Lampiran 1. Pembentukan Sistem VAR (Enders, 2004)

Untuk menyederhanakan penjelasan, persamaan model VAR dimisalkan memiliki 2 variabel (*bivariate*), y_t dan z_t, yang memiliki hubungan sebagai berikut:

$$y_t = b_{10} - b_{12}z_t + \gamma_{11}y_{t-1} + \gamma_{12}z_{t-1} + \varepsilon_{yt}$$

$$z_t = b_{20} - b_{21}y_t + \gamma_{21}y_{t-1} + \gamma_{22}z_{t-1} + \varepsilon_{zt}$$

Dimana:

- $-b_{12}$ = *contemporaneous effect* (efek seketika) dari 1 unit perubahan z_t terhadap y_t

- γ_{21} = efek (tidak seketika) dari 1 unit perubahan y_{t-1} terhadap z_t

- Jika $b_{12} \neq 0$ maka ε_{zt} memiliki *indirect contemporaneous effect* pada y_t

- Jika $b_{21} \neq 0$ maka ε_{yt} memiliki *indirect contemporaneous effect* pada z_t

Persamaan diatas disebut juga sebagai *VAR* struktural atau bentuk sistem primitif. Kedua variabel diatas secara individual dipengaruhi secara langsung oleh variabel yang lain dan secara tidak langsung oleh nilai *lag* dari setiap variabel dalam sistem. Jika kedua persamaan tersebut diubah ke dalam bentuk matriks, maka persamaanya menjadi:

$$\begin{bmatrix} 1 & b_{12} \\ b_{21} & 1 \end{bmatrix} \begin{bmatrix} y_t \\ z_t \end{bmatrix} = \begin{bmatrix} b_{10} \\ b_{20} \end{bmatrix} + \begin{bmatrix} \gamma_{11} & \gamma_{12} \\ \gamma_{21} & \gamma_{22} \end{bmatrix} \begin{bmatrix} y_{t-1} \\ z_{t-1} \end{bmatrix} + \begin{bmatrix} \varepsilon_{yt} \\ \varepsilon_{zt} \end{bmatrix}$$

$$B \qquad x_t = \Gamma_0 \ + \quad \Gamma_1 \quad x_{t-1} \ + \ \varepsilon_t$$

Dengan mengalikan invers matriks B pada persamaan diatas, maka diperoleh:

$$x_t = B^{-1}\Gamma_0 \ + \ B^{-1}\Gamma_1 \ x_{t-1} \ + \ B^{-1}\varepsilon_t$$

$$x_t = A_0 + A_1 \ x_{t-1} + e_t$$

Kemudian jika diuraikan ke dalam bentuk persamaan *bivariate* akan menghasilkan persamaan yang disebut *reduced form* atau bentuk standar sistem VAR sebagai berikut:

$$y_t = a_{10} + a_{11}y_{t-1} + a_{12}z_{t-1} + e_{1t}$$

$$z_t = a_{20} + a_{21}y_{t-1} + a_{22}z_{t-1} + e_{2t}$$

Dikarenakan ε_{yt} dan ε_{zt} harus memiliki syarat *white noise*, maka *error terms* pada kedua persamaan diatas yaitu e_{1t} dan e_{2t}, akan memiliki rata-rata nol, varians yang

konstan, dan secara individu tidak memiliki serial korelasi. Untuk persamaan dengan lebih dari dua variabel (*multivariate)*, persamaan pada dasarnya dapat digeneralisasikan menjadi:

$$x_t = A_o + A_1 x_{t-1} + A_2 x_{t-2} + \dots + A_p x_{t-p} + e_t$$

Dimana:

- x_t = vektor (n x 1) yang berisi *n* variabel yang akan dimasukkan dalam VAR

- A_0 = vektor (n x 1) dari *intercept*

- A_i = matriks (n x n) yang berisi koefisien konstan

- e_t = vektor *error terms* (n x 1)

Sehingga persamaan VAR dalam menganalisis hubungan antara variabel perdagangan internasional (TRADE), investasi asing langsung (FDI) dan pertumbuhan ekonomi (PDB) dapat diuraikan menjadi sistem VAR berikut :

$$PDB_t = a_{10} + a_{11}PDB_{t-p} + a_{12}TRADE_{t-p} + a_{13}FDI_{t-p} + \varepsilon_{1t}$$

$$TRADE_t = a_{20} + a_{21}TRADE_{t-p} + a_{22}PDB_{t-p} + a_{23}FDI_{t-p} + \varepsilon_{2t}$$

$$FDI_t = a_{30} + a_{31}FDI_{t-p} + a_{32}PDB_{t-p} + a_{33}TRADE_{t-p} + \varepsilon_{3t}$$

Lampiran 2. Hasil Output Eviews Uji stasioneritas variabel

PDB stasioner pada 1st difference

Null Hypothesis: D(PDB) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 6 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.372805	0.0002
Test critical values:	1% level	-4.107947	
	5% level	-3.481595	
	10% level	-3.168695	

Null Hypothesis: D(PDB) has a unit root
Exogenous: Constant, Linear Trend
Bandwidth: 6 (Newey-West using Bartlett kernel)

	Adj. t-Stat	Prob.*
Phillips-Perron test statistic	-8.765921	0.0000

		Test critical values:		
Test critical values:	1% level		-4.094550	
	5% level		-3.475305	
	10% level		-3.165046	

FDI stasioner pada 1st difference

Null Hypothesis: D(FDI) has a unit root
Exogenous: None
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-16.11036	0.0000
Test critical values:	1% level	-2.598416	
	5% level	-1.945525	
	10% level	-1.613760	

Null Hypothesis: D(FDI) has a unit root
Exogenous: None
Bandwidth: 19 (Newey-West using Bartlett kernel)

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-30.29485	0.0000
Test critical values:	1% level	-2.598416	
	5% level	-1.945525	
	10% level	-1.613760	

Trade stasioner pada 1st difference

Null Hypothesis: D(TRADE) has a unit root
Exogenous: None
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.416464	0.0000
Test critical values:	1% level	-2.598416	
	5% level	-1.945525	
	10% level	-1.613760	

