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.139104	4	0.1890

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
X1	-0.015058	-0.021064	0.000048	0.3880
X2	0.455712	0.850237	0.158458	0.3216
X3	12.021468	12.349417	0.198263	0.4614
X4	-1.569054	-0.331744	42.744628	0.8499

Cross-section random effects test equation:

Dependent Variable: Y

Method: Panel Least Squares

Date: 03/08/22 Time: 22:06

Sample: 2016 2020

Periods included: 5

Cross-sections included: 8

Total panel (balanced) observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	39.71612	144.5210	0.274812	0.7855
X1	-0.015058	0.042425	-0.354932	0.7253
X2	0.455712	0.750038	0.607585	0.5484
X3	12.02147	4.293557	2.799885	0.0092
X4	-1.569054	6.542686	-0.239818	0.8122

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.723982	Mean dependent var	6.149250
Adjusted R-squared	0.615546	S.D. dependent var	7.846106
S.E. of regression	4.864928	Akaike info criterion	6.245306
Sum squared resid	662.6908	Schwarz criterion	6.751970
Log likelihood	-112.9061	Hannan-Quinn criter.	6.428500

F-statistic	6.676594	Durbin-Watson stat	2.207164
Prob(F-statistic)	0.000024		

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### 3. Uji Lagrange Multiplier

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided  
(all others) alternatives

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	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	17.42425 (0.0000)	0.579044 (0.4467)	18.00329 (0.0000)
Honda	4.174236 (0.0000)	-0.760949 --	2.413558 (0.0079)
King-Wu	4.174236 (0.0000)	-0.760949 --	1.910132 (0.0281)
Standardized Honda	5.296975 (0.0000)	-0.423097 --	0.378055 (0.3527)
Standardized King- Wu	5.296975 (0.0000)	-0.423097 --	-0.166468 --
Gourierioux, et al.*	--	--	17.42425 (< 0.01)

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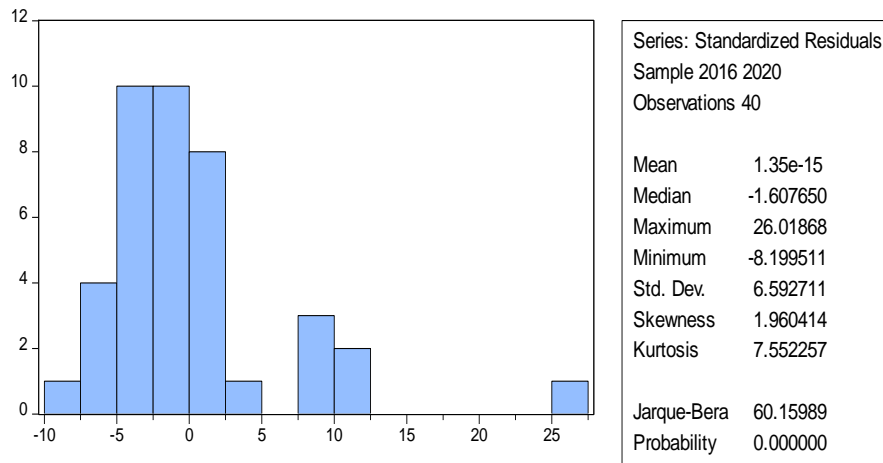
\*Mixed chi-square asymptotic critical values:

1%	7.289
5%	4.321
10%	2.952

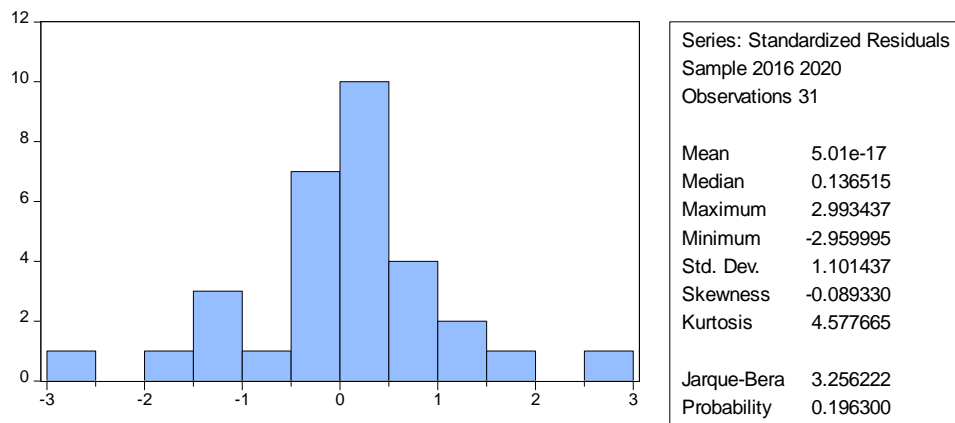
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## LAMPIRAN 10 :Uji Asumsi Klasik

