

LAMPIRAN

Lampiran 1 Data penelitian

Tahun	Provinsi	PMA (Juta\$)	PMDN (MiliarRp)	K (Rupiah)	BP (JutaRp)	JP (Jiwa)
2010	ACEH	4,6	40,9	482705	8810803761	4523144
2011	ACEH	22,5	259,4	586484	8917046360	4619033
2012	ACEH	172,3	60,2	607061	10688983657	4715108
2013	ACEH	94,2	3636,4	654962	11784687222	4811133
2014	ACEH	31,1	5110,3	787814	13005649	4906835
2015	ACEH	21,2	4192,4	811452	12611106	5001953
2016	ACEH	134,5	2456,1	921416	12653241	5096248
2017	ACEH	23,2	782,8	986137	14733700	5189466
2018	ACEH	71,2	970	973817	15335355	5281314
2019	ACEH	137,5	3606,9	1040886	18709340	5371532
2020	ACEH	51,1	8241,1	1080171	17288018	5274871
2021	ACEH	203,3	7904,7	1144396	16752054	5333733
2010	SUMATERA UTARA	181,1	662,7	499693	4232169602	13028663
2011	SUMATERA UTARA	753,7	1673	562818	5363366625	13220936
2012	SUMATERA UTARA	645,3	2550,3	621947	7922705447	13408202
2013	SUMATERA UTARA	887,5	5068,9	684863	8866922253	13590250
2014	SUMATERA UTARA	550,8	4223,9	742617	7823455	13766851
2015	SUMATERA UTARA	1246,1	4287,4	844396	8495657	13937797
2016	SUMATERA UTARA	1014,7	4864,2	890632	10976895	14102911
2017	SUMATERA UTARA	1514,9	11683,6	982632	13112684	14262147
2018	SUMATERA UTARA	1227,6	8371,8	1001709	13544555	14415391
2019	SUMATERA UTARA	379,5	19749	1077177	14060766	14562549
2020	SUMATERA UTARA	974,8	18189,5	1124253	13252957	14703532
2021	SUMATERA UTARA	580,4	18484,5	1165364	13956499	14936148
2010	SUMATERA BARAT	7,9	73,8	531874	2594858704	4865331
2011	SUMATERA BARAT	22,9	1026,2	627183	2406382408	4933112
2012	SUMATERA BARAT	75	885,3	722418	3283832423	5000184
2013	SUMATERA BARAT	91,4	677,8	803393	3431714129	5066476
2014	SUMATERA BARAT	112,1	421,1	881949	3876115	5131882
2015	SUMATERA BARAT	57,1	1552,5	946588	4326354	5196289
2016	SUMATERA BARAT	79,3	3795,6	1032424	4876172	5259528
2017	SUMATERA BARAT	194,4	1517	1099142	6245977	5321489
2018	SUMATERA BARAT	180,8	2309,4	1148630	6822712	5382077

2019	SUMATERA BARAT	157,1	3026,6	1228025	6954112	5441197
2020	SUMATERA BARAT	125,6	3106,2	1235050	6701552	5534472
2021	SUMATERA BARAT	67	4183,7	1299399	6800124	5580232
2010	RIAU	86,6	1037,1	598012	4461432658	5574928
2011	RIAU	212,3	7462,6	722680	5861960938	5726241
2012	RIAU	1152,9	5450,4	867191	8753996299	5879109
2013	RIAU	1304,9	4874,3	897081	8432096315	6033268
2014	RIAU	1369,5	7707,6	1039598	9583497	6188442
2015	RIAU	653,4	9943	1079104	10892856	6344402
2016	RIAU	869,1	6613,7	1120873	10075133	6500971
2017	RIAU	1061,1	10829,8	1175946	11008150	6657911
2018	RIAU	1032,9	9056,4	1187772	8537823	6814909
2019	RIAU	1034	26292,2	1267693	8771690	6971745
2020	RIAU	1078	34117,8	1340446	8704391	6394087
2021	RIAU	1921,4	24997,8	1370402	9132749	6493603
2010	JAMBI	37,2	223,3	476495	1841390735	3107610
2011	JAMBI	19,5	2134,9	642156	2432067298	3167578
2012	JAMBI	156,3	1445,7	665277	3287095365	3227096
2013	JAMBI	34,3	2799,6	695126	2652826852	3286070
2014	JAMBI	51,4	908	764329	3679159	3344421
2015	JAMBI	107,7	3540,2	887006	3604245	3402052
2016	JAMBI	61	3884,4	929578	3381885	3458926
2017	JAMBI	76,8	3006,6	1017042	4342309	3515017
2018	JAMBI	101,9	2876,5	1052421	4869537	3570272
2019	JAMBI	54,6	4437,4	1133704	5244690	3624579
2020	JAMBI	27	3511,7	1126690	4820948	3677894
2021	JAMBI	50,9	6204,2	1209140	4534149	3570202
2010	SUMATERA SELATAN	186,3	1738,4	453722	3539410239	7450394
2011	SUMATERA SELATAN	557,3	1068,9	592690	4354299788	7598529
2012	SUMATERA SELATAN	786,4	2930,6	621010	5701059866	7714326
2013	SUMATERA SELATAN	485,9	3396	656507	6064031666	7828740
2014	SUMATERA SELATAN	1056,5	7042,8	741227	6247547	7941495
2015	SUMATERA SELATAN	645,8	10944,1	820995	6030394	8052315
2016	SUMATERA SELATAN	2793,5	8534,1	889872	6627642	8160901
2017	SUMATERA SELATAN	1182,9	8200,2	973999	8612020	8266983
2018	SUMATERA SELATAN	1078,6	9519,8	970078	9182301	8391489
2019	SUMATERA SELATAN	736,5	16921,1	995047	9953601	8497196
2020	SUMATERA SELATAN	1543,9	15824,5	1022030	9753498	8467432
2021	SUMATERA SELATAN	1259,7	16266,9	1085190	10831506	8550849

