

**APPENDIX A : LIST OF POPULATION AND SAMPLE OF CONSUMER GOODS INDUSTRY COMPANIES LISTED IN INDONESIA STOCK EXCHANGE**

No.	CODE	Company Name	Sampling Criteria				Sample chosen
			1	2	3	4	
1	ADES	PT. Akasha Wira International Tbk	✓	✓	✓	✓	1
2	AISA	PT. FKS Food Sejahtera Tbk.	✓	✓	✗	✓	
3	ALTO	PT. Tri Banyan Tirta Tbk.	✓	✓	✗	✓	
4	AMMS	PT. Agung Menjangan Mas Tbk.	✗	✗	✗	✓	
5	BEER	PT. Jobubu Jarum Minahasa	✗	✗	✗	✓	
6	BOBA	PT. Formosa Ingredient Factory Tbk.	✗	✗	✗	✓	
7	BTEK	PT. Bumi Teknokultura Unggul Tbk.	✓	✓	✗	✓	
8	BUDI	PT. Budi Starch& Sweetener Tbk.	✓	✗	✓	✓	
9	CAMP	PT. Campina Ice Cream Industry Tbk	✓	✓	✓	✓	2
10	CBMF	PT. Cahaya Bintang Medan Tbk	✓	✓	✗	✓	
11	CEKA	PT. Wilmar Cahaya Indonesia Tbk.	✓	✓	✓	✓	3
12	CINT	PT. Chitose Internasional Tbk.	✓	✓	✗	✓	
13	CLEO	PT. Sariguna Primatirta Tbk.	✓	✓	✓	✓	4
14	CMRY	PT. Cisarua Mountain Dairy Tbk.	✗	✗	✗	✓	
15	COCO	PT. Wahana Interfood Nusantara Tbk	✓	✗	✓	✓	
16	CRAB	PT. Toba Surimi Industries Tbk	✓	✗	✗	✓	
17	DLTA	PT. Delta Jakarta Tbk.	✓	✓	✓	✓	5
18	DMND	PT. Diamond Food Indonesia Tbk.	✗	✗	✓	✓	
19	DVLA	PT. Darya-Varia Laboratoria Tbk.	✓	✗	✓	✓	
20	ENZO	PT. Morenzo Abadi Perkasa Tbk	✓	✗	✓	✓	
21	EURO	PT. Estee Gold feet Tbk.	✗	✗	✗	✓	
22	FLCO	PT. Falmaco Nonwoven Industri Tbk	✗	✗	✗	✓	
23	FOOD	PT. Sentra Food Indonesia Tbk	✓	✓	✗	✓	
24	GGRM	PT. Gudang Garam Tbk.	✓	✗	✓	✓	
25	GOOD	PT. Garudafood Putra Putri Jaya Tbk	✓	✓	✓	✓	6
26	GULA	PT Aman Agrindo Tbk	✗	✗	✗	✗	
27	HMSP	PT. Hanjaya Mandala Sampoerna Tbk.	✓	✓	✓	✓	7
28	HOKI	PT. Buyung Poetra Sembada Tbk.	✓	✓	✓	✓	8
29	HRTA	PT. Hartadinata Abadi Tbk.	✓	✓	✓	✓	9
30	IBOS	PT. Indoboga Sukses Tbk	✗	✗	✗	✗	
31	ICBP	PT. Indofood CBP Sukses Makmur Tbk.	✓	✓	✓	✓	10
32	IIKP	PT. Inti Agri Resources Tbk	✓	✓	✗	✓	
33	IKAN	PT. Era Mandiri Cemerlang Tbk	✓	✓	✗	✓	
34	INAF	PT. Indofarma Tbk	✓	✓	✗	✓	
35	INDF	PT. Indofood Sukses Makmur Tbk.	✓	✓	✓	✓	11

36	ITIC	PT. Indonesian Tobacco Tbk	✓	✓	✗	✓	
37	KAEF	PT. Kimia Farma Tbk.	✓	✓	✗	✓	
38	KEJU	PT. Mulia Boga Raya Tbk	✗	✗	✓	✓	
39	KICI	PT. Kedaung Indah Can Tbk	✓	✓	✗	✓	
40	KINO	PT. Kino Indonesia Tbk.	✓	✓	✗	✓	
41	KLBF	PT. Kalbe Farma Tbk.	✓	✓	✗	✓	
42	KPAS	PT. Cottonindo Ariesta Tbk	✗	✗	✗	✓	
43	LMPI	PT. Langgeng Makmur Industri Tbk	✓	✓	✗	✓	
44	MBTO	PT. Martina Berto Tbk	✓	✓	✗	✓	
45	MERK	PT. Merck Tbk.	✓	✓	✓	✓	12
46	MGLV	PT. Panca Anugrah Wisesa Tbk	✗	✗	✗	✓	
47	MGNA	PT. Magna Investama Mandiri Tbk	✓	✓	✗	✓	
48	MLBI	PT. Multi Bintang Indonesia Tbk.	✓	✓	✓	✓	13
49	MRAT	PT. Mustika Ratu Tbk	✓	✓	✗	✓	
50	MYOR	PT. Mayora Indah Tbk.	✓	✓	✓	✓	14
51	NANO	PT. Nanotech Indonesia Global Tbk	✗	✗	✗	✓	
52	NASI	PT. Wahana Inti Makmur	✗	✗	✗	✓	
53	NAYZ	PT. Hassana Boga Sejahtera Tbk	✗	✗	✗	✓	
54	OLIV	PT. Oscar Mitra Sukses Sejahtera Tbk	✗	✗	✗	✓	
55	PANI	PT. Pratama Abadi Nusa Industri Tbk	✓	✗	✗	✓	
56	PCAR	PT. Prima Cakrawala Abadi Tbk	✓	✗	✗	✓	
57	PEHA	PT. Phapros Tbk	✗	✗	✓	✓	
58	PEVE	PT. Penta Valent Tbk	✗	✗	✓	✓	
59	PMMP	PT. Panca Mitra Multiperdana Tbk	✗	✗	✓	✓	
60	PSDN	PT. Prasadha Aneka Niaga Tbk	✓	✗	✗	✓	
61	PSGO	PT. Palma Serasih Tbk	✓	✗	✗	✓	
62	PYFA	PT. Pyridam Farma Tbk.	✓	✓	✓	✓	15
63	RMBA	PT. Bentoel Internasional Investama Tbk	✓	✓	✗	✓	
64	ROTI	PT. Nippon Indosari Corpindo Tbk.	✓	✓	✓	✓	16
65	SCPI	PT. Organon Pharma Indonesia Tbk	✓	✗	✓	✓	
66	SIDO	PT. Industri Jamu dan Farmasi Sido Muncul Tbk.	✓	✓	✓	✓	17
67	SKBM	PT. Sekar Bumi Tbk.	✓	✓	✓	✓	18
68	SKLT	PT. Sekar Laut Tbk.	✓	✗	✓	✓	
69	SOFA	PT. Boston Furniture Industries Tbk	✗	✗	✓	✓	
70	SOHO	PT. Soho Global Health Tbk	✗	✗	✓	✓	
71	SOUL	PT. Mitra Tirta Buwana Tbk	✗	✗	✓	✓	
72	STTP	PT. Siantar Top Tbk.	✓	✗	✓	✓	
73	TAYS	PT. Jaya swarasa Agung Tbk	✗	✗	✗	✓	
74	TCID	PT. Mandom Indonesia Tbk	✓	✓	✗	✓	
75	TRGU	PT. Cerestar Indonesia Tbk.	✗	✗	✗	✓	
76	TOYS	PT. Sunindo Adipersada Tbk	✓	✗	✗	✓	
77	TSPC	PT. Tempo Scan Pasific Tbk.	✓	✗	✓	✓	
78	ULTJ	PT. Ultra Jaya Milk Industry & Trading Company Tbk.	✓	✗	✓	✓	
79	UNVR	PT. Unilever Indonesia Tbk.	✓	✓	✓	✓	19
80	VICI	PT Victoria Care Indonesia Tbk	✗	✗	✓	✓	
81	WIIM	PT. Wismilak Inti Makmur Tbk.	✓	✓	✓	✓	20
82	WINE	PT. Hatten Bali Tbk	✗	✗	✗	✓	
83	WMUU	PT. Widodo Makmur Unggas Tbk	✗	✗	✓	✓	
84	WOOD	PT. Integra Indocabinet Tbk.	✓	✓	✓	✓	21

**APPENDIX B : DATA OF CURRENT RATIO (X1)**

No	Company Code	Company Name	Year	Current assets	Current Liabilities	CR
1	ADES	PT. Akasha Wira International Tbk	2018	364.138.000.000	262.397.000.000	1,39
			2019	351.120.000.000	175.191.000.000	2,00
			2020	545.239.000.000	183.559.000.000	2,97
			2021	673.394.000.000	268.367.000.000	2,51
			2022	815.319.000.000	254.719.000.000	3,20
2	CAMP	PT. Campina Ice Cream Industry Tbk	2018	664.681.699.769	61.322.975.128	10,84
			2019	723.916.345.285	57.300.411.135	12,63
			2020	751.789.918.087	56.665.064.940	13,27
			2021	856.198.582.426	64.332.022.572	13,31
			2022	772.685.806.645	72.411.790.397	10,67
3	CEKA	PT. Wilmar Cahaya Indonesia Tbk.	2018	809.166.450.672	158.255.592.250	5,11
			2019	1.067.652.078.121	222.440.530.626	4,80
			2020	1.266.586.465.994	271.641.005.590	4,66
			2021	1.358.085.356.038	283.104.828.760	4,80
			2022	1.383.998.340.429	139.037.021.213	9,95
4	CLEO	PT. Sariguna Primatirta Tbk.	2018	198.544.322.066	121.061.155.519	1,64
			2019	240.755.729.131	204.953.165.337	1,17
			2020	254.187.665.140	147.545.013.406	1,72
			2021	279.804.122.714	182.882.815.706	1,53
			2022	380.268.816.727	209.828.541.579	1,81
5	DLTA	PT. Delta Jakarta Tbk.	2018	1.384.227.944.000	192.299.843.000	7,20
			2019	1.292.805.083.000	160.587.363.000	8,05
			2020	1.103.831.856.000	147.207.676.000	7,50
			2021	1.174.393.432.000	244.206.806.000	4,81
			2022	1.165.412.820.000	255.354.186.000	4,56
6	GOOD	PT. Garudafood Putra Putri Jaya Tbk	2018	1.570.545.769.306	1.328.163.043.500	1,18
			2019	1.999.886.108.743	1.303.881.731.637	1,53
			2020	2.321.804.168.143	1.314.344.090.213	1,77
			2021	2.613.436.417.820	1.771.339.531.925	1,48
			2022	3.194.327.374.948	1.835.096.804.319	1,74
7	HMSP	PT. Hanjaya Mandala Sampoerna Tbk.	2019	41.697.015.000.000	12.727.676.000.000	3,28
			2020	41.091.368.000.000	16.743.834.000.000	2,45
			2021	41.323.105.000.000	21.964.259.000.000	1,88
			2022	41.362.998.000.000	24.545.594.000.000	1,69
8	HOKI	PT. Buyung Poetra Sembada Tbk.	2018	490.747.589.782	183.224.424.681	2,68
			2019	483.422.211.591	161.901.915.986	2,99
			2020	423.486.192.138	188.719.266.211	2,24
			2021	450.325.961.390	280.958.063.589	1,60
9	HRTA	PT. Hartadinata Abadi Tbk.	2018	1.430.530.685.815	388.009.846.474	3,69
			2019	2.195.435.613.977	217.969.291.457	10,07
			2020	2.669.836.303.087	209.281.141.857	12,76
			2021	3.300.516.538.001	708.362.034.511	4,66
			2022	3.574.043.984.008	951.483.287.105	3,76