Null Hypothesis: D(TRADE) has a unit root
Exogenous: None
Bandwidth: 7 (Newey-West using Bartlett kernel)

		Adj. t-Stat	Prob.*

Phillips-Perron test statistic		-7.511539	0.0000
Test critical values:	1% level	-2.598416	
	5% level	-1.945525	
	10% level	-1.613760	

Joint test – stasioner semua pada 1st difference

Group unit root test: Summary
Date: 06/14/09   Time: 19:06
Sample: 1990Q1 2007Q4
Series: TRADE, PDB, FDI
Exogenous variables: None
Automatic selection of maximum lags
Automatic selection of lags based on SIC: 0 to 7
Newey-West bandwidth selection using Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-15.1537	0.0000	3	203
Null: Unit root (assumes individual unit root process)				
ADF - Fisher Chi-square	334.340	0.0000	3	203
PP - Fisher Chi-square	400.177	0.0000	3	210

Lampiran 3. Hasil output Eviews Uji kointegrasi :

ada 1 persamaan terkointegrasi pada lag 2

Date: 06/14/09   Time: 21:14
Sample (adjusted): 1990Q4 2007Q4
Included observations: 69 after adjustments
Trend assumption: Linear deterministic trend
Series: TRADE LOG(PDB) FDI
Lags interval (in first differences): 1 to 2

Unrestricted Cointegration Rank Test (Trace)

| Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	**0.404940**	**44.87176**	**29.79707**	**0.0005**
At most 1	0.119621	9.054317	15.49471	0.3604
At most 2	0.003812	0.263551	3.841466	0.6077

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

Lampiran 4. Penentuan panjang lag optimal – dilihat dari AIC terkecil

Lag	AIC
Lag 1	39.58206
Lag 2	**39.42819**
Lag 3	39.56402
Lag 4	39.57132

Lampiran 5. Hasil Uji stabilitas model
(tidak ada modulus yang berada di luar garis lingkaran, sehingga bisa dikatakan model ini cukup stabil)
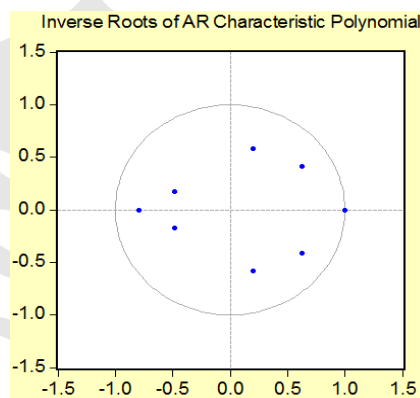
Lampiran 6. Hasil Output Eviews Pengujian asumsi klasik

1. Hasil output menunjukkan tidak ada permasalahan serial correlation

VEC Residual Serial Correlation LM Tests
H0: no serial correlation at lag order h
Date: 06/14/09   Time: 20:47
Sample: 1990Q1 2007Q4
Included observations: 69

Lags	LM-Stat	Prob
1	7.829822	0.5514
2	8.795185	0.4564
3	16.80326	0.0519
4	15.15536	0.0868
5	8.725601	0.4630
6	5.282621	0.8090
7	8.035650	0.5306
8	12.26937	0.1985
9	12.54804	0.1841
10	9.024351	0.4350

2. Hasil output menunjukkan tidak ada permasalahan heteroscedasticity

VEC Residual Heteroskedasticity Tests: No Cross Terms (only levels and squares)
Date: 06/14/09   Time: 20:48
Sample: 1990Q1 2007Q4
Included observations: 69

Joint test:

Chi-sq	df	Prob.
81.88313	84	0.5450

Individual components:

Dependent	R-squared	F(14,54)	Prob.	Chi-sq(14)	Prob.
res1*res1	0.289984	1.575333	0.1168	20.00892	0.1299
res2*res2	0.095729	0.408328	0.9660	6.605275	0.9489
res3*res3	0.223224	1.108436	0.3720	15.40245	0.3512
res2*res1	0.281583	1.511807	0.1384	19.42925	0.1492
res3*res1	0.223946	1.113059	0.3682	15.45231	0.3480
res3*res2	0.140743	0.631784	0.8266	9.711255	0.7830

Lampiran 7. Hasil Output Eviews Residual Correlation Matrices

	TRADE	PDB	FDI
TRADE	1.000000	0.433759	0.298266
PDB	0.433759	1.000000	0.127971
FDI	0.298266	0.127971	1.000000

Lampiran 8. Hasil Output Eviews Uji Granger Causalities

Pairwise Granger Causality Tests
Date: 06/14/09   Time: 20:46
Sample: 1990Q1 2007Q4
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
PDB does not Granger Cause FDI	70	4.70752	0.01232**
FDI does not Granger Cause PDB		0.20317	0.81666
TRADE does not Granger Cause FDI	70	3.00193	0.05663*
FDI does not Granger Cause TRADE		0.51720	0.59862
TRADE does not Granger Cause PDB	70	5.54591	0.00597***
PDB does not Granger Cause TRADE		5.69287	0.00527***

Lampiran 9. HASIL Output Eviews Pengujian VECM

Vector Error Correction Estimates
Date: 06/15/09   Time: 06:32
Sample (adjusted): 1990Q4 2007Q4
Included observations: 69 after adjustments
Standard errors in ( ) & t-statistics in [ ]

Cointegrating Eq:	CointEq1
TRADE(-1)	1.000000
LOG(PDB(-1))	-160394.7
	(15361.9)
	[-10.4411]
FDI(-1)	-4.877460
	(0.75547)
	[-6.45618]
C	1876752.

