BAB V

PENUTUP

Pada bagian penutup akan dibahas tentang kesimpulan dan saran dari hasil penelitian. Kesimpulan dan saran dinyatakan secara terpisah.

5.1. Kesimpulan

Berdasarkan hasil pembahasan dan analisis tentang hubungan kausalitas tingkat pengangguran terbuka terhadap kemiskinan di Provinsi Jawa Tengah tahun 1991-2020, diperoleh kesimpulan bahwa kemiskinan tidak menyebabkan pengangguran dan pengangguran tidak menyebabkan kemiskinan. Dengan demikian tidak ada kausalitas dari kemiskinan ke pengangguran dan juga tidak ada kausalitas dari pengangguran ke kemiskinan. Pengangguran masa lalu tidak menyebabkan pengangguran saat ini. Namun demikian, kemiskinan masa lalu ternyata menyebabkan kemiskinan sekarang ini. Kemiskinan satu periode lalu (d^2Y_{t-1}), kemiskinan tiga periode lalu (d^2Y_{t-3}), dan kemiskinan empat periode lalu (d^2Y_{t-4}), menunjukan hasil signifikan. Hal ini menunjukan bahwa secara individu kemiskinan satu periode lalu (d^2Y_{t-1}), kemiskinan tiga periode lalu (d^2Y_{t-3}), dan kemiskinan empat periode lalu (d^2Y_{t-4}) berpengaruh terhadap berpengaruh terhadap kemiskinan sekarang atau saat ini (d^2Y_t) di Provinsi Jawa Tengah tahun 1991-2020. Hasil ini di dukung oleh Nurke (1953) penyebab kemiskinan ini berdasarkan pada teori Lingkaran Setan Kemiskinan (*vicious circle of poverty*) bahwa "*a poor country is poor because it is poor*" (negara miskin itu miskin karena memang miskin).

5.2. Saran

Berdasarkan kesimpulan diatas, maka saran yang dapat diberikan oleh penulis pada penelitian ini sebagai berikut:

1. Pemerintah diharapkan menciptakan lapangan pekerjaan lebih banyak, melakukan pemberian upah yang memadai, meningkatkan kualitas tenaga kerja bagi masyarakat di Provinsi Jawa Tengah melalui peningkatan akses pendidikan sampai ke pelosok daerah, melakukan pelatihan modernisasi pada sektor pertanian guna meningkatkan produksi dalam pemakaian benih unggul dan struktur industri dengan menciptakan industri turunan untuk mendukung berkembangnya sektor pertanian.
2. Untuk peneliti selanjutnya karena tidak ada hubungan kasualitas antara kemiskinan dan tingkat pengangguran terbuka, alat analisis seperti VAR atau VECM diperlukan untuk penelitian selanjutnya. Selain itu bisa menambahkan faktor lain yang mempengaruhi kemiskinan selain tingkat pengangguran terbuka, tidak terbatas pada Jawa Tengah yang mengalami kemiskinan dan menambahan periode waktu pengamatan.

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LAMPIRAN

LAMPIRAN 1 Data Kemiskinan Dan Tingkat Pengangguran Terbuka di Provinsi Jawa Tengah Tahun 1991-2020

TAHUN	Y KEMISKINAN (Jiwa)	X TINGKAT PENGANGGURAN TERBUKA (Jiwa)	TAHUN	Y KEMISKINAN (Jiwa)	X TINGKAT PENGANGGURAN TERBUKA (Jiwa)
1991	4.817.631	311.193	2006	7.129.336	1.197.244
1992	4.572.420	309.139	2007	6.553.840	1.356.909
1993	4.618.743	296.920	2008	6.112.143	1.360.219
1994	5.322.510	288.606	2009	5.644.261	1.252.267
1995	5.517.600	333.504	2010	5.216.846	1.528.694
1996	6.417.920	459.483	2011	5.304.783	1.404.626
1997	6.463.005	568.465	2012	4.943.194	2.008.533
1998	6.566.295	817.903	2013	4.803.370	1.806.808
1999	8.754.643	664.921	2014	4.552.377	1.904.087
2000	8.758.805	637.900	2015	4.586.528	1.685.329
2001	9.477.570	688.190	2016	4.514.333	1.575.084
2002	7.308.148	1.081.694	2017	4.456.948	1.565.584
2003	6.981.108	1.163.188	2018	3.889.382	1.549.568
2004	6.687.335	1.299.220	2019	3.749.566	1.558.847
2005	6.530.817	1.346.404	2020	4.820.116	2.366.239

Sumber: Badan Pusat Statistik (BPS)

LAMPIRAN 2 UJI STASIONERITAS DATA UNTUK Y (KEMISKINAN)

Null Hypothesis: Y has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 3 (Fixed)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.254425	0.4415
Test critical values:	1% level	-4.374307	
	5% level	-3.603202	
	10% level	-3.238054	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(Y)
Method: Least Squares
Date: 01/26/22 Time: 20:15
Sample (adjusted): 1994 2018
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Y(-1)	-0.290785	0.128984	-2.254425	0.0362
D(Y(-1))	-0.006636	0.196025	-0.033855	0.9733
D(Y(-2))	0.201893	0.194747	1.036690	0.3129
D(Y(-3))	-0.135545	0.200399	-0.676376	0.5070
C	2739628.	1065224.	2.571880	0.0187
@TREND("1990")	-64358.94	25081.24	-2.566019	0.0189

R-squared	0.358092	Mean dependent var	-62917.76
Adjusted R-squared	0.189169	S.D. dependent var	731736.5
S.E. of regression	658900.4	Akaike info criterion	29.84010
Sum squared resid	8.25E+12	Schwarz criterion	30.13263
Log likelihood	-367.0012	Hannan-Quinn criter.	29.92123
F-statistic	2.119855	Durbin-Watson stat	2.082130
Prob(F-statistic)	0.107304		

LAMPIRAN 3 UJI STASIONERITAS DATA UNTUK X (TINGKAT PENGANGGURAN TERBUKA)

Null Hypothesis: X has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 3 (Fixed)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.619746	0.7558
Test critical values:	1% level	-4.374307	
	5% level	-3.603202	
	10% level	-3.238054	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(X)
Method: Least Squares
Date: 01/26/22 Time: 20:34
Sample (adjusted): 1994 2018
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X(-1)	-0.582171	0.359421	-1.619746	0.1218
D(X(-1))	0.114696	0.320260	0.358133	0.7242
D(X(-2))	0.488105	0.317416	1.537745	0.1406
D(X(-3))	0.095875	0.281481	0.340610	0.7371
C	176627.5	93928.48	1.880446	0.0755
@TREND("1990")	32940.82	25075.10	1.313687	0.2046

R-squared	0.342770	Mean dependent var	50809.64
Adjusted R-squared	0.169815	S.D. dependent var	189608.8
S.E. of regression	172761.1	Akaike info criterion	27.16277
Sum squared resid	5.67E+11	Schwarz criterion	27.45530
Log likelihood	-333.5346	Hannan-Quinn criter.	27.24391
F-statistic	1.981842	Durbin-Watson stat	1.934386
Prob(F-statistic)	0.127752		

LAMPIRAN 4 UJI DERAJAT INTEGRASI UNTUK Y (KEMISKIAN)

- First Difference

Null Hypothesis: D(Y) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 3 (Fixed)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.370195	0.0793
Test critical values:	1% level	-4.394309	
	5% level	-3.612199	
	10% level	-3.243079	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(Y,2)
Method: Least Squares
Date: 01/26/22 Time: 20:22
Sample (adjusted): 1995 2018
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(Y(-1))	-1.546382	0.458841	-3.370195	0.0034
D(Y(-1),2)	0.420305	0.375545	1.119187	0.2778
D(Y(-2),2)	0.592205	0.313831	1.887021	0.0754
D(Y(-3),2)	0.302016	0.220675	1.368604	0.1880
C	711033.1	451722.5	1.574048	0.1329
@TREND("1990")	-48162.51	26200.45	-1.838232	0.0826

R-squared	0.632311	Mean dependent var	-13954.42
Adjusted R-squared	0.530175	S.D. dependent var	1055959.
S.E. of regression	723794.1	Akaike info criterion	30.03472
Sum squared resid	9.43E+12	Schwarz criterion	30.32923
Log likelihood	-354.4166	Hannan-Quinn criter.	30.11285
F-statistic	6.190881	Durbin-Watson stat	1.741377
Prob(F-statistic)	0.001660		

- Second Difference

Null Hypothesis: D(Y,2) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 3 (Fixed)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.396532	0.0012
Test critical values:	1% level	-4.416345	
	5% level	-3.622033	
	10% level	-3.248592	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(Y,3)
Method: Least Squares
Date: 01/26/22 Time: 20:28
Sample (adjusted): 1996 2018
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(Y(-1),2)	-3.232783	0.599048	-5.396532	0.0000
D(Y(-1),3)	1.467523	0.502991	2.917591	0.0096
D(Y(-2),3)	1.152728	0.363519	3.171022	0.0056
D(Y(-3),3)	0.592876	0.185885	3.189481	0.0054
C	-237244.2	426921.6	-0.555709	0.5856
@TREND("1990")	9443.777	23360.83	0.404257	0.6911