10	ICBP	PT. Indofood CBP Sukses Makmur Tbk.	2018	14.121.568.000.000	7.235.398.000.000	1,95
			2019	16.624.925.000.000	6.556.359.000.000	2,54
			2020	20.716.223.000.000	9.176.164.000.000	2,26
			2021	33.997.637.000.000	18.896.133.000.000	1,80
			2022	31.070.365.000.000	10.033.935.000.000	3,10
11	INDF	PT. Indofood Sukses Makmur Tbk.	2018	33.272.618.000.000	31.204.102.000.000	1,07
			2019	31.403.445.000.000	24.686.862.000.000	1,27
			2020	38.418.238.000.000	27.975.875.000.000	1,37
			2021	54.183.399.000.000	40.403.404.000.000	1,34
			2022	54.876.668.000.000	30.725.942.000.000	1,79
12	MERK	PT. Merck Tbk.	2019	675.010.699.000	269.085.165.000	2,51
			2020	678.404.760.000	266.348.137.000	2,55
			2021	768.122.706.000	282.931.352.000	2,71
			2022	795.587.313.000	239.074.429.000	3,33
13	MLBI	PT. Multi Bintang Indonesia Tbk.	2021	1.241.112.000.000	1.682.700.000.000	0,74
			2022	1.649.257.000.000	2.154.777.000.000	0,77
14	MYOR	PT. Mayora Indah Tbk.	2018	12.647.858.727.872	4.764.510.387.113	2,65
			2019	12.776.102.781.513	3.726.359.539.201	3,43
			2020	12.838.729.162.094	3.559.336.027.729	3,61
			2021	12.969.783.874.643	5.570.773.468.770	2,33
			2022	14.772.623.976.128	5.636.627.301.308	2,62
15	PYFA	PT. Pyridam Farma Tbk.	2018	91.387.136.759	33.141.647.397	2,76
			2019	95.946.418.919	27.198.123.189	3,53
			2020	129.342.420.572	44.748.565.283	2,89
			2021	326.430.905.577	251.838.113.066	1,30
16	ROTI	PT. Nippon Indosari Corpindo Tbk.	2018	1.876.409.299.238	525.422.150.049	3,57
			2019	1.874.411.044.438	1.106.938.318.565	1,69
			2020	1.549.617.329.468	404.567.270.700	3,83
			2021	1.282.057.210.341	483.213.195.704	2,65
			2022	1.285.672.230.703	612.417.576.293	2,10
17	SIDO	PT. Industri Jamu dan Farmasi Sido Muncul Tbk.	2018	1.543.597.000.000	368.380.000.000	4,19
			2022	2.194.242.000.000	541.048.000.000	4,06
18	SKBM	PT. Sekar Bumi Tbk.	2018	851.410.216.636	615.506.825.729	1,38
			2020	953.792.483.691	701.020.837.232	1,36
			2021	1.158.132.110.148	883.202.660.221	1,31
			2022	1.263.255.237.692	875.853.096.624	1,44
19	UNVR	PT. Unilever Indonesia Tbk.	2019	8.530.334.000.000	13.065.308.000.000	0,65
			2020	8.828.360.000.000	13.357.536.000.000	0,66
			2021	7.642.208.000.000	12.445.152.000.000	0,61
			2022	7.567.768.000.000	12.442.223.000.000	0,61
20	WIIM	PT. Wismilak Inti Makmur Tbk.	2018	888.979.741.744	150.202.377.711	5,92
			2020	1.288.718.539.539	351.790.782.502	3,66
			2021	1.590.984.206.544	542.580.383.844	2,93
			2022	1.876.123.954.487	661.604.830.345	2,84
21	WOOD	PT. Integra Indocabinet Tbk.	2018	2.326.066.828.217	1.799.899.999.419	1,29
			2019	3.051.820.959.309	2.354.556.711.994	1,30
			2020	3.392.961.858.575	2.550.520.191.952	1,33
			2021	4.310.623.272.972	2.084.148.153.947	2,07
			2022	4.441.755.337.833	1.826.133.223.912	2,43

**APPENDIX C : DATA OF DEBT TO EQUITY RATIO (X2)**

No	Company Code	Company Name	Year	Total Liabilities	Total Equity	DER
1	ADES	PT. Akasha Wira International Tbk	2018	399.361.000.000	481.914.000.000	0,8287
			2019	254.438.000.000	567.937.000.000	0,4480
			2020	258.283.000.000	700.508.000.000	0,3687
			2021	334.291.000.000	969.817.000.000	0,3447
			2022	310.746.000.000	1.334.836.000.000	0,2328
2	CAMP	PT. Campina Ice Cream Industry Tbk	2018	118.853.215.128	885.422.598.655	0,1342
			2019	122.136.752.135	935.392.483.851	0,1306
			2020	125.161.736.940	961.711.929.701	0,1301
			2021	119.786.398.572	1.026.449.179.891	0,1167
			2022	133.323.429.397	941.454.031.015	0,1416
3	CEKA	PT. Wilmar Cahaya Indonesia Tbk.	2018	192.308.466.864	976.647.575.842	0,1969
			2019	261.784.845.240	1.131.294.696.834	0,2314
			2020	305.958.833.204	1.260.714.994.864	0,2427
			2021	310.020.233.374	1.387.366.962.835	0,2235
			2022	168.244.583.827	1.550.042.869.748	0,1085
4	CLEO	PT. Sariguna Primatirta Tbk.	2018	198.455.391.702	635.478.469.892	0,3123
			2019	478.844.867.693	766.299.436.026	0,6249
			2020	416.194.010.942	894.746.110.680	0,4652
			2021	346.601.683.606	1.001.579.893.307	0,3461
			2022	508.372.748.127	1.185.150.863.287	0,4290
5	DLTA	PT. Delta Jakarta Tbk.	2018	239.353.356.000	1.284.163.814.000	0,1864
			2019	212.420.390.000	1.213.563.332.000	0,1750
			2020	205.681.950.000	1.019.898.963.000	0,2017
			2021	298.548.048.000	1.010.174.017.000	0,2955
			2022	306.410.502.000	1.000.775.865.000	0,3062
6	GOOD	PT. Garudafood Putra Putri Jaya Tbk	2018	1.722.999.829.003	2.489.408.476.680	0,6921
			2019	2.297.546.907.499	2.765.520.764.915	0,8308
			2020	3.702.404.632.151	2.968.538.886.535	1,2472
			2021	3.724.365.876.731	3.042.236.403.412	1,2242
			2022	3.975.927.432.106	3.351.444.502.184	1,1863
7	HMSP	PT. Hanjaya Mandala Sampoerna Tbk.	2019	15.223.076.000.000	35.679.730.000.000	0,4267
			2020	19.432.604.000.000	30.241.426.000.000	0,6426
			2021	23.899.022.000.000	29.191.406.000.000	0,8187
			2022	26.616.824.000.000	28.170.168.000.000	0,9449
8	HOKI	PT. Buyung Poetra Sembada Tbk.	2018	195.678.977.792	563.167.578.239	0,3475
			2019	207.108.590.481	641.567.444.819	0,3228
			2020	240.365.954.692	665.678.844.044	0,3611
			2021	313.387.193.288	674.176.387.075	0,4648
9	HRTA	PT. Hartadinata Abadi Tbk.	2018	444.308.333.455	1.092.723.219.024	0,4066
			2019	1.099.943.156.591	1.211.246.898.396	0,9081
			2020	1.473.739.202.695	1.356.947.214.766	1,0861
			2021	1.962.521.802.121	1.515.552.418.426	1,2949
			2022	2.126.513.311.957	1.722.573.240.682	1,2345



10	ICBP	PT. Indofood CBP Sukses Makmur Tbk.	2018	11.660.003.000.000	22.707.150.000.000	0,5135
			2019	12.038.210.000.000	26.671.104.000.000	0,4514
			2020	52.842.783.000.000	50.659.843.000.000	1,0431
			2021	63.074.704.000.000	54.940.607.000.000	1,1481
			2022	57.832.529.000.000	57.473.007.000.000	1,0063
11	INDF	PT. Indofood Sukses Makmur Tbk.	2018	46.620.996.000.000	49.916.800.000.000	0,9340
			2019	41.996.071.000.000	96.198.559.000.000	0,4366
			2020	83.357.830.000.000	79.653.950.000.000	1,0465
			2021	92.285.331.000.000	86.986.509.000.000	1,0609
			2022	86.810.262.000.000	93.623.038.000.000	0,9272
12	MERK	PT. Merck Tbk.	2019	307.049.328.000	901.060.986.000	0,3408
			2020	317.218.021.000	612.683.025.000	0,5178
			2021	342.223.078.000	684.043.788.000	0,5003
			2022	280.405.591.000	757.241.649.000	0,3703
13	MLBI	PT. Multi Bintang Indonesia Tbk.	2021	1.882.860.000.000	1.099.157.000.000	1,7130
			2022	2.301.227.000.000	1.073.275.000.000	2,1441
14	MYOR	PT. Mayora Indah Tbk.	2018	9.049.161.944.940	8.542.544.481.694	1,0593
			2019	9.137.978.611.155	9.899.940.195.318	0,9230
			2020	8.506.032.464.592	11.271.468.049.958	0,7547
			2021	8.557.621.869.393	11.360.031.396.135	0,7533
			2022	9.441.466.604.896	12.834.694.090.515	0,7356
15	PYFA	PT. Pyridam Farma Tbk.	2018	68.129.603.054	118.927.560.800	0,5729
			2019	66.060.214.687	124.725.993.563	0,5296
			2020	70.943.630.711	157.631.750.155	0,4501
			2021	639.121.007.816	167.100.567.456	3,8248
16	ROTI	PT. Nippon Indosari Corpindo Tbk.	2018	1.476.909.260.772	2.916.901.120.111	0,5063
			2019	1.589.486.465.854	3.092.597.379.097	0,5140
			2020	1.205.569.956.974	3.246.596.715.011	0,3713
			2021	1.321.693.219.911	2.869.591.202.766	0,4606
			2022	1.449.163.077.319	2.681.158.538.764	0,5405
17	SIDO	PT. Industri Jamu dan Farmasi Sido	2018	435.014.000.000	2.902.614.000.000	0,1499
			2022	575.967.000.000	3.505.475.000.000	0,1643
18	SKBM	PT. Sekar Bumi Tbk.	2018	730.789.419.438	1.040.576.552.571	0,7023
			2020	806.678.887.419	961.981.659.335	0,8386
			2021	977.942.627.046	992.485.493.010	0,9853
			2022	968.233.866.594	1.073.965.710.489	0,9016
19	UNVR	PT. Unilever Indonesia Tbk.	2019	15.367.509.000.000	5.281.862.000.000	2,9095
			2020	15.597.264.000.000	4.937.368.000.000	3,1590
			2021	14.747.263.000.000	4.321.269.000.000	3,4127
			2022	14.320.858.000.000	3.997.256.000.000	3,5827
20	WIIM	PT. Wismilak Inti Makmur Tbk.	2018	250.337.111.893	1.005.236.802.665	0,2490
			2020	428.590.166.019	1.185.851.841.509	0,3614
			2021	572.784.572.607	1.318.385.158.595	0,4345
			2022	667.866.337.031	1.500.927.506.265	0,4450
21	WOOD	PT. Integra Indocabinet Tbk.	2018	2.144.622.646.689	2.447.036.109.231	0,8764
			2019	2.817.941.634.186	2.700.948.590.874	1,0433
			2020	2.919.169.404.821	3.029.837.381.689	0,9635
			2021	3.158.497.024.662	3.642.537.753.968	0,8671
			2022	3.195.737.865.490	3.760.607.401.264	0,8498

### APPENDIX D : DATA OF WORKING CAPITAL TURNOVER (X3)

No	Company Code	Company Name	Year	Sales	Current assets	Current Liabilities	CA-CL	WCT
1	ADES	PT. Akasha Wira International Tbk	2018	804.302.000.000	364.138.000.000	262.397.000.000	101.741.000.000	7,905
			2019	834.330.000.000	351.120.000.000	175.191.000.000	175.929.000.000	4,742
			2020	673.364.000.000	545.239.000.000	183.559.000.000	361.680.000.000	1,862
			2021	935.075.000.000	673.394.000.000	268.367.000.000	405.027.000.000	2,309
			2022	1.290.992.000.000	815.319.000.000	254.719.000.000	560.600.000.000	2,303
2	CAMP	PT. Campina Ice Cream Industry Tbk	2018	961.136.629.003	664.681.699.769	61.322.975.128	603.358.724.641	1,593
			2019	1.028.952.947.818	723.916.345.285	57.300.411.135	666.615.934.150	1,544
			2020	956.634.474.111	751.789.918.087	56.665.064.940	695.124.853.147	1,376
			2021	1.019.133.657.275	856.198.582.426	64.332.022.572	791.866.559.854	1,287
			2022	1.129.360.552.136	772.685.806.645	72.411.790.397	700.274.016.248	1,613
3	CEKA	PT. Wilmar Cahaya Indonesia Tbk.	2018	3.629.327.583.572	809.166.450.672	158.255.592.250	650.910.858.422	5,576
			2019	3.120.937.098.980	1.067.652.078.121	222.440.530.626	845.211.547.495	3,692
			2020	3.634.297.273.749	1.266.586.465.994	271.641.005.590	994.945.460.404	3,653
			2021	5.359.440.530.374	1.358.085.356.038	283.104.828.760	1.074.980.527.278	4,986
			2022	6.143.759.424.928	1.383.998.340.429	139.037.021.213	1.244.961.319.216	4,935
4	CLEO	PT. Sariguna Primatirta Tbk.	2018	831.104.026.853	198.544.322.066	121.061.155.519	77.483.166.547	10,726
			2019	1.084.912.780.290	240.755.729.131	204.953.165.337	35.802.563.794	30,303
			2020	972.634.784.176	254.187.665.140	147.545.013.406	106.642.651.734	9,121
			2021	1.103.519.743.574	279.804.122.714	182.882.815.706	96.921.307.008	11,386
			2022	1.358.708.497.805	380.268.816.727	209.828.541.579	170.440.275.148	7,972
5	DLTA	PT. Delta Djakarta Tbk.	2018	893.006.350.000	1.384.227.944.000	192.299.843.000	1.191.928.101.000	0,749
			2019	827.136.727.000	1.292.805.083.000	160.587.363.000	1.132.217.720.000	0,731
			2020	546.336.411.000	1.103.831.856.000	147.207.676.000	956.624.180.000	0,571
			2021	681.205.785.000	1.174.393.432.000	244.206.806.000	930.186.626.000	0,732
			2022	778.744.315.000	1.165.412.820.000	255.354.186.000	910.058.634.000	0,856
6	GOOD	PT. Garudafood Putra Putri Jaya Tbk	2018	8.048.946.664.266	1.570.545.769.306	1.328.163.043.500	242.382.725.806	33,208
			2019	8.438.631.355.699	1.999.886.108.743	1.303.881.731.637	696.004.377.106	12,124
			2020	7.711.334.590.144	2.321.804.168.143	1.314.344.090.213	1.007.460.077.930	7,654
			2021	8.799.579.901.024	2.613.436.417.820	1.771.339.531.925	842.096.885.895	10,450
			2022	10.510.942.813.705	3.194.327.374.948	1.835.096.804.319	1.359.230.570.629	7,733
7	HMSP	PT. Hanjaya Mandala Sampoerna Tbk.	2019	106.055.176.000.000	41.697.015.000.000	12.727.676.000.000	28.969.339.000.000	3,661
			2020	92.425.210.000.000	41.091.368.000.000	16.743.834.000.000	24.347.534.000.000	3,796
			2021	98.874.784.000.000	41.323.105.000.000	21.964.259.000.000	19.358.846.000.000	5,107
			2022	111.211.321.000.000	41.362.998.000.000	24.545.594.000.000	16.817.404.000.000	6,613
8	HOKI	PT. Buyung Poetra Sembada Tbk.	2018	1.430.785.289.985	490.747.589.782	183.224.424.681	307.523.165.101	4,653
			2019	1.653.031.823.505	483.422.211.591	161.901.915.986	321.520.295.605	5,141
			2020	1.173.189.488.886	423.486.192.138	188.719.266.211	234.766.925.927	4,997
			2021	933.597.187.584	450.325.961.390	280.958.063.589	169.367.897.801	5,512