Error Correction:	D(TRADE)	D(LOG(PDB))	D(FDI)
CointEq1	-0.377109	-6.45E-07	0.102374
	(0.11979)	(1.5E-07)	(0.02830)
	[-3.14803]	[-4.33625]	[3.61735]
D(TRADE(-1))	0.144030	2.49E-07	-0.051830
	(0.15209)	(1.9E-07)	(0.03593)
	[0.94702]	[1.32102]	[-1.44251]
D(TRADE(-2))	0.115446	-1.17E-08	-0.090307
	(0.13815)	(1.7E-07)	(0.03264)
	[0.83564]	[-0.06818]	[-2.76689]
D(LOG(PDB(-1)))	66158.91	-0.286156	94492.28
	(107628.)	(0.13360)	(25427.2)
	[0.61470]	[-2.14190]	[3.71619]
D(LOG(PDB(-2)))	133632.2	0.098476	60120.22
	(111306.)	(0.13816)	(26296.0)
	[1.20059]	[0.71275]	[2.28628]
D(FDI(-1))	-1.072098	-3.40E-06	-0.216474
	(0.65231)	(8.1E-07)	(0.15411)
	[-1.64355]	[-4.20386]	[-1.40469]
D(FDI(-2))	-0.277336	-2.37E-06	0.228694
	(0.53343)	(6.6E-07)	(0.12602)

	[-0.51991]	[-3.57602]	[1.81470]
C	-506.3329	0.018796	-1826.763
	(3833.18)	(0.00476)	(905.590)
	[-0.13209]	[3.95027]	[-2.01721]
R-squared	0.264342	0.346911	0.547474
Adj. R-squared	0.179922	0.271966	0.495545
Sum sq. resids	3.94E+10	0.060707	2.20E+09
S.E. equation	25414.30	0.031547	6004.144
F-statistic	3.131273	4.628889	10.54270
Log likelihood	-793.5269	144.8282	-693.9694
Akaike AIC	23.23266	-3.966034	20.34694
Schwarz SC	23.49169	-3.707007	20.60597
Mean dependent	3021.059	0.015385	121.3274
S.D. dependent	28064.06	0.036973	8453.563

Determinant resid covariance (dof adj.)	1.76E+13
Determinant resid covariance	1.22E+13
Log likelihood	-1333.273
Akaike information criterion	39.42819
Schwarz criterion	40.30241

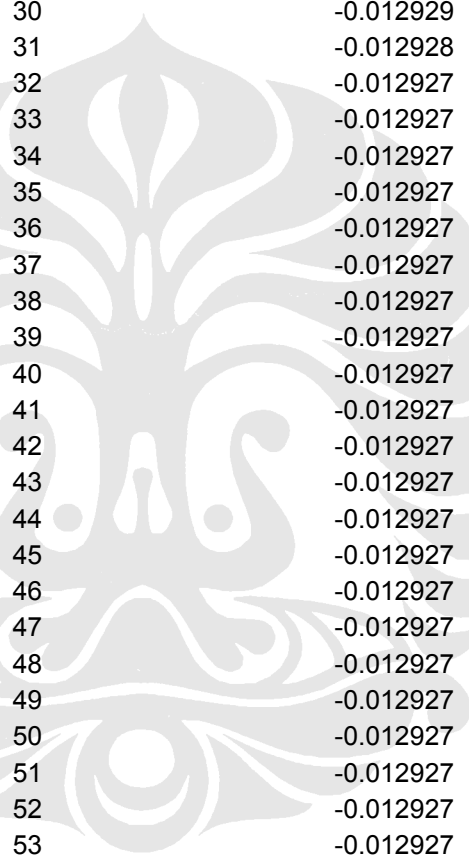## Lampiran 10. Hasil Output Eviews IRF (Impulse Response Function)

Response to Cholesky One S.D. Innovations
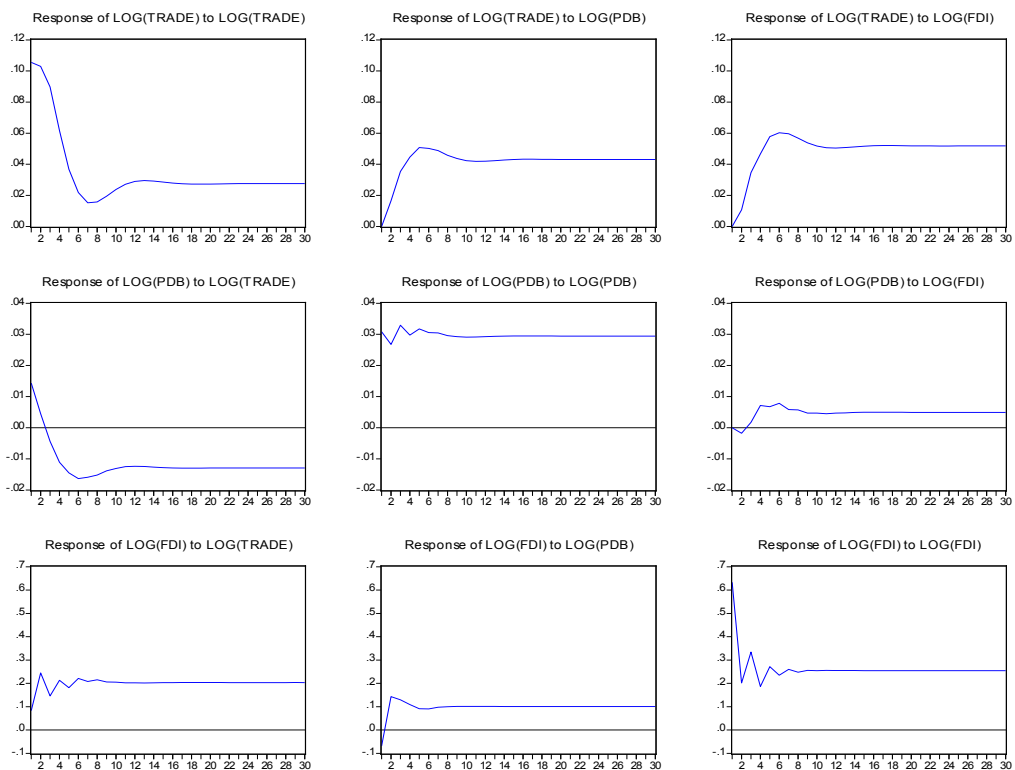
Period	Response of LOG(TRADE): LOG(TRADE)	LOG(PDB)	LOG(FDI)
1	0.105550	0.000000	0.000000
2	0.102898	0.016565	0.010641
3	0.089688	0.035376	0.034595
4	0.061668	0.044531	0.046673
5	0.036788	0.050761	0.057778
6	0.021795	0.050240	0.060309
7	0.015260	0.048786	0.059673
8	0.015793	0.045810	0.056854
9	0.019433	0.043743	0.053811
10	0.023758	0.042303	0.051755
11	0.027129	0.041861	0.050590
12	0.028974	0.041950	0.050433
13	0.029519	0.042345	0.050696
14	0.029189	0.042754	0.051199
15	0.028533	0.043061	0.051613
16	0.027883	0.043218	0.051897
17	0.027442	0.043253	0.052006
18	0.027233	0.043213	0.052004
19	0.027212	0.043147	0.051939
20	0.027291	0.043086	0.051864
21	0.027401	0.043047	0.051804
22	0.027492	0.043030	0.051771
23	0.027548	0.043030	0.051761
24	0.027568	0.043039	0.051766
25	0.027564	0.043049	0.051778
26	0.027548	0.043058	0.051789
27	0.027531	0.043063	0.051797
28	0.027519	0.043064	0.051801
29	0.027512	0.043063	0.051801
30	0.027511	0.043062	0.051800
31	0.027513	0.043060	0.051798
32	0.027515	0.043059	0.051796
33	0.027518	0.043059	0.051795
34	0.027519	0.043058	0.051795
35	0.027520	0.043059	0.051795
36	0.027520	0.043059	0.051795
37	0.027520	0.043059	0.051796
38	0.027519	0.043059	0.051796
39	0.027519	0.043059	0.051796
40	0.027519	0.043059	0.051796
41	0.027519	0.043059	0.051796
42	0.027519	0.043059	0.051796
43	0.027519	0.043059	0.051796
44	0.027519	0.043059	0.051796

