

LAMPIRAN

Lampiran 1. Perhitungan indeks spesialisasi perdagangan gula kristal putih Indonesia

Tahun	Xia (ton)	Mia (ton)	Xia - Mia	Xia + Mia	ISP
2006	41.201	84888.280	-84847.079	84929.481	-0,99903
2007	45.671	372027.850	-371982.179	372073.521	-0,999755
2008	238.606	34650.000	-34411.394	34888.606	-0,986322
2009	150.359	3000.100	-2849.741	3150.459	-0,904548
2010	76.887	378643.824	-378566.937	378720.711	-0,999594
2011	218.983	115379.135	-115160.152	115598.118	-0,996211

Lampiran 2. Perhitungan indeks spesialisasi perdagangan gula rafinasi Indonesia

Tahun	Xia (ton)	Mia (ton)	Xia - Mia	Xia + Mia	ISP
2006	781.441	598127.598	-597346.157	598909.039	-0,99739
2007	69.052	712789.385	-712720.333	712858.437	-0,999806
2008	67.744	603719.191	-603651.447	603786.935	-0,999776
2009	81.589	97083.258	-97001.669	97164.847	-0,998321
2010	400.696	191053.668	-190652.972	191454.364	-0,995814
2011	560.601	66217.277	-65656.676	66777.878	-0,98321

Lampiran 3. Perhitungan *import dependency ratio* gula kristal putih Indonesia

Tahun	Mia (ton)	Produksi (ton)	Xia (ton)	Produksi+Mia-Xia	IDR (%)
2006	84.888.280	2.307.027	41.201	2.391.874.079	3,55
2007	372.027.850	2.448.143	45.671	2.820.125.179	13,19
2008	34.650.000	2.668.428	238.606	2.702.839.394	1,28
2009	3.000.100	2.519.675	150.359	2.522.524.741	0,12
2010	378.643.824	2.214.488	76.887	2.593.054.937	14,60
2011	115.379.135	2.721.727	218.983	2.836.887.152	4,07

Lampiran 4. Perhitungan *import dependency ratio* gula kristal rafinasi Indonesia

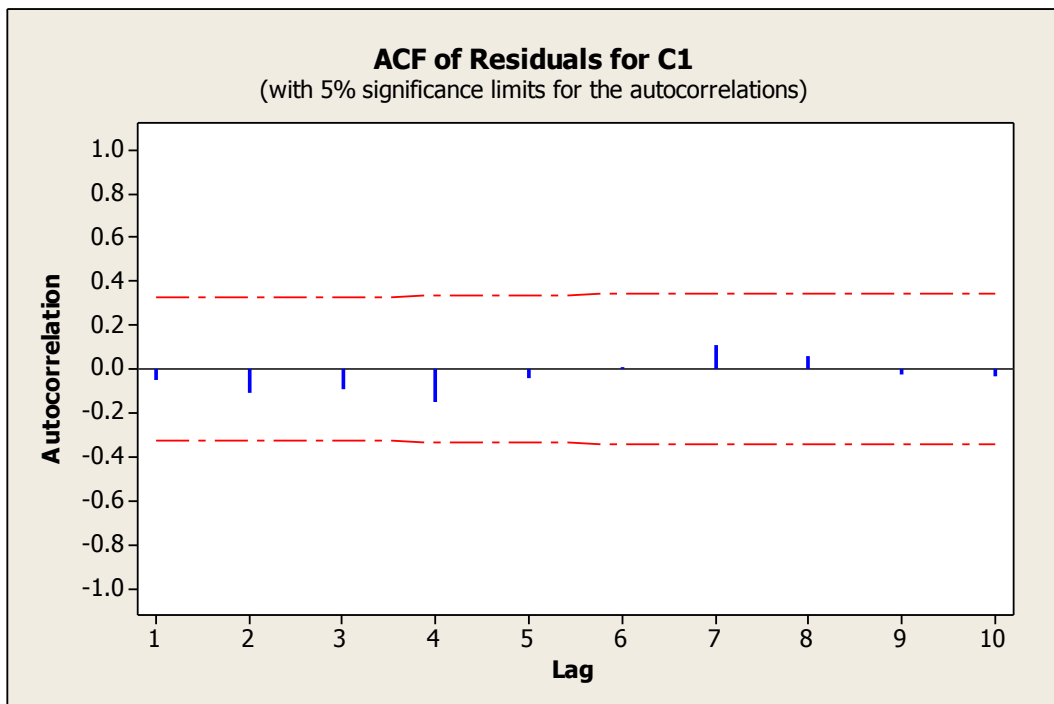
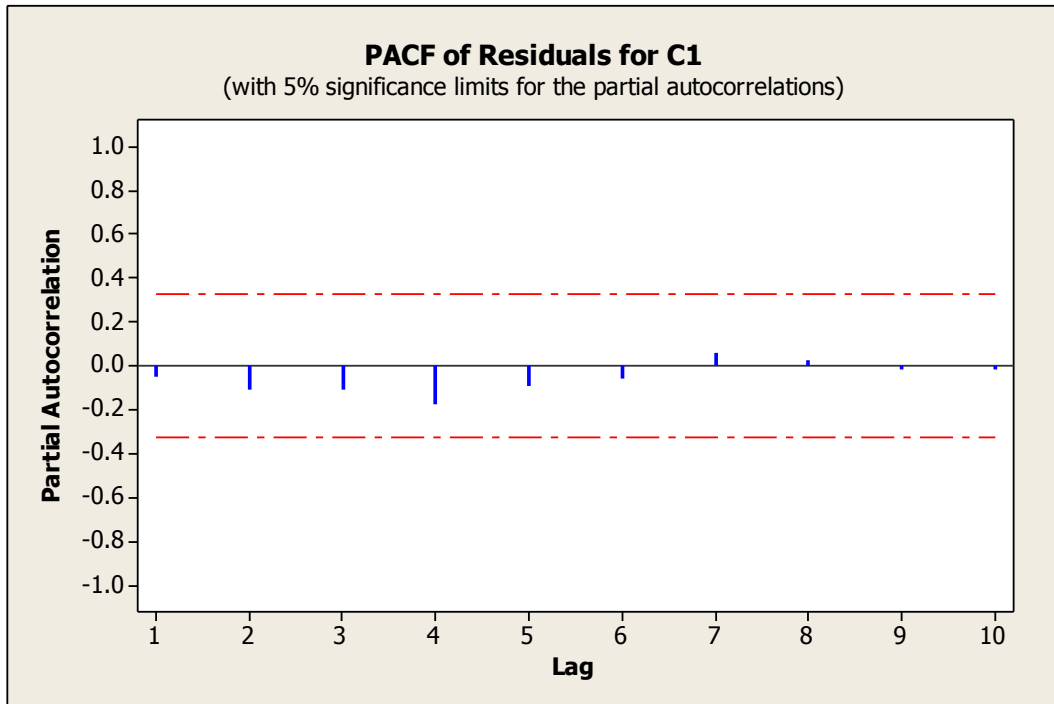
Tahun	Mia (ton)	Produksi (ton)	Xia (ton)	Produksi+Mia-Xia	IDR (%)
2006	598.127.598	1.100.228	781.441	1.697.574	35,234
2007	712.789.385	1.441.501	69.052	2.154.221	33,088
2008	603.719.191	1.256.435	67.744	1.860.086	32,457
2009	97.083.258	2.031.843	81.589	2.128.845	4,560
2010	191.053.668	2.356.805	400.696	2.547.458	7,500
2011	66.217.277	2.192.109	560.601	2.257.766	2,933