R-squared	0.885557	Mean dependent var	-12064.35
Adjusted R-squared	0.851898	S.D. dependent var	1926931.
S.E. of regression	741560.8	Akaike info criterion	30.09036
Sum squared resid	9.35E+12	Schwarz criterion	30.38658
Log likelihood	-340.0391	Hannan-Quinn criter.	30.16486
F-statistic	26.30922	Durbin-Watson stat	2.003558
Prob(F-statistic)	0.000000		

LAMPIRAN 5 UJI DERAJAT INTEGRASI UNTUK X (TINGKAT PENGANGGURAN TERBUKA)

- First Difference

Null Hypothesis: D(X) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 3 (Fixed)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.140923	0.0171
Test critical values:	1% level	-4.394309	
	5% level	-3.612199	
	10% level	-3.243079	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(X,2)
Method: Least Squares
Date: 01/26/22 Time: 20:37
Sample (adjusted): 1995 2018
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(X(-1))	-2.041126	0.492916	-4.140923	0.0006
D(X(-1),2)	0.638833	0.403792	1.582086	0.1310
D(X(-2),2)	0.757471	0.327091	2.315779	0.0326
D(X(-3),2)	0.417113	0.207146	2.013614	0.0592
C	261752.1	105441.0	2.482450	0.0231
@TREND("1990")	-9333.077	5328.517	-1.751534	0.0969

R-squared	0.776965	Mean dependent var	-1484.125
Adjusted R-squared	0.715011	S.D. dependent var	316647.6
S.E. of regression	169040.3	Akaike info criterion	27.12598
Sum squared resid	5.14E+11	Schwarz criterion	27.42049
Log likelihood	-319.5118	Hannan-Quinn criter.	27.20411
F-statistic	12.54097	Durbin-Watson stat	1.958510
Prob(F-statistic)	0.000024		

LAMPIRAN 6. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=1 dan Jumlah Lag d^2Y=1)

$$dX_t = a_1\, dX_{t-1} + b_1\, d^2Y_{t-1} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 12:49
Sample (adjusted): 1994 2019
Included observations: 26 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	65123.37	37253.74	1.748103	0.0938
D(Y(-1),2)	-0.008635	0.039022	-0.221278	0.8268
D(X(-1))	-0.349931	0.214511	-1.631292	0.1164

R-squared	0.111582	Mean dependent var	48535.65
Adjusted R-squared	0.034328	S.D. dependent var	186139.4
S.E. of regression	182916.6	Akaike info criterion	27.17961
Sum squared resid	7.70E+11	Schwarz criterion	27.32478
Log likelihood	-350.3350	Hannan-Quinn criter.	27.22142
F-statistic	1.444358	Durbin-Watson stat	1.850505
Prob(F-statistic)	0.256507		

LAMPIRAN 7. Hasil Estimasi Persamaan (4.8)

(Untuk Jumlah Lag dX=2 dan Jumlah Lag d^2Y=1)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + b_1\, d^2Y_{t-1} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 12:51
Sample (adjusted): 1994 2019
Included observations: 26 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	49659.96	39001.07	1.273297	0.2162
D(Y(-1),2)	-0.025319	0.040985	-0.617759	0.5431
D(X(-1))	-0.299101	0.216382	-1.382287	0.1808
D(X(-2))	0.265962	0.218641	1.216433	0.2367

R-squared	0.167571	Mean dependent var	48535.65
Adjusted R-squared	0.054058	S.D. dependent var	186139.4
S.E. of regression	181038.3	Akaike info criterion	27.19144
Sum squared resid	7.21E+11	Schwarz criterion	27.38500
Log likelihood	-349.4888	Hannan-Quinn criter.	27.24718
F-statistic	1.476225	Durbin-Watson stat	1.934099
Prob(F-statistic)	0.248427		

LAMPIRAN 8. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=3 dan Jumlah Lag d^2Y=1)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + b_1\, d^2Y_{t-1} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 12:51
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	62187.93	42831.08	1.451935	0.1620
D(Y(-1),2)	-0.020257	0.042576	-0.475780	0.6394
D(X(-1))	-0.257310	0.229900	-1.119226	0.2763
D(X(-2))	0.203564	0.235871	0.863030	0.3984
D(X(-3))	-0.182247	0.219611	-0.829865	0.4164

R-squared	0.195559	Mean dependent var	50809.64
Adjusted R-squared	0.034671	S.D. dependent var	189608.8
S.E. of regression	186292.8	Akaike info criterion	27.28488
Sum squared resid	6.94E+11	Schwarz criterion	27.52866
Log likelihood	-336.0610	Hannan-Quinn criter.	27.35250
F-statistic	1.215497	Durbin-Watson stat	2.128019
Prob(F-statistic)	0.335417		

LAMPIRAN 9. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=4 dan Jumlah Lag d^2Y=1)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + b_1\, d^2Y_{t-1} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 12:52
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	90862.28	46439.50	1.956573	0.0661
D(Y(-1),2)	-0.014183	0.042451	-0.334098	0.7422
D(X(-1))	-0.325765	0.228599	-1.425049	0.1713
D(X(-2))	0.243772	0.235318	1.035924	0.3140
D(X(-3))	-0.277250	0.222856	-1.244077	0.2294
D(X(-4))	-0.379065	0.223297	-1.697578	0.1068

R-squared	0.306563	Mean dependent var	51055.96
Adjusted R-squared	0.113942	S.D. dependent var	193682.7
S.E. of regression	182314.8	Akaike info criterion	27.27718
Sum squared resid	5.98E+11	Schwarz criterion	27.57169
Log likelihood	-321.3261	Hannan-Quinn criter.	27.35531
F-statistic	1.591535	Durbin-Watson stat	1.876817
Prob(F-statistic)	0.212897		

LAMPIRAN 10. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=5 dan Jumlah Lag d^2Y=1)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + a_5\, dX_{t-5} + b_1\, d^2Y_{t-1} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 12:53
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	77563.57	62083.91	1.249335	0.2295
D(Y(-1),2)	-0.010880	0.045826	-0.237409	0.8154
D(X(-1))	-0.282801	0.277563	-1.018870	0.3234
D(X(-2))	0.270133	0.261075	1.034694	0.3162
D(X(-3))	-0.286131	0.241447	-1.185067	0.2533
D(X(-4))	-0.340151	0.264138	-1.287776	0.2161
D(X(-5))	0.087821	0.296199	0.296494	0.7707

R-squared	0.307667	Mean dependent var	47798.43
Adjusted R-squared	0.048042	S.D. dependent var	197362.3
S.E. of regression	192563.1	Akaike info criterion	27.42003
Sum squared resid	5.93E+11	Schwarz criterion	27.76561
Log likelihood	-308.3303	Hannan-Quinn criter.	27.50694
F-statistic	1.185044	Durbin-Watson stat	1.937243
Prob(F-statistic)	0.362592		

LAMPIRAN 11. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=1 dan Jumlah Lag d^2Y=2)

$$\boldsymbol{dX_t = a_1\, dX_{t-1} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + e_{1t}}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 10/27/22 Time: 22:17
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	69960.26	39068.31	1.790716	0.0878
D(Y(-1),2)	-0.034633	0.051340	-0.674584	0.5073
D(Y(-2),2)	-0.039260	0.047372	-0.828745	0.4166
D(X(-1))	-0.393289	0.225327	-1.745412	0.0955

R-squared	0.143004	Mean dependent var	50809.64
Adjusted R-squared	0.020576	S.D. dependent var	189608.8
S.E. of regression	187647.9	Akaike info criterion	27.26817
Sum squared resid	7.39E+11	Schwarz criterion	27.46319
Log likelihood	-336.8521	Hannan-Quinn criter.	27.32226
F-statistic	1.168068	Durbin-Watson stat	1.910905
Prob(F-statistic)	0.345499		

LAMPIRAN 12. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=2 dan Jumlah Lag d^2Y=2)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 12:56
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	55592.07	41984.08	1.324123	0.2004
D(Y(-1),2)	-0.040416	0.051821	-0.779921	0.4446
D(Y(-2),2)	-0.026760	0.049276	-0.543050	0.5931
D(X(-1))	-0.336816	0.233564	-1.442073	0.1648
D(X(-2))	0.224893	0.236915	0.949255	0.3538

R-squared	0.179951	Mean dependent var	50809.64
Adjusted R-squared	0.015941	S.D. dependent var	189608.8
S.E. of regression	188091.4	Akaike info criterion	27.30410
Sum squared resid	7.08E+11	Schwarz criterion	27.54788
Log likelihood	-336.3013	Hannan-Quinn criter.	27.37171
F-statistic	1.097196	Durbin-Watson stat	1.970693
Prob(F-statistic)	0.385017		

LAMPIRAN 13. Hasil Estimasi Persamaan (4.8)

(Untuk Jumlah Lag dX=3 dan Jumlah Lag d^2Y=2)

$$\boldsymbol{dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + e_{1t}}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 12:58
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	62165.35	43920.03	1.415421	0.1731
D(Y(-1),2)	-0.025689	0.057673	-0.445428	0.6610
D(Y(-2),2)	-0.008371	0.058069	-0.144154	0.8869
D(X(-1))	-0.272612	0.258540	-1.054429	0.3049
D(X(-2))	0.198649	0.244258	0.813274	0.4261
D(X(-3))	-0.163143	0.261295	-0.624365	0.5398