45		0.027519	0.043059	0.051796
46		0.027519	0.043059	0.051796
47		0.027519	0.043059	0.051796
48		0.027519	0.043059	0.051796
49		0.027519	0.043059	0.051796
50		0.027519	0.043059	0.051796
51		0.027519	0.043059	0.051796
52		0.027519	0.043059	0.051796
53		0.027519	0.043059	0.051796
54		0.027519	0.043059	0.051796
55		0.027519	0.043059	0.051796
56		0.027519	0.043059	0.051796
57		0.027519	0.043059	0.051796
58		0.027519	0.043059	0.051796
59		0.027519	0.043059	0.051796
60		0.027519	0.043059	0.051796
61		0.027519	0.043059	0.051796
62		0.027519	0.043059	0.051796
63		0.027519	0.043059	0.051796
64		0.027519	0.043059	0.051796
65		0.027519	0.043059	0.051796
66		0.027519	0.043059	0.051796
67		0.027519	0.043059	0.051796
68		0.027519	0.043059	0.051796
69		0.027519	0.043059	0.051796
70		0.027519	0.043059	0.051796
71		0.027519	0.043059	0.051796
72		0.027519	0.043059	0.051796

Response of LOG(PDB):

Period	LOG(TRADE)	LOG(PDB)	LOG(FDI)
1	0.014306	0.030813	0.000000
2	0.004470	0.026790	-0.001774
3	-0.004395	0.032931	0.001704
4	-0.011077	0.029747	0.007133
5	-0.014505	0.031766	0.006771
6	-0.016351	0.030581	0.007810
7	-0.015893	0.030432	0.005831
8	-0.015214	0.029562	0.005715
9	-0.013837	0.029270	0.004696
10	-0.013079	0.029095	0.004716
11	-0.012481	0.029150	0.004491
12	-0.012408	0.029255	0.004673
13	-0.012462	0.029368	0.004744
14	-0.012667	0.029449	0.004891
15	-0.012828	0.029490	0.004948
16	-0.012953	0.029499	0.004987
17	-0.013004	0.029487	0.004981

18	-0.013011	0.029470	0.004965
19	-0.012988	0.029453	0.004944
20	-0.012959	0.029443	0.004928
21	-0.012934	0.029438	0.004919
22	-0.012919	0.029439	0.004917
23	-0.012914	0.029441	0.004918
24	-0.012915	0.029444	0.004921
25	-0.012919	0.029446	0.004924
26	-0.012924	0.029447	0.004927
27	-0.012927	0.029448	0.004928
28	-0.012929	0.029448	0.004928
29	-0.012929	0.029447	0.004927
30	-0.012929	0.029447	0.004927
31	-0.012928	0.029446	0.004926
32	-0.012927	0.029446	0.004926
33	-0.012927	0.029446	0.004926
34	-0.012927	0.029446	0.004926
35	-0.012927	0.029446	0.004926
36	-0.012927	0.029446	0.004926
37	-0.012927	0.029446	0.004926
38	-0.012927	0.029446	0.004926
39	-0.012927	0.029446	0.004926
40	-0.012927	0.029446	0.004926
41	-0.012927	0.029446	0.004926
42	-0.012927	0.029446	0.004926
43	-0.012927	0.029446	0.004926
44	-0.012927	0.029446	0.004926
45	-0.012927	0.029446	0.004926
46	-0.012927	0.029446	0.004926
47	-0.012927	0.029446	0.004926
48	-0.012927	0.029446	0.004926
49	-0.012927	0.029446	0.004926
50	-0.012927	0.029446	0.004926
51	-0.012927	0.029446	0.004926
52	-0.012927	0.029446	0.004926
53	-0.012927	0.029446	0.004926
54	-0.012927	0.029446	0.004926
55	-0.012927	0.029446	0.004926
56	-0.012927	0.029446	0.004926
57	-0.012927	0.029446	0.004926
58	-0.012927	0.029446	0.004926
59	-0.012927	0.029446	0.004926
60	-0.012927	0.029446	0.004926
61	-0.012927	0.029446	0.004926
62	-0.012927	0.029446	0.004926
63	-0.012927	0.029446	0.004926
64	-0.012927	0.029446	0.004926
65	-0.012927	0.029446	0.004926
66	-0.012927	0.029446	0.004926

	LOG(TRADE)	LOG(PDB)	LOG(FDI)
67	-0.012927	0.029446	0.004926
68	-0.012927	0.029446	0.004926
69	-0.012927	0.029446	0.004926
70	-0.012927	0.029446	0.004926
71	-0.012927	0.029446	0.004926
72	-0.012927	0.029446	0.004926