Lampiran 5. Data times series volume impor gula Indonesia tahun 1972-2011

Tahun	Jumlah impor (000 ton)	RESI1	RESI2	RESI3	RESI4
1972	6,12	*	*	*	*
1973	49,14	-5,90	-4,95	-5,66	15,24
1974	112,92	26,05	27,59	26,48	34,58
1975	96,81	-32,98	-31,32	-32,49	-28,63
1976	207,83	55,61	56,51	55,86	51,21
1977	226,83	21,42	23,34	22,00	27,94
1978	433,06	186,34	186,96	186,54	174,43
1979	295,08	-50,22	-49,17	-49,82	-39,70
1980	400,92	39,18	36,36	38,37	23,63
1981	720,95	311,73	311,62	311,70	348,90
1982	687,15	135,82	136,45	136,13	157,86
1983	168,04	-464,32	-469,38	-465,70	-457,29
1984	2,85	-502,19	-509,12	-504,41	-464,96
1985	4,35	-360,22	-356,16	-359,36	-287,57
1986	79,88	-193,51	-181,35	-190,21	-212,54
1987	129,76	-110,32	-95,48	-106,09	-200,00
1988	130,26	-105,40	-92,03	-101,47	-247,67
1989	325,48	92,53	103,30	95,75	-74,83
1990	280,98	-17,97	-8,29	-14,98	-18,31
1991	73,99	-252,60	-248,01	-251,12	-452,59
1992	294,23	21,46	24,38	22,32	-159,22
1993	167,99	-146,11	-138,55	-143,84	-306,55
1994	15,21	-282,04	-277,73	-280,75	-513,40
1995	544,30	311,09	316,36	312,57	104,50
1996	1099,31	724,21	734,78	727,46	528,00
1997	578,02	-82,39	-79,33	-81,05	-330,89
1998	844,85	179,17	166,49	175,62	-57,23
1999	1398,95	637,18	632,02	635,74	585,86
2000	1538,95	522,09	517,74	521,07	424,42
2001	1284,47	52,47	38,89	48,76	-26,39
2002	970,93	-313,17	-331,67	-318,57	-301,25
2003	997,20	-212,05	-225,19	-216,17	-130,86
2004	1119,97	-49,54	-51,52	-50,43	38,88
2005	1980,49	794,30	797,74	795,11	820,91
2006	1405,94	-89,90	-83,68	-87,84	-50,43
2007	2972,79	1474,29	1462,12	1470,78	1410,30
2008	983,94	-1060,29	-1060,82	-1059,91	-825,84
2009	1373,55	-336,45	-369,85	-346,49	-414,25
2010	1296,25	-330,82	-330,57	-331,22	86,89
2011	982,45	-563,64	-557,17	-562,09	-511,68

Sumber : Direktorat Jenderal Perkebunan (diolah), 2012

Lampiran 6. Grafik ACF dan PACF model ARIMA (1,1,0)



Lampiran 7. Hasil estimasi dan diagnosis model ARIMA (1,1,0)

Final Estimates of Parameters

Type	Coef	SE Coef	T	P
AR 1	-0.5287	0.1407	-3.76	0.001
Constant	42.70	70.19	0.61	0.547

