

### DAFTAR PUSTAKA

- Ahmad, N. A. (2019). *Estimasi Parameter Model Regresi Data Panel Menggunakan Metode Least Square Dummy Variable*. Universitas Hasanuddin.
- Ania, S. A. (2020). Analisis Data Panel Tidak Lengkap Model Komponen Galat Dua Arah Dengan Metode Restricted Maximum Likelihood. Makassar: Universitas Hasanuddin.
- Astuti, R.D. (2010). *Analisis Data Panel Tidak Lengkap Model Komponen Error Dua Arah dengan Metode Minimum Variance Quadratic Unbiased Estimation ( MIVQUE ) (Studi Kasus Model Return Saham Di BEJ)*. Semarang : Universitas Diponegoro.
- Azizah, A., Sirojuzilam, S., & Amalia Fachrudin, K. A. (2022). Analysis of the Effect of Regional Original Income and Fund Transfers on City Government Economic Growth in North Sumatra Province. *International Journal of Science, Technology & Management*, 3(4), 901–906.
- Baltagi, B. H. (2005). *Econometric Analysis of Panel Data Third Edition*. New Delhi: John Willey and Sons, Ltd .
- Baltagi, B. H., & Chang, Y. J. (1994). A comparative Study of Alternative Estimators for The Unbalanced One-Way Error Component Regression Model. *Journal of Econometrics*, 62(2), 67–89.
- Endri, E., Rinaldi, M., Arifian, D., Saing, B., & Aminudin, A. (2021). Oil Price and Stock Return: Evidence of Mining Companies in Indonesia. *International Journal of Energy Economics and Policy*, 11(2), 110–114.
- Ghozi, S., & Hermansyah, H. (2018). Analisis Regresi Data Panel Profitabilitas Bank Pembangunan Daerah (BPD) di Indonesia. *Jurnal Matematika*, 8(1), 1-12.
- Gujarati,D.N. (2003). *Basic Econometrics*.,New York:McGraw- Hill/Irwin.
- Humaira, U. H., & Nugraha, J. (2018). Analysis of Factors Affecting the Human Development Index in West Kalimantan Province using Data Panel Data Regression. *EKSAKTA: Journal of Sciences and Data Analysis*, 97–105.
- Ilham, R. N., Arliansyah, A., Juanda , R., Sinta I., Multazam, M., & Syahputri, L. (2022). Application Of Good Corporate Governance Principles In Improving

- Benefits Of State-Owned Enterprises (An Emperical Evidence From Indonesian Stock Exchange At Moment Of Covid-19). *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAS)*, 2(5), 761–772.
- Irman, M., Purwati, A. A., & Juliyanti. (2020). Analysis On The Influence Of Current Ratio, Debt to Equity Ratio and Total Asset Turnover Toward Return On Assets On The Otomotive and Component Company That Has Been Registered In Indonesia Stock Exchange Within 2011-2017. *International Journal of Economics Development Research (IJEDR)*, 1(1), 36–44.
- Isabona, J. (2019). Maximum Likelihood Parameter Based Estimation For In-Depth Prognosis Investigation Of Stochastic Field Strength Data. *BIU Journal of Basic and Applied Sciences*, 4(1), 127-136.
- Jacob, C.A., Sumarjaya, I.W ., & Susilawati,M (2014). Analisis Model Regresi Data Panel Tidak Lengkap Komponen Galat Dua Arah dengan Penduga Feasible Generalized Least Square ( FGLS ). *Jurnal Matematika*, 22-38.
- Januardin, J., Wulandari, S., Simatupang, I., Meliana, I. A., & Alfarisi, M. (2020). Pengaruh DER, NPM, dan PER terhadap Return Saham pada Perusahaan Sektor Property and Real Estate di Bursa Efek Indonesia. *Owner: Riset Dan Jurnal Akuntansi*, 4(2), 423-432.
- Johnson, R A., & Wichern, D. W. (1998). *Applied Multivariate Statistical Analysis Sixth Edition*. New Jersey: Prentice-Hall.
- Kencana, D. T. (2021). Pengaruh Manajemen Laba Terhadap Return Saham Dengan Variabel Kontrol Return on Equity Pada Perusahaan Manufaktur Dalam Bursa Efek Indonesia. *TECHNOBIZ: International Journal of Business*, 4(2), 74-85.
- Khatun, N. (2021). Applications of Normality Test in Statistical Analysis. *Open Journal of Statistics*, 11(01), 113–122.
- Magfirah, A.I., & Tinungki, G. M. (2022). Estimasi Parameter Model Regresi Data Panel Efek Tetap dengan Metode First Difference. *Estimasi: Journal of Statistics and Its Application*.