Response of LOG(FDI):

Period	LOG(TRADE)	LOG(PDB)	LOG(FDI)
1	0.083181	-0.068835	0.633244
2	0.244584	0.142855	0.201188
3	0.145929	0.129177	0.333992
4	0.212990	0.109228	0.186223
5	0.181234	0.091214	0.271167
6	0.220734	0.090211	0.234755
7	0.207601	0.097351	0.259600
8	0.214882	0.099349	0.247892
9	0.205651	0.101431	0.255612
10	0.205333	0.101037	0.253798
11	0.201966	0.101337	0.255926
12	0.202007	0.100954	0.255155
13	0.201680	0.100773	0.255086
14	0.202303	0.100449	0.254572
15	0.202748	0.100297	0.254352
16	0.203200	0.100220	0.254206
17	0.203419	0.100238	0.254183
18	0.203492	0.100284	0.254220
19	0.203452	0.100336	0.254277
20	0.203370	0.100374	0.254332
21	0.203290	0.100394	0.254365
22	0.203235	0.100398	0.254380
23	0.203209	0.100393	0.254379
24	0.203206	0.100385	0.254371
25	0.203216	0.100378	0.254362
26	0.203229	0.100373	0.254355
27	0.203241	0.100371	0.254350
28	0.203248	0.100371	0.254349
29	0.203250	0.100372	0.254350
30	0.203250	0.100373	0.254351
31	0.203248	0.100374	0.254353
32	0.203246	0.100375	0.254354
33	0.203244	0.100375	0.254354
34	0.203243	0.100375	0.254354
35	0.203243	0.100375	0.254354
36	0.203243	0.100374	0.254354
37	0.203244	0.100374	0.254354
38	0.203244	0.100374	0.254353
39	0.203244	0.100374	0.254353

40	0.203244	0.100374	0.254353
41	0.203244	0.100374	0.254353
42	0.203244	0.100374	0.254353
43	0.203244	0.100374	0.254354
44	0.203244	0.100374	0.254354
45	0.203244	0.100374	0.254354
46	0.203244	0.100374	0.254354
47	0.203244	0.100374	0.254354
48	0.203244	0.100374	0.254354
49	0.203244	0.100374	0.254354
50	0.203244	0.100374	0.254354
51	0.203244	0.100374	0.254354
52	0.203244	0.100374	0.254354
53	0.203244	0.100374	0.254354
54	0.203244	0.100374	0.254354
55	0.203244	0.100374	0.254354
56	0.203244	0.100374	0.254354
57	0.203244	0.100374	0.254354
58	0.203244	0.100374	0.254354
59	0.203244	0.100374	0.254354
60	0.203244	0.100374	0.254354
61	0.203244	0.100374	0.254354
62	0.203244	0.100374	0.254354
63	0.203244	0.100374	0.254354
64	0.203244	0.100374	0.254354
65	0.203244	0.100374	0.254354
66	0.203244	0.100374	0.254354
67	0.203244	0.100374	0.254354
68	0.203244	0.100374	0.254354
69	0.203244	0.100374	0.254354
70	0.203244	0.100374	0.254354
71	0.203244	0.100374	0.254354
72	0.203244	0.100374	0.254354

Cholesky Ordering: LOG(TRADE) LOG(PDB)
LOG(FDI)

Lampiran 11. Hasil Output Eviews Pengujian Variance Decomposition
Variance decomposition
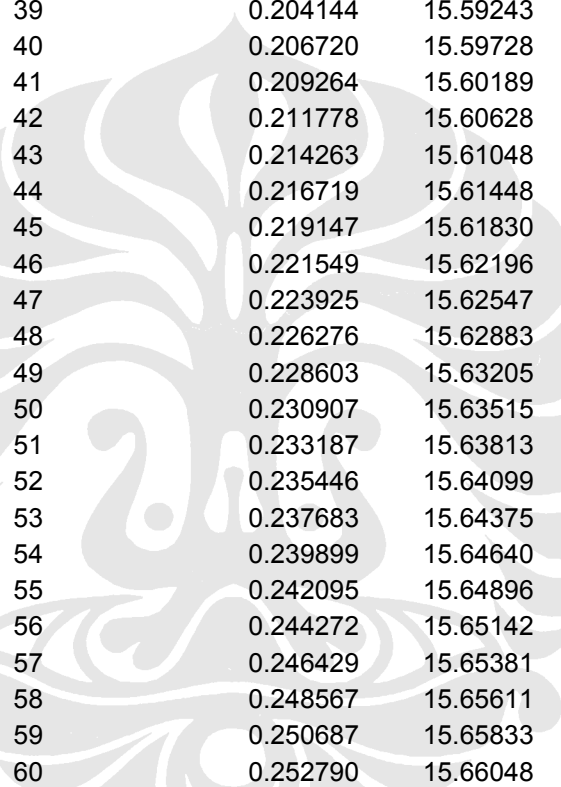
Variance Decomposition of LOG(TRADE):				
Period	S.E.	LOG(TRADE)	LOG(PDB)	LOG(FDI)
1	0.105550	100.0000	0.000000	0.000000
2	0.148716	98.24736	1.240640	0.512004
3	0.180578	91.30325	4.679314	4.017439
4	0.201427	82.75369	8.648362	8.597949
5	0.218726	73.01006	12.72045	14.26950