Differencing: 1 regular difference

Number of observations: Original series 40, after differencing 39

Residuals: SS = 7108348 (backforecasts excluded)
MS = 192118 DF = 37

Modified Box-Pierce (Ljung-Box) Chi-Square statistic

Lag	12	24	36	48
Chi-Square	5.4	15.1	19.3	*
DF	10	22	34	*
P-value	0.864	0.858	0.980	*

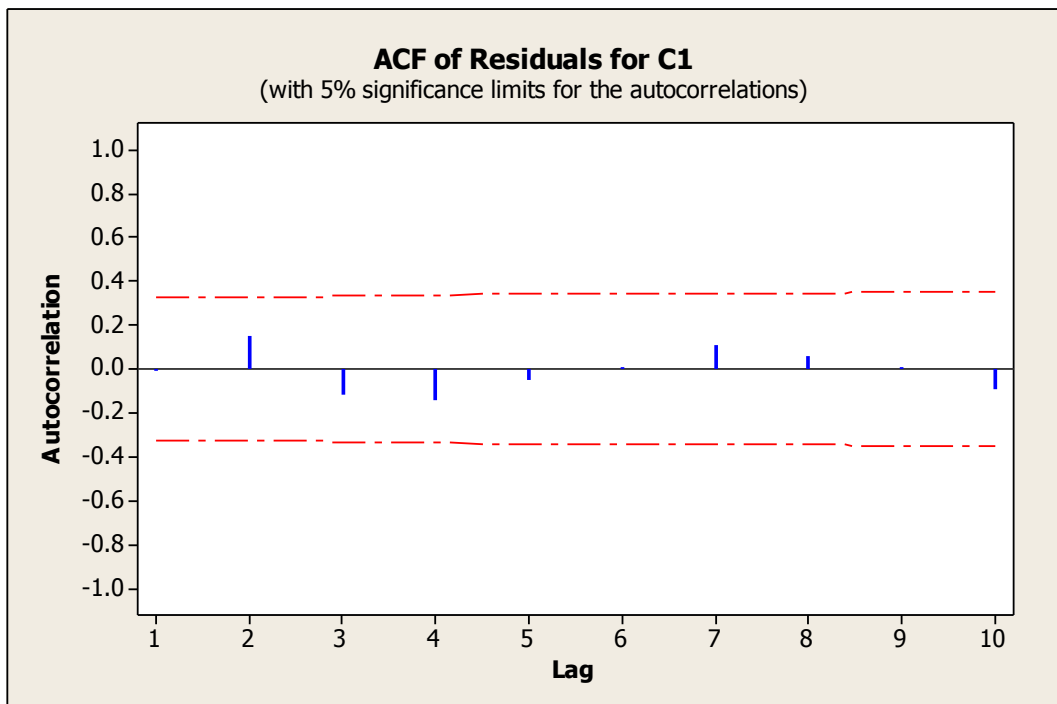
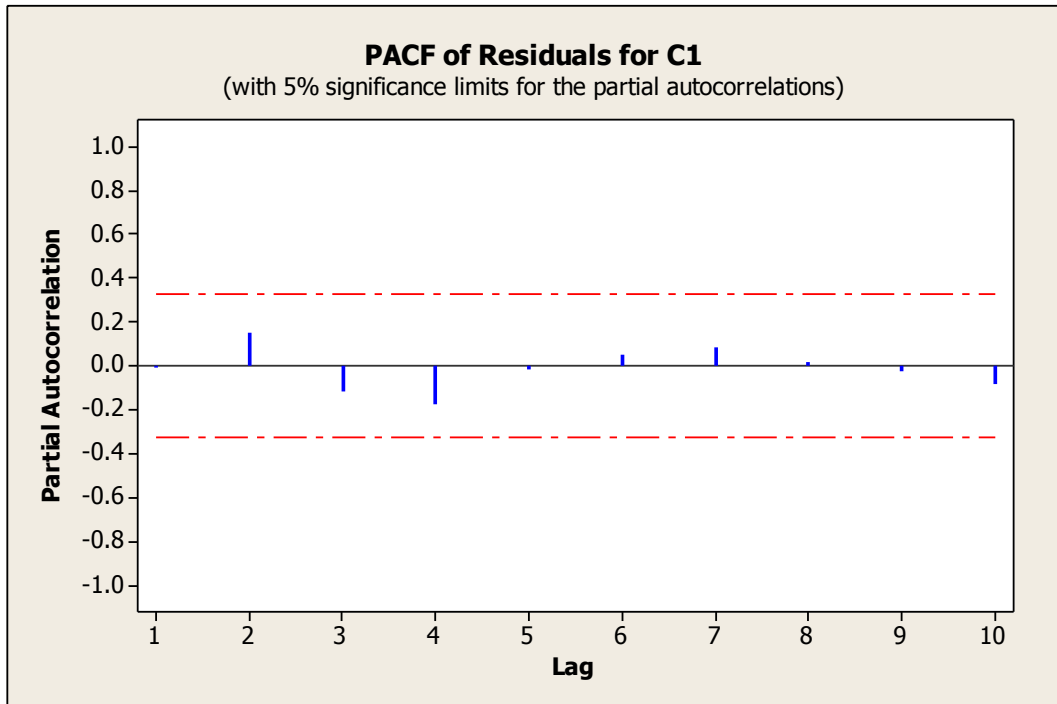
Forecasts from period 40