R-squared	0.196438	Mean dependent var	50809.64
Adjusted R-squared	-0.015026	S.D. dependent var	189608.8
S.E. of regression	191028.0	Akaike info criterion	27.36379
Sum squared resid	6.93E+11	Schwarz criterion	27.65632
Log likelihood	-336.0474	Hannan-Quinn criter.	27.44493
F-statistic	0.928944	Durbin-Watson stat	2.120473
Prob(F-statistic)	0.484170		

LAMPIRAN 14. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=4 dan Jumlah Lag d^2Y=2)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 12:58
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	91712.48	48111.53	1.906247	0.0737
D(Y(-1),2)	-0.008221	0.059844	-0.137372	0.8924
D(Y(-2),2)	0.008649	0.059388	0.145641	0.8859
D(X(-1))	-0.311161	0.255573	-1.217505	0.2400
D(X(-2))	0.248143	0.243843	1.017631	0.3231
D(X(-3))	-0.299145	0.274081	-1.091445	0.2903
D(X(-4))	-0.385011	0.233229	-1.650784	0.1171

R-squared	0.307428	Mean dependent var	51055.96
Adjusted R-squared	0.062990	S.D. dependent var	193682.7
S.E. of regression	187483.5	Akaike info criterion	27.35926
Sum squared resid	5.98E+11	Schwarz criterion	27.70286
Log likelihood	-321.3111	Hannan-Quinn criter.	27.45042
F-statistic	1.257695	Durbin-Watson stat	1.873918
Prob(F-statistic)	0.327255		

LAMPIRAN 15. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=5 dan Jumlah Lag d^2Y=2)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + a_5\, dX_{t-5} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:14
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	77797.24	64082.22	1.214022	0.2435
D(Y(-1),2)	-0.003529	0.065982	-0.053488	0.9580
D(Y(-2),2)	0.010377	0.064963	0.159736	0.8752
D(X(-1))	-0.261371	0.316286	-0.826376	0.4215
D(X(-2))	0.277424	0.273247	1.015284	0.3261
D(X(-3))	-0.314582	0.306269	-1.027141	0.3206
D(X(-4))	-0.344173	0.273729	-1.257346	0.2279
D(X(-5))	0.097024	0.311035	0.311938	0.7594

R-squared	0.308843	Mean dependent var	47798.43
Adjusted R-squared	-0.013697	S.D. dependent var	197362.3
S.E. of regression	198709.4	Akaike info criterion	27.50528
Sum squared resid	5.92E+11	Schwarz criterion	27.90024
Log likelihood	-308.3108	Hannan-Quinn criter.	27.60461
F-statistic	0.957532	Durbin-Watson stat	1.937802
Prob(F-statistic)	0.494333		

LAMPIRAN 16. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=1 dan Jumlah Lag d^2Y=3)

$$dX_t = a_1\, dX_{t-1} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:15
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	71175.38	41060.68	1.733419	0.0992
D(Y(-1),2)	-0.041850	0.054590	-0.766633	0.4527
D(Y(-2),2)	-0.069592	0.060025	-1.159382	0.2607
D(Y(-3),2)	-0.043156	0.048555	-0.888806	0.3852
D(X(-1))	-0.424931	0.234876	-1.809176	0.0863

R-squared	0.177221	Mean dependent var	51055.96
Adjusted R-squared	0.004005	S.D. dependent var	193682.7
S.E. of regression	193294.5	Akaike info criterion	27.36487
Sum squared resid	7.10E+11	Schwarz criterion	27.61030
Log likelihood	-323.3784	Hannan-Quinn criter.	27.42998
F-statistic	1.023119	Durbin-Watson stat	1.749067
Prob(F-statistic)	0.420637		

LAMPIRAN 17. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=2 dan Jumlah Lag d^2Y=3)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:15
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	58441.45	45207.37	1.292742	0.2124
D(Y(-1),2)	-0.045976	0.055594	-0.826986	0.4191
D(Y(-2),2)	-0.053496	0.064794	-0.825634	0.4198
D(Y(-3),2)	-0.033759	0.050891	-0.663365	0.5155
D(X(-1))	-0.372276	0.248939	-1.495450	0.1521
D(X(-2))	0.184459	0.256577	0.718921	0.4814

R-squared	0.200187	Mean dependent var	51055.96
Adjusted R-squared	-0.021983	S.D. dependent var	193682.7
S.E. of regression	195800.1	Akaike info criterion	27.41989
Sum squared resid	6.90E+11	Schwarz criterion	27.71441
Log likelihood	-323.0387	Hannan-Quinn criter.	27.49803
F-statistic	0.901051	Durbin-Watson stat	1.838302
Prob(F-statistic)	0.501629		

LAMPIRAN 18. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=3 dan Jumlah Lag d^2Y=3)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:16
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	69465.77	48093.18	1.444400	0.1668
D(Y(-1),2)	-0.026096	0.062264	-0.419123	0.6804
D(Y(-2),2)	-0.034998	0.070123	-0.499095	0.6241
D(Y(-3),2)	-0.042243	0.052764	-0.800594	0.4344
D(X(-1))	-0.297992	0.270960	-1.099764	0.2868
D(X(-2))	0.135566	0.267905	0.506024	0.6193
D(X(-3))	-0.211356	0.282938	-0.747002	0.4653

R-squared	0.225606	Mean dependent var	51055.96
Adjusted R-squared	-0.047710	S.D. dependent var	193682.7
S.E. of regression	198249.2	Akaike info criterion	27.47093
Sum squared resid	6.68E+11	Schwarz criterion	27.81453
Log likelihood	-322.6512	Hannan-Quinn criter.	27.56209
F-statistic	0.825441	Durbin-Watson stat	1.985260
Prob(F-statistic)	0.565934		

LAMPIRAN 19. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=4 dan Jumlah Lag d^2Y=3)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:16
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	91708.17	49590.47	1.849310	0.0830
D(Y(-1),2)	-0.008452	0.062033	-0.136255	0.8933
D(Y(-2),2)	0.007131	0.074903	0.095204	0.9253
D(Y(-3),2)	-0.002080	0.059144	-0.035172	0.9724
D(X(-1))	-0.311922	0.264316	-1.180112	0.2552
D(X(-2))	0.244406	0.272871	0.895683	0.3837
D(X(-3))	-0.299843	0.283203	-1.058758	0.3054
D(X(-4))	-0.380210	0.276441	-1.375374	0.1880

R-squared	0.307481	Mean dependent var	51055.96
Adjusted R-squared	0.004504	S.D. dependent var	193682.7
S.E. of regression	193246.1	Akaike info criterion	27.44252
Sum squared resid	5.98E+11	Schwarz criterion	27.83520
Log likelihood	-321.3102	Hannan-Quinn criter.	27.54670
F-statistic	1.014866	Durbin-Watson stat	1.870537
Prob(F-statistic)	0.457333		

LAMPIRAN 20. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=5 dan Jumlah Lag d^2Y=3)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + a_5\, dX_{t-5} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:17
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	76558.03	66994.05	1.142759	0.2723
D(Y(-1),2)	-0.004216	0.068468	-0.061581	0.9518
D(Y(-2),2)	0.004170	0.082839	0.050337	0.9606
D(Y(-3),2)	-0.008398	0.065528	-0.128153	0.8999
D(X(-1))	-0.261080	0.327203	-0.797915	0.4382
D(X(-2))	0.264554	0.299982	0.881898	0.3927
D(X(-3))	-0.317498	0.317649	-0.999524	0.3345
D(X(-4))	-0.321440	0.334145	-0.961977	0.3524
D(X(-5))	0.103792	0.326069	0.318313	0.7549

R-squared	0.309652	Mean dependent var	47798.43
Adjusted R-squared	-0.084832	S.D. dependent var	197362.3
S.E. of regression	205563.3	Akaike info criterion	27.59107
Sum squared resid	5.92E+11	Schwarz criterion	28.03539
Log likelihood	-308.2973	Hannan-Quinn criter.	27.70281
F-statistic	0.784955	Durbin-Watson stat	1.929864
Prob(F-statistic)	0.623695		

LAMPIRAN 21. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=1 dan Jumlah Lag d^2Y=4)

$$\boldsymbol{dX_t = a_1\, dX_{t-1} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + e_{1t}}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:18
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	63651.59	42678.69	1.491414	0.1542
D(Y(-1),2)	-0.029465	0.056807	-0.518687	0.6107
D(Y(-2),2)	-0.063114	0.063170	-0.999105	0.3318
D(Y(-3),2)	-0.011780	0.061563	-0.191345	0.8505
D(Y(-4),2)	0.051453	0.050429	1.020309	0.3219
D(X(-1))	-0.370789	0.244474	-1.516683	0.1477

R-squared	0.234229	Mean dependent var	47798.43
Adjusted R-squared	0.009002	S.D. dependent var	197362.3
S.E. of regression	196472.0	Akaike info criterion	27.43389
Sum squared resid	6.56E+11	Schwarz criterion	27.73010
Log likelihood	-309.4897	Hannan-Quinn criter.	27.50838
F-statistic	1.039968	Durbin-Watson stat	1.737351
Prob(F-statistic)	0.426268		

LAMPIRAN 22. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=2 dan Jumlah Lag d^2Y=4)

$$\boldsymbol{dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + e_{1t}}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:18
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	46444.72	46684.69	0.994860	0.3346
D(Y(-1),2)	-0.032552	0.057134	-0.569749	0.5768
D(Y(-2),2)	-0.038963	0.068549	-0.568394	0.5777
D(Y(-3),2)	0.008000	0.065378	0.122365	0.9041
D(Y(-4),2)	0.061403	0.051754	1.186436	0.2528
D(X(-1))	-0.290335	0.260300	-1.115387	0.2812
D(X(-2))	0.245512	0.264316	0.928858	0.3668