9	HRTA	PT. Hartadinata Abadi Tbk.	2018	2.745.593.297.236	1.430.530.685.815	388.009.846.474	1.042.520.839.341	2,634
			2019	3.235.522.159.813	2.195.435.613.977	217.969.291.457	1.977.466.322.520	1,636
			2020	4.138.626.813.254	2.669.836.303.087	209.281.141.857	2.460.555.161.230	1,682
			2021	5.237.905.426.180	3.300.516.538.001	708.362.034.511	2.592.154.503.490	2,021
			2022	6.918.453.560.506	3.574.043.984.008	951.483.287.105	2.622.560.696.903	2,638
10	ICBP	PT. Indofood CBP Sukses Makmur Tbk.	2018	38.413.407.000.000	14.121.568.000.000	7.235.398.000.000	6.886.170.000.000	5,578
			2019	42.296.703.000.000	16.624.925.000.000	6.556.359.000.000	10.068.566.000.000	4,201
			2020	46.641.048.000.000	20.716.223.000.000	9.176.164.000.000	11.540.059.000.000	4,042
			2021	56.803.733.000.000	33.997.637.000.000	18.896.133.000.000	15.101.504.000.000	3,761
			2022	64.797.516.000.000	31.070.365.000.000	10.033.935.000.000	21.036.430.000.000	3,080
11	INDF	PT. Indofood Sukses Makmur Tbk.	2018	73.394.728.000.000	33.272.618.000.000	31.204.102.000.000	2.068.516.000.000	35,482
			2019	76.592.955.000.000	31.403.445.000.000	24.686.862.000.000	6.716.583.000.000	11,404
			2020	81.731.469.000.000	38.418.238.000.000	27.975.875.000.000	10.442.363.000.000	7,827
			2021	99.345.618.000.000	54.183.399.000.000	40.403.404.000.000	13.779.995.000.000	7,209
			2022	110.830.272.000.000	54.876.668.000.000	30.725.942.000.000	24.150.726.000.000	4,589
12	MERK	PT. Merck Tbk.	2019	744.634.530.000	675.010.699.000	269.085.165.000	405.925.534.000	1,834
			2020	655.847.125.000	678.404.760.000	266.348.137.000	412.056.623.000	1,592
			2021	1.064.394.815.000	768.122.706.000	282.931.352.000	485.191.354.000	2,194
			2022	1.124.599.738.000	795.587.313.000	239.074.429.000	556.512.884.000	2,021
13	MLBI	PT. Multi Bintang Indonesia Tbk.	2021	2.473.681.000.000	1.241.112.000.000	1.682.700.000.000	441.588.000.000	-5,602
			2022	3.114.907.000.000	1.649.257.000.000	2.154.777.000.000	505.520.000.000	-6,162
14	MYOR	PT. Mayora Indah Tbk.	2018	24.060.802.395.725	12.647.858.727.872	4.764.510.387.113	7.883.348.340.759	3,052
			2019	25.026.739.472.547	12.776.102.781.513	3.726.359.539.201	9.049.743.242.312	2,765
			2020	24.476.953.742.651	12.838.729.162.094	3.559.336.027.729	9.279.393.134.365	2,638
			2021	27.904.558.322.183	12.969.783.874.643	5.570.773.468.770	7.399.010.405.873	3,771
			2022	30.669.405.967.404	14.772.623.976.128	5.636.627.301.308	9.135.996.674.820	3,357
15	PYFA	PT. Pyridam Farma Tbk.	2018	250.545.853.364	91.387.136.759	33.141.647.397	58.245.489.362	4,302
			2019	247.114.772.587	95.946.418.919	27.198.123.189	68.748.295.730	3,594
			2020	277.398.061.739	129.342.420.572	44.748.565.283	84.593.855.289	3,279
			2021	630.530.235.961	326.430.905.577	251.838.113.066	74.592.792.511	8,453
16	ROTI	PT. Nippon Indosari Corpindo Tbk.	2018	2.766.545.866.684	1.876.409.299.238	525.422.150.049	1.350.987.149.189	2,048
			2019	3.337.022.314.624	1.874.411.044.438	1.106.938.318.565	767.472.725.873	4,348
			2020	3.212.034.546.032	1.549.617.329.468	404.567.270.700	1.145.050.058.768	2,805
			2021	3.287.623.237.457	1.282.057.210.341	483.213.195.704	798.844.014.637	4,115
			2022	3.935.182.048.668	1.285.672.230.703	612.417.576.293	673.254.654.410	5,845
17	SIDO	PT. Industri Jamu dan Farmasi Sido	2018	2.763.292.000.000	1.543.597.000.000	368.380.000.000	1.175.217.000.000	2,351
			2022	3.865.523.000.000	2.194.242.000.000	541.048.000.000	1.653.194.000.000	2,338
18	SKBM	PT. Sekar Bumi Tbk.	2018	1.953.910.957.160	851.410.216.636	615.506.825.729	235.903.390.907	8,283
			2020	3.165.530.224.724	953.792.483.691	701.020.837.232	252.771.646.459	12,523
			2021	3.847.887.478.570	1.158.132.110.148	883.202.660.221	274.929.449.927	13,996
			2022	3.802.296.289.773	1.263.255.237.692	875.853.096.624	387.402.141.068	9,815
19	UNVR	PT. Unilever Indonesia Tbk.	2019	42.922.563.000.000	8.530.334.000.000	13.065.308.000.000	4.534.974.000.000	-9,465
			2020	42.972.474.000.000	8.828.360.000.000	13.357.536.000.000	4.529.176.000.000	-9,488
			2021	39.545.959.000.000	7.642.208.000.000	12.445.152.000.000	4.802.944.000.000	-8,234
			2022	41.218.881.000.000	7.567.768.000.000	12.442.223.000.000	4.874.455.000.000	-8,456
20	WIIM	PT. Wisnilak Inti Makmur Tbk.	2018	1.405.384.153.405	888.979.741.744	150.202.377.711	738.777.364.033	1,902
			2020	1.994.066.771.177	1.288.718.539.539	351.790.782.502	936.927.757.037	2,128
			2021	2.733.691.702.981	1.590.984.206.544	542.580.383.844	1.048.403.822.700	2,607
			2022	3.704.350.294.106	1.876.123.954.487	661.604.830.345	1.214.519.124.142	3,050
21	WOOD	PT. Integra Indocabinet Tbk.	2018	2.101.477.235.890	2.326.066.828.217	1.799.899.999.419	526.166.828.798	3,994
			2019	2.136.286.045.964	3.051.820.959.309	2.354.556.711.994	697.264.247.315	3,064
			2020	2.968.618.441.357	3.392.961.858.575	2.550.520.191.952	842.441.666.623	3,524
			2021	5.416.331.556.250	4.310.623.272.972	2.084.148.153.947	2.226.475.119.025	2,433
			2022	4.526.699.532.441	4.441.755.337.833	1.826.133.223.912	2.615.622.113.921	1,731



**APPENDIX E : DATA OF INVENTORY TURNOVER (X4)**

No	Company Code	Company Name	Year	COGS	AVG inventories	IT
1	ADES	PT. Akasha Wira International Tbk	2018	415.212.000.000	108.557.000.000	3,82483
			2019	417.281.000.000	93.946.000.000	4,44171
			2020	330.799.000.000	79.436.500.000	4,16432
			2021	435.507.000.000	89.217.000.000	4,88144
			2022	620.240.000.000	123.228.500.000	5,03325
2	CAMP	PT. Campina Ice Cream Industry Tbk	2018	380.496.768.468	159.341.866.752	2,38793
			2019	426.417.881.003	168.953.374.507	2,52388
			2020	439.655.714.828	154.659.577.481	2,84273
			2021	464.038.494.499	129.642.866.365	3,57936
			2022	500.329.164.288	123.213.170.459	4,06068
3	CEKA	PT. Wilmar Cahaya Indonesia Tbk.	2018	3.354.976.550.553	374.011.671.204	8,97025
			2019	2.755.574.838.991	297.418.266.065	9,26498
			2020	3.299.157.338.979	294.127.146.280	11,21677
			2021	4.997.372.710.028	371.031.784.624	13,46885
			2022	5.722.153.735.172	391.787.751.017	14,60524
4	CLEO	PT. Sariguna Primatirta Tbk.	2018	562.460.279.774	79.547.758.860	7,07072
			2019	692.217.433.141	97.569.148.903	7,09463
			2020	562.235.507.989	100.999.021.507	5,56674
			2021	642.038.152.501	117.559.426.736	5,46139
			2022	836.416.488.396	149.955.838.190	5,57775
5	DLTA	PT. Delta Jakarta Tbk.	2018	241.721.111.000	192.130.002.000	1,25811
			2019	230.440.697.000	206.428.349.000	1,11632
			2020	179.156.903.000	196.691.549.001	0,91085
			2021	204.614.850.000	179.643.245.000	1,13901
			2022	235.763.528.000	183.756.477.001	1,28302
6	GOOD	PT. Garudafood Putra Putri Jaya Tbk	2018	5.495.794.976.776	768.111.568.677	7,15494
			2019	5.910.489.349.236	807.766.302.395	7,31708
			2020	5.568.907.814.506	833.352.742.479	6,68253
			2021	6.379.825.025.746	933.618.914.836	6,83344
			2022	7.853.878.614.261	1.139.555.227.340	6,89206
7	HMSP	PT. Hanjaya Mandala Sampoerna Tbk.	2019	79.932.195.000.000	15.779.714.000.000	5,06550
			2020	73.653.975.000.000	17.234.969.000.000	4,27352
			2021	81.955.013.000.000	17.937.727.000.000	4,56886
			2022	94.053.123.000.000	18.078.482.000.000	5,20249
8	HOKI	PT. Buyung Poetra Sembada Tbk.	2018	1.228.387.538.365	107.044.223.501	11,47551
			2019	1.412.510.688.423	149.121.088.813	9,47224
			2020	1.029.660.122.589	151.328.068.151	6,80416
			2021	820.501.051.093	82.144.657.806	9,98849