Period	Forecast	95% Limits		Actual
		Lower	Upper	
41	1191.04	331.78	2050.31	
42	1123.46	173.54	2073.39	
43	1201.89	53.59	2350.18	
44	1203.12	-56.68	2462.93	
45	1245.17	-143.97	2634.30	
46	1265.64	-228.35	2759.63	
47	1297.51	-301.02	2896.04	
48	1323.36	-369.98	3016.70	
49	1352.39	-432.38	3137.16	
50	1379.74	-491.16	3250.64	

ACF of Residuals for C1

PACF of Residuals for C1

Lampiran 8. Grafik ACF dan PACF model ARIMA (0,1,1)



Lampiran 9. Hasil estimasi dan diagnosis model ARIMA (0,1,1)

Final Estimates of Parameters

Type	Coef	SE Coef	T	P
MA 1	0.6528	0.1336	4.89	0.000
Constant	33.88	24.78	1.37	0.180

Differencing: 1 regular difference

Number of observations: Original series 40, after differencing 39

Residuals: SS = 6956094 (backforecasts excluded)
MS = 188003 DF = 37

Modified Box-Pierce (Ljung-Box) Chi-Square statistic

Lag	12	24	36	48
Chi-Square	6.4	14.9	20.0	*
DF	10	22	34	*
P-value	0.778	0.866	0.973	*

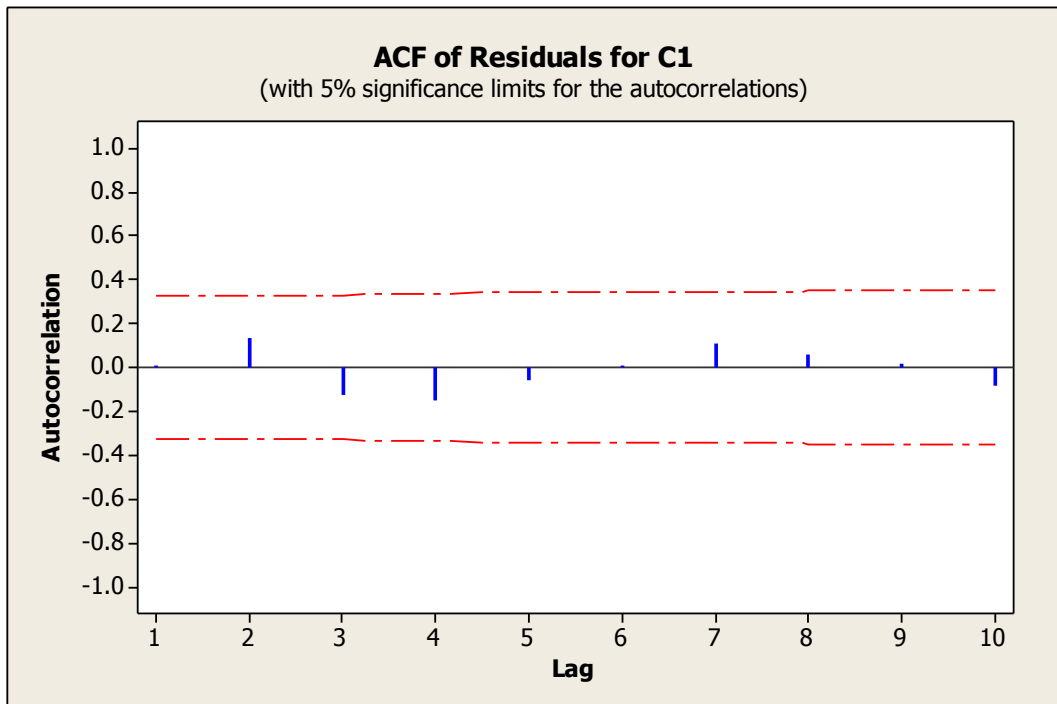
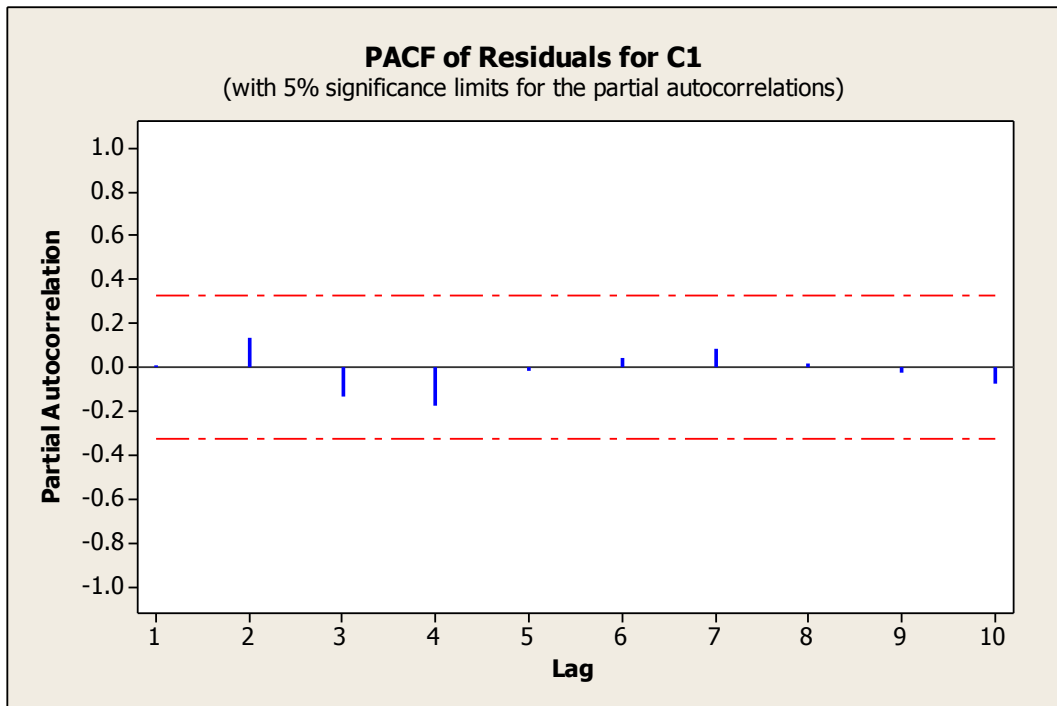
Forecasts from period 40