R-squared	0.273409	Mean dependent var	47798.43
Adjusted R-squared	0.000938	S.D. dependent var	197362.3
S.E. of regression	197269.8	Akaike info criterion	27.46832
Sum squared resid	6.23E+11	Schwarz criterion	27.81391
Log likelihood	-308.8857	Hannan-Quinn criter.	27.55524
F-statistic	1.003441	Durbin-Watson stat	1.822529
Prob(F-statistic)	0.456642		

LAMPIRAN 23. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=3 dan Jumlah Lag d^2Y=4)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:19
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	54933.50	50923.70	1.078741	0.2977
D(Y(-1),2)	-0.020018	0.063968	-0.312935	0.7586
D(Y(-2),2)	-0.027207	0.074287	-0.366247	0.7193
D(Y(-3),2)	-0.000499	0.069237	-0.007213	0.9943
D(Y(-4),2)	0.057087	0.053772	1.061644	0.3052
D(X(-1))	-0.245700	0.282084	-0.871017	0.3975
D(X(-2))	0.208208	0.281504	0.739628	0.4709
D(X(-3))	-0.143315	0.294636	-0.486413	0.6337

R-squared	0.284692	Mean dependent var	47798.43
Adjusted R-squared	-0.049119	S.D. dependent var	197362.3
S.E. of regression	202151.3	Akaike info criterion	27.53963
Sum squared resid	6.13E+11	Schwarz criterion	27.93458
Log likelihood	-308.7057	Hannan-Quinn criter.	27.63896
F-statistic	0.852855	Durbin-Watson stat	1.935565
Prob(F-statistic)	0.562841		

LAMPIRAN 24. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=4 dan Jumlah Lag d^2Y=4)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:20
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	77676.19	55596.24	1.397148	0.1841
D(Y(-1),2)	-0.006787	0.065224	-0.104058	0.9186
D(Y(-2),2)	0.006791	0.081433	0.083399	0.9347
D(Y(-3),2)	0.022939	0.072928	0.314539	0.7578
D(Y(-4),2)	0.043266	0.055422	0.780664	0.4480
D(X(-1))	-0.268201	0.282685	-0.948763	0.3588
D(X(-2))	0.279028	0.289771	0.962929	0.3519
D(X(-3))	-0.235608	0.308095	-0.764727	0.4571
D(X(-4))	-0.309246	0.304873	-1.014345	0.3276

R-squared	0.333663	Mean dependent var	47798.43
Adjusted R-squared	-0.047102	S.D. dependent var	197362.3
S.E. of regression	201956.9	Akaike info criterion	27.55567
Sum squared resid	5.71E+11	Schwarz criterion	27.99999
Log likelihood	-307.8902	Hannan-Quinn criter.	27.66741
F-statistic	0.876297	Durbin-Watson stat	1.846289
Prob(F-statistic)	0.558365		

LAMPIRAN 25. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=5 dan Jumlah Lag d^2Y=4)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + a_5\, dX_{t-5} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:20
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	78978.14	68391.24	1.154799	0.2690
D(Y(-1),2)	-0.007415	0.069959	-0.105984	0.9172
D(Y(-2),2)	0.006709	0.084535	0.079361	0.9380
D(Y(-3),2)	0.024047	0.081878	0.293690	0.7736
D(Y(-4),2)	0.044313	0.064656	0.685369	0.5051
D(X(-1))	-0.273870	0.334103	-0.819716	0.4272
D(X(-2))	0.276949	0.306364	0.903986	0.3824
D(X(-3))	-0.230764	0.347690	-0.663707	0.5185
D(X(-4))	-0.313742	0.340844	-0.920487	0.3741
D(X(-5))	-0.013248	0.373722	-0.035448	0.9723

R-squared	0.333727	Mean dependent var	47798.43
Adjusted R-squared	-0.127539	S.D. dependent var	197362.3
S.E. of regression	209570.5	Akaike info criterion	27.64253
Sum squared resid	5.71E+11	Schwarz criterion	28.13622
Log likelihood	-307.8891	Hannan-Quinn criter.	27.76669
F-statistic	0.723502	Durbin-Watson stat	1.837921
Prob(F-statistic)	0.681596		

LAMPIRAN 26. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=1 dan Jumlah Lag d^2Y=5)

$$dX_t = a_1\, dX_{t-1} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + b_5 d^2Y_{t-5} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:21
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	56301.22	43867.78	1.283430	0.2188
D(Y(-1),2)	-0.083758	0.071365	-1.173661	0.2588
D(Y(-2),2)	-0.109870	0.073569	-1.493443	0.1561
D(Y(-3),2)	-0.041444	0.066998	-0.618587	0.5455
D(Y(-4),2)	-0.013030	0.071708	-0.181715	0.8582
D(Y(-5),2)	-0.076684	0.063041	-1.216409	0.2426
D(X(-1))	-0.396018	0.253693	-1.561015	0.1394

R-squared	0.306604	Mean dependent var	45017.36
Adjusted R-squared	0.029246	S.D. dependent var	201545.0
S.E. of regression	198575.9	Akaike info criterion	27.48910
Sum squared resid	5.91E+11	Schwarz criterion	27.83625
Log likelihood	-295.3801	Hannan-Quinn criter.	27.57088
F-statistic	1.105444	Durbin-Watson stat	1.949746
Prob(F-statistic)	0.404038		

LAMPIRAN 27. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=2 dan Jumlah Lag d^2Y=5)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + b_5 d^2Y_{t-5} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:22
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41786.13	48087.63	0.868958	0.3995
D(Y(-1),2)	-0.083057	0.072285	-1.149023	0.2698
D(Y(-2),2)	-0.085933	0.080450	-1.068151	0.3035
D(Y(-3),2)	-0.022371	0.072034	-0.310561	0.7607
D(Y(-4),2)	-0.000348	0.074384	-0.004685	0.9963
D(Y(-5),2)	-0.071913	0.064135	-1.121263	0.2810
D(X(-1))	-0.324380	0.272513	-1.190329	0.2537
D(X(-2))	0.213699	0.270822	0.789077	0.4432

R-squared	0.336130	Mean dependent var	45017.36
Adjusted R-squared	0.004194	S.D. dependent var	201545.0
S.E. of regression	201121.9	Akaike info criterion	27.53650
Sum squared resid	5.66E+11	Schwarz criterion	27.93324
Log likelihood	-294.9015	Hannan-Quinn criter.	27.62996
F-statistic	1.012636	Durbin-Watson stat	2.055805
Prob(F-statistic)	0.463182		

LAMPIRAN 28. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=3 dan Jumlah Lag d^2Y=5)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + b_5 d^2Y_{t-5} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:22
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	50634.37	52868.66	0.957739	0.3557
D(Y(-1),2)	-0.070340	0.079047	-0.889851	0.3897
D(Y(-2),2)	-0.074168	0.086402	-0.858407	0.4062
D(Y(-3),2)	-0.030379	0.076008	-0.399682	0.6959
D(Y(-4),2)	-0.004799	0.077103	-0.062237	0.9513
D(Y(-5),2)	-0.072923	0.066021	-1.104537	0.2894
D(X(-1))	-0.276456	0.297991	-0.927733	0.3705
D(X(-2))	0.176241	0.289591	0.608587	0.5533
D(X(-3))	-0.144104	0.303488	-0.474827	0.6428

R-squared	0.347447	Mean dependent var	45017.36
Adjusted R-squared	-0.054124	S.D. dependent var	201545.0
S.E. of regression	206927.4	Akaike info criterion	27.61021
Sum squared resid	5.57E+11	Schwarz criterion	28.05655
Log likelihood	-294.7123	Hannan-Quinn criter.	27.71536
F-statistic	0.865219	Durbin-Watson stat	2.162530
Prob(F-statistic)	0.567457		

LAMPIRAN 29. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=4 dan Jumlah Lag d^2Y=5)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2}$$

$$+ b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + b_5 d^2Y_{t-5} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:22
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	74303.55	58585.83	1.268285	0.2287
D(Y(-1),2)	-0.054699	0.081011	-0.675207	0.5123
D(Y(-2),2)	-0.038839	0.094307	-0.411833	0.6877
D(Y(-3),2)	-0.005030	0.080786	-0.062268	0.9514
D(Y(-4),2)	-0.016498	0.078347	-0.210578	0.8368
D(Y(-5),2)	-0.073165	0.066257	-1.104257	0.2911
D(X(-1))	-0.286730	0.299249	-0.958164	0.3569
D(X(-2))	0.245578	0.299599	0.819689	0.4284
D(X(-3))	-0.239742	0.320687	-0.747587	0.4691
D(X(-4))	-0.302872	0.317902	-0.952721	0.3595

R-squared	0.393335	Mean dependent var	45017.36
Adjusted R-squared	-0.061664	S.D. dependent var	201545.0
S.E. of regression	207666.1	Akaike info criterion	27.62821
Sum squared resid	5.18E+11	Schwarz criterion	28.12413
Log likelihood	-293.9103	Hannan-Quinn criter.	27.74503
F-statistic	0.864475	Durbin-Watson stat	2.105551
Prob(F-statistic)	0.578108		