9	HRTA	PT. Hartadinata Abadi Tbk.	2018	2.487.493.630.022	585.207.648.963	4,25062
			2019	2.919.727.588.456	781.908.284.256	3,73410
			2020	3.716.928.485.410	1.217.169.002.670	3,05375
			2021	4.665.326.852.371	1.698.902.461.255	2,74608
			2022	6.175.631.540.633	2.127.640.039.896	2,90257
10	ICBP	PT. Indofood CBP Sukses Makmur Tbk.	2018	26.147.857.000.000	3.631.456.000.000	7,20038
			2019	27.892.690.000.000	3.920.983.000.001	7,11370
			2020	29.416.048.000.000	4.213.815.000.000	6,98086
			2021	36.516.449.000.000	5.222.078.000.001	6,99270
			2022	43.005.230.000.000	6.494.769.000.000	6,62152
11	INDF	PT. Indofood Sukses Makmur Tbk.	2018	53.182.723.000.000	10.718.462.000.000	4,96179
			2019	53.876.594.000.000	10.651.430.000.001	5,05816
			2020	54.979.425.000.000	10.404.568.000.001	5,28416
			2021	66.871.514.000.000	11.917.134.000.000	5,61138
			2022	76.858.593.000.000	14.600.604.000.001	5,26407
12	MERK	PT. Merck Tbk.	2019	421.320.853.000	253.089.148.500	1,66471
			2020	361.641.158.000	276.499.553.000	1,30793
			2021	665.711.070.000	294.147.927.000	2,26318
			2022	697.007.762.000	320.027.880.000	2,17796
13	MLBI	PT. Multi Bintang Indonesia Tbk.	2021	1.111.984.000.000	189.680.500.000	5,86241
			2022	1.191.216.000.000	237.673.500.000	5,01198
14	MYOR	PT. Mayora Indah Tbk.	2018	17.664.148.865.078	2.588.531.741.483	6,82400
			2019	17.109.498.526.032	3.071.215.136.752	5,57092
			2020	17.177.830.782.966	2.797.872.771.862	6,13960
			2021	20.981.574.813.780	2.919.662.902.110	7,18630
			2022	23.829.982.628.480	3.452.355.174.633	6,90253
15	PYFA	PT. Pyridam Farma Tbk.	2018	99.342.305.409	39.240.581.174	2,53162
			2019	106.912.029.284	42.930.035.584	2,49038
			2020	113.507.729.371	47.652.957.047	2,38197
			2021	385.949.260.966	98.488.397.560	3,91873
16	ROTI	PT. Nippon Indosari Corpindo Tbk.	2018	1.274.332.759.465	57.695.994.424	22,00424
			2019	1.487.586.425.468	74.363.554.996	15,05524
			2020	1.409.870.836.152	93.646.498.862	13,43828
			2021	1.500.216.194.750	111.637.498.115	13,89211
			2022	1.849.122.162.973	133.105.909.298	13,89211
17	SIDO	PT. Industri Jamu dan Farmasi Sido	2018	1.338.901.000.000	289.554.000.000	4,62401
			2022	1.702.910.000.000	498.717.000.000	3,41458
18	SKBM	PT. Sekar Bumi Tbk.	2018	1.728.304.112.505	297.655.697.622	5,80639
			2020	2.850.011.161.450	399.417.888.772	7,13541
			2021	3.316.793.099.791	413.382.962.969	8,02354
			2022	3.189.017.199.391	447.909.890.768	7,11977
19	UNVR	PT. Unilever Indonesia Tbk.	2019	20.893.870.000.000	2.543.653.500.000	8,21412
			2020	20.515.484.000.000	2.446.169.000.000	8,38678
			2021	19.919.572.000.000	2.458.487.500.000	8,10237
			2022	22.153.944.000.000	2.539.493.500.000	8,72376
20	WIIM	PT. Wismilak Inti Makmur Tbk.	2018	963.851.587.401	660.382.555.845	1,45954
			2020	1.368.626.457.514	610.701.637.082	2,24107
			2021	2.082.163.021.095	761.039.063.312	2,73595
			2022	2.915.527.324.652	885.469.710.945	3,29263
21	WOOD	PT. Integra Indocabinet Tbk.	2018	1.362.336.935.027	1.302.348.990.341	1,04606
			2019	1.392.344.026.297	1.603.844.586.659	0,86813
			2020	1.972.070.202.200	1.944.162.931.438	1,01435
			2021	3.499.320.664.512	2.334.713.295.274	1,49882
			2022	3.119.034.425.361	2.559.454.830.833	1,21863

**APPENDIX F : DATA OF RETURN ON ASSETS (Y)**

No	Company Code	Company Name	Year	Net Income	Total Assets	ROA
1	ADES	PT. Akasha Wira International Tbk	2018	52.958.000.000	881.275.000.000	0,06
			2019	83.885.000.000	822.375.000.000	0,10
			2020	135.789.000.000	958.791.000.000	0,14
			2021	265.758.000.000	1.304.108.000.000	0,20
			2022	364.972.000.000	1.645.582.000.000	0,22
2	CAMP	PT. Campina Ice Cream Industry Tbk	2018	61.947.295.689	1.004.275.813.783	0,06
			2019	76.758.829.457	1.057.529.235.986	0,07
			2020	44.045.828.312	1.086.873.666.641	0,04
			2021	99.278.807.290	1.146.235.578.463	0,09
			2022	121.257.336.904	1.074.777.460.412	0,11
3	CEKA	PT. Wilmar Cahaya Indonesia Tbk.	2018	92.649.656.775	1.168.956.042.706	0,08
			2019	215.459.200.242	1.393.079.542.074	0,15
			2020	181.812.593.992	1.566.673.828.068	0,12
			2021	187.066.990.085	1.697.387.196.209	0,11
			2022	220.704.543.072	1.718.287.453.575	0,13
4	CLEO	PT. Sariguna Primatirta Tbk.	2018	63.261.752.474	833.933.861.594	0,08
			2019	130.756.461.708	1.245.144.303.719	0,11
			2020	132.772.234.495	1.310.940.121.622	0,10
			2021	180.711.667.020	1.348.181.576.913	0,13
			2022	195.598.848.689	1.693.523.611.414	0,12
5	DLTA	PT. Delta Djakarta Tbk.	2018	338.129.985.000	1.523.517.170.000	0,22
			2019	317.815.177.000	1.425.983.722.000	0,22
			2020	123.465.762.000	1.225.580.913.000	0,10
			2021	187.992.998.000	1.308.722.065.000	0,14
			2022	230.065.807.000	1.307.186.367.000	0,18
6	GOOD	PT. Garudafood Putra Putri Jaya Tbk	2018	425.481.597.110	4.212.408.305.683	0,10
			2019	435.766.359.480	5.063.067.672.414	0,09
			2020	245.103.761.907	6.670.943.518.686	0,04
			2021	492.637.672.186	6.766.602.280.143	0,07
			2022	521.714.035.585	7.327.371.934.290	0,07
7	HMSP	PT. Hanjaya Mandala Sampoerna Tbk.	2019	13.721.513.000.000	50.902.806.000.000	0,27
			2020	8.581.378.000.000	49.674.030.000.000	0,17
			2021	7.137.097.000.000	53.090.428.000.000	0,13
			2022	6.323.744.000.000	54.786.992.000.000	0,12
8	HOKI	PT. Buyung Poetra Sembada Tbk.	2018	90.195.136.265	758.846.556.031	0,12
			2019	103.723.133.972	848.676.035.300	0,12
			2020	38.038.419.405	906.044.798.736	0,04
			2021	11.844.682.161	987.563.580.363	0,01

9	HRTA	PT. Hartadinata Abadi Tbk.	2018	123.393.863.438	1.537.031.552.479	0,08
			2019	149.990.636.633	2.311.190.054.987	0,06
			2020	170.679.197.734	2.830.686.417.461	0,06
			2021	194.432.397.219	3.478.074.220.547	0,06
			2022	254.127.589.783	3.849.086.552.639	0,07
10	ICBP	PT. Indofood CBP Sukses Makmur Tbk.	2018	4.658.781.000.000	34.367.153.000.000	0,14
			2019	5.360.029.000.000	38.709.314.000.000	0,14
			2020	7.418.574.000.000	103.502.626.000.000	0,07
			2021	7.900.282.000.000	118.015.311.000.000	0,07
			2022	5.722.194.000.000	115.305.536.000.000	0,05
11	INDF	PT. Indofood Sukses Makmur Tbk.	2018	4.961.851.000.000	96.537.796.000.000	0,05
			2019	5.902.729.000.000	96.198.559.000.000	0,06
			2020	8.752.066.000.000	163.011.780.000.000	0,05
			2021	11.229.695.000.000	179.271.840.000.000	0,06
			2022	9.192.569.000.000	180.433.300.000.000	0,05
12	MERK	PT. Merck Tbk.	2019	78.256.797.000	901.060.986.000	0,09
			2020	71.902.263.000	929.901.046.000	0,08
			2021	131.660.834.000	1.026.266.866.000	0,13
			2022	179.837.759.000	1.037.647.240.000	0,17
13	MLBI	PT. Multi Bintang Indonesia Tbk.	2021	665.850.000.000	2.922.017.000.000	0,23
			2022	924.906.000.000	3.374.502.000.000	0,27
14	MYOR	PT. Mayora Indah Tbk.	2018	1.760.434.280.304	17.591.706.426.634	0,10
			2019	2.039.404.206.764	19.037.918.806.473	0,11
			2020	2.098.168.514.645	19.777.500.514.550	0,11
			2021	1.211.052.647.953	19.917.653.265.528	0,06
			2022	1.970.064.538.149	22.276.160.695.411	0,09
15	PYFA	PT. Pyridam Farma Tbk.	2018	8.447.447.988	187.057.163.854	0,05
			2019	9.342.718.039	190.786.208.250	0,05
			2020	22.104.364.267	228.575.380.866	0,10
			2021	5.478.952.440	806.221.575.272	0,01
16	ROTI	PT. Nippon Indosari Corpindo Tbk.	2018	127.171.436.363	4.393.810.380.883	0,03
			2019	236.518.557.420	4.682.083.844.951	0,05
			2020	168.610.282.478	4.452.166.671.985	0,04
			2021	283.602.993.676	4.191.284.422.677	0,07
			2022	432.247.722.254	4.130.321.616.083	0,10
17	SIDO	PT. Industri Jamu dan Farmasi Sido	2018	663.849.000.000	3.337.628.000.000	0,20
			2022	1.104.714.000.000	4.081.442.000.000	0,27
18	SKBM	PT. Sekar Bumi Tbk.	2018	15.954.632.472	1.771.365.972.009	0,01
			2020	5.415.741.808	1.768.660.546.754	0,00
			2021	29.707.421.605	1.970.428.120.056	0,02
			2022	86.635.603.936	2.042.199.577.083	0,04
19	UNVR	PT. Unilever Indonesia Tbk.	2019	7.392.837.000.000	20.649.371.000.000	0,36
			2020	7.163.536.000.000	20.534.632.000.000	0,35
			2021	5.758.148.000.000	19.068.532.000.000	0,30
			2022	5.364.761.000.000	18.318.114.000.000	0,29
20	WIIM	PT. Wisnilak Inti Makmur Tbk.	2018	51.142.850.919	1.255.573.914.558	0,04
			2020	172.506.562.986	1.614.442.007.528	0,11
			2021	176.877.010.231	1.891.169.731.202	0,09
			2022	249.644.129.079	2.168.793.843.296	0,12
21	WOOD	PT. Integra Indocabinet Tbk.	2018	242.010.106.249	4.591.658.755.920	0,05
			2019	218.064.313.042	5.518.890.225.060	0,04
			2020	314.373.402.229	5.949.006.786.510	0,05
			2021	535.295.612.635	6.801.034.778.630	0,08
			2022	177.124.125.126	6.956.345.266.754	0,03

**APPENDIX G : DATA AFTER OUTLIER**

No	Company Code	Company Name	Year	CR	DER	WCT	IT	ROA
1	ADES	PT. Akasha Wira International Tbk	2018	1,39	0,83	7,91	0,10	0,06
			2019	2,00	0,45	4,74	0,09	0,10
			2020	2,97	0,37	1,86	0,20	0,14
			2021	2,51	0,34	2,31	0,15	0,20
			2022	3,20	0,23	2,30	0,10	0,22
2	CAMP	PT. Campina Ice Cream Industry Tbk	2018	10,84	0,13	1,59	0,08	0,06
			2019	12,63	0,13	1,54	0,08	0,07
			2020	13,27	0,13	1,38	0,09	0,04
			2021	13,31	0,12	1,29	0,09	0,09
			2022	10,67	0,14	1,61	0,09	0,11
3	CEKA	PT. Wilmar Cahaya Indonesia Tbk.	2018	5,11	0,20	5,58	0,04	0,08
			2019	4,80	0,23	3,69	0,06	0,15
			2020	4,66	0,24	3,65	0,07	0,12
			2021	4,80	0,22	4,99	0,04	0,11
			2022	9,95	0,11	4,93	0,02	0,13
4	CLEO	PT. Sariguna Primatirta Tbk.	2018	1,64	0,31	10,73	0,03	0,08
			2019	1,17	0,62	30,30	0,02	0,11
			2020	1,72	0,47	9,12	0,05	0,10
			2021	1,53	0,35	11,39	0,03	0,13
			2022	1,81	0,43	7,97	0,05	0,12
5	DLTA	PT. Delta Jakarta Tbk.	2018	7,20	0,19	0,75	0,25	0,22
			2019	8,05	0,18	0,73	0,24	0,22
			2020	7,50	0,20	0,57	0,35	0,10
			2021	4,81	0,30	0,73	0,40	0,14
			2022	4,56	0,31	0,86	0,36	0,18
6	GOOD	PT. Garudafood Putra Putri Jaya Tbk	2018	1,18	0,69	33,21	0,02	0,10
			2019	1,53	0,83	12,12	0,07	0,09
			2020	1,77	1,25	7,65	0,16	0,04
			2021	1,48	1,22	10,45	0,12	0,07
			2022	1,74	1,19	7,73	0,15	0,07
7	HMSP	PT. Hanjaya Mandala Sampoerna Tbk.	2019	3,28	0,43	3,66	0,12	0,27
			2020	2,45	0,64	3,80	0,17	0,17
			2021	1,88	0,82	5,11	0,16	0,13
			2022	1,69	0,94	6,61	0,14	0,12
8	HOKI	PT. Buyung Poetra Sembada Tbk.	2018	2,68	0,35	4,65	0,07	0,12
			2019	2,99	0,32	5,14	0,06	0,12
			2020	2,24	0,36	5,00	0,07	0,04
			2021	1,60	0,46	5,51	0,08	0,01
9	HRTA	PT. Hartadinata Abadi Tbk.	2018	3,69	0,41	2,63	0,15	0,08
			2019	10,07	0,91	1,64	0,56	0,06
			2020	12,76	1,09	1,68	0,65	0,06
			2021	4,66	1,29	2,02	0,64	0,06
			2022	3,76	1,23	2,64	0,47	0,07