Period	Forecast	95% Limits		Actual
		Lower	Upper	
41	1384.29	534.27	2234.30	
42	1418.17	518.38	2317.95	
43	1452.05	505.10	2398.99	
44	1485.92	494.06	2477.79	
45	1519.80	484.97	2554.64	
46	1553.68	477.60	2629.77	
47	1587.56	471.74	2703.38	
48	1621.44	467.26	2775.63	
49	1655.32	464.01	2846.64	
50	1689.20	461.88	2916.52	

ACF of Residuals for C1

PACF of Residuals for C1

Lampiran 10. Grafik ACF dan PACF model ARIMA (1,1,1)



Lampiran 11. Hasil estimasi dan diagnosis model ARIMA (1,1,1)

Final Estimates of Parameters

Type		Coef	SE Coef	T	P
AR	1	-0.0313	0.2699	-0.12	0.908
MA	1	0.6247	0.2213	2.82	0.008
Constant		34.44	26.92	1.28	0.209

Differencing: 1 regular difference

Number of observations: Original series 40, after differencing 39

Residuals: SS = 6955339 (backforecasts excluded)
MS = 193204 DF = 36

Modified Box-Pierce (Ljung-Box) Chi-Square statistic

Lag	12	24	36	48
Chi-Square	6.4	15.1	20.3	*
DF	9	21	33	*
P-value	0.697	0.818	0.960	*

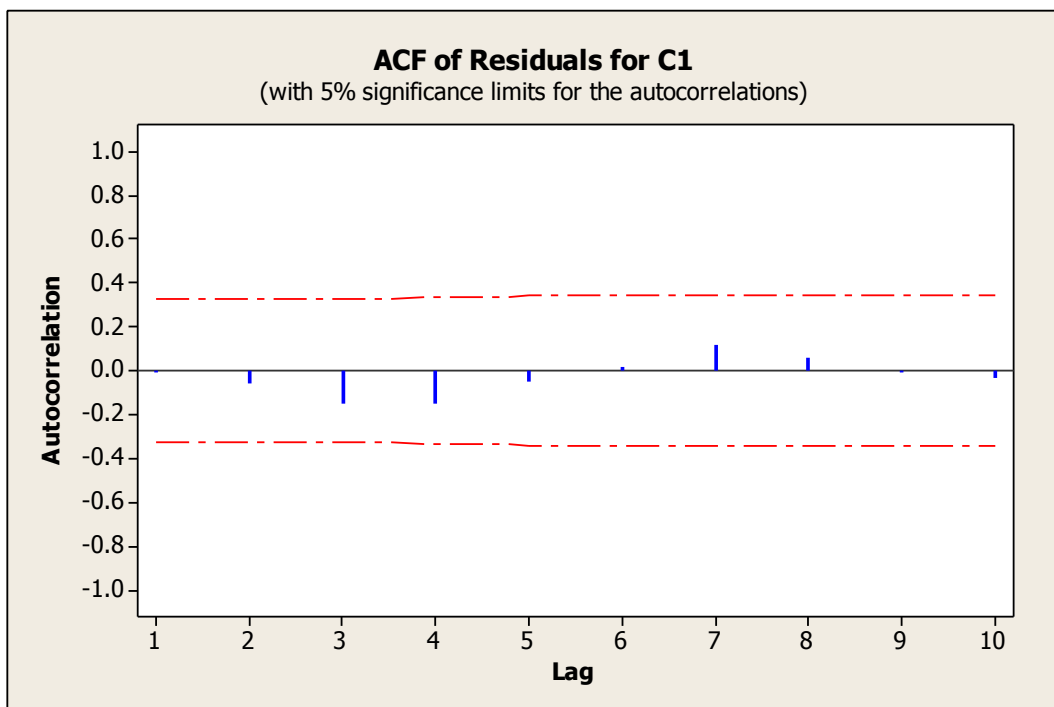
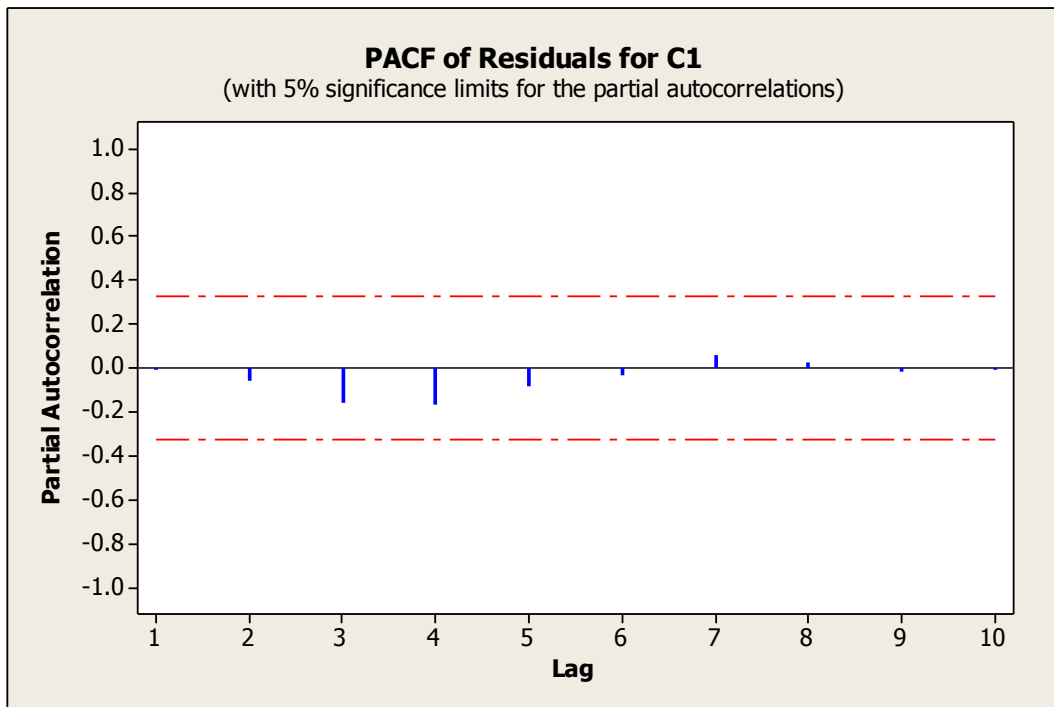
Forecasts from period 40