- Mistry, P., & Bora, G. (2019). Development Of Yield Forecast Model Using Multiple Regression Analysis And Study Of The Impact Of Climatic Parameters On SpringWheat. *International Journal of Agricultural and Biological Engineering*, 12(4), 110–115.
- Moon, H. R., & Perron, B. (2006). Seemingly unrelated regressions. *The new palgrave dictionary of economic*, 1(9).
- Nariswari, T. N., & Nugraha, N. M. (2020). Profit Growth : Impact of Net Profit Margin, Gross Profit Margin and Total Assests Turnover. *International Journal of Finance & Banking Studies (2147-4486)*, 9(4), 87–96.
- Ngaini, N. (2012). *Etimasi Parameter Model Regresi Linear Pada Data Yang Mengandung Outlier Dengan Metode Maximum Likelihood Estimation*. Universitas Islam Negeri Maulana Malik Ibrahim.
- Oktarina, D. (2018). The Analysis Of Firm Value In Indonesia Property And Real Estate Companies. *International Journal of Research Science & Management*, 5(9), 85–92.
- Pakpahan, E., Sinaga, A. N., & Permana, J. (2019). Pengaruh Capital Structure, Liquidty, Earning Per Share Dan Profitabilty Terhadap Nilai Perusahaan Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Tahun 2014-2017. *Akrab Juara: Jurnal Ilmu-ilmu Sosial*, 4(2), 61-73.
- Purwaningsih, S. S., Habinuddin, E., & Sartika, E. (2013). Model Regresi Data Panel Dalam Reksadana Dengan Indeks Harga Saham Gabungan (Ihsg) Untuk Investasi Jangka Panjang. *SIGMA-Mu*, 5(1), 1–21.
- Putri, A. A. (2012). *Analisis Pengaruh ROA, EPS, NPM, DER dan PBV Terhadap Return Saham (Studi Kasus pada Industri Real Estate and Property yang Terdaftar di Bursa Efek Indonesia periode 2007-2009)*. Semarang: Universitas Diponegoro.
- Rahayu, T. (2021). *Pemodelan Regresi Data Panel Dengan Pendekatan Model Efek Umum Menggunakan Metode Kuadrat Terkecil Pada Laju Inflasi Di Sulawesi*. Makassar: Universitas Hasanuddin.
- Ramadhani, F. H., & Pustikahningsih, A. (2017). Pengaruh Debt To Equity Ratio (DER), Return On Equity (ROE), dan Net Profit Margin (NPM) Terhadap Harga Saham Perusahaan Sektor Pertambangan Yang Terdaftar Di Bursa Efek

- Indonesia Periode 2011-2015. *Jurnal Profita: Kajian Ilmu Akuntansi*, 5(8).
- Rao, C. R. (1971). Minimum variance quadratic unbiased estimation of variance components. *Journal of Multivariate Analysis*, 1(4), 445–456.
- Riyanti, A. N. (2018). *Analisis Regresi Data Panel Pada Pengaruh Faktor Fundamental Terhadap Harga Saham Di Jakarta Islamic Index (JII)*. Yogyakarta: Universitas Islam Indonesia.
- Shrestha, N. (2020). Detecting Multicollinearity in Regression Analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39–42.
- Sitorus, Y. M., & Yuliana, L. (2018). Penerapan Regresi Data Panel Pada Analisis Pengaruh Infrastruktur Terhadap Produktifitas Ekonomi Provinsi-Provinsi Di Luar Pulau Jawa Tahun 2010-2014. *Media Statistika*, 11(1), 1–15.
- Srihardianti, M., Mustafid, & Prahutama, A. (2016). Metode Regresi Data Panel Untuk Peramalan Konsumsi Energi Di Indonesia. *Jurnal Gaussian*, 5(3), 475–485.
- Uyanto, S. S. (2020). Power Comparisons of Five Most Commonly Used Autocorrelation Tests. *Pakistan Journal of Statistics and Operation Research*, 16(1), 119–130.
- Wahdaniyah, J. (2022). *Pemodelan Regresi Unbalanced Panel Data Dengan Metode Feasible Generalized Least Square Pada Perusahaan Manufaktur Di Bursa Efek Indonesia*. Makassar: Universitas Hasanuddin.
- Wansbeek, T., & Kapteyn, A. (1989). Estimation of the Error Components Model with Incomplete Panels. *Journal of Econometrics*, 41(3), 341–361.
- Weisberg, S. (2005). *Applied linear regression*. Canada: John Wiley & Sons.
- Yanto E., Christy, I., & Cakranegara, P. A. (2021). The Influences of Return on Asset, Return on Equity, Net Profit Margin, Debt Equity Ratio and Current Ratio Toward Stock Price. *International Journal of Science, Technology & Management*, 2(1), 300–312.
- Yuliyana, D. (2018). *Penerapan Analisis Regresi Data Panel Tidak Lengkap Komponen Galat Satu Arah (Studi Kasus Pengaruh Jumlah Penduduk, Angka Melek Huruf, Dan Tingkat Pengangguran Terbuka Terhadap Persentase Penduduk Miskin Menurut Kabupaten/Kota Di Provinsi Jambi Pada Tahun 2008-2015)*. Malang: Universitas Brawijaya.