6	0.233404	64.98820	15.80410	19.20771
7	0.246275	58.75688	18.11957	23.12355
8	0.257355	54.18297	19.76137	26.05566
9	0.267242	50.77674	21.00544	28.21782
10	0.276497	48.17257	21.96349	29.86394
11	0.285480	46.09200	22.75332	31.15467
12	0.294349	44.32505	23.43386	32.24109
13	0.303110	42.74809	24.05038	33.20152
14	0.311732	41.29281	24.61942	34.08778
15	0.320171	39.93906	25.14762	34.91332
16	0.328402	38.68292	25.63468	35.68240
17	0.336417	37.52708	26.08076	36.39216
18	0.344223	36.47017	26.48718	37.04265
19	0.351837	35.50696	26.85705	37.63599
20	0.359278	34.62851	27.19436	38.17713
21	0.366563	33.82461	27.50331	38.67208
22	0.373705	33.08515	27.78781	39.12704
23	0.380717	32.40129	28.05115	39.54755
24	0.387605	31.76583	28.29600	39.93818
25	0.394375	31.17308	28.52442	40.30250
26	0.401032	30.61863	28.73807	40.64331
27	0.407580	30.09890	28.93829	40.96280
28	0.414025	29.61092	29.12625	41.26283
29	0.420371	29.15204	29.30298	41.54499
30	0.426622	28.71987	29.46940	41.81073
31	0.432782	28.31221	29.62638	42.06141
32	0.438856	27.92706	29.77470	42.29824
33	0.444846	27.56259	29.91506	42.52234
34	0.450758	27.21715	30.04810	42.73475
35	0.456592	26.88927	30.17438	42.93635
36	0.462353	26.57762	30.29441	43.12798
37	0.468044	26.28102	30.40864	43.31035
38	0.473666	25.99840	30.51748	43.48412
39	0.479222	25.72881	30.62131	43.64988
40	0.484714	25.47137	30.72046	43.80817
41	0.490145	25.22527	30.81524	43.95949
42	0.495516	24.98978	30.90593	44.10429
43	0.500830	24.76424	30.99279	44.24297
44	0.506087	24.54802	31.07606	44.37592
45	0.511291	24.34056	31.15596	44.50348
46	0.516442	24.14134	31.23269	44.62597
47	0.521543	23.94987	31.30643	44.74370
48	0.526594	23.76572	31.37735	44.85693
49	0.531597	23.58846	31.44562	44.96592
50	0.536553	23.41772	31.51137	45.07090
51	0.541464	23.25315	31.57475	45.17210
52	0.546331	23.09442	31.63589	45.26970
53	0.551155	22.94122	31.69489	45.36389
54	0.555937	22.79326	31.75187	45.45487

55	0.560679	22.65030	31.80693	45.54277
56	0.565380	22.51206	31.86017	45.62777
57	0.570043	22.37833	31.91167	45.71000
58	0.574668	22.24889	31.96152	45.78958
59	0.579256	22.12354	32.00980	45.86666
60	0.583808	22.00208	32.05658	45.94135
61	0.588325	21.88433	32.10193	46.01375
62	0.592807	21.77013	32.14591	46.08396
63	0.597256	21.65932	32.18858	46.15210
64	0.601671	21.55175	32.23001	46.21824
65	0.606055	21.44729	32.27024	46.28247
66	0.610407	21.34579	32.30933	46.34488
67	0.614728	21.24714	32.34733	46.40554
68	0.619020	21.15121	32.38427	46.46452
69	0.623281	21.05789	32.42021	46.52190
70	0.627514	20.96709	32.45518	46.57773
71	0.631718	20.87870	32.48922	46.63208
72	0.635895	20.79262	32.52238	46.68501

Variance Decomposition of LOG(PDB):

Period	S.E.	LOG(TRADE)	LOG(PDB)	LOG(FDI)
1	0.033973	17.73339	82.26661	0.000000
2	0.043531	11.85501	87.97883	0.166160
3	0.054787	8.127808	91.67059	0.201601
4	0.063718	9.030907	89.56694	1.402156
5	0.072975	10.83601	87.23409	1.929900
6	0.081172	12.81578	84.69863	2.485588
7	0.088327	14.06133	83.40357	2.535103
8	0.094550	14.86035	82.56196	2.577683
9	0.100049	15.18421	82.29344	2.522352
10	0.105117	15.30343	82.21033	2.486239
11	0.109888	15.29355	82.26439	2.442065
12	0.114486	15.26440	82.31918	2.416423
13	0.118942	15.23978	82.36238	2.397845
14	0.123284	15.24093	82.36971	2.389355
15	0.127505	15.26063	82.35499	2.384382
16	0.131607	15.29292	82.32542	2.381663
17	0.135587	15.32813	82.29303	2.378839
18	0.139450	15.36124	82.26310	2.375660
19	0.143202	15.38932	82.23871	2.371970
20	0.146854	15.41223	82.21967	2.368102
21	0.150413	15.43081	82.20489	2.364305
22	0.153889	15.44639	82.19282	2.360788
23	0.157288	15.46007	82.18230	2.357628
24	0.160616	15.47262	82.17255	2.354827
25	0.163877	15.48444	82.16323	2.352335
26	0.167075	15.49566	82.15425	2.350089

27	0.170214	15.50630	82.14567	2.348030
28	0.173296	15.51631	82.13757	2.346118
29	0.176323	15.52569	82.12999	2.344325
30	0.179300	15.53443	82.12293	2.342637
31	0.182228	15.54258	82.11637	2.341047
32	0.185109	15.55019	82.11026	2.339550
33	0.187946	15.55731	82.10455	2.338140
34	0.190741	15.56401	82.09918	2.336813
35	0.193496	15.57033	82.09411	2.335563
36	0.196212	15.57630	82.08932	2.334383
37	0.198891	15.58196	82.08477	2.333268
38	0.201535	15.58733	82.08046	2.332211
39	0.204144	15.59243	82.07636	2.331207
40	0.206720	15.59728	82.07247	2.330254
41	0.209264	15.60189	82.06877	2.329346
42	0.211778	15.60628	82.06524	2.328481
43	0.214263	15.61048	82.06187	2.327656
44	0.216719	15.61448	82.05866	2.326868
45	0.219147	15.61830	82.05558	2.326114
46	0.221549	15.62196	82.05264	2.325393
47	0.223925	15.62547	82.04983	2.324703
48	0.226276	15.62883	82.04713	2.324041
49	0.228603	15.63205	82.04454	2.323406
50	0.230907	15.63515	82.04205	2.322796
51	0.233187	15.63813	82.03966	2.322210
52	0.235446	15.64099	82.03736	2.321646
53	0.237683	15.64375	82.03515	2.321104
54	0.239899	15.64640	82.03302	2.320581
55	0.242095	15.64896	82.03097	2.320077
56	0.244272	15.65142	82.02898	2.319591
57	0.246429	15.65381	82.02707	2.319122
58	0.248567	15.65611	82.02522	2.318669
59	0.250687	15.65833	82.02344	2.318232
60	0.252790	15.66048	82.02171	2.317809
61	0.254875	15.66256	82.02005	2.317399
62	0.256943	15.66457	82.01843	2.317003
63	0.258994	15.66652	82.01686	2.316619
64	0.261030	15.66840	82.01535	2.316248
65	0.263049	15.67023	82.01388	2.315887
66	0.265054	15.67201	82.01245	2.315538
67	0.267043	15.67373	82.01107	2.315199
68	0.269017	15.67540	82.00973	2.314869
69	0.270977	15.67703	82.00842	2.314549
70	0.272924	15.67860	82.00716	2.314239
71	0.274856	15.68014	82.00592	2.313937
72	0.276775	15.68163	82.00473	2.313643