10	ICBP	PT. Indofood CBP Sukses Makmur Tbk.	2018	1,95	0,51	5,58	0,09	0,14
			2019	2,54	0,45	4,20	0,11	0,14
			2020	2,26	1,04	4,04	0,26	0,07
			2021	1,80	1,15	3,76	0,31	0,07
			2022	3,10	1,01	3,08	0,33	0,05
11	INDF	PT. Indofood Sukses Makmur Tbk.	2018	1,07	0,93	35,48	0,03	0,05
			2019	1,27	0,44	11,40	0,04	0,06
			2020	1,37	1,05	7,83	0,13	0,05
			2021	1,34	1,06	7,21	0,15	0,06
			2022	1,79	0,93	4,59	0,20	0,05
12	MERK	PT. Merck Tbk.	2019	2,51	0,34	1,83	0,19	0,09
			2020	2,55	0,52	1,59	0,33	0,08
			2021	2,71	0,50	2,19	0,23	0,13
			2022	3,33	0,37	2,02	0,18	0,17
13	MLBI	PT. Multi Bintang Indonesia Tbk.	2021	0,74	1,71	- 5,60	- 0,31	0,23
			2022	0,77	2,14	- 6,16	- 0,35	0,27
14	MYOR	PT. Mayora Indah Tbk.	2018	2,65	1,06	3,05	0,35	0,10
			2019	3,43	0,92	2,77	0,33	0,11
			2020	3,61	0,75	2,64	0,29	0,11
			2021	2,33	0,75	3,77	0,20	0,06
			2022	2,62	0,74	3,36	0,22	0,09
15	PYFA	PT. Pyridam Farma Tbk.	2018	2,76	0,57	4,30	0,13	0,05
			2019	3,53	0,53	3,59	0,15	0,05
			2020	2,89	0,45	3,28	0,14	0,10
			2021	1,30	3,82	8,45	0,45	0,01
16	ROTI	PT. Nippon Indosari Corpindo Tbk.	2018	3,57	0,51	2,05	0,25	0,03
			2019	1,69	0,51	4,35	0,12	0,05
			2020	3,83	0,37	2,81	0,13	0,04
			2021	2,65	0,46	4,12	0,11	0,07
			2022	2,10	0,54	5,85	0,09	0,10
17	SIDO	PT. Industri Jamu dan Farmasi Sido	2018	4,19	0,15	2,35	0,06	0,20
			2022	4,06	0,16	2,34	0,07	0,27
18	SKBM	PT. Sekar Bumi Tbk.	2018	1,38	0,70	8,28	0,08	0,01
			2020	1,36	0,84	12,52	0,07	0,00
			2021	1,31	0,99	14,00	0,07	0,02
			2022	1,44	0,90	9,81	0,09	0,04
19	UNVR	PT. Unilever Indonesia Tbk.	2019	0,65	2,91	- 9,46	- 0,31	0,36
			2020	0,66	3,16	- 9,49	- 0,33	0,35
			2021	0,61	3,41	- 8,23	- 0,41	0,30
			2022	0,61	3,58	- 8,46	- 0,42	0,29
20	WIIM	PT. Wismilak Inti Makmur Tbk.	2018	5,92	0,25	1,90	0,13	0,04
			2020	3,66	0,36	2,13	0,17	0,11
			2021	2,93	0,43	2,61	0,17	0,09
			2022	2,84	0,44	3,05	0,15	0,12
21	WOOD	PT. Integra Indocabinet Tbk.	2018	1,29	0,88	3,99	0,22	0,05
			2019	1,30	1,04	3,06	0,34	0,04
			2020	1,33	0,96	3,52	0,27	0,05
			2021	2,07	0,87	2,43	0,36	0,08
			2022	2,43	0,85	1,73	0,49	0,03

## APPENDIX H : SPSS OUTPUT RESULT

### Descriptive Big Firm Size Before Outlier

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CR	55	,61	12,76	2,5269	2,11654
DER	55	,15	3,58	1,0255	,75925
WCT	55	-14,88	35,48	2,8807	8,54143
IT	55	,87	22,09	6,4815	4,02266
ROA	55	,03	,47	,1433	,11678
Valid N (listwise)	55				

### Descriptive Big Firm Size After Remove Outlier

	N	Minimum	Maximum	Mean	Std. Deviation
CR	47	,61	12,76	2,5451	2,18810
DER	47	,15	3,58	1,0626	,77496
WCT	47	-9,49	35,48	4,1470	8,04791
IT	47	,87	22,09	6,5277	4,30432
ROA	47	,03	,36	,1151	,09002
Valid N (listwise)	47				

### Result of Normality Test – Kolmogorov-Smirnov Test After Outlier One-Sample Kolmogorov-Smirnov Test

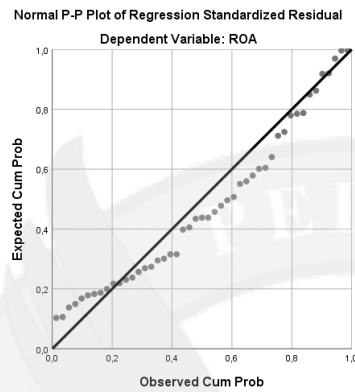
		Unstandardized Residual
N		47
Normal Parameters <sup>a,b</sup>	Mean	,000000
	Std. Deviation	,06675783
Most Extreme Differences	Absolute	,118
	Positive	,118
	Negative	-,093
Test Statistic		,118
Asymp. Sig. (2-tailed)		,102 <sup>c</sup>

a. Test distribution is Normal.

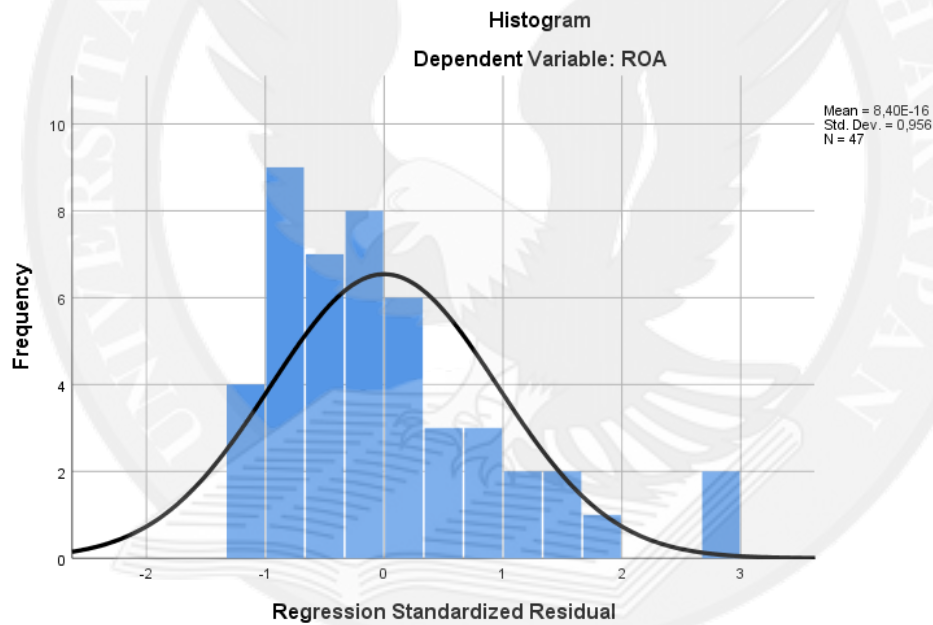
b. Calculated from data.

c. Lilliefors Significance Correction.

**Result of Normality Test – Normal P-P Plot After Outlier**



**Result of Normality –Histogram Graph After Outlier**



**Result of Multicollinearity Test After Outlier**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized	t	Sig.	Collinearity Statistics	
		B	Std. Error	Coefficients Beta			Tolerance	VIF
1	(Constant)	,096	,037		2,581	,013		
	CR	-,006	,005	-,134	-1,070	,291	,832	1,202

DER	,049	,017	,418	2,895	,006	,627	1,594
WCT	-,003	,002	-,312	-2,259	,029	,685	1,460
IT	-,001	,002	-,031	-,266	,791	,973	1,028

a. Dependent Variable: ROA

**Result of Autocorrelation Test After Outlier**

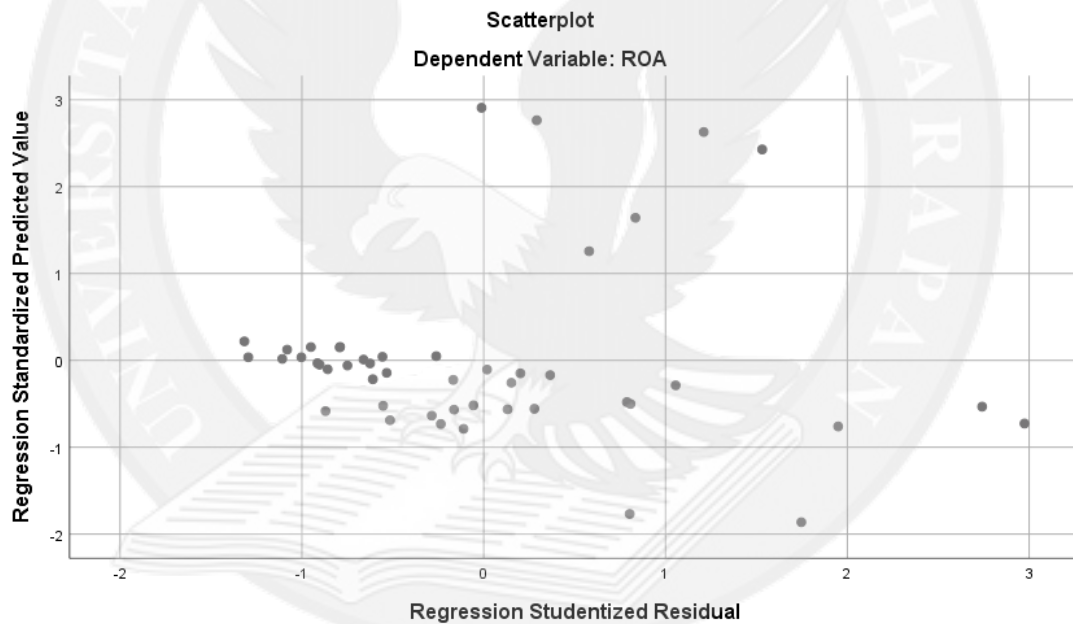
**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,671 <sup>a</sup>	,450	,398	,06986	1,801

a. Predictors: (Constant), IT, DER, CR, WCT

b. Dependent Variable: ROA

**Result of Heteroscedasticity Test – Scatterplot After Outlier**



**Result of Heteroscedasticity Test – Spearman Rho Test After Outlier**

**Correlations**

		CR	DER	WCT	IT	Unstandardized Residual
Spearman's rho	CR	1,000	-,483**	-,200	-,200	-,066
			,001	,178	,177	,659
	N	47	47	47	47	47

DER	Correlation Coefficient	-,483**	1,000	-,269	-,026	-,269
	Sig. (2-tailed)	,001	.	,067	,862	,067
	N	47	47	47	47	47
WCT	Correlation Coefficient	-,200	-,269	1,000	,121	-,119
	Sig. (2-tailed)	,178	,067	.	,417	,427
	N	47	47	47	47	47
IT	Correlation Coefficient	-,200	-,026	,121	1,000	,232
	Sig. (2-tailed)	,177	,862	,417	.	,116
	N	47	47	47	47	47
Unstandardized Residual	Correlation Coefficient	-,066	-,269	-,119	,232	1,000
	Sig. (2-tailed)	,659	,067	,427	,116	.
	N	47	47	47	47	47

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Result of Linearity Test After Outlier