# LAMPIRAN

**Lampiran 1.** Data *Return Saham* Perusahaan di BEI tahun 2017-2021

No	Kode Saham	Nama Perusahaan	Tahun	Return Saham	Debt to Equity Ratio	Net Profit Margin
1	AISA	Tiga Pilar Sejahtera	2017	-0.7553	15.600	-0.1721
			2018	-	-	-
			2019	0.6905	0.0156	0.1120
			2020	0.6904	-0.0254	-0.0835
			2021	-0.2676	0.0131	0.0117
2	CINT	PT Chitose Internasional Tbk	2017	0.057	0.2500	0.0793
			2018	-0.1497	0.28	0.0488
			2019	-	-	-
			2020	-	-	-
			2021	-	-	-
3	DLTA	Delta Djakarta Tbk	2017	-0.0820	0.1700	0.3599
			2018	0.1983	0.1900	0.3709
			2019	0.2180	0.0020	0.4860
			2020	-0.3529	0.0023	0.2700
			2021	-0.1477	0.0033	0.0040
4	DVLA	Darya-Varia Laboratoria Tbk	2017	0.1168	0.4700	0.1030
			2018	-0.0102	0.4100	0.1319
			2019	0.1545	0.0043	0.1680
			2020	0.0755	0.0041	0.1530
			2021	0.1363	0.0045	0.0018
5	INDF	Indofood Sukses Makmur Tbk	2017	-0.0379	0.8800	0.0733
			2018	-0.0230	0.9800	0.0654
			2019	-	-	-
			2020	-	-	-
			2021	0.1018	0.0107	0.0011
6	KICI	Kedaung Indah Can Tbk	2017	0.4250	0.6300	0.0701
			2018	0.6608	0.6800	-0.0036
			2019	0.3030	0.0064	-0.0471
			2020	0.0495	0.0083	-0.0322
			2021	0.3584	0.0070	0.0018
7	KINO	PT Kino Indonesia Tbk	2017	-0.3003	0.5800	0.0347
			2018	0.3208	0.6600	0.0405
			2019	0.2723	0.0076	0.1710
			2020	-0.2069	0.0093	0.0693
			2021	-0.2536	0.0102	0.0001

**Lampiran 1.** Data *Return Saham* Perusahaan di BEI tahun 2017-2021 (lanjutan)

No	Kode Saham	Nama Perusahaan	Tahun	Return Saham	Debt to Equity Ratio	Net Profit Margin
8	LMPI	Langgeng Makmur Industri Tbk	2017	0.237	12.200	-0.0757
			2018	-0.1377	13.700	-0.0970
			2019	-0.2957	0.0149	-0.0995
			2020	-0.0449	0.0173	-0.1090
			2021			
9	MBTO	Martina Berto Tbk	2017	-0.2703	0.8914	-0.0338
			2018	-0.0667	0.9000	-0.1627
			2019	-0.1746	0.0121	-0.0948
			2020	0.0106	0.0242	-0.4800
			2021	0.5368	0.0091	-0.0127
10	PYFA	Pyridam Farma Tbk	2017	-0.0850	0.4700	0.0320
			2018	0.0328	0.6600	0.0232
			2019	-0.0858	0.0056	0.0355
			2020			
			2021	0.0410	0.0243	0.0005