LAMPIRAN 30. Hasil Estimasi Persamaan (4.8)

(Jumlah Lag dX=5 dan Jumlah Lag d^2Y=5)

$$dX_t = a_1\, dX_{t-1} + a_2\, dX_{t-2} + a_3\, dX_{t-3} + a_4\, dX_{t-4} + a_5\, dX_{t-5} + b_1 d^2Y_{t-1} + b_2 d^2Y_{t-2} + b_3 d^2Y_{t-3} + b_4 d^2Y_{t-4} + b_5 d^2Y_{t-5} + e_{1t}$$

Dependent Variable: D(X)
Method: Least Squares
Date: 06/23/22 Time: 13:23
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	93082.41	74454.84	1.250186	0.2372
D(Y(-1),2)	-0.068902	0.090020	-0.765407	0.4601
D(Y(-2),2)	-0.045240	0.098765	-0.458054	0.6558
D(Y(-3),2)	0.007844	0.088739	0.088392	0.9312
D(Y(-4),2)	-0.010632	0.082248	-0.129273	0.8995
D(Y(-5),2)	-0.085047	0.073850	-1.151626	0.2739
D(X(-1))	-0.360025	0.352722	-1.020707	0.3293
D(X(-2))	0.212895	0.319224	0.666912	0.5186
D(X(-3))	-0.179064	0.360190	-0.497137	0.6289
D(X(-4))	-0.369540	0.363124	-1.017671	0.3307
D(X(-5))	-0.182412	0.419218	-0.435126	0.6719

R-squared	0.403600	Mean dependent var	45017.36
Adjusted R-squared	-0.138581	S.D. dependent var	201545.0
S.E. of regression	215057.2	Akaike info criterion	27.70205
Sum squared resid	5.09E+11	Schwarz criterion	28.24757
Log likelihood	-293.7225	Hannan-Quinn criter.	27.83056
F-statistic	0.744401	Durbin-Watson stat	2.046944
Prob(F-statistic)	0.675317		

LAMPIRAN 31. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=1 dan Jumlah Lag dX=1)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + d_1\, dX_{t-1} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:42
Sample (adjusted): 1994 2019
Included observations: 26 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-67799.04	167745.4	-0.404178	0.6898
D(X(-1))	1.133814	0.965897	1.173846	0.2525
D(Y(-1),2)	-0.528053	0.175708	-3.005279	0.0063

R-squared	0.407659	Mean dependent var	-7159.192
Adjusted R-squared	0.356151	S.D. dependent var	1026459.
S.E. of regression	823633.0	Akaike info criterion	30.18900
Sum squared resid	1.56E+13	Schwarz criterion	30.33417
Log likelihood	-389.4571	Hannan-Quinn criter.	30.23081
F-statistic	7.914483	Durbin-Watson stat	2.139556
Prob(F-statistic)	0.002424		

LAMPIRAN 32. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=2 dan Jumlah Lag dX=1)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + d_1\, dX_{t-1} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:44
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-104718.1	174488.7	-0.600143	0.5548
D(X(-1))	1.147909	1.006366	1.140647	0.2669
D(Y(-1),2)	-0.558523	0.229297	-2.435804	0.0239
D(Y(-2),2)	-0.034223	0.211576	-0.161754	0.8730

R-squared	0.430086	Mean dependent var	-33743.32
Adjusted R-squared	0.348670	S.D. dependent var	1038450.
S.E. of regression	838081.6	Akaike info criterion	30.26127
Sum squared resid	1.47E+13	Schwarz criterion	30.45629
Log likelihood	-374.2658	Hannan-Quinn criter.	30.31536
F-statistic	5.282557	Durbin-Watson stat	2.141554
Prob(F-statistic)	0.007146		

LAMPIRAN 33. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=3 dan Jumlah Lag dX=1)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + d_1\, dX_{t-1} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:45
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-100695.5	186229.5	-0.540706	0.5950
D(X(-1))	1.078397	1.065272	1.012321	0.3241
D(Y(-1),2)	-0.572791	0.247590	-2.313463	0.0321
D(Y(-2),2)	-0.100415	0.272242	-0.368843	0.7163
D(Y(-3),2)	-0.096251	0.220219	-0.437069	0.6670

R-squared	0.430602	Mean dependent var	-13954.42
Adjusted R-squared	0.310729	S.D. dependent var	1055959.
S.E. of regression	876681.8	Akaike info criterion	30.38873
Sum squared resid	1.46E+13	Schwarz criterion	30.63416
Log likelihood	-359.6647	Hannan-Quinn criter.	30.45384
F-statistic	3.592148	Durbin-Watson stat	2.210181
Prob(F-statistic)	0.024167		

LAMPIRAN 34. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=4 dan Jumlah Lag dX=1)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + d_1\, dX_{t-1} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:46
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-99173.72	160560.6	-0.617672	0.5450
D(X(-1))	0.483094	0.919730	0.525257	0.6062
D(Y(-1),2)	-0.711127	0.213712	-3.327499	0.0040
D(Y(-2),2)	-0.273714	0.237652	-1.151744	0.2654
D(Y(-3),2)	-0.527993	0.231604	-2.279726	0.0358
D(Y(-4),2)	-0.572283	0.189718	-3.016498	0.0078

R-squared	0.630069	Mean dependent var	-45223.30
Adjusted R-squared	0.521265	S.D. dependent var	1068270.
S.E. of regression	739143.0	Akaike info criterion	30.08383
Sum squared resid	9.29E+12	Schwarz criterion	30.38004
Log likelihood	-339.9640	Hannan-Quinn criter.	30.15833
F-statistic	5.790896	Durbin-Watson stat	2.026847
Prob(F-statistic)	0.002674		

LAMPIRAN 35. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=5 dan Jumlah Lag dX=1)

$$d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + c_5\, d^2Y_{t-5} + d_1\, dX_{t-1} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:46
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-100629.5	173772.6	-0.579088	0.5711
D(X(-1))	0.464807	1.004947	0.462519	0.6503
D(Y(-1),2)	-0.706660	0.282696	-2.499714	0.0245
D(Y(-2),2)	-0.268781	0.291426	-0.922297	0.3710
D(Y(-3),2)	-0.528783	0.265399	-1.992411	0.0648
D(Y(-4),2)	-0.565279	0.284055	-1.990032	0.0651
D(Y(-5),2)	0.014334	0.249725	0.057399	0.9550

R-squared	0.619932	Mean dependent var	-8404.591
Adjusted R-squared	0.467905	S.D. dependent var	1078369.
S.E. of regression	786614.9	Akaike info criterion	30.24224
Sum squared resid	9.28E+12	Schwarz criterion	30.58939
Log likelihood	-325.6646	Hannan-Quinn criter.	30.32401
F-statistic	4.077768	Durbin-Watson stat	2.033092
Prob(F-statistic)	0.012642		

LAMPIRAN 36. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=1 dan Jumlah Lag dX=2)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:47
Sample (adjusted): 1994 2019
Included observations: 26 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-141011.8	174988.4	-0.805835	0.4290
D(X(-1))	1.374469	0.970852	1.415735	0.1709
D(X(-2))	1.259219	0.980989	1.283622	0.2126
D(Y(-1),2)	-0.607044	0.183888	-3.301164	0.0033

R-squared	0.448931	Mean dependent var	-7159.192
Adjusted R-squared	0.373785	S.D. dependent var	1026459.
S.E. of regression	812275.5	Akaike info criterion	30.19370
Sum squared resid	1.45E+13	Schwarz criterion	30.38726
Log likelihood	-388.5182	Hannan-Quinn criter.	30.24944
F-statistic	5.974133	Durbin-Watson stat	2.039407
Prob(F-statistic)	0.003869		

LAMPIRAN 37. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=2 dan Jumlah Lag dX=2)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:47
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-196853.9	182972.7	-1.075865	0.2948
D(X(-1))	1.510042	1.017904	1.483483	0.1535
D(X(-2))	1.442124	1.032511	1.396715	0.1778
D(Y(-1),2)	-0.595605	0.225842	-2.637264	0.0158
D(Y(-2),2)	0.045933	0.214754	0.213887	0.8328

R-squared	0.480735	Mean dependent var	-33743.32
Adjusted R-squared	0.376883	S.D. dependent var	1038450.
S.E. of regression	819729.6	Akaike info criterion	30.24819
Sum squared resid	1.34E+13	Schwarz criterion	30.49197
Log likelihood	-373.1024	Hannan-Quinn criter.	30.31581
F-statistic	4.629004	Durbin-Watson stat	2.138275
Prob(F-statistic)	0.008277		

LAMPIRAN 38. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=3 dan Jumlah Lag dX=2)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:48
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-199060.3	199363.0	-0.998482	0.3313
D(X(-1))	1.485143	1.097812	1.352820	0.1929
D(X(-2))	1.424874	1.131498	1.259282	0.2240
D(Y(-1),2)	-0.604658	0.245169	-2.466291	0.0239
D(Y(-2),2)	0.023919	0.285740	0.083709	0.9342
D(Y(-3),2)	-0.023668	0.224428	-0.105457	0.9172

R-squared	0.476704	Mean dependent var	-13954.42
Adjusted R-squared	0.331344	S.D. dependent var	1055959.
S.E. of regression	863472.0	Akaike info criterion	30.38763
Sum squared resid	1.34E+13	Schwarz criterion	30.68214
Log likelihood	-358.6515	Hannan-Quinn criter.	30.46576
F-statistic	3.279476	Durbin-Watson stat	2.139755
Prob(F-statistic)	0.028013		