	Deviation from Linearity
Current Ratio	0.051
Debt to Equity Ratio	0.055
Working Capital Turnover	0.278
Inventory Turnover	0.509

### Result of Coefficient of Determination Test

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,671 <sup>a</sup>	,450	,398	,06986

a. Predictors: (Constant), IT, DER, CR, WCT

### Result of Multiple Linear Regression Analysis of Big Firm Size After Outlier

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,096	,037		2,581	,013
	CR	-,006	,005	-,134	-1,070	,291



DER	,049	,017	,418	2,895	,006
WCT	-,003	,002	-,312	-2,259	,029
IT	-,001	,002	-,031	-,266	,791

a. Dependent Variable: ROA

### Result of T -Test Results of Big Firm Size After Outlier

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta			
1	(Constant)	,096	,037		2,581	,013
	CR	-,006	,005	-,134	-1,070	,291
	DER	,049	,017	,418	2,895	,006
	WCT	-,003	,002	-,312	-2,259	,029
	IT	-,001	,002	-,031	-,266	,791

a. Dependent Variable: ROA

### Result of F-test of Big Firm Size After Outlier

Model		ANOVA <sup>a</sup>				
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,168	4	,042	8,593	,000 <sup>b</sup>
	Residual	,205	42	,005		
	Total	,373	46			

a. Dependent Variable: ROA

b. Predictors: (Constant), IT, DER, CR, WCT

### Descriptive Small Firm Size Before Remove Outlier

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CR	50	1,17	13,31	4,1568	3,33630

DER	50	,11	3,82	,4998	,59920
WCT	50	,57	30,30	4,8868	5,00797
IT	50	,91	14,61	4,9036	3,44743
ROA	50	,00	,92	,1120	,13085
Valid N (listwise)	50				

### Descriptive Small Firm Size After Remove Outlier

#### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
CR	45	1,17	13,31	4,3118	3,43398
DER	45	,11	3,82	,4604	,55483
WCT	45	,57	30,30	4,9860	5,18871
IT	45	,91	14,61	5,0231	3,50748
ROA	45	,00	,22	,0996	,05661
Valid N (listwise)	45				

### Result of Normality Test – Kolmogorov-Smirnov Test After Outlier

#### One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		45
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	,05008936
Most Extreme Differences	Absolute	,069
	Positive	,069
	Negative	-,046
Test Statistic		,069
Asymp. Sig. (2-tailed)		,200 <sup>c,d</sup>

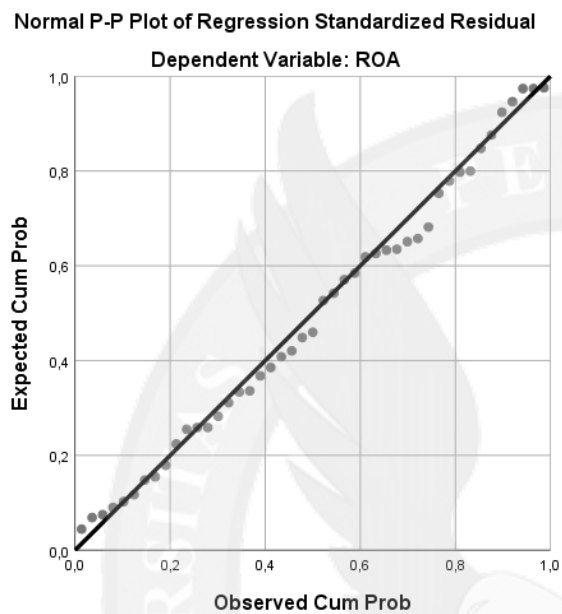
a. Test distribution is Normal.

b. Calculated from data.

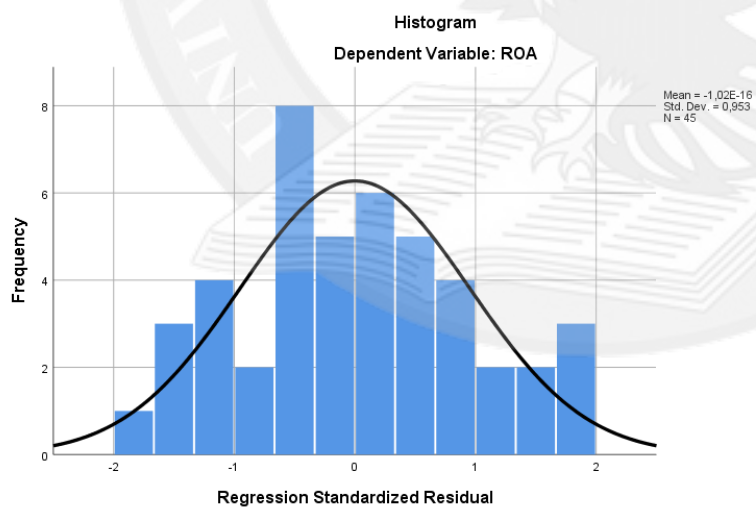
c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

### Result of Normality Test – Normal P-P Plot After Outlier



### Result of Normality -Histogram Graph After Outlier



### Result of Autocorrelation Test After Outlier

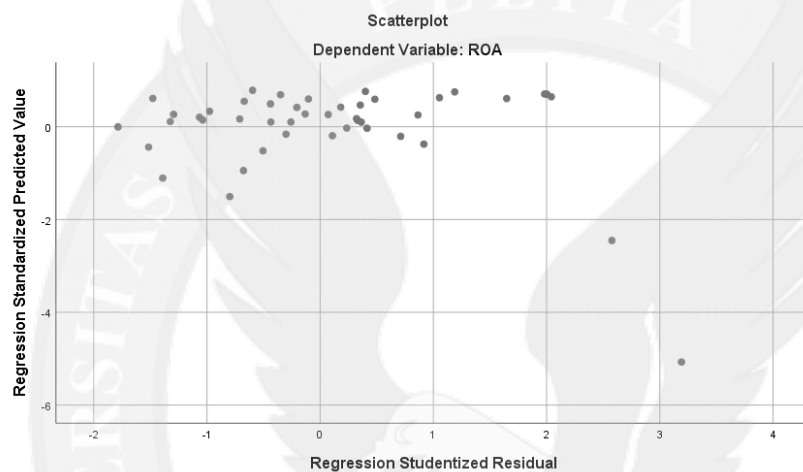
**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,466 <sup>a</sup>	,217	,139	,05253	1,800

a. Predictors: (Constant), IT, DER, CR, WCT

b. Dependent Variable: ROA

**Result of Heteroscedasticity Test – Scatterplot After Outlier**



**Result of Heteroscedasticity Test – Spearman Rho Test After Outlier Correlations**

		CR	DER	WCT	IT	Unstandardized Residual	
Spearman's rho	CR	Correlation Coefficient	1,000	-,870**	-,775**	-,350*	,116
		Sig. (2-tailed)	.	,000	,000	,018	,446
		N	45	45	45	45	45
	DER	Correlation Coefficient	-,870**	1,000	,601**	,113	-,242
		Sig. (2-tailed)	,000	.	,000	,460	,110
		N	45	45	45	45	45
	WCT	Correlation Coefficient	-,775**	,601**	1,000	,752**	-,154
		Sig. (2-tailed)	,000	,000	.	,000	,314
		N	45	45	45	45	45

IT	Correlation Coefficient	-,350*	,113	,752**	1,000	-,040
	Sig. (2-tailed)	,018	,460	,000	.	,794
	N	45	45	45	45	45
Unstandardized Residual	Correlation Coefficient	,116	-,242	-,154	-,040	1,000
	Sig. (2-tailed)	,446	,110	,314	,794	.
	N	45	45	45	45	45

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

### Result of Linearity Test After Outlier

	Deviation from Linearity
Current Ratio	0.646
Debt to Equity Ratio	0.125
Working Capital Turnover	0.425
Inventory Turnover	0.675

### Result of Coefficient of Determination Test

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,466 <sup>a</sup>	,217	,139	,05253

a. Predictors: (Constant), IT, DER, CR, WCT

b. Dependent Variable: ROA

### Result of Multiple Linear Regression Analysis of Small Firm Size After Outlier

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,146	,023		6,228	,000
	CR	-,002	,003	-,146	-,882	,383
	DER	-,040	,016	-,389	-2,495	,017



WCT	-,003	,002	-,231	-1,334	,190
IT	-,001	,002	-,067	-,436	,665

a. Dependent Variable: ROA

### Result of T -Test Results of Small Firm Size After Outlier

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients Beta		
1	(Constant)	,146	,023		6,228	,000
	CR	-,002	,003	-,146	-,882	,383
	DER	-,040	,016	-,389	-2,495	,017
	WCT	-,003	,002	-,231	-1,334	,190
	IT	-,001	,002	-,067	-,436	,665

a. Dependent Variable: ROA

Source : Data processed by writer using SPSS version 25 (2023)

### Result of F-test of Small Firm Size After Outlier

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,031	4	,008	2,772	,040 <sup>b</sup>
	Residual	,110	40	,003		
	Total	,141	44			

a. Dependent Variable: ROA

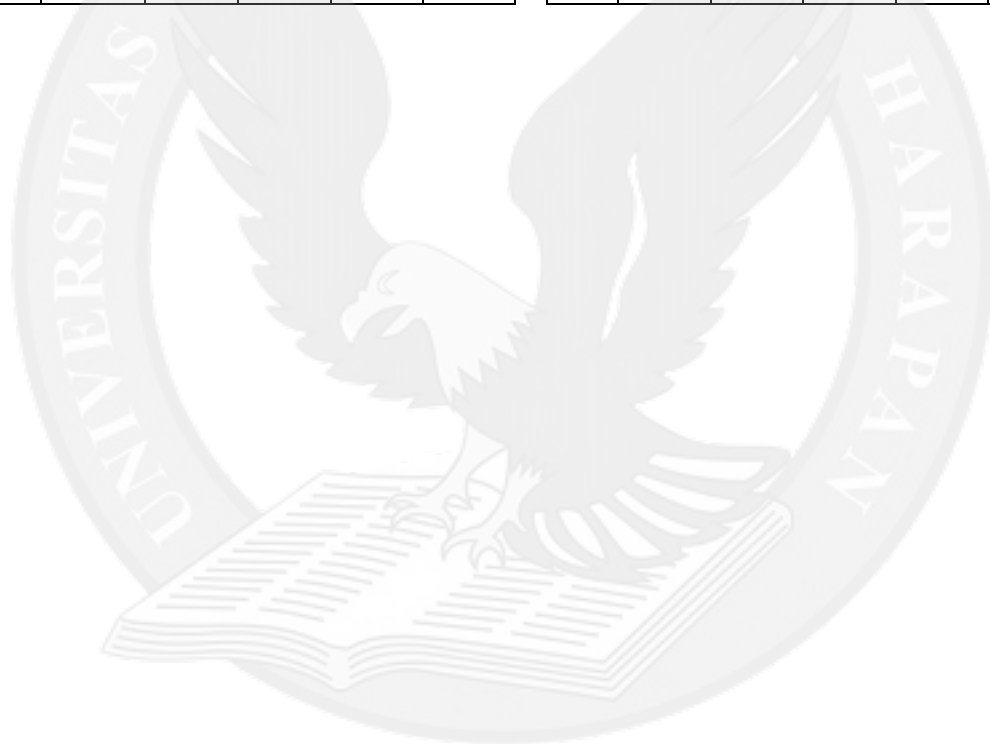
b. Predictors: (Constant), IT, DER, CR, WCT