Period	Forecast	95% Limits		Actual
		Lower	Upper	
41	1374.78	513.09	2236.48	
42	1396.93	485.69	2308.17	
43	1430.68	466.82	2394.54	
44	1464.07	450.48	2477.65	
45	1497.46	436.48	2558.44	
46	1530.86	424.51	2637.21	
47	1564.26	414.33	2714.19	
48	1597.65	405.73	2789.57	
49	1631.05	398.57	2863.53	
50	1664.45	392.70	2936.19	

ACF of Residuals for C1

PACF of Residuals for C1

Lampiran 12. Grafik ACF dan PACF model ARIMA (2,1,0)



Lampiran 13. Hasil estimasi dan diagnosis model ARIMA (2,1,0)

Final Estimates of Parameters

Type	Coef	SE Coef	T	P
AR 1	-0.5795	0.1678	-3.45	0.001
AR 2	-0.0955	0.1680	-0.57	0.573
Constant	47.78	70.86	0.67	0.504

Differencing: 1 regular difference

Number of observations: Original series 40, after differencing 39

Residuals: SS = 7045081 (backforecasts excluded)
MS = 195697 DF = 36

Modified Box-Pierce (Ljung-Box) Chi-Square statistic

Lag	12	24	36	48
Chi-Square	5.6	15.1	19.5	*
DF	9	21	33	*
P-value	0.782	0.820	0.970	*

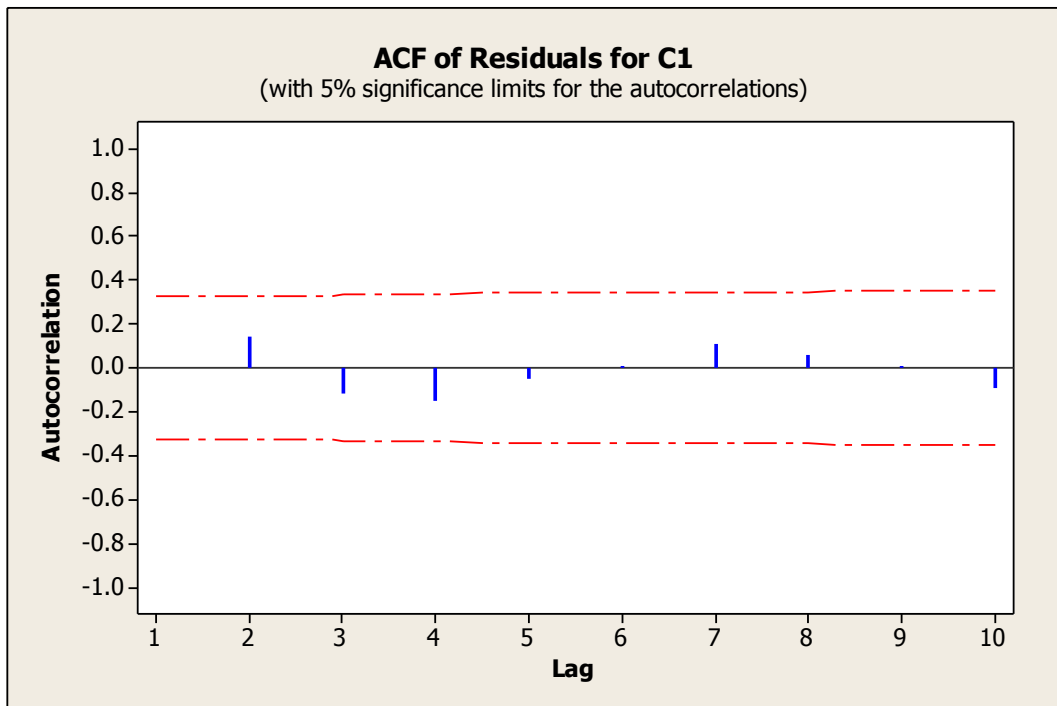
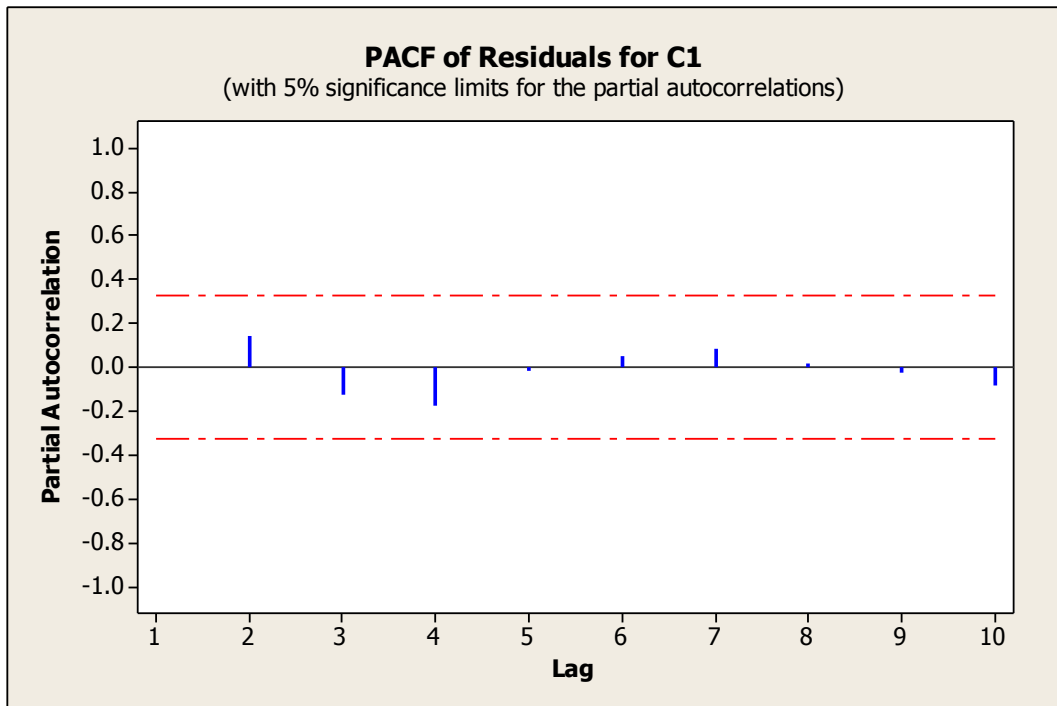
Forecasts from period 40