LAMPIRAN 39. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=4 dan Jumlah Lag dX=2)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:48
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-157808.8	176479.6	-0.894204	0.3845
D(X(-1))	0.757254	0.983998	0.769568	0.4528
D(X(-2))	0.836620	0.999178	0.837308	0.4148
D(Y(-1),2)	-0.721647	0.215982	-3.341239	0.0041
D(Y(-2),2)	-0.191416	0.259133	-0.738680	0.4708
D(Y(-3),2)	-0.460591	0.247145	-1.863649	0.0808
D(Y(-4),2)	-0.538375	0.195645	-2.751801	0.0142

R-squared	0.645598	Mean dependent var	-45223.30
Adjusted R-squared	0.512697	S.D. dependent var	1068270.
S.E. of regression	745728.2	Akaike info criterion	30.12790
Sum squared resid	8.90E+12	Schwarz criterion	30.47349
Log likelihood	-339.4709	Hannan-Quinn criter.	30.21481
F-statistic	4.857741	Durbin-Watson stat	2.033758
Prob(F-statistic)	0.005268		

LAMPIRAN 40. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=5 dan Jumlah Lag dX=2)

$$d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + c_5\, d^2Y_{t-5} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:49
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-158224.9	190474.3	-0.830689	0.4201
D(X(-1))	0.749064	1.079417	0.693952	0.4991
D(X(-2))	0.847951	1.072721	0.790467	0.4424
D(Y(-1),2)	-0.703879	0.286321	-2.458358	0.0276
D(Y(-2),2)	-0.173799	0.318663	-0.545400	0.5941
D(Y(-3),2)	-0.453101	0.285325	-1.588019	0.1346
D(Y(-4),2)	-0.514957	0.294635	-1.747780	0.1024
D(Y(-5),2)	0.033267	0.254039	0.130953	0.8977

R-squared	0.636170	Mean dependent var	-8404.591
Adjusted R-squared	0.454255	S.D. dependent var	1078369.
S.E. of regression	796640.3	Akaike info criterion	30.28948
Sum squared resid	8.88E+12	Schwarz criterion	30.68622
Log likelihood	-325.1843	Hannan-Quinn criter.	30.38294
F-statistic	3.497074	Durbin-Watson stat	2.062814
Prob(F-statistic)	0.022048		

LAMPIRAN 41. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=1 dan Jumlah Lag dX=3)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:49
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-244289.3	183740.7	-1.329533	0.1986
D(X(-1))	1.204234	0.986245	1.221029	0.2363
D(X(-2))	1.683792	1.011862	1.664054	0.1117
D(X(-3))	0.983635	0.942107	1.044080	0.3089
D(Y(-1),2)	-0.645669	0.182647	-3.535072	0.0021

R-squared	0.506449	Mean dependent var	-33743.32
Adjusted R-squared	0.407739	S.D. dependent var	1038450.
S.E. of regression	799175.9	Akaike info criterion	30.19741
Sum squared resid	1.28E+13	Schwarz criterion	30.44118
Log likelihood	-372.4676	Hannan-Quinn criter.	30.26502
F-statistic	5.130662	Durbin-Watson stat	2.079035
Prob(F-statistic)	0.005201		

LAMPIRAN 42. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=2 dan Jumlah Lag dX=3)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:49
Sample (adjusted): 1995 2019
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-244525.2	187903.8	-1.301332	0.2087
D(X(-1))	1.044417	1.106114	0.944222	0.3569
D(X(-2))	1.632457	1.045013	1.562140	0.1348
D(X(-3))	1.183163	1.117901	1.058379	0.3032
D(Y(-1),2)	-0.702407	0.246745	-2.846694	0.0103
D(Y(-2),2)	-0.087427	0.248436	-0.351909	0.7288

R-squared	0.509645	Mean dependent var	-33743.32
Adjusted R-squared	0.380604	S.D. dependent var	1038450.
S.E. of regression	817278.1	Akaike info criterion	30.27091
Sum squared resid	1.27E+13	Schwarz criterion	30.56344
Log likelihood	-372.3864	Hannan-Quinn criter.	30.35205
F-statistic	3.949486	Durbin-Watson stat	1.988321
Prob(F-statistic)	0.012647		

LAMPIRAN 43. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=3 dan Jumlah Lag dX=3)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:50
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-266267.0	208894.4	-1.274649	0.2196
D(X(-1))	1.032294	1.176924	0.877112	0.3927
D(X(-2))	1.722934	1.163655	1.480624	0.1570
D(X(-3))	1.288469	1.228953	1.048429	0.3091
D(Y(-1),2)	-0.725848	0.270444	-2.683913	0.0157
D(Y(-2),2)	-0.088851	0.304581	-0.291715	0.7740
D(Y(-3),2)	0.028049	0.229184	0.122387	0.9040

R-squared	0.508485	Mean dependent var	-13954.42
Adjusted R-squared	0.335009	S.D. dependent var	1055959.
S.E. of regression	861102.4	Akaike info criterion	30.40831
Sum squared resid	1.26E+13	Schwarz criterion	30.75191
Log likelihood	-357.8997	Hannan-Quinn criter.	30.49946
F-statistic	2.931159	Durbin-Watson stat	1.912663
Prob(F-statistic)	0.037640		

LAMPIRAN 44. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=4 dan Jumlah Lag dX=3)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:50
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-213653.0	189399.4	-1.128055	0.2770
D(X(-1))	0.463619	1.049150	0.441899	0.6649
D(X(-2))	1.082024	1.046993	1.033459	0.3178
D(X(-3))	0.942808	1.095832	0.860358	0.4031
D(Y(-1),2)	-0.804105	0.237915	-3.379795	0.0041
D(Y(-2),2)	-0.268752	0.276293	-0.972706	0.3461
D(Y(-3),2)	-0.404677	0.257511	-1.571491	0.1369
D(Y(-4),2)	-0.509980	0.199995	-2.549971	0.0222

R-squared	0.662264	Mean dependent var	-45223.30
Adjusted R-squared	0.504654	S.D. dependent var	1068270.
S.E. of regression	751857.0	Akaike info criterion	30.16669
Sum squared resid	8.48E+12	Schwarz criterion	30.56164
Log likelihood	-338.9169	Hannan-Quinn criter.	30.26602
F-statistic	4.201918	Durbin-Watson stat	1.852401
Prob(F-statistic)	0.009402		

LAMPIRAN 45. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=5 dan Jumlah Lag dX=3)

$$d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + c_5\, d^2Y_{t-5} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:50
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-217577.0	205992.1	-1.056239	0.3101
D(X(-1))	0.427604	1.161062	0.368287	0.7186
D(X(-2))	1.099210	1.128334	0.974189	0.3477
D(X(-3))	0.966621	1.182479	0.817453	0.4284
D(Y(-1),2)	-0.789183	0.307992	-2.562349	0.0236
D(Y(-2),2)	-0.252718	0.336647	-0.750691	0.4662
D(Y(-3),2)	-0.399385	0.296149	-1.348594	0.2005
D(Y(-4),2)	-0.485106	0.300417	-1.614776	0.1304
D(Y(-5),2)	0.040042	0.257238	0.155661	0.8787

R-squared	0.653957	Mean dependent var	-8404.591
Adjusted R-squared	0.441008	S.D. dependent var	1078369.
S.E. of regression	806250.8	Akaike info criterion	30.33027
Sum squared resid	8.45E+12	Schwarz criterion	30.77660
Log likelihood	-324.6329	Hannan-Quinn criter.	30.43541
F-statistic	3.070954	Durbin-Watson stat	1.875264
Prob(F-statistic)	0.035341		

LAMPIRAN 46. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=1 dan Jumlah Lag dX=4)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:51
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-237316.4	213875.3	-1.109601	0.2818
D(X(-1))	1.162689	1.052805	1.104372	0.2840
D(X(-2))	1.754195	1.083750	1.618634	0.1229
D(X(-3))	0.941560	1.026355	0.917382	0.3711
D(X(-4))	-0.253980	1.028388	-0.246970	0.8077
D(Y(-1),2)	-0.649820	0.195504	-3.323815	0.0038

R-squared	0.505187	Mean dependent var	-13954.42
Adjusted R-squared	0.367739	S.D. dependent var	1055959.
S.E. of regression	839644.0	Akaike info criterion	30.33166
Sum squared resid	1.27E+13	Schwarz criterion	30.62617
Log likelihood	-357.9799	Hannan-Quinn criter.	30.40980
F-statistic	3.675478	Durbin-Watson stat	2.094330
Prob(F-statistic)	0.018163		

LAMPIRAN 47. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=2 dan Jumlah Lag dX=4)

$$d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:51
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-246961.6	220874.2	-1.118110	0.2791
D(X(-1))	0.997012	1.173304	0.849747	0.4073
D(X(-2))	1.704614	1.119455	1.522718	0.1462
D(X(-3))	1.189946	1.258275	0.945697	0.3576
D(X(-4))	-0.186524	1.070727	-0.174203	0.8638
D(Y(-1),2)	-0.717454	0.274736	-2.611429	0.0182
D(Y(-2),2)	-0.098123	0.272642	-0.359898	0.7234