### 1. Uji Normalitas



### 2. Normalitas Dengan Logaritma



### 3. Uji Multikolinieritas

Variance Inflation Factors

Date: 03/08/22 Time: 22:14

Sample: 1 40

Included observations: 40

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Variable	Coefficient Variance	Uncentered VIF	Centered VIF
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C	15.46688	12.77433	NA
X1	0.003317	1.186569	1.134007
X2	0.400060	2.829117	1.060257
X3	36.57898	1.055048	1.054215
X4	0.025560	11.32020	1.043911

#### 4. Uji Heterokedasitas

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.397137	Prob. F(4,35)	0.8093
Obs*R-squared	1.736662	Prob. Chi-Square(4)	0.7840
Scaled explained SS	4.356045	Prob. Chi-Square(4)	0.3600

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 03/08/22 Time: 22:15

Sample: 1 40

Included observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	47.43582	64.09507	0.740085	0.4642
X1	-0.058621	0.938625	-0.062454	0.9506
X2	-5.922923	10.30827	-0.574580	0.5693
X3	-102.9119	98.56870	-1.044063	0.3036
X4	0.427981	2.605580	0.164256	0.8705

R-squared	0.043417	Mean dependent var	42.37725
Adjusted R-squared	-0.065907	S.D. dependent var	109.8565
S.E. of regression	113.4189	Akaike info criterion	12.41652
Sum squared resid	450235.0	Schwarz criterion	12.62763
Log likelihood	-243.3305	Hannan-Quinn criter.	12.49285
F-statistic	0.397137	Durbin-Watson stat	1.490298
Prob(F-statistic)	0.809302		

## 5. Uji Autokorelasi

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	7.545015	Prob. F(2,33)	0.0020
Obs*R-squared	12.55148	Prob. Chi-Square(2)	0.0019

Test Equation:

Dependent Variable: RESID

Method: Least Squares

Date: 03/08/22 Time: 22:17

Sample: 1 40

Included observations: 40

Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.299326	3.394777	-0.088173	0.9303
X1	0.027222	0.049684	0.547894	0.5875
X2	-0.399224	0.551871	-0.723401	0.4745
X3	2.528673	5.248160	0.481821	0.6331
X4	0.055896	0.140620	0.397496	0.6936
RESID(-1)	0.391959	0.171394	2.286891	0.0287
RESID(-2)	0.295289	0.177462	1.663956	0.1056
R-squared	0.313787	Mean dependent var		4.44E-16
Adjusted R-squared	0.189021	S.D. dependent var		6.592711
S.E. of regression	5.937024	Akaike info criterion		6.557921
Sum squared resid	1163.193	Schwarz criterion		6.853475
Log likelihood	-124.1584	Hannan-Quinn criter.		6.664784
F-statistic	2.515005	Durbin-Watson stat		2.255986
Prob(F-statistic)	0.040837			

**LAMPIRAN 11 : Regresi Data Panel Menggunakan *Random Effects Model (REM)***

Dependent Variable: Y

Method: Panel EGLS (Cross-section random effects)

Date: 03/08/22 Time: 22:07

Sample: 2016 2020

Periods included: 5

Cross-sections included: 8

Total panel (balanced) observations: 40

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.52879	5.925255	1.945704	0.0598
X1	-0.021064	0.041850	-0.503308	0.6179
X2	0.850237	0.635688	1.337505	0.1897
X3	12.34942	4.270406	2.891860	0.0065
X4	-0.331744	0.249213	-1.331167	0.1917

Effects Specification

	S.D.	Rho
Cross-section random	4.431580	0.4535
Idiosyncratic random	4.864928	0.5465

Weighted Statistics

R-squared	0.239064	Mean dependent var	2.709969
Adjusted R-squared	0.152100	S.D. dependent var	5.442342
S.E. of regression	5.011389	Sum squared resid	878.9908
F-statistic	2.748999	Durbin-Watson stat	1.729564
Prob(F-statistic)	0.043473		

Unweighted Statistics

R-squared	0.272999	Mean dependent var	6.149250
Sum squared resid	1745.453	Durbin-Watson stat	0.870989