2010	BENGKULU	25,1	8,5	477749	1011430779	1715518
2011	BENGKULU	43,1	41,4	575045	1206660964	1742080
2012	BENGKULU	30,4	52,6	611101	1759864866	1766794
2013	BENGKULU	22,3	109,6	679441	1771513693	1814357
2014	BENGKULU	19,3	7,8	760907	2196415	1884788
2015	BENGKULU	20,6	553,9	908899	2436204	1874944
2016	BENGKULU	55,7	949,1	959385	2491651	1904793
2017	BENGKULU	138,7	296,5	1035474	3362958	1934269
2018	BENGKULU	136,6	4902,8	1107778	3202896	1963300
2019	BENGKULU	144,8	5458,1	1105497	3147376	1991838
2020	BENGKULU	192,3	5399,2	1140075	2816001	2010670
2021	BENGKULU	23,7	4923,5	1202285	3067274	2032767
2010	LAMPUNG	30,7	272,3	411603	2170713197	7634005
2011	LAMPUNG	79,5	824,4	472103	2689172531	7735914
2012	LAMPUNG	114,3	304,2	547454	3859692967	7835308
2013	LAMPUNG	46,8	1325,3	606158	4410729851	7932132
2014	LAMPUNG	156,5	3495,7	644459	4567673	8026191
2015	LAMPUNG	257,7	1102,3	781809	4898783	8117268
2016	LAMPUNG	85,7	6031,8	851367	5691235	8205141
2017	LAMPUNG	120,6	7014,8	900552	6807928	8289577
2018	LAMPUNG	132,3	12314,7	922638	7633026	8370485
2019	LAMPUNG	155,2	2428,9	962213	7481835	8447737
2020	LAMPUNG	498,4	7120,5	974424	7355451	9007848
2021	LAMPUNG	173,8	10513,2	1202285	7652495	9081792
2010	KEP.BANGKA BELITUNG	22	0,4	661834	1112154849	1230227
2011	KEP.BANGKA BELITUNG	146	514,4	873012	1433929598	1258234
2012	KEP.BANGKA BELITUNG	59,2	533,5	899590	1627060944	1286551
2013	KEP.BANGKA BELITUNG	112,4	608,2	992909	1919258655	1315123
2014	KEP.BANGKA BELITUNG	105	615,5	1092418	1921560	1343881
2015	KEP.BANGKA BELITUNG	82,7	1023,7	1200723	2212653	1372813
2016	KEP.BANGKA BELITUNG	52,7	2202	1269618	2287560	1401827
2017	KEP.BANGKA BELITUNG	153,1	1734,7	1421624	2671123	1430865
2018	KEP.BANGKA BELITUNG	46,3	3112,9	1419495	2666617	1459873
2019	KEP.BANGKA BELITUNG	88,7	2915,2	1498094	2996476	1488792
2020	KEP.BANGKA BELITUNG	48,4	1863,8	1501844	2624707	1517590
2021	KEP.BANGKA BELITUNG	44,7	3677,4	1588103	3108627	1455678
2010	KEP.RIAU	165,7	166,9	681998	2095763572	1692816
2011	KEP.RIAU	219,7	1370,4	990788	2251884454	1748810
2012	KEP.RIAU	537,1	43,5	1052377	2764149408	1805089