Period	Forecast	95% Limits		Actual
		Lower	Upper	
41	1219.46	352.23	2086.69	
42	1159.84	219.06	2100.62	
43	1219.55	117.94	2321.15	
44	1238.42	28.53	2448.30	
45	1269.56	-48.36	2587.48	
46	1297.49	-118.08	2713.05	
47	1326.11	-181.24	2833.46	
48	1354.64	-239.15	2948.42	
49	1383.15	-292.62	3058.92	
50	1411.68	-342.26	3165.62	

ACF of Residuals for C1

PACF of Residuals for C1

Lampiran 14. Grafik ACF dan PACF model ARIMA (0,1,2)



Lampiran 15. Hasil estimasi dan diagnosis model ARIMA (0,1,2)

Final Estimates of Parameters

Type	Coef	SE Coef	T	P
MA 1	0.6542	0.1709	3.83	0.000
MA 2	-0.0061	0.1742	-0.04	0.972
Constant	33.74	25.41	1.33	0.193

Differencing: 1 regular difference

Number of observations: Original series 40, after differencing 39

Residuals: SS = 6955842 (backforecasts excluded)
MS = 193218 DF = 36

Modified Box-Pierce (Ljung-Box) Chi-Square statistic

Lag	12	24	36	48
Chi-Square	6.4	15.0	20.1	*
DF	9	21	33	*
P-value	0.696	0.824	0.962	*