R-squared	0.508929	Mean dependent var	-13954.42
Adjusted R-squared	0.335609	S.D. dependent var	1055959.
S.E. of regression	860713.8	Akaike info criterion	30.40740
Sum squared resid	1.26E+13	Schwarz criterion	30.75100
Log likelihood	-357.8889	Hannan-Quinn criter.	30.49856
F-statistic	2.936365	Durbin-Watson stat	1.984020
Prob(F-statistic)	0.037405		

LAMPIRAN 48. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=3 dan Jumlah Lag dX=4)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:52
Sample (adjusted): 1996 2019
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-246830.7	227287.5	-1.085984	0.2936
D(X(-1))	1.020121	1.211437	0.842075	0.4122
D(X(-2))	1.818043	1.250646	1.453683	0.1654
D(X(-3))	1.211145	1.298000	0.933086	0.3646
D(X(-4))	-0.332243	1.267011	-0.262226	0.7965
D(Y(-1),2)	-0.710430	0.284316	-2.498734	0.0237
D(Y(-2),2)	-0.052037	0.343300	-0.151579	0.8814
D(Y(-3),2)	0.063145	0.271075	0.232942	0.8188

R-squared	0.510588	Mean dependent var	-13954.42
Adjusted R-squared	0.296471	S.D. dependent var	1055959.
S.E. of regression	885702.8	Akaike info criterion	30.48735
Sum squared resid	1.26E+13	Schwarz criterion	30.88004
Log likelihood	-357.8482	Hannan-Quinn criter.	30.59153
F-statistic	2.384618	Durbin-Watson stat	1.935156
Prob(F-statistic)	0.071120		

LAMPIRAN 49. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=4 dan Jumlah Lag dX=4)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + d_1\, dX_{t-1}}$$

$$\boldsymbol{+ d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:52
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-148996.2	209912.8	-0.709800	0.4895
D(X(-1))	0.399651	1.067323	0.374442	0.7137
D(X(-2))	1.283364	1.094077	1.173011	0.2604
D(X(-3))	0.680420	1.163262	0.584924	0.5679
D(X(-4))	-0.879179	1.151099	-0.763773	0.4577
D(Y(-1),2)	-0.766491	0.246265	-3.112465	0.0076
D(Y(-2),2)	-0.172095	0.307465	-0.559721	0.5845
D(Y(-3),2)	-0.338043	0.275351	-1.227683	0.2398
D(Y(-4),2)	-0.549274	0.209254	-2.624912	0.0200

R-squared	0.675774	Mean dependent var	-45223.30
Adjusted R-squared	0.490502	S.D. dependent var	1068270.
S.E. of regression	762521.7	Akaike info criterion	30.21282
Sum squared resid	8.14E+12	Schwarz criterion	30.65715
Log likelihood	-338.4474	Hannan-Quinn criter.	30.32457
F-statistic	3.647471	Durbin-Watson stat	1.910446
Prob(F-statistic)	0.016738		

LAMPIRAN 50. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=5 dan Jumlah Lag dX=4)

$$d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + c_5\, d^2Y_{t-5} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:52
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-149281.4	232133.7	-0.643084	0.5323
D(X(-1))	0.397961	1.185710	0.335631	0.7429
D(X(-2))	1.299275	1.187095	1.094500	0.2952
D(X(-3))	0.690666	1.270654	0.543552	0.5967
D(X(-4))	-0.873914	1.259618	-0.693793	0.5010
D(Y(-1),2)	-0.744051	0.320987	-2.318010	0.0389
D(Y(-2),2)	-0.150778	0.373670	-0.403507	0.6937
D(Y(-3),2)	-0.326244	0.320098	-1.019200	0.3282
D(Y(-4),2)	-0.518864	0.310432	-1.671424	0.1205
D(Y(-5),2)	0.039343	0.262530	0.149860	0.8834

R-squared	0.667303	Mean dependent var	-8404.591
Adjusted R-squared	0.417780	S.D. dependent var	1078369.
S.E. of regression	822831.8	Akaike info criterion	30.38185
Sum squared resid	8.12E+12	Schwarz criterion	30.87777
Log likelihood	-324.2003	Hannan-Quinn criter.	30.49867
F-statistic	2.674314	Durbin-Watson stat	1.943197
Prob(F-statistic)	0.057525		

LAMPIRAN 51. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=1 dan Jumlah Lag dX=5)

$$d^2Y_t = c_1\, d^2Y_{t-1} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + d_5\, dX_{t-5} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:53
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-168626.2	279260.4	-0.603831	0.5544
D(X(-1))	0.799122	1.248511	0.640060	0.5312
D(X(-2))	1.567448	1.174345	1.334742	0.2006
D(X(-3))	1.158986	1.086057	1.067151	0.3017
D(X(-4))	-0.538904	1.188123	-0.453576	0.6562
D(X(-5))	-0.868637	1.332335	-0.651966	0.5237
D(Y(-1),2)	-0.667133	0.206132	-3.236442	0.0052

R-squared	0.521874	Mean dependent var	-45223.30
Adjusted R-squared	0.342577	S.D. dependent var	1068270.
S.E. of regression	866170.6	Akaike info criterion	30.42734
Sum squared resid	1.20E+13	Schwarz criterion	30.77293
Log likelihood	-342.9144	Hannan-Quinn criter.	30.51426
F-statistic	2.910667	Durbin-Watson stat	2.161734
Prob(F-statistic)	0.040911		

LAMPIRAN 52. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=2 dan Jumlah Lag dX=5)

$$\boldsymbol{d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + d_5\, dX_{t-5} + e_{1t}}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:53
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-172531.8	285091.8	-0.605180	0.5541
D(X(-1))	0.440935	1.407107	0.313363	0.7583
D(X(-2))	1.445587	1.215635	1.189162	0.2529
D(X(-3))	1.634514	1.362544	1.199605	0.2489
D(X(-4))	-0.471679	1.217780	-0.387327	0.7040
D(X(-5))	-1.022450	1.383746	-0.738900	0.4714
D(Y(-1),2)	-0.789987	0.293545	-2.691197	0.0168
D(Y(-2),2)	-0.173443	0.289012	-0.600123	0.5574

R-squared	0.533085	Mean dependent var	-45223.30
Adjusted R-squared	0.315191	S.D. dependent var	1068270.
S.E. of regression	884027.4	Akaike info criterion	30.49057
Sum squared resid	1.17E+13	Schwarz criterion	30.88553
Log likelihood	-342.6416	Hannan-Quinn criter.	30.58990
F-statistic	2.446536	Durbin-Watson stat	1.992581
Prob(F-statistic)	0.069092		

LAMPIRAN 53. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=3 dan Jumlah Lag dX=5)

$$d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + d_5\, dX_{t-5} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:54
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-164928.7	297888.4	-0.553659	0.5885
D(X(-1))	0.439151	1.454905	0.301841	0.7672
D(X(-2))	1.524551	1.333867	1.142955	0.2722
D(X(-3))	1.652405	1.412423	1.169908	0.2616
D(X(-4))	-0.611157	1.485772	-0.411340	0.6871
D(X(-5))	-1.063977	1.449862	-0.733847	0.4752
D(Y(-1),2)	-0.785772	0.304444	-2.581005	0.0218
D(Y(-2),2)	-0.135359	0.368344	-0.367480	0.7188
D(Y(-3),2)	0.051524	0.291372	0.176831	0.8622

R-squared	0.534125	Mean dependent var	-45223.30
Adjusted R-squared	0.267911	S.D. dependent var	1068270.
S.E. of regression	914035.1	Akaike info criterion	30.57530
Sum squared resid	1.17E+13	Schwarz criterion	31.01962
Log likelihood	-342.6159	Hannan-Quinn criter.	30.68704
F-statistic	2.006376	Durbin-Watson stat	1.951130
Prob(F-statistic)	0.121586		

LAMPIRAN 54. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=4 dan Jumlah Lag dX=5)

$$d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + d_5\, dX_{t-5} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:54
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-197037.1	257040.3	-0.766561	0.4570
D(X(-1))	0.608832	1.255686	0.484860	0.6358
D(X(-2))	1.360100	1.151433	1.181224	0.2587
D(X(-3))	0.501677	1.306750	0.383912	0.7072
D(X(-4))	-0.713280	1.281020	-0.556806	0.5871
D(X(-5))	0.488831	1.404591	0.348024	0.7334
D(Y(-1),2)	-0.743341	0.262932	-2.827121	0.0143
D(Y(-2),2)	-0.169044	0.317716	-0.532061	0.6037
D(Y(-3),2)	-0.378926	0.307727	-1.231371	0.2400
D(Y(-4),2)	-0.587918	0.243001	-2.419403	0.0309

R-squared	0.678767	Mean dependent var	-45223.30
Adjusted R-squared	0.456375	S.D. dependent var	1068270.
S.E. of regression	787645.5	Akaike info criterion	30.29050
Sum squared resid	8.07E+12	Schwarz criterion	30.78420
Log likelihood	-338.3408	Hannan-Quinn criter.	30.41467
F-statistic	3.052119	Durbin-Watson stat	1.876704
Prob(F-statistic)	0.033544		

LAMPIRAN 55. Hasil Estimasi Persamaan (4.9)