## APPENDIX I : STATISTICAL TABLE

T-table

d.f	t <sub>0.10</sub>	t <sub>0.05</sub>	t <sub>0.025</sub>	t <sub>0.01</sub>	t <sub>0.005</sub>
1	3.078	6.314	12.71	31.82	63.66
2	1.886	2.920	4.303	6.965	9.925
3	1.638	2.353	3.182	4.541	5.841
4	1.533	2.132	2.776	3.747	4.604
5	1.476	2.015	2.571	3.365	4.032
6	1.440	1.943	2.447	3.143	3.707
7	1.415	1.895	2.365	2.998	3.499
8	1.397	1.860	2.306	2.896	3.355
9	1.383	1.833	2.262	2.821	3.250
10	1.372	1.812	2.228	2.764	3.169
11	1.363	1.796	2.201	2.718	3.106
12	1.356	1.782	2.179	2.681	3.055
13	1.350	1.771	2.160	2.650	3.012
14	1.345	1.761	2.145	2.624	2.977
15	1.341	1.753	2.131	2.602	2.947
16	1.337	1.746	2.120	2.583	2.921
17	1.333	1.740	2.110	2.567	2.898
18	1.330	1.734	2.101	2.552	2.878
19	1.328	1.729	2.093	2.539	2.861
20	1.325	1.725	2.086	2.528	2.845
21	1.323	1.721	2.080	2.518	2.831
22	1.321	1.717	2.074	2.508	2.819
23	1.319	1.714	2.069	2.500	2.807
24	1.318	1.711	2.064	2.492	2.797
25	1.316	1.708	2.060	2.485	2.787
26	1.315	1.706	2.056	2.479	2.779
27	1.314	1.703	2.052	2.473	2.771
28	1.313	1.701	2.048	2.467	2.763
29	1.311	1.699	2.045	2.462	2.756
30	1.310	1.697	2.042	2.457	2.750
31	1.309	1.696	2.040	2.453	2.744
32	1.309	1.694	2.037	2.449	2.738
33	1.308	1.692	2.035	2.445	2.733
34	1.307	1.691	2.032	2.441	2.728
35	1.306	1.690	2.030	2.438	2.724
36	1.306	1.688	2.028	2.434	2.719
37	1.305	1.687	2.026	2.431	2.715
38	1.304	1.686	2.024	2.429	2.712
39	1.304	1.685	2.023	2.426	2.708
40	1.303	1.684	2.021	2.423	2.704
41	1.303	1.683	2.020	2.421	2.701
42	1.302	1.682	2.018	2.418	2.698
43	1.302	1.681	2.017	2.416	2.695
44	1.301	1.680	2.015	2.414	2.692
61	1.296	1.671	2.000	2.390	2.659
62	1.296	1.671	1.999	2.389	2.659
63	1.296	1.670	1.999	2.389	2.658
64	1.296	1.670	1.999	2.388	2.657
65	1.296	1.670	1.998	2.388	2.657
66	1.295	1.670	1.998	2.387	2.656
67	1.295	1.670	1.998	2.387	2.655
68	1.295	1.670	1.997	2.386	2.655
69	1.295	1.669	1.997	2.386	2.654
70	1.295	1.669	1.997	2.385	2.653
71	1.295	1.669	1.996	2.385	2.653
72	1.295	1.669	1.996	2.384	2.652
73	1.295	1.669	1.996	2.384	2.651
74	1.295	1.668	1.995	2.383	2.651
75	1.295	1.668	1.995	2.383	2.650
76	1.294	1.668	1.995	2.382	2.649
77	1.294	1.668	1.994	2.382	2.649
78	1.294	1.668	1.994	2.381	2.648
79	1.294	1.668	1.994	2.381	2.647
80	1.294	1.667	1.993	2.380	2.647
81	1.294	1.667	1.993	2.380	2.646
82	1.294	1.667	1.993	2.379	2.645
83	1.294	1.667	1.992	2.379	2.645
84	1.294	1.667	1.992	2.378	2.644
85	1.294	1.666	1.992	2.378	2.643
86	1.293	1.666	1.991	2.377	2.643
87	1.293	1.666	1.991	2.377	2.642
88	1.293	1.666	1.991	2.376	2.641
89	1.293	1.666	1.990	2.376	2.641
90	1.293	1.666	1.990	2.375	2.640
91	1.293	1.665	1.990	2.374	2.639
92	1.293	1.665	1.989	2.374	2.639
93	1.293	1.665	1.989	2.373	2.638
94	1.293	1.665	1.989	2.373	2.637
95	1.293	1.665	1.988	2.372	2.637
96	1.292	1.664	1.988	2.372	2.636
97	1.292	1.664	1.988	2.371	2.635
98	1.292	1.664	1.987	2.371	2.635
99	1.292	1.664	1.987	2.370	2.634
100	1.292	1.664	1.987	2.370	2.633
101	1.292	1.663	1.986	2.369	2.633
102	1.292	1.663	1.986	2.369	2.632
103	1.292	1.663	1.986	2.368	2.631
104	1.292	1.663	1.985	2.368	2.631

45	1.301	1.679	2.014	2.412	2.690	105	1.292	1.663	1.985	2.367	2.630
46	1.300	1.679	2.013	2.410	2.687	106	1.291	1.663	1.985	2.367	2.629
47	1.300	1.678	2.012	2.408	2.685	107	1.291	1.662	1.984	2.366	2.629
48	1.299	1.677	2.011	2.407	2.682	108	1.291	1.662	1.984	2.366	2.628
49	1.299	1.677	2.010	2.405	2.680	109	1.291	1.662	1.984	2.365	2.627
50	1.299	1.676	2.009	2.403	2.678	110	1.291	1.662	1.983	2.365	2.627
51	1.298	1.675	2.008	2.402	2.676	111	1.291	1.662	1.983	2.364	2.626
52	1.298	1.675	2.007	2.400	2.674	112	1.291	1.661	1.983	2.364	2.625
53	1.298	1.674	2.006	2.399	2.672	113	1.291	1.661	1.982	2.363	2.625
54	1.297	1.674	2.005	2.397	2.670	114	1.291	1.661	1.982	2.363	2.624
55	1.297	1.673	2.004	2.396	2.668	115	1.291	1.661	1.982	2.362	2.623
56	1.297	1.673	2.003	2.395	2.667	116	1.290	1.661	1.981	2.362	2.623
57	1.297	1.672	2.002	2.394	2.665	117	1.290	1.661	1.981	2.361	2.622
58	1.296	1.672	2.002	2.392	2.663	118	1.290	1.660	1.981	2.361	2.621
59	1.296	1.671	2.001	2.391	2.662	119	1.290	1.660	1.980	2.360	2.621
60	1.296	1.671	2.000	2.390	2.660	120	1.290	1.660	1.980	2.360	2.620



F-table

df untuk penyebut (N2)	df untuk pembilang (N1)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	161	199	216	225	230	234	237	239	241	242	243	244	245	245	246
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38	19.40	19.40	19.41	19.42	19.42	19.43
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.76	8.74	8.73	8.71	8.70
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.94	5.91	5.89	5.87	5.86
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	4.74	4.70	4.68	4.66	4.64	4.62
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.03	4.00	3.98	3.96	3.94
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	3.64	3.60	3.57	3.55	3.53	3.51
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.35	3.31	3.28	3.26	3.24	3.22
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.14	3.10	3.07	3.05	3.03	3.01
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	2.98	2.94	2.91	2.89	2.86	2.85
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90	2.85	2.82	2.79	2.76	2.74	2.72
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80	2.75	2.72	2.69	2.66	2.64	2.62
13	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71	2.67	2.63	2.60	2.58	2.55	2.53
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65	2.60	2.57	2.53	2.51	2.48	2.46
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	2.54	2.51	2.48	2.45	2.42	2.40
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.46	2.42	2.40	2.37	2.35
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.45	2.41	2.38	2.35	2.33	2.31
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.37	2.34	2.31	2.29	2.27
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.34	2.31	2.28	2.26	2.23
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.31	2.28	2.25	2.22	2.20
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.28	2.25	2.22	2.20	2.18
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	2.30	2.26	2.23	2.20	2.17	2.15
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32	2.27	2.24	2.20	2.18	2.15	2.13
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30	2.25	2.22	2.18	2.15	2.13	2.11
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28	2.24	2.20	2.16	2.14	2.11	2.09
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.18	2.15	2.12	2.09	2.07
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	2.20	2.17	2.13	2.10	2.08	2.06
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24	2.19	2.15	2.12	2.09	2.06	2.04
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22	2.18	2.14	2.10	2.08	2.05	2.03
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	2.16	2.13	2.09	2.06	2.04	2.01

31	4.16	3.30	2.91	2.68	2.52	2.41	2.32	2.25	2.20	2.15	2.11	2.08	2.05	2.03	2.00
32	4.15	3.29	2.90	2.67	2.51	2.40	2.31	2.24	2.19	2.14	2.10	2.07	2.04	2.01	1.99
33	4.14	3.28	2.89	2.66	2.50	2.39	2.30	2.23	2.18	2.13	2.09	2.06	2.03	2.00	1.98
34	4.13	3.28	2.88	2.65	2.49	2.38	2.29	2.23	2.17	2.12	2.08	2.05	2.02	1.99	1.97
35	4.12	3.27	2.87	2.64	2.49	2.37	2.29	2.22	2.16	2.11	2.07	2.04	2.01	1.99	1.96
36	4.11	3.26	2.87	2.63	2.48	2.36	2.28	2.21	2.15	2.11	2.07	2.03	2.00	1.98	1.95
37	4.11	3.25	2.86	2.63	2.47	2.36	2.27	2.20	2.14	2.10	2.06	2.02	2.00	1.97	1.95
38	4.10	3.24	2.85	2.62	2.46	2.35	2.26	2.19	2.14	2.09	2.05	2.02	1.99	1.96	1.94
39	4.09	3.24	2.85	2.61	2.46	2.34	2.26	2.19	2.13	2.08	2.04	2.01	1.98	1.95	1.93
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	2.08	2.04	2.00	1.97	1.95	1.92
41	4.08	3.23	2.83	2.60	2.44	2.33	2.24	2.17	2.12	2.07	2.03	2.00	1.97	1.94	1.92
42	4.07	3.22	2.83	2.59	2.44	2.32	2.24	2.17	2.11	2.06	2.03	1.99	1.96	1.94	1.91
43	4.07	3.21	2.82	2.59	2.43	2.32	2.23	2.16	2.11	2.06	2.02	1.99	1.96	1.93	1.91
44	4.06	3.21	2.82	2.58	2.43	2.31	2.23	2.16	2.10	2.05	2.01	1.98	1.95	1.92	1.90
45	4.06	3.20	2.81	2.58	2.42	2.31	2.22	2.15	2.10	2.05	2.01	1.97	1.94	1.92	1.89
46	4.05	3.20	2.81	2.57	2.42	2.30	2.22	2.15	2.09	2.04	2.00	1.97	1.94	1.91	1.89
47	4.05	3.20	2.80	2.57	2.41	2.30	2.21	2.14	2.09	2.04	2.00	1.96	1.93	1.91	1.88
48	4.04	3.19	2.80	2.57	2.41	2.29	2.21	2.14	2.08	2.03	1.99	1.96	1.93	1.90	1.88
49	4.04	3.19	2.79	2.56	2.40	2.29	2.20	2.13	2.08	2.03	1.99	1.96	1.93	1.90	1.88
50	4.03	3.18	2.79	2.56	2.40	2.29	2.20	2.13	2.07	2.03	1.99	1.95	1.92	1.89	1.87
51	4.03	3.18	2.79	2.55	2.40	2.28	2.20	2.13	2.07	2.02	1.98	1.95	1.92	1.89	1.87
52	4.03	3.18	2.78	2.55	2.39	2.28	2.19	2.12	2.07	2.02	1.98	1.94	1.91	1.89	1.86
53	4.02	3.17	2.78	2.55	2.39	2.28	2.19	2.12	2.06	2.01	1.97	1.94	1.91	1.88	1.86
54	4.02	3.17	2.78	2.54	2.39	2.27	2.18	2.12	2.06	2.01	1.97	1.94	1.91	1.88	1.86
55	4.02	3.16	2.77	2.54	2.38	2.27	2.18	2.11	2.06	2.01	1.97	1.93	1.90	1.88	1.85
56	4.01	3.16	2.77	2.54	2.38	2.27	2.18	2.11	2.05	2.00	1.96	1.93	1.90	1.87	1.85
57	4.01	3.16	2.77	2.53	2.38	2.26	2.18	2.11	2.05	2.00	1.96	1.93	1.90	1.87	1.85
58	4.01	3.16	2.76	2.53	2.37	2.26	2.17	2.10	2.05	2.00	1.96	1.92	1.89	1.87	1.84
59	4.00	3.15	2.76	2.53	2.37	2.26	2.17	2.10	2.04	2.00	1.96	1.92	1.89	1.86	1.84
60	4.00	3.15	2.76	2.53	2.37	2.25	2.17	2.10	2.04	1.99	1.95	1.92	1.89	1.86	1.84
61	4.00	3.15	2.76	2.52	2.37	2.25	2.16	2.09	2.04	1.99	1.95	1.91	1.88	1.86	1.83
62	4.00	3.15	2.75	2.52	2.36	2.25	2.16	2.09	2.03	1.99	1.95	1.91	1.88	1.85	1.83
63	3.99	3.14	2.75	2.52	2.36	2.25	2.16	2.09	2.03	1.98	1.94	1.91	1.88	1.85	1.83
64	3.99	3.14	2.75	2.52	2.36	2.24	2.16	2.09	2.03	1.98	1.94	1.91	1.88	1.85	1.83
65	3.99	3.14	2.75	2.51	2.36	2.24	2.15	2.08	2.03	1.98	1.94	1.90	1.87	1.85	1.82
66	3.99	3.14	2.74	2.51	2.35	2.24	2.15	2.08	2.03	1.98	1.94	1.90	1.87	1.84	1.82
67	3.98	3.13	2.74	2.51	2.35	2.24	2.15	2.08	2.02	1.98	1.93	1.90	1.87	1.84	1.82