Variance Decomposition of
LOG(FDI):

Period	S.E.	LOG(TRADE)	LOG(PDB)	LOG(FDI)
1	0.642382	1.676731	1.148230	97.17504
2	0.730315	12.51318	4.714593	82.77223
3	0.826373	12.89159	6.125761	80.98265
4	0.880266	17.21591	6.938368	75.84572
5	0.943167	18.68849	6.979047	74.33247
6	1.000768	21.46398	7.011356	71.52467
7	1.059011	23.01085	7.106390	69.88275
8	1.113103	24.55545	7.229121	68.21543
9	1.164868	25.53834	7.359113	67.10255
10	1.213961	26.37549	7.468645	66.15586
11	1.261054	27.00731	7.566993	65.42570
12	1.306277	27.56116	7.649407	64.78943
13	1.349911	28.04034	7.720176	64.23949
14	1.392150	28.47629	7.779420	63.74429
15	1.433158	28.87132	7.830353	63.29832
16	1.473057	29.23136	7.874795	62.89384
17	1.511930	29.55772	7.914605	62.52768
18	1.549847	29.85306	7.950765	62.19617
19	1.586866	30.12025	7.983934	61.89582
20	1.623041	30.36259	8.014459	61.62295
21	1.658424	30.58343	8.042583	61.37399
22	1.693063	30.78574	8.068499	61.14576
23	1.727005	30.97207	8.092397	60.93553
24	1.760290	31.14447	8.114469	60.74106
25	1.792956	31.30456	8.134907	60.56053
26	1.825038	31.45366	8.153889	60.39245
27	1.856567	31.59283	8.171575	60.23560
28	1.887569	31.72299	8.188104	60.08891
29	1.918071	31.84495	8.203592	59.95146
30	1.948096	31.95944	8.218137	59.82243
31	1.977664	32.06711	8.231825	59.70107
32	2.006797	32.16855	8.244727	59.58672
33	2.035514	32.26430	8.256907	59.47879
34	2.063830	32.35483	8.268424	59.37675
35	2.091763	32.44055	8.279329	59.28012
36	2.119328	32.52184	8.289670	59.18849
37	2.146539	32.59904	8.299489	59.10147
38	2.173410	32.67245	8.308825	59.01873
39	2.199952	32.74234	8.317714	58.93995
40	2.226178	32.80895	8.326186	58.86486
41	2.252098	32.87251	8.334270	58.79322
42	2.277724	32.93324	8.341992	58.72477
43	2.303064	32.99130	8.349377	58.65933
44	2.328129	33.04687	8.356445	58.59668
45	2.352926	33.10012	8.363217	58.53667

46	2.377465	33.15117	8.369711	58.47912
47	2.401753	33.20018	8.375944	58.42388
48	2.425798	33.24725	8.381930	58.37082
49	2.449608	33.29249	8.387685	58.31982
50	2.473187	33.33603	8.393221	58.27075
51	2.496545	33.37793	8.398552	58.22351
52	2.519685	33.41831	8.403687	58.17800
53	2.542615	33.45724	8.408638	58.13412
54	2.565340	33.49479	8.413414	58.09179
55	2.587866	33.53104	8.418025	58.05093
56	2.610197	33.56606	8.422479	58.01146
57	2.632339	33.59990	8.426783	57.97331
58	2.654296	33.63263	8.430946	57.93642
59	2.676073	33.66430	8.434973	57.90073
60	2.697674	33.69496	8.438872	57.86617
61	2.719103	33.72465	8.442649	57.83270
62	2.740365	33.75343	8.446309	57.80026
63	2.761464	33.78133	8.449857	57.76881
64	2.782402	33.80839	8.453300	57.73831
65	2.803184	33.83466	8.456640	57.70870
66	2.823813	33.86016	8.459883	57.67996
67	2.844292	33.88492	8.463033	57.65204
68	2.864625	33.90899	8.466094	57.62492
69	2.884815	33.93239	8.469070	57.59854
70	2.904864	33.95514	8.471963	57.57290
71	2.924776	33.97727	8.474779	57.54795
72	2.944553	33.99881	8.477518	57.52367

Cholesky Ordering:
LOG(TRADE) LOG(PDB)
LOG(FDI)

Lampiran 12. Rangkuman Hubungan Kausalitas Variabel Dengan Teori serta Penelitian Terdahulu Yang Mendukung

Kausalitas Variabel	Teori Yang Mendukung	Penelitian Terdahulu Yang Mendukung
PDB Menyebabkan FDI	1. Kategori FDI Menurut Karakteristik Negara Tujuan 2. Teori Siklus Hidup Produk 3.Teori Keseimbangan Modal Internasional	Khrisna, Ataman dan Swanson (1998), Makki (2000), Dritsaki, Dritsaki dan Adamopoulos (2004), Roy dan Van den Berg (2006)