**Lampiran 2.** Uji Multikolinearitas**Coefficients**

<b>Term</b>	<b>Coef</b>	<b>SE Coef</b>	<b>T-Value</b>	<b>P-Value</b>	<b>VIF</b>
Constant	0.0694	0.0497	1.40	0.171	
X1	-0.0227	0.0132	-1.72	0.094	1.08
X2	0.126	0.299	0.42	0.675	1.08



## Lampiran 3 Uji Heterokedastisitas

Kode	ei	sum(ei)	sum(ei)^2	ei^2	sum(ei^2)
AISA	-0.4489	0.4513	0.20366	0.20153	1.08291
AISA	0.6073			0.36887	
AISA	0.6310			0.39817	
AISA	-0.3381			0.11434	
CINT	-0.0167	-0.2356	0.05550	0.00028	0.04818
CINT	-0.2189			0.04790	
DLTA	-0.1930	-0.6930	0.48029	0.03723	0.30784
DLTA	0.0864			0.00747	
DLTA	0.0873			0.00762	
DLTA	-0.4563			0.20821	
DLTA	-0.2175			0.04730	
DVLA	0.0451	0.0759	0.00576	0.00203	0.01832
DVLA	-0.0869			0.00755	
DVLA	0.0640			0.00410	
DVLA	-0.0131			0.00017	
DVLA	0.0668			0.00446	
INDF	-0.0965	-0.1424	0.02027	0.00932	0.01652
INDF	-0.0784			0.00614	
INDF	0.0325			0.00106	
KICI	0.3611	1.4815	2.19483	0.13038	0.64044
KICI	0.6073			0.36884	
KICI	0.2397			0.05747	
KICI	-0.0156			0.00024	
KICI	0.2890			0.08350	
KINO	-0.3609	-0.5256	0.27627	0.13024	0.41674
KINO	0.2613			0.06828	
KINO	0.1815			0.03295	
KINO	-0.2848			0.08111	
KINO	-0.3227			0.10416	
LMPI	0.4540	0.1179	0.01389	0.20616	0.35367
LMPI	0.1161			0.01347	
LMPI	-0.3522			0.12402	
LMPI	-0.1001			0.01002	
MBTO	-0.3152	-0.1703	0.02901	0.09933	0.38226
MBTO	-0.0951			0.00904	
MBTO	-0.2317			0.05369	
MBTO	0.0024			0.00001	
MBTO	0.4692			0.22019	

**Lampiran 3** Uji Heterokedastisitas (lanjutan)

<b>Kode</b>	<b>ei</b>	<b>sum(ei)</b>	<b>sum(ei)^2</b>	<b>ei^2</b>	<b>sum(ei^2)</b>
PYFA	-0.1477	-0.3596	0.12934	0.02183	0.04865
PYFA	-0.0245			0.00060	
PYFA	-0.1595			0.02545	
PYFA	-0.0279			0.00078	
<b>Jumlah</b>			<b>3.40883</b>		<b>3.31554</b>
<b>LM</b>			<b>0.0042</b>		

## Lampiran 4. Uji Autokorelasi

et	et-(et-1)	(et-(et-1))^2	(et)^2
-0.4489			0.20153
0.6073	1.0563	1.11571	0.36887
0.6310	0.0237	0.00056	0.39817
-0.3381	-0.9691	0.93925	0.11434
-0.0167	0.3214	0.10332	0.00028
-0.2189	-0.2022	0.04087	0.04790
-0.1930	0.0259	0.00067	0.03723
0.0864	0.2794	0.07804	0.00747
0.0873	0.0009	0.00000	0.00762
-0.4563	-0.5436	0.29552	0.20821
-0.2175	0.2388	0.05703	0.04730
0.0451	0.2626	0.06895	0.00203
-0.0869	-0.1320	0.01743	0.00755
0.0640	0.1509	0.02278	0.00410
-0.0131	-0.0771	0.00595	0.00017
0.0668	0.0799	0.00638	0.00446
-0.0965	-0.1634	0.02669	0.00932
-0.0784	0.0182	0.00033	0.00614
0.0325	0.1109	0.01230	0.00106
0.3611	0.3285	0.10794	0.13038
0.6073	0.2462	0.06063	0.36884
0.2397	-0.3676	0.13512	0.05747
-0.0156	-0.2553	0.06520	0.00024
0.2890	0.3046	0.09277	0.08350
-0.3609	-0.6499	0.42231	0.13024
0.2613	0.6222	0.38711	0.06828
0.1815	-0.0798	0.00637	0.03295
-0.2848	-0.4663	0.21745	0.08111
-0.3227	-0.0379	0.00144	0.10416
0.4540	0.7768	0.60341	0.20616
0.1161	-0.3380	0.11422	0.01347
-0.3522	-0.4682	0.21925	0.12402
-0.1001	0.2521	0.06353	0.01002
-0.3152	-0.2151	0.04625	0.09933
-0.0951	0.2201	0.04843	0.00904
-0.2317	-0.1366	0.01867	0.05369