68	3.98	3.13	2.74	2.51	2.35	2.24	2.15	2.08	2.02	1.97	1.93	1.90	1.87	1.84	1.82
69	3.98	3.13	2.74	2.50	2.35	2.23	2.15	2.08	2.02	1.97	1.93	1.90	1.86	1.84	1.81
70	3.98	3.13	2.74	2.50	2.35	2.23	2.14	2.07	2.02	1.97	1.93	1.89	1.86	1.84	1.81
71	3.98	3.13	2.73	2.50	2.34	2.23	2.14	2.07	2.01	1.97	1.93	1.89	1.86	1.83	1.81
72	3.97	3.12	2.73	2.50	2.34	2.23	2.14	2.07	2.01	1.96	1.92	1.89	1.86	1.83	1.81
73	3.97	3.12	2.73	2.50	2.34	2.23	2.14	2.07	2.01	1.96	1.92	1.89	1.86	1.83	1.81
74	3.97	3.12	2.73	2.50	2.34	2.22	2.14	2.07	2.01	1.96	1.92	1.89	1.85	1.83	1.80
75	3.97	3.12	2.73	2.49	2.34	2.22	2.13	2.06	2.01	1.96	1.92	1.88	1.85	1.83	1.80
76	3.97	3.12	2.72	2.49	2.33	2.22	2.13	2.06	2.01	1.96	1.92	1.88	1.85	1.82	1.80
77	3.97	3.12	2.72	2.49	2.33	2.22	2.13	2.06	2.00	1.96	1.92	1.88	1.85	1.82	1.80
78	3.96	3.11	2.72	2.49	2.33	2.22	2.13	2.06	2.00	1.95	1.91	1.88	1.85	1.82	1.80
79	3.96	3.11	2.72	2.49	2.33	2.22	2.13	2.06	2.00	1.95	1.91	1.88	1.85	1.82	1.79
80	3.96	3.11	2.72	2.49	2.33	2.21	2.13	2.06	2.00	1.95	1.91	1.88	1.84	1.82	1.79
81	3.96	3.11	2.72	2.48	2.33	2.21	2.12	2.05	2.00	1.95	1.91	1.87	1.84	1.82	1.79
82	3.96	3.11	2.72	2.48	2.33	2.21	2.12	2.05	2.00	1.95	1.91	1.87	1.84	1.81	1.79
83	3.96	3.11	2.71	2.48	2.32	2.21	2.12	2.05	1.99	1.95	1.91	1.87	1.84	1.81	1.79
84	3.95	3.11	2.71	2.48	2.32	2.21	2.12	2.05	1.99	1.95	1.90	1.87	1.84	1.81	1.79
85	3.95	3.10	2.71	2.48	2.32	2.21	2.12	2.05	1.99	1.94	1.90	1.87	1.84	1.81	1.79
86	3.95	3.10	2.71	2.48	2.32	2.21	2.12	2.05	1.99	1.94	1.90	1.87	1.84	1.81	1.78
87	3.95	3.10	2.71	2.48	2.32	2.20	2.12	2.05	1.99	1.94	1.90	1.87	1.83	1.81	1.78
88	3.95	3.10	2.71	2.48	2.32	2.20	2.12	2.05	1.99	1.94	1.90	1.86	1.83	1.81	1.78
89	3.95	3.10	2.71	2.47	2.32	2.20	2.11	2.04	1.99	1.94	1.90	1.86	1.83	1.80	1.78
90	3.95	3.10	2.71	2.47	2.32	2.20	2.11	2.04	1.99	1.94	1.90	1.86	1.83	1.80	1.78
91	3.95	3.10	2.70	2.47	2.31	2.20	2.11	2.04	1.98	1.94	1.90	1.86	1.83	1.80	1.78
92	3.94	3.10	2.70	2.47	2.31	2.20	2.11	2.04	1.98	1.94	1.89	1.86	1.83	1.80	1.78
93	3.95	3.09	2.70	2.47	2.31	2.20	2.11	2.04	1.98	1.93	1.89	1.86	1.83	1.80	1.78
94	3.94	3.09	2.70	2.47	2.31	2.20	2.11	2.04	1.98	1.93	1.89	1.86	1.83	1.80	1.77
95	3.94	3.09	2.70	2.47	2.31	2.20	2.11	2.04	1.98	1.93	1.89	1.86	1.82	1.80	1.77
96	3.94	3.09	2.70	2.47	2.31	2.19	2.11	2.04	1.98	1.93	1.89	1.85	1.82	1.80	1.77
97	3.94	3.09	2.70	2.47	2.31	2.19	2.11	2.04	1.98	1.93	1.89	1.85	1.82	1.80	1.77
98	3.94	3.09	2.70	2.46	2.31	2.19	2.10	2.03	1.98	1.93	1.89	1.85	1.82	1.79	1.77
99	3.94	3.09	2.70	2.46	2.31	2.19	2.10	2.03	1.98	1.93	1.89	1.85	1.82	1.79	1.77
100	3.94	3.09	2.70	2.46	2.31	2.19	2.10	2.03	1.97	1.93	1.89	1.85	1.82	1.79	1.77

**Dw Table**

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
71	1.5865	1.6435	1.5577	1.6733	1.5284	1.7041	1.4987	1.7358	1.4685	1.7685
72	1.5895	1.6457	1.5611	1.6751	1.5323	1.7054	1.5029	1.7366	1.4732	1.7688
73	1.5924	1.6479	1.5645	1.6768	1.5360	1.7067	1.5071	1.7375	1.4778	1.7691
74	1.5953	1.6500	1.5677	1.6785	1.5397	1.7079	1.5112	1.7383	1.4822	1.7694
75	1.5981	1.6521	1.5709	1.6802	1.5432	1.7092	1.5151	1.7390	1.4866	1.7698
76	1.6009	1.6541	1.5740	1.6819	1.5467	1.7104	1.5190	1.7399	1.4909	1.7701
77	1.6036	1.6561	1.5771	1.6835	1.5502	1.7117	1.5228	1.7407	1.4950	1.7704
78	1.6063	1.6581	1.5801	1.6851	1.5535	1.7129	1.5265	1.7415	1.4991	1.7708
79	1.6089	1.6601	1.5830	1.6867	1.5568	1.7141	1.5302	1.7423	1.5031	1.7712
80	1.6114	1.6620	1.5859	1.6882	1.5600	1.7153	1.5337	1.7430	1.5070	1.7716
81	1.6139	1.6639	1.5888	1.6898	1.5632	1.7164	1.5372	1.7438	1.5109	1.7720
82	1.6164	1.6657	1.5915	1.6913	1.5663	1.7176	1.5406	1.7446	1.5146	1.7724
83	1.6188	1.6675	1.5942	1.6928	1.5693	1.7187	1.5440	1.7454	1.5183	1.7728
84	1.6212	1.6693	1.5969	1.6942	1.5723	1.7199	1.5472	1.7462	1.5219	1.7732
85	1.6235	1.6711	1.5995	1.6957	1.5752	1.7210	1.5505	1.7470	1.5254	1.7736
86	1.6258	1.6728	1.6021	1.6971	1.5780	1.7221	1.5536	1.7478	1.5289	1.7740
87	1.6280	1.6745	1.6046	1.6985	1.5808	1.7232	1.5567	1.7485	1.5322	1.7745
88	1.6302	1.6762	1.6071	1.6999	1.5836	1.7243	1.5597	1.7493	1.5356	1.7749
89	1.6324	1.6778	1.6095	1.7013	1.5863	1.7254	1.5627	1.7501	1.5388	1.7754
90	1.6345	1.6794	1.6119	1.7026	1.5889	1.7264	1.5656	1.7508	1.5420	1.7758
91	1.6366	1.6810	1.6143	1.7040	1.5915	1.7275	1.5685	1.7516	1.5452	1.7763

92	1.6387	1.6826	1.6166	1.7053	1.5941	1.7285	1.5713	1.7523	1.5482	1.7767
93	1.6407	1.6841	1.6188	1.7066	1.5966	1.7295	1.5741	1.7531	1.5513	1.7772
94	1.6427	1.6857	1.6211	1.7078	1.5991	1.7306	1.5768	1.7538	1.5542	1.7776
95	1.6447	1.6872	1.6233	1.7091	1.6015	1.7316	1.5795	1.7546	1.5572	1.7781
96	1.6466	1.6887	1.6254	1.7103	1.6039	1.7326	1.5821	1.7553	1.5600	1.7785
97	1.6485	1.6901	1.6275	1.7116	1.6063	1.7335	1.5847	1.7560	1.5628	1.7790
98	1.6504	1.6916	1.6296	1.7128	1.6086	1.7345	1.5872	1.7567	1.5656	1.7795
99	1.6522	1.6930	1.6317	1.7140	1.6108	1.7355	1.5897	1.7575	1.5683	1.7799
100	1.6540	1.6944	1.6337	1.7152	1.6131	1.7364	1.5922	1.7582	1.5710	1.7804
101	1.6558	1.6958	1.6357	1.7163	1.6153	1.7374	1.5946	1.7589	1.5736	1.7809
102	1.6576	1.6971	1.6376	1.7175	1.6174	1.7383	1.5969	1.7596	1.5762	1.7813
103	1.6593	1.6985	1.6396	1.7186	1.6196	1.7392	1.5993	1.7603	1.5788	1.7818
104	1.6610	1.6998	1.6415	1.7198	1.6217	1.7402	1.6016	1.7610	1.5813	1.7823
105	1.6627	1.7011	1.6433	1.7209	1.6237	1.7411	1.6038	1.7617	1.5837	1.7827
106	1.6644	1.7024	1.6452	1.7220	1.6258	1.7420	1.6061	1.7624	1.5861	1.7832
107	1.6660	1.7037	1.6470	1.7231	1.6277	1.7428	1.6083	1.7631	1.5885	1.7837
108	1.6676	1.7050	1.6488	1.7241	1.6297	1.7437	1.6104	1.7637	1.5909	1.7841
109	1.6692	1.7062	1.6505	1.7252	1.6317	1.7446	1.6125	1.7644	1.5932	1.7846
110	1.6708	1.7074	1.6523	1.7262	1.6336	1.7455	1.6146	1.7651	1.5955	1.7851
111	1.6723	1.7086	1.6540	1.7273	1.6355	1.7463	1.6167	1.7657	1.5977	1.7855
112	1.6738	1.7098	1.6557	1.7283	1.6373	1.7472	1.6187	1.7664	1.5999	1.7860
113	1.6753	1.7110	1.6574	1.7293	1.6391	1.7480	1.6207	1.7670	1.6021	1.7864
114	1.6768	1.7122	1.6590	1.7303	1.6410	1.7488	1.6227	1.7677	1.6042	1.7869
115	1.6783	1.7133	1.6606	1.7313	1.6427	1.7496	1.6246	1.7683	1.6063	1.7874
116	1.6797	1.7145	1.6622	1.7323	1.6445	1.7504	1.6265	1.7690	1.6084	1.7878
117	1.6812	1.7156	1.6638	1.7332	1.6462	1.7512	1.6284	1.7696	1.6105	1.7883
118	1.6826	1.7167	1.6653	1.7342	1.6479	1.7520	1.6303	1.7702	1.6125	1.7887
119	1.6839	1.7178	1.6669	1.7352	1.6496	1.7528	1.6321	1.7709	1.6145	1.7892
120	1.6853	1.7189	1.6684	1.7361	1.6513	1.7536	1.6339	1.7715	1.6164	1.7896
121	1.6867	1.7200	1.6699	1.7370	1.6529	1.7544	1.6357	1.7721	1.6184	1.7901
122	1.6880	1.7210	1.6714	1.7379	1.6545	1.7552	1.6375	1.7727	1.6203	1.7905
123	1.6893	1.7221	1.6728	1.7388	1.6561	1.7559	1.6392	1.7733	1.6222	1.7910
124	1.6906	1.7231	1.6743	1.7397	1.6577	1.7567	1.6409	1.7739	1.6240	1.7914
125	1.6919	1.7241	1.6757	1.7406	1.6592	1.7574	1.6426	1.7745	1.6258	1.7919
126	1.6932	1.7252	1.6771	1.7415	1.6608	1.7582	1.6443	1.7751	1.6276	1.7923
127	1.6944	1.7261	1.6785	1.7424	1.6623	1.7589	1.6460	1.7757	1.6294	1.7928
128	1.6957	1.7271	1.6798	1.7432	1.6638	1.7596	1.6476	1.7763	1.6312	1.7932
129	1.6969	1.7281	1.6812	1.7441	1.6653	1.7603	1.6492	1.7769	1.6329	1.7937
130	1.6981	1.7291	1.6825	1.7449	1.6667	1.7610	1.6508	1.7774	1.6346	1.7941
131	1.6993	1.7301	1.6838	1.7458	1.6682	1.7617	1.6523	1.7780	1.6363	1.7945
132	1.7005	1.7310	1.6851	1.7466	1.6696	1.7624	1.6539	1.7786	1.6380	1.7950
133	1.7017	1.7319	1.6864	1.7474	1.6710	1.7631	1.6554	1.7791	1.6397	1.7954
134	1.7028	1.7329	1.6877	1.7482	1.6724	1.7638	1.6569	1.7797	1.6413	1.7958
135	1.7040	1.7338	1.6889	1.7490	1.6738	1.7645	1.6584	1.7802	1.6429	1.7962