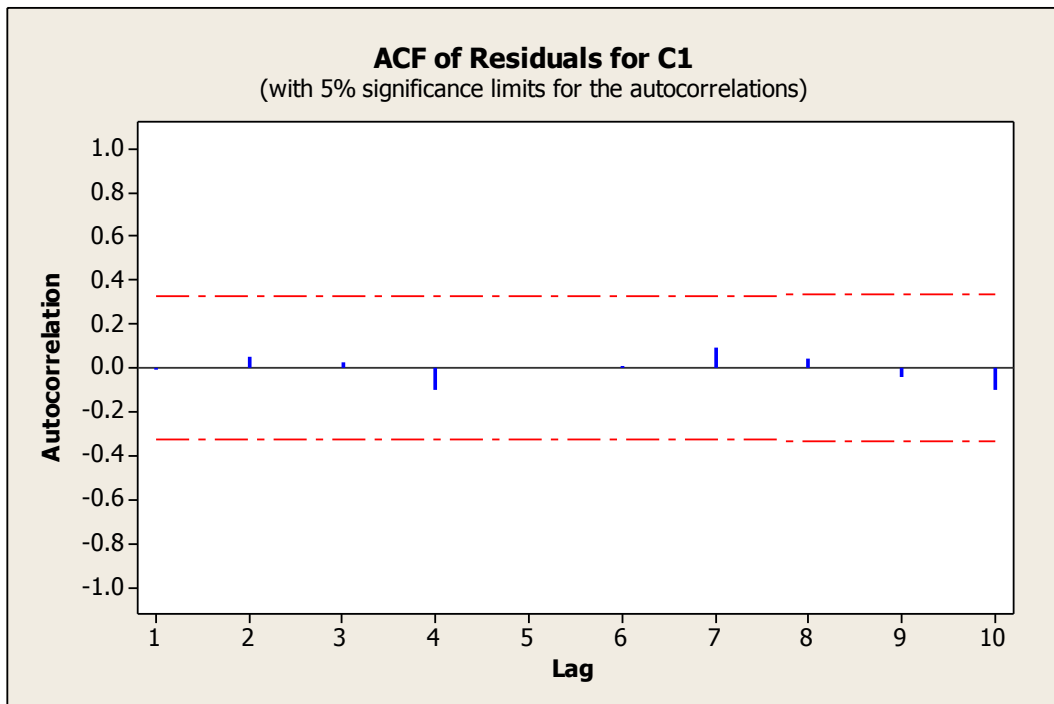
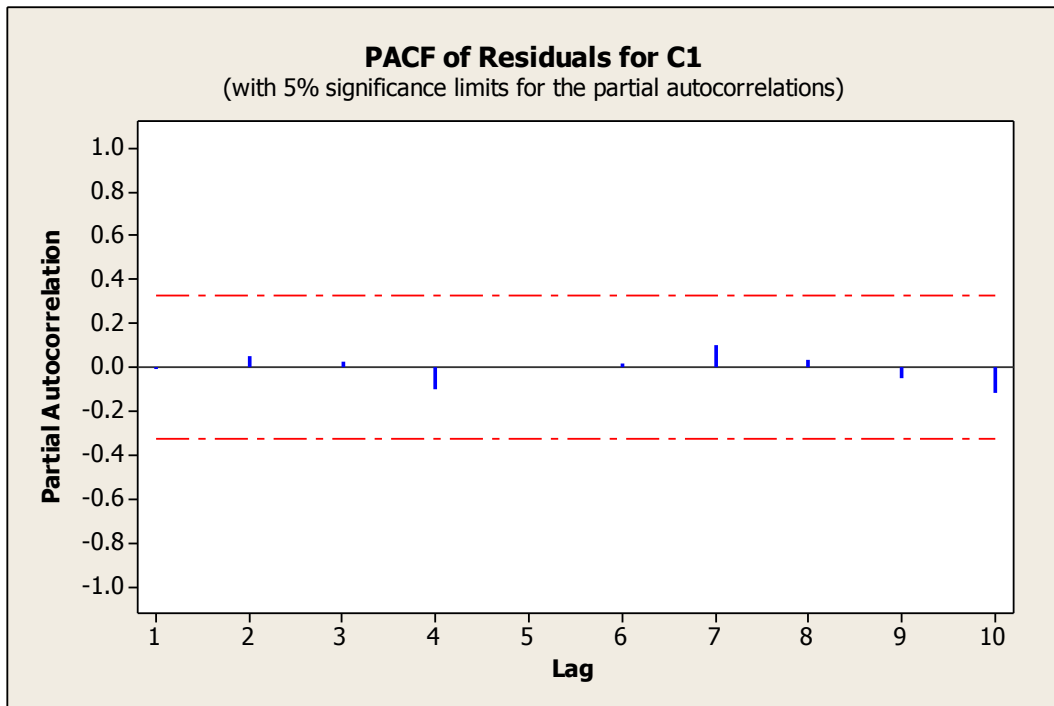
Forecasts from period 40

Period	Forecast	95% Limits		Actual
		Lower	Upper	
41	1381.87	520.14	2243.59	
42	1412.17	500.37	2323.96	
43	1445.90	484.99	2406.82	
44	1479.64	472.01	2487.28	
45	1513.38	461.09	2565.67	
46	1547.12	452.00	2642.24	
47	1580.86	444.52	2717.20	
48	1614.60	438.48	2790.71	
49	1648.34	433.75	2862.93	
50	1682.08	430.19	2933.96	

ACF of Residuals for C1

PACF of Residuals for C1

Lampiran 16. Grafik ACF dan PACF model ARIMA (2,1,2)



Lampiran 17. Hasil estimasi dan diagnosis model ARIMA (2,1,2)

Final Estimates of Parameters

Type		Coef	SE Coef	T	P
AR	1	0.0113	0.5121	0.02	0.983
AR	2	0.3484	0.2282	1.53	0.136
MA	1	0.7219	0.5711	1.26	0.215
MA	2	0.2420	0.5265	0.46	0.649
Constant		25.464	5.606	4.54	0.000

Differencing: 1 regular difference

Number of observations: Original series 40, after differencing 39

Residuals: SS = 6291713 (backforecasts excluded)
MS = 185050 DF = 34

Modified Box-Pierce (Ljung-Box) Chi-Square statistic

Lag	12	24	36	48
Chi-Square	4.4	14.0	18.6	*
DF	7	19	31	*
P-value	0.729	0.783	0.962	*

Forecasts from period 40

Period	Forecast	95% Limits		Actual
		Lower	Upper	
41	1325.81	482.50	2169.13	
42	1369.65	491.75	2247.55	
43	1515.25	578.43	2452.06	
44	1557.62	613.27	2501.98	
45	1634.30	678.77	2589.82	
46	1675.39	717.04	2633.74	
47	1728.03	766.18	2689.88	
48	1768.41	804.88	2731.94	
49	1812.67	847.30	2778.04	
50	1852.70	885.99	2819.41	

ACF of Residuals for C1

PACF of Residuals for C1