**Lampiran 4.** Uji Autokorelasi (lanjutan)

<b>et</b>	<b>et-(et-1)</b>	<b>(et-(et-1))^2</b>	<b>(et)^2</b>
0.0024	0.2341	0.05481	0.00001
0.4692	0.4668	0.21795	0.22019
-0.1477	-0.6170	0.38067	0.02183
-0.0245	0.1232	0.01518	0.00060
-0.1595	-0.1350	0.01823	0.02545
-0.0279	0.1316	0.01733	0.00078
<b>Total</b>		6.10606	3.31554
<b>Durbin Watson</b>		1.8416	
<b>dL</b>		1.4073	
<b>dU</b>		1.6061	

Lampiran 5. Tabel Durbin Watson

**Tabel Durbin-Watson (DW)**  
 **$\alpha = 5\%$**

n	k=1		k=2		k=3		k=4		k=5	
	dL	dU	dL	dU	dL	dU	dL	dU	dL	dU
6	0.6102	1.4002								
7	0.6996	1.3564	0.4672	1.8964						
8	0.7629	1.3324	0.5591	1.7771	0.3674	2.2866				
9	0.8243	1.3199	0.6291	1.6993	0.4548	2.1282	0.2957	2.5881		
10	0.8791	1.3197	0.6972	1.6413	0.5253	2.0163	0.3760	2.4137	0.2427	2.8217
11	0.9273	1.3241	0.7580	1.6044	0.5948	1.9280	0.4441	2.2833	0.3155	2.6446
12	0.9708	1.3314	0.8122	1.5794	0.6577	1.8640	0.5120	2.1766	0.3796	2.5061
13	1.0097	1.3404	0.8612	1.5621	0.7147	1.8159	0.5745	2.0943	0.4445	2.3897
14	1.0450	1.3503	0.9054	1.5507	0.7667	1.7788	0.6321	2.0296	0.5052	2.2959
15	1.0770	1.3605	0.9455	1.5432	0.8140	1.7501	0.6852	1.9774	0.5620	2.2198
16	1.1062	1.3709	0.9820	1.5386	0.8572	1.7277	0.7340	1.9351	0.6150	2.1567
17	1.1330	1.3812	1.0154	1.5361	0.8968	1.7101	0.7790	1.9005	0.6641	2.1041
18	1.1576	1.3913	1.0461	1.5353	0.9331	1.6961	0.8204	1.8719	0.7098	2.0600
19	1.1804	1.4012	1.0743	1.5355	0.9666	1.6851	0.8588	1.8482	0.7523	2.0226
20	1.2015	1.4107	1.1004	1.5367	0.9976	1.6763	0.8943	1.8283	0.7918	1.9908
21	1.2212	1.4200	1.1246	1.5385	1.0262	1.6694	0.9272	1.8116	0.8286	1.9635
22	1.2395	1.4289	1.1471	1.5408	1.0529	1.6640	0.9578	1.7974	0.8629	1.9400
23	1.2567	1.4375	1.1682	1.5435	1.0778	1.6597	0.9864	1.7855	0.8949	1.9196
24	1.2728	1.4458	1.1878	1.5464	1.1010	1.6565	1.0131	1.7753	0.9249	1.9018
25	1.2879	1.4537	1.2063	1.5495	1.1228	1.6540	1.0381	1.7666	0.9530	1.8863
26	1.3022	1.4614	1.2236	1.5528	1.1432	1.6523	1.0616	1.7591	0.9794	1.8727
27	1.3157	1.4688	1.2399	1.5562	1.1624	1.6510	1.0836	1.7527	1.0042	1.8608
28	1.3284	1.4759	1.2553	1.5596	1.1805	1.6503	1.1044	1.7473	1.0276	1.8502
29	1.3405	1.4828	1.2699	1.5631	1.1976	1.6499	1.1241	1.7426	1.0497	1.8409
30	1.3520	1.4894	1.2837	1.5666	1.2138	1.6498	1.1426	1.7386	1.0706	1.8326
31	1.3630	1.4957	1.2969	1.5701	1.2292	1.6500	1.1602	1.7352	1.0904	1.8252
32	1.3734	1.5019	1.3093	1.5736	1.2437	1.6505	1.1769	1.7323	1.1092	1.8187
33	1.3834	1.5078	1.3212	1.5770	1.2576	1.6511	1.1927	1.7298	1.1270	1.8128
34	1.3929	1.5136	1.3325	1.5805	1.2707	1.6519	1.2078	1.7277	1.1439	1.8076
35	1.4019	1.5191	1.3433	1.5838	1.2833	1.6528	1.2221	1.7259	1.1601	1.8029