(Jumlah Lag d^2Y=5 dan Jumlah Lag dX=5)

$$d^2Y_t = c_1\, d^2Y_{t-1} + c_2\, d^2Y_{t-2} + c_3\, d^2Y_{t-3} + c_4\, d^2Y_{t-4} + c_5\, d^2Y_{t-5} + d_1\, dX_{t-1} + d_2\, dX_{t-2} + d_3\, dX_{t-3} + d_4\, dX_{t-4} + d_5\, dX_{t-5} + e_{1t}$$

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 06/29/22 Time: 22:54
Sample (adjusted): 1998 2019
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-219947.1	295260.0	-0.744927	0.4719
D(X(-1))	0.673776	1.398762	0.481695	0.6395
D(X(-2))	1.422263	1.265924	1.123498	0.2851
D(X(-3))	0.462333	1.428380	0.323677	0.7523
D(X(-4))	-0.623038	1.440013	-0.432662	0.6736
D(X(-5))	0.686426	1.662460	0.412898	0.6876
D(Y(-1),2)	-0.690603	0.356987	-1.934531	0.0792
D(Y(-2),2)	-0.126691	0.391665	-0.323467	0.7524
D(Y(-3),2)	-0.374690	0.351907	-1.064742	0.3098
D(Y(-4),2)	-0.540937	0.326163	-1.658487	0.1254
D(Y(-5),2)	0.084056	0.292860	0.287019	0.7794

R-squared	0.672380	Mean dependent var	-8404.591
Adjusted R-squared	0.374544	S.D. dependent var	1078369.
S.E. of regression	852836.3	Akaike info criterion	30.45738
Sum squared resid	8.00E+12	Schwarz criterion	31.00290
Log likelihood	-324.0311	Hannan-Quinn criter.	30.58588
F-statistic	2.257552	Durbin-Watson stat	1.956895
Prob(F-statistic)	0.098887		

LAMPIRAN 56 UJI KAUSALITAS GRANGER VARIABEL DEPENDEN (dX)

Dependent Variable: D(X)
Method: Least Squares
Date: 06/29/22 Time: 23:46
Sample (adjusted): 1993 2019
Included observations: 27 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	61262.45	35015.10	1.749601	0.0925
D(X(-1))	-0.326539	0.188920	-1.728456	0.0962

R-squared	0.106746	Mean dependent var	46285.48
Adjusted R-squared	0.071016	S.D. dependent var	182898.8
S.E. of regression	176284.8	Akaike info criterion	27.06878
Sum squared resid	7.77E+11	Schwarz criterion	27.16476
Log likelihood	-363.4285	Hannan-Quinn criter.	27.09732
F-statistic	2.987560	Durbin-Watson stat	1.853486
Prob(F-statistic)	0.096240		

Dependent Variable: D(X)
Method: Least Squares
Date: 07/03/22 Time: 22:16
Sample (adjusted): 1994 2019
Included observations: 26 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	65123.37	37253.74	1.748103	0.0938
D(X(-1))	-0.349931	0.214511	-1.631292	0.1164
D(Y(-1),2)	-0.008635	0.039022	-0.221278	0.8268

R-squared	0.111582	Mean dependent var	48535.65
Adjusted R-squared	0.034328	S.D. dependent var	186139.4
S.E. of regression	182916.6	Akaike info criterion	27.17961
Sum squared resid	7.70E+11	Schwarz criterion	27.32478
Log likelihood	-350.3350	Hannan-Quinn criter.	27.22142
F-statistic	1.444358	Durbin-Watson stat	1.850505
Prob(F-statistic)	0.256507		

LAMPIRAN 57 UJI KAUSALITAS GRANGER VARIABEL DEPENDEN (d^2Y_t)

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 07/03/22 Time: 22:19
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-76455.37	151483.2	-0.504712	0.6199
D(Y(-1),2)	-0.764022	0.184668	-4.137269	0.0006
D(Y(-2),2)	-0.309329	0.223145	-1.386223	0.1826
D(Y(-3),2)	-0.557505	0.220120	-2.532734	0.0208
D(Y(-4),2)	-0.593742	0.181502	-3.271278	0.0042

R-squared	0.624065	Mean dependent var	-45223.30
Adjusted R-squared	0.540524	S.D. dependent var	1068270.
S.E. of regression	724123.2	Akaike info criterion	30.01297
Sum squared resid	9.44E+12	Schwarz criterion	30.25982
Log likelihood	-340.1492	Hannan-Quinn criter.	30.07505
F-statistic	7.470156	Durbin-Watson stat	1.986730
Prob(F-statistic)	0.000992		

Dependent Variable: D(Y,2)
Method: Least Squares
Date: 07/03/22 Time: 22:20
Sample (adjusted): 1997 2019
Included observations: 23 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-99173.72	160560.6	-0.617672	0.5450
D(X(-1))	0.483094	0.919730	0.525257	0.6062
D(Y(-1),2)	-0.711127	0.213712	-3.327499	0.0040
D(Y(-2),2)	-0.273714	0.237652	-1.151744	0.2654
D(Y(-3),2)	-0.527993	0.231604	-2.279726	0.0358
D(Y(-4),2)	-0.572283	0.189718	-3.016498	0.0078

R-squared	0.630069	Mean dependent var	-45223.30
Adjusted R-squared	0.521265	S.D. dependent var	1068270.
S.E. of regression	739143.0	Akaike info criterion	30.08383
Sum squared resid	9.29E+12	Schwarz criterion	30.38004
Log likelihood	-339.9640	Hannan-Quinn criter.	30.15833
F-statistic	5.790896	Durbin-Watson stat	2.026847
Prob(F-statistic)	0.002674		

LAMPIRAN 58 TABEL DISTRIBUSI t

Pr	0.25	0.10	0.05	0.025	0.01	0.005	0.001
Df	**0.50**	**0.20**	**0.10**	**0.050**	**0.02**	**0.010**	**0.002**
1	1.00000	3.07768	6.31375	12.70620	31.82052	63.65674	318.30884
2	0.81650	1.88562	2.91999	4.30265	6.96456	9.92484	22.32712
3	0.76489	1.63774	2.35336	3.18245	4.54070	5.84091	10.21453
4	0.74070	1.53321	2.13185	2.77645	3.74695	4.60409	7.17318
5	0.72669	1.47588	2.01505	2.57058	3.36493	4.03214	5.89343
6	0.71756	1.43976	1.94318	2.44691	3.14267	3.70743	5.20763
7	0.71114	1.41492	1.89458	2.36462	2.99795	3.49948	4.78529
8	0.70639	1.39682	1.85955	2.30600	2.89646	3.35539	4.50079
9	0.70272	1.38303	1.83311	2.26216	2.82144	3.24984	4.29681
10	0.69981	1.37218	1.81246	2.22814	2.76377	3.16927	4.14370
11	0.69745	1.36343	1.79588	2.20099	2.71808	3.10581	4.02470
12	0.69548	1.35622	1.78229	2.17881	2.68100	3.05454	3.92963
13	0.69383	1.35017	1.77093	2.16037	2.65031	3.01228	3.85198
14	0.69242	1.34503	1.76131	2.14479	2.62449	2.97684	3.78739
15	0.69120	1.34061	1.75305	2.13145	2.60248	2.94671	3.73283
16	0.69013	1.33676	1.74588	2.11991	2.58349	2.92078	3.68615
17	0.68920	1.33338	1.73961	2.10982	2.56693	2.89823	3.64577
18	0.68836	1.33039	1.73406	2.10092	2.55238	2.87844	3.61048
19	0.68762	1.32773	1.72913	2.09302	2.53948	2.86093	3.57940
20	0.68695	1.32534	1.72472	2.08596	2.52798	2.84534	3.55181
21	0.68635	1.32319	1.72074	2.07961	2.51765	2.83136	3.52715
22	0.68581	1.32124	1.71714	2.07387	2.50832	2.81876	3.50499
23	0.68531	1.31946	1.71387	2.06866	2.49987	2.80734	3.48496
24	0.68485	1.31784	1.71088	2.06390	2.49216	2.79694	3.46678
25	0.68443	1.31635	1.70814	2.05954	2.48511	2.78744	3.45019
26	0.68404	1.31497	1.70562	2.05553	2.47863	2.77871	3.43500
27	0.68368	1.31370	1.70329	2.05183	2.47266	2.77068	3.42103
28	0.68335	1.31253	1.70113	2.04841	2.46714	2.76326	3.40816
29	0.68304	1.31143	1.69913	2.04523	2.46202	2.75639	3.39624
30	0.68276	1.31042	1.69726	2.04227	2.45726	2.75000	3.38518
31	0.68249	1.30946	1.69552	2.03951	2.45282	2.74404	3.37490
32	0.68223	1.30857	1.69389	2.03693	2.44868	2.73848	3.36531
33	0.68200	1.30774	1.69236	2.03452	2.44479	2.73328	3.35634
34	0.68177	1.30695	1.69092	2.03224	2.44115	2.72839	3.34793
35	0.68156	1.30621	1.68957	2.03011	2.43772	2.72381	3.34005
36	0.68137	1.30551	1.68830	2.02809	2.43449	2.71948	3.33262
37	0.68118	1.30485	1.68709	2.02619	2.43145	2.71541	3.32563
38	0.68100	1.30423	1.68595	2.02439	2.42857	2.71156	3.31903
39	0.68083	1.30364	1.68488	2.02269	2.42584	2.70791	3.31279

LAMPIRAN 59 TABEL DISTRIBUSI F

Titik Persentase Distribusi F untuk Probabilita = 0,05

df (n2)	df (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