2013	KEP.RIAU	315,7	417,7	1192276	2670464786	1861373
2014	KEP.RIAU	392,1	28,5	1674557	3457710	1917415
2015	KEP.RIAU	640,4	612,1	1447805	2649778	1973043
2016	KEP.RIAU	519,1	492,5	1599023	2852614	2028169
2017	KEP.RIAU	1031,5	1398	1670865	3360898	2082694
2018	KEP.RIAU	831,3	4386	1574392	3499838	2136521
2019	KEP.RIAU	1363,4	5656,4	1729824	4046212	2189653
2020	KEP.RIAU	1649,4	14249	1773521	3919807	2064564
2021	KEP.RIAU	1043,7	9768,7	1954610	3986943	2175675

Lampiran 2 Hasil Estimasi PMA

Hasil Common Effect Model

Dependent Variable: PMA
Method: Panel Least Squares
Date: 03/23/23 Time: 13:04
Sample: 2010 2021
Periods included: 12
Cross-sections included: 10
Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-851.0541	182.7453	-4.657050	0.0000
K	0.000828	0.000145	5.717259	0.0000
BP	2.85E-08	1.71E-08	1.665240	0.0986
JP	7.52E-05	1.07E-05	6.999896	0.0000
Root MSE	407.4543	R-squared		0.362170
Mean dependent var	411.1342	Adjusted R-squared		0.345674
S.D. dependent var	512.3226	S.E. of regression		414.4198
Akaike info criterion	14.92440	Sum squared resid		19922278
Schwarz criterion	15.01732	Log likelihood		-891.4641
Hannan-Quinn criter.	14.96213	F-statistic		21.95553
Durbin-Watson stat	0.848415	Prob(F-statistic)		0.000000

Hasil Fixed Effect Model

Dependent Variable: PMA
 Method: Panel Least Squares
 Date: 03/23/23 Time: 13:04
 Sample: 2010 2021
 Periods included: 12
 Cross-sections included: 10
 Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-851.1698	749.3438	-1.135887	0.2585
K	0.000422	0.000183	2.301368	0.0233
BP	6.72E-09	1.57E-08	0.427948	0.6695
JP	0.000152	0.000151	1.007001	0.3162

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	286.8259	R-squared	0.683929
Mean dependent var	411.1342	Adjusted R-squared	0.648482
S.D. dependent var	512.3226	S.E. of regression	303.7506
Akaike info criterion	14.37229	Sum squared resid	9872295.
Schwarz criterion	14.67427	Log likelihood	-849.3377
Hannan-Quinn criter.	14.49493	F-statistic	19.29433
Durbin-Watson stat	1.678110	Prob(F-statistic)	0.000000

Hasil Random Effect Model

Dependent Variable: PMA
Method: Panel EGLS (Cross-section random effects)
Date: 03/23/23 Time: 13:08
Sample: 2010 2021
Periods included: 12
Cross-sections included: 10
Total panel (balanced) observations: 120
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-500.9095	240.3332	-2.084229	0.0393
K	0.000522	0.000138	3.775525	0.0003
BP	6.06E-09	1.43E-08	0.423244	0.6729
JP	7.15E-05	2.89E-05	2.475504	0.0147
Effects Specification				
			S.D.	Rho
Cross-section random			336.6118	0.5512
Idiosyncratic random			303.7506	0.4488
Weighted Statistics				
Root MSE	297.0925	R-squared		0.203447
Mean dependent var	103.6392	Adjusted R-squared		0.182847
S.D. dependent var	334.2732	S.E. of regression		302.1714
Sum squared resid	10591676	F-statistic		9.875831
Durbin-Watson stat	1.569845	Prob(F-statistic)		0.000008
Unweighted Statistics				
R-squared	0.337023	Mean dependent var		411.1342
Sum squared resid	20707741	Durbin-Watson stat		0.802950

Lampiran 3 Hasil Pemilihan Model Terbaik PMA

Uji Chow

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

Effects Test	Statistic	d.f.	Prob.
Cross-section F	12.102874	(9,107)	0.0000
Cross-section Chi-square	84.252755	9	0.0000