36	1.4107	1.5245	1.3537	1.5872	1.2953	1.6539	1.2358	1.7245	1.1755	1.7987
37	1.4190	1.5297	1.3635	1.5904	1.3068	1.6550	1.2489	1.7233	1.1901	1.7950
38	1.4270	1.5348	1.3730	1.5937	1.3177	1.6563	1.2614	1.7223	1.2042	1.7916
39	1.4347	1.5396	1.3821	1.5969	1.3283	1.6575	1.2734	1.7215	1.2176	1.7886
40	1.4421	1.5444	1.3908	1.6000	1.3384	1.6589	1.2848	1.7209	1.2305	1.7859
41	1.4493	1.5490	1.3992	1.6031	1.3480	1.6603	1.2958	1.7205	1.2428	1.7835
42	1.4562	1.5534	1.4073	1.6061	1.3573	1.6617	1.3064	1.7202	1.2546	1.7814
43	1.4628	1.5577	1.4151	1.6091	1.3663	1.6632	1.3166	1.7200	1.2660	1.7794
44	1.4692	1.5619	1.4226	1.6120	1.3749	1.6647	1.3263	1.7200	1.2769	1.7777
45	1.4754	1.5660	1.4298	1.6148	1.3832	1.6662	1.3357	1.7200	1.2874	1.7762
46	1.4814	1.5700	1.4368	1.6176	1.3912	1.6677	1.3448	1.7201	1.2976	1.7748
47	1.4872	1.5739	1.4435	1.6204	1.3989	1.6692	1.3535	1.7203	1.3073	1.7736
48	1.4928	1.5776	1.4500	1.6231	1.4064	1.6708	1.3619	1.7206	1.3167	1.7725
49	1.4982	1.5813	1.4564	1.6257	1.4136	1.6723	1.3701	1.7210	1.3258	1.7716
50	1.5035	1.5849	1.4625	1.6283	1.4206	1.6739	1.3779	1.7214	1.3346	1.7708
51	1.5086	1.5884	1.4684	1.6309	1.4273	1.6754	1.3855	1.7218	1.3431	1.7701
52	1.5135	1.5917	1.4741	1.6334	1.4339	1.6769	1.3929	1.7223	1.3512	1.7694
53	1.5183	1.5951	1.4797	1.6359	1.4402	1.6785	1.4000	1.7228	1.3592	1.7689
54	1.5230	1.5983	1.4851	1.6383	1.4464	1.6800	1.4069	1.7234	1.3669	1.7684
55	1.5276	1.6014	1.4903	1.6406	1.4523	1.6815	1.4136	1.7240	1.3743	1.7681
56	1.5320	1.6045	1.4954	1.6430	1.4581	1.6830	1.4201	1.7246	1.3815	1.7678
57	1.5363	1.6075	1.5004	1.6452	1.4637	1.6845	1.4264	1.7253	1.3885	1.7675
58	1.5405	1.6105	1.5052	1.6475	1.4692	1.6860	1.4325	1.7259	1.3953	1.7673
59	1.5446	1.6134	1.5099	1.6497	1.4745	1.6875	1.4385	1.7266	1.4019	1.7672
60	1.5485	1.6162	1.5144	1.6518	1.4797	1.6889	1.4443	1.7274	1.4083	1.7671
61	1.5524	1.6189	1.5189	1.6540	1.4847	1.6904	1.4499	1.7281	1.4146	1.7671
62	1.5562	1.6216	1.5232	1.6561	1.4896	1.6918	1.4554	1.7288	1.4206	1.7671
63	1.5599	1.6243	1.5274	1.6581	1.4943	1.6932	1.4607	1.7296	1.4265	1.7671
64	1.5635	1.6268	1.5315	1.6601	1.4990	1.6946	1.4659	1.7303	1.4322	1.7672
65	1.5670	1.6294	1.5355	1.6621	1.5035	1.6960	1.4709	1.7311	1.4378	1.7673
66	1.5704	1.6318	1.5395	1.6640	1.5079	1.6974	1.4758	1.7319	1.4433	1.7675
67	1.5738	1.6343	1.5433	1.6660	1.5122	1.6988	1.4806	1.7327	1.4486	1.7676
68	1.5771	1.6367	1.5470	1.6678	1.5164	1.7001	1.4853	1.7335	1.4537	1.7678
69	1.5803	1.6390	1.5507	1.6697	1.5205	1.7015	1.4899	1.7343	1.4588	1.7680
70	1.5834	1.6413	1.5542	1.6715	1.5245	1.7028	1.4943	1.7351	1.4637	1.7683