	4. Teori Pertumbuhan di Sisi Produksi dan konsumsi	
FDI Menyebabkan PDB	1. Teori Keseimbangan Pendapatan Nasional 2. Teori Keseimbangan Modal Internasional 3. Teori Pertumbuhan di Sisi Produksi dan konsumsi	Balasubramanyam, Salisu dan Sapsford (1996), De Mello (1999), Makki (2000), van Pottelsberghe dan Lichtenberg (2001), Dritsaki, Dritsaki dan Adamopoulos (2004), Roy dan Van den Berg (2006), Khaliq dan Noy (2007)
Trade Menyebabkan FDI	1. Kategori FDI Menurut Karakteristik Negara Tujuan 2. Teori Siklus Hidup Produk	Balasubramanyam, Salisu dan Sapsford (1996),
FDI Menyebabkan Trade	1. Teori Siklus Hidup Produk	Balasubramanyam, Salisu dan Sapsford (1996), Dritsaki, Dritsaki dan Adamopoulos (2004)
Trade Menyebabkan PDB	1. Teori Keuntungan Perdagangan 2. Teori Pertumbuhan di Sisi Produksi dan konsumsi 3. Teori Perdagangan Krugman	Khrisna, Ataman dan Swanson (1998), Laszlo (2000), Makki (2000), Dritsaki, Dritsaki dan Adamopoulos (2004)
PDB Menyebabkan Trade	1. Teori Keuntungan Perdagangan 2. Teori Pertumbuhan di Sisi Produksi dan konsumsi	Khrisna, Ataman dan Swanson (1998), Laszlo (2000), Makki (2000)

Lampiran 13. Data Penelitian

Q:Year	GDP (Milyar Rp)	Export (Milyar Rp)	Import (Milyar Rp)	FDI (Milyar Rp)	CPI
Q1:1990	49958	12392	12089	795.2388267	27.59
Q2:1990	51682	12140	12514	228.3272913	28.2
Q3:1990	54865	14519	14661	136.4675547	29.32
Q4:1990	54362	16801	15563	138.2184058	29.86
Q1:1991	58937	15486	15976	287.2304331	30.19
Q2:1991	61200	16863	16880	354.5140402	30.89
Q3:1991	65067	17663	16995	551.6396328	32
Q4:1991	64765	18440	17603	752.8192973	32.72
Q1:1992	66641	17639	17269	491.1619742	33.16
Q2:1992	68765	18985	18744	2070.656476	33.73
Q3:1992	73473	21340	19905	330.2015124	34.02
Q4:1992	73516	25086	20519	851.0143365	34.36
Q1:1993	77582	20915	18550	605.3021552	36.21
Q2:1993	80431	21637	18340	511.3511436	36.93
Q3:1993	85524	22412	20069	1783.379566	37.37
Q4:1993	86240	23266	21425	8974.679834	37.87
Q1:1994	87979	21175	22162	1847.353349	39.07
Q2:1994	92988	24865	22635	3271.632358	39.73
Q3:1994	99810	26993	24927	1268.210645	40.69
Q4:1994	101443	28299	27229	1786.267522	41.52
Q1:1995	106543	26640	28829	3676.279208	42.65
Q2:1995	111668	29266	32006	1045.476318	43.9
Q3:1995	117120	31783	33605	6606.534612	44.48
Q4:1995	119183	31904	31218	3859.452983	45.17
Q1:1996	122530	30779	31575	3969.68525	47.18
Q2:1996	128846	33907	37091	1879.448718	47.4
Q3:1996	136940	35378	36468	3335.681267	47.61
Q4:1996	144253	37470	35678	1676.090131	48.04
Q1:1997	145801	33641	37525	1919.458439	49.28
Q2:1997	149406	36531	40243	2191.090686	49.71
Q3:1997	163237	43354	41991	2835.600731	50.64
Q4:1997	169252	61345	56841	4276.919301	52.45
Q1:1998	211575	118786	97937	9220.179545	62.85
Q2:1998	222809	126365	103320	15878.57692	74.37
Q3:1998	264263	165645	127498	10943.10556	89.29
Q4:1998	257106	95449	84302	14604.7543	93.56
Q1:1999	271226	93446	75131	10666.96957	98.01
Q2:1999	271596	95437	79623	22022.68227	97.36
Q3:1999	277558	101971	79011	9754.555175	95.18
Q4:1999	275352	99707	79955	18003.03955	95.11

Q1:2000	324232	112668	78894.8	10836.32171	97.45
Q2:2000	336314	136033	90241	36177.81777	98.43
Q3:2000	360783	158537	112798	25680.54349	100.63
Q4:2000	368440	162253	141384	26026.40827	103.49
Q1:2001	397956	162547	138248	8582.336199	106.56
Q2:2001	424077	179340	145627	8467.979717	109.41
Q3:2001	433905	155184	113949	12360.86489	113.47
Q4:2001	428341	145523	108603	6857.788522	116.58
Q1:2002	449087	149448	113535	6680.402191	122.05
Q2:2002	459993	147359	116213	2264.11176	123.15
Q3:2002	480725	153040	123579	7833.028254	125.24
Q4:2002	473469	145638	127293	11322.82558	128.56
Q1:2003	498546	155586	118210	5414.424354	131.51
Q2:2003	502690	155577	110422	5844.140496	131.77
Q3:2003	523382	151680	113008	8877.582382	132.89
Q4:2003	511733	150878	121301	26019.84396	135.69
Q1:2004	536605	156391	138578	7911.327695	137.93
Q2:2004	564422	173794	148395	10656.72451	140.65
Q3:2004	595321	202990	168100	8156.300625	142.15
Q4:2004	599478	206464	177303	15143.07446	144.35
Q1:2005	632331	208630	188670	19087.8374	148.59
Q2:2005	670476	225600	196609	13099.72385	151.4
Q3:2005	713000	250785	224746	44123.80052	154.1
Q4:2005	758475	260108	220059	12519.66732	170.03
Q1:2006	782779	237337	194796	23815.05921	173.73
Q2:2006	812968	249869	214642	8374.376295	174.88
Q3:2006	870551	269957	226844	7216.269697	177.02
Q4:2006	873181	279154	219306	15203.69926	180.33
Q1:2007	920214	262611	219535	27318.73878	184.78
Q2:2007	962838	282403	241766	10015.36954	185.42
Q3:2007	1033260	299651	265798	40509.12378	188.53
Q4:2007	1041090	317291	275408	17006.86905	192.45