Cross-section fixed effects test equation:
Dependent Variable: PM \\\nMethod: Panel Least Squares
Date: 03/26/23 Time: 16:02
Sample: 2010 2021
Periods included: 12
Cross-sections included: 10
Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-851.0541	182.7453	-4.657050	0.0000
K	0.000828	0.000145	5.717259	0.0000
BP	2.85E-08	1.71E-08	1.665240	0.0986
JP	7.52E-05	1.07E-05	6.999896	0.0000
Root MSE	407.4543	R-squared		0.362170
Mean dependent var	411.1342	Adjusted R-squared		0.345674
S.D. dependent var	512.3226	S.E. of regression		414.4198
Akaike info criterion	14.92440	Sum squared resid		19922278
Schwarz criterion	15.01732	Log likelihood		-891.4641
Hannan-Quinn criter.	14.96213	F-statistic		21.95553
Durbin-Watson stat	0.848415	Prob(F-statistic)		0.000000

Uji Hausman

Correlated Random Effects - Hausman Test

Equation: REMPMA

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.796955	3	0.6156

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
K	0.000422	0.000522	0.000000	0.4065
BP	0.000000	0.000000	0.000000	0.9189
JP	0.000152	0.000071	0.000000	0.5869

Cross-section random effects test equation:

Dependent Variable: PMA

Method: Panel Least Squares

Date: 03/26/23 Time: 16:05

Sample: 2010 2021

Periods included: 12

Cross-sections included: 10

Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-851.1698	749.3438	-1.135887	0.2585
K	0.000422	0.000183	2.301368	0.0233
BP	6.72E-09	1.57E-08	0.427948	0.6695
JP	0.000152	0.000151	1.007001	0.3162

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	286.8259	R-squared	0.683929
Mean dependent var	411.1342	Adjusted R-squared	0.648482
S.D. dependent var	512.3226	S.E. of regression	303.7506
Akaike info criterion	14.37229	Sum squared resid	9872295.
Schwarz criterion	14.67427	Log likelihood	-849.3377
Hannan-Quinn criter.	14.49493	F-statistic	19.29433
Durbin-Watson stat	1.678110	Prob(F-statistic)	0.000000

Uji Langrange Multiplier

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

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

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	120.5966 (0.0000)	2.283791 (0.1307)	122.8804 (0.0000)
Honda	10.98165 (0.0000)	-1.511222 (0.9346)	6.696603 (0.0000)
King-Wu	10.98165 (0.0000)	-1.511222 (0.9346)	7.130450 (0.0000)
Standardized Honda	13.13504 (0.0000)	-1.239787 (0.8925)	4.409089 (0.0000)
Standardized King-Wu	13.13504 (0.0000)	-1.239787 (0.8925)	4.938866 (0.0000)
Gourieroux, et al.	--	--	120.5966 (0.0000)

Lampiran 4 Hasil Estimasi PMDN

Hasil Common Effect Model

Dependent Variable: PMDN
Method: Panel Least Squares
Date: 03/23/23 Time: 13:08
Sample: 2010 2021
Periods included: 12
Cross-sections included: 10
Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-7856.218	2029.021	-3.871926	0.0002
K	0.008284	0.001609	5.150209	0.0000
BP	-1.97E-07	1.90E-07	-1.037524	0.3016
JP	0.000885	0.000119	7.420803	0.0000
Root MSE	4523.964	R-squared		0.404818
Mean dependent var	4818.586	Adjusted R-squared		0.389425
S.D. dependent var	5888.590	S.E. of regression		4601.303
Akaike info criterion	19.73883	Sum squared resid		2.46E+09
Schwarz criterion	19.83175	Log likelihood		-1180.330
Hannan-Quinn criter.	19.77657	F-statistic		26.29943
Durbin-Watson stat	0.540006	Prob(F-statistic)		0.000000

Hasil Fixed Effect Model

Dependent Variable: PMDN
 Method: Panel Least Squares
 Date: 03/23/23 Time: 13:09
 Sample: 2010 2021
 Periods included: 12
 Cross-sections included: 10
 Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-40529.30	8821.475	-4.594390	0.0000
K	0.004666	0.002158	2.161764	0.0329
BP	2.06E-08	1.85E-07	0.111247	0.9116
JP	0.007352	0.001776	4.138648	0.0001

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	3376.591	R-squared	0.668435
Mean dependent var	4818.586	Adjusted R-squared	0.631250
S.D. dependent var	5888.590	S.E. of regression	3575.833
Akaike info criterion	19.30379	Sum squared resid	1.37E+09
Schwarz criterion	19.60577	Log likelihood	-1145.227
Hannan-Quinn criter.	19.42642	F-statistic	17.97600
Durbin-Watson stat	1.002095	Prob(F-statistic)	0.000000