**Lampiran 6.** Pendugaan Komponen Variansi Galat dan Parameter

Tahun	Perusahaan									
	AISA	CINT	DLTA	DVLA	INDF	KICI	KINO	LMPI	MBTO	PYFA
2017	-0.4489	-0.0167	-0.1930	0.0451	-0.0965	0.3611	-0.3609	0.4540	-0.3152	-0.1477
2018		-0.2189	0.0864	-0.0869	-0.0784	0.6073	0.2613	0.1161	-0.0951	-0.0245
2019	0.6073		0.0873	0.0640		0.2397	0.1815	-0.3522	-0.2317	-0.1595
2020	0.6310		-0.4563	-0.0131		-0.0156	-0.2848	-0.1001	0.0024	
2021	-0.3381		-0.2175	0.0668	0.0325	0.2890	-0.3227		0.4692	-0.0279
<b>Total</b>	<b>0.4513</b>	<b>-0.2356</b>	<b>-0.6930</b>	<b>0.0759</b>	<b>-0.1424</b>	<b>1.4815</b>	<b>-0.5256</b>	<b>0.1179</b>	<b>-0.1703</b>	<b>-0.3596</b>
Rata-Rata	0.1128	-0.1178	-0.1386	0.0152	-0.0475	0.2963	-0.1051	0.0295	-0.0341	-0.0899

FK=	0.0000	N=	42	dBp (N-1)=	9
JKT=	3.31554	$\sigma_{av}^2 =$	0.08116	dBG (sigma(Ti-1))	32
JKP=	0.71846	(miu)=	0.07983	dBt ((sigma(Ti))-1)	41
JKG=	2.59708	$\sigma_{\mu}^2 =$	0.07983		
		$\phi =$	0.98362		