Hasil Random Effect Model

Dependent Variable: PMDN
Method: Panel EGLS (Cross-section random effects)
Date: 03/23/23 Time: 13:10
Sample: 2010 2021
Periods included: 12
Cross-sections included: 10
Total panel (balanced) observations: 120
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9803.898	2481.446	-3.950880	0.0001
K	0.009387	0.001595	5.885185	0.0000
BP	-2.34E-07	1.67E-07	-1.402970	0.1633
JP	0.001053	0.000265	3.969996	0.0001
Effects Specification				
			S.D.	Rho
Cross-section random			2983.930	0.4105
Idiosyncratic random			3575.833	0.5895
Weighted Statistics				
Root MSE	3689.408	R-squared		0.424781
Mean dependent var	1575.332	Adjusted R-squared		0.409905
S.D. dependent var	4884.918	S.E. of regression		3752.479
Sum squared resid	1.63E+09	F-statistic		28.55412
Durbin-Watson stat	0.822677	Prob(F-statistic)		0.000000
Unweighted Statistics				
R-squared	0.392898	Mean dependent var		4818.586
Sum squared resid	2.51E+09	Durbin-Watson stat		0.536405

Lampiran 5 Hasil Pemilihan Model Terbaik PMDN

Uji Chow PMDN

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

Effects Test	Statistic	d.f.	Prob.
Cross-section F	9.452495	(9,107)	0.0000
Cross-section Chi-square	70.205262	9	0.0000

Cross-section fixed effects test equation:
Dependent Variable: PMDN
Method: Panel Least Squares
Date: 03/26/23 Time: 16:10
Sample: 2010 2021
Periods included: 12
Cross-sections included: 10
Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-7856.218	2029.021	-3.871926	0.0002
K	0.008284	0.001609	5.150209	0.0000
BP	-1.97E-07	1.90E-07	-1.037524	0.3016
JP	0.000885	0.000119	7.420803	0.0000
Root MSE	4523.964	R-squared		0.404818
Mean dependent var	4818.586	Adjusted R-squared		0.389425
S.D. dependent var	5888.590	S.E. of regression		4601.303
Akaike info criterion	19.73883	Sum squared resid		2.46E+09
Schwarz criterion	19.83175	Log likelihood		-1180.330
Hannan-Quinn criter.	19.77657	F-statistic		26.29943
Durbin-Watson stat	0.540006	Prob(F-statistic)		0.000000

Uji Hausman PMDN

Correlated Random Effects - Hausman Test

Equation: REMPMDN

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	14.743899	3	0.0020

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
K	0.004666	0.009387	0.000002	0.0012
BP	0.000000	-0.000000	0.000000	0.0012
JP	0.007352	0.001053	0.000003	0.0003

Cross-section random effects test equation:

Dependent Variable: PMDN

Method: Panel Least Squares

Date: 03/26/23 Time: 16:10

Sample: 2010 2021

Periods included: 12

Cross-sections included: 10

Total panel (balanced) observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-40529.30	8821.475	-4.594390	0.0000
K	0.004666	0.002158	2.161764	0.0329
BP	2.06E-08	1.85E-07	0.111247	0.9116
JP	0.007352	0.001776	4.138648	0.0001

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	3376.591	R-squared	0.668435
Mean dependent var	4818.586	Adjusted R-squared	0.631250
S.D. dependent var	5888.590	S.E. of regression	3575.833
Akaike info criterion	19.30379	Sum squared resid	1.37E+09
Schwarz criterion	19.60577	Log likelihood	-1145.227
Hannan-Quinn criter.	19.42642	F-statistic	17.97600
Durbin-Watson stat	1.002095	Prob(F-statistic)	0.000000

UJI Langrange Multiplier

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

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

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	62.52433 (0.0000)	0.905527 (0.3413)	63.42986 (0.0000)
Honda	7.907233 (0.0000)	0.951592 (0.1707)	6.264135 (0.0000)
King-Wu	7.907233 (0.0000)	0.951592 (0.1707)	6.502508 (0.0000)
Standardized Honda	9.625510 (0.0000)	1.431638 (0.0761)	3.913944 (0.0000)
Standardized King-Wu	9.625510 (0.0000)	1.431638 (0.0761)	4.218073 (0.0000)
Gourieroux, et al.	--	--	63.42986 (0.0000)