Lampiran 7. Nilai Matriks Varian Kovarian

	COL1	COL2	COL3	COL4	COL5	COL6	COL7	COL8	COL9	COL10	COL11	COL12	COL13	COL14	COL15	COL16	COL17	COL18	COL19	COL20	COL21	COL22		
ROW1	0.18887	0	0	0.07977	0	0.07977	0	0	0	0.07977	0	0	0	0	0.07977	0	0	0	0	0.07977	0	0	0	
ROW2	0	0.18887	0	0	0	0	0	0	0	0	0.07977	0	0	0	0	0	0	0	0	0	0	0	0.07977	
ROW3	0	0	0.18887	0	0	0	0	0	0	0	0	0.07977	0	0	0	0	0	0	0	0	0	0	0	0.07977
ROW4	0	0	0	0.18887	0	0	0	0	0	0	0	0	0.07977	0	0	0	0	0	0	0	0	0	0	0.07977
ROW5	0.07977	0	0	0.18887	0.07977	0	0	0	0	0	0.07977	0	0	0	0	0.07977	0	0	0	0	0.07977	0	0	0
ROW6	0	0	0	0	0.18887	0	0.07977	0	0	0	0	0.07977	0	0	0	0	0.07977	0	0	0	0	0	0	0.07977
ROW7	0.07977	0	0	0	0.07977	0.18887	0	0	0	0	0.07977	0	0	0	0	0	0.07977	0	0	0	0.07977	0	0	0
ROW8	0	0	0	0	0	0.07977	0.18887	0	0	0	0	0.07977	0	0	0	0	0	0.07977	0	0	0	0	0	0.07977
ROW9	0	0.07977	0	0	0	0	0	0	0	0.18887	0	0	0	0	0	0.07977	0	0	0	0	0	0	0	0.07977
ROW10	0	0	0.07977	0	0	0	0	0	0	0	0.18887	0	0	0	0	0	0.07977	0	0	0	0	0	0	0.07977
ROW11	0	0	0	0.07977	0	0	0	0	0	0	0	0.18887	0	0	0	0	0.07977	0	0	0.07977	0	0	0	0
ROW12	0.07977	0	0	0	0.07977	0	0.07977	0	0	0	0	0	0.18887	0	0	0	0	0.07977	0	0	0	0	0	0
ROW13	0	0	0	0	0	0.07977	0	0.07977	0	0	0	0	0	0.18887	0	0	0	0	0.07977	0	0	0	0	0
ROW14	0.107977	0	0	0	0	0	0	0	0.107977	0	0	0	0	0.18887	0	0	0	0	0	0	0	0	0	0.107977
ROW15	0	0	0.07977	0	0	0	0	0	0	0	0.07977	0	0	0	0	0.18887	0	0	0	0	0	0	0	0
ROW16	0	0	0	0.07977	0	0	0	0	0	0	0	0.07977	0	0	0	0	0.18887	0	0	0	0	0	0	0
ROW17	0.07977	0	0	0	0.07977	0	0.07977	0	0	0	0	0	0.107977	0	0	0	0.18887	0	0	0	0.107977	0	0	0
ROW18	0	0	0	0	0	0.07977	0	0.07977	0	0	0	0	0	0.107977	0	0	0	0.18887	0	0	0	0.107977	0	0
ROW19	0	0	0	0.07977	0	0	0	0	0	0	0	0.07977	0	0	0	0	0.18887	0	0	0.18887	0	0	0	0
ROW20	0.07977	0	0	0	0.07977	0	0.07977	0	0	0	0	0	0.07977	0	0	0	0	0.18887	0	0	0.18887	0	0	0





Lampiran 8. Pendugaan Parameter Regresi Data Panel Tidak Seimbang

	COL1	COL2	COL3	COL4	COL5	COL6	COL7	COL8	COL9	COL10	COL11	COL12	COL13	COL14	COL15	COL16	COL17	COL18	COL19	COL20	COL21	COL22	COL23	COL24	COL25	COL26	COL27	COL28	COL29					
ROW1	0.00493	0	0	0.00493	0	0.00493	0	0	0	0	0.00493	0	0	0	0	0.00493	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0				
ROW2	0	0.00493	0	0	0	0	0	0.00493	0	0	0	0	0.00493	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0				
ROW3	0	0	0.00493	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0			
ROW4	0	0	0	0.00493	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0			
ROW5	0.00493	0	0	0	0.00493	0	0.00493	0	0	0	0.00493	0	0	0	0	0	0.00493	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0			
ROW6	0	0	0	0	0	0.00493	0	0.00493	0	0	0	0.00493	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0			
ROW7	0.00493	0	0	0	0.00493	0	0.00493	0	0	0	0.00493	0	0	0	0	0	0.00493	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0	0		
ROW8	0	0	0	0	0	0.00493	0	0.00493	0	0	0	0.00493	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0		
ROW9	0	0.00493	0	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0		
ROW10	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0		
ROW11	0	0	0	0.00493	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0		
ROW12	0.00493	0	0	0	0.00493	0	0.00493	0	0	0	0	0.00493	0	0	0	0	0.00493	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0	0	0	
ROW13	0	0	0	0	0	0.00493	0	0.00493	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0	
ROW14	0	0.00493	0	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	
ROW15	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	
ROW16	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	
ROW17	0.00493	0	0	0	0.00493	0	0.00493	0	0	0	0	0.00493	0	0	0	0	0.00493	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ROW18	0	0	0	0	0	0.00493	0	0.00493	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0
ROW19	0	0	0	0.00493	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0
ROW20	0.00493	0	0	0	0.00493	0	0.00493	0	0	0	0	0.00493	0	0	0	0	0.00493	0	0	0.00493	0	0	0	0	0	0	0	0	0	0	0	0	0	0





**Lampiran 8.** Pendugaan Parameter Regresi Data Panel Tidak Seimbang(lanjutan)

B1		
0.0014866	-0.000021	-0.000364
-0.000021	0.0000163	0.0001161
-0.000364	0.0001161	0.0076189

  

B2
34.469521
-1500.118
38.228335

  

B
0.069032
-0.02072
0.1045086