

LAMPIRAN

Lampiran 1

Data asli variabel Dependen dan Independen Januari 2007 - Desember 2016

No	Tanggal	IHSG	<i>Foreign Net Value</i> (Miliar)	<i>The Fed Rate</i> (%)	WTI (USD/Barel)
1	2016-12-01	5296.71	-3639	0.54	53.72
2	2016-11-01	5148.91	-12360	0.41	49.44
3	2016-10-01	5422.54	-2284	0.40	46.86
4	2016-09-01	5364.80	-3288	0.40	48.24
5	2016-08-01	5386.08	12866	0.40	44.7
6	2016-07-01	5215.99	11855	0.39	41.6
7	2016-06-01	5016.65	8808	0.38	48.33
8	2016-05-01	4796.87	-184	0.37	49.1
9	2016-04-01	4838.58	290	0.37	45.92
10	2016-03-01	4845.37	2315	0.36	38.34
11	2016-02-01	4770.96	4111	0.38	33.75
12	2016-01-01	4615.16	-2319	0.34	33.62
13	2015-12-01	4593.01	-1414	0.24	37.04
14	2015-11-01	4446.46	-3334	0.12	41.65
15	2015-10-01	4455.18	-4709	0.12	46.59
16	2015-09-01	4223.91	-7183	0.14	45.09
17	2015-08-01	4509.61	-9819	0.14	49.2
18	2015-07-01	4802.53	132	0.13	47.12
19	2015-06-01	4910.66	-4089	0.13	59.47
20	2015-05-01	5216.38	-3460	0.12	60.3
21	2015-04-01	5086.43	5896	0.12	59.63
22	2015-03-01	5518.68	-5426	0.11	47.6
23	2015-02-01	5450.29	10607	0.11	49.76
24	2015-01-01	5289.40	212	0.11	48.24
25	2014-12-01	5226.95	-7953	0.12	53.27
26	2014-11-01	5149.89	5281	0.09	66.15
27	2014-10-01	5089.55	-3202	0.09	80.54
28	2014-09-01	5137.58	-7401	0.09	91.16
29	2014-08-01	5136.86	-1316	0.09	95.96
30	2014-07-01	5088.80	13069	0.09	98.17

No	Tanggal	IHSG	<i>Foreign Net Value (Miliyar)</i>	<i>The Fed Rate (%)</i>	WTI (USD/Barel)
31	2014-06-01	4878.58	2738	0.10	105.37
32	2014-05-01	4893.91	8089	0.09	102.71
33	2014-04-01	4840.15	8671	0.09	99.74
34	2014-03-01	4768.28	14476	0.08	101.58
35	2014-02-01	4620.22	7816	0.07	102.59
36	2014-01-01	4418.76	2329	0.07	97.49
37	2013-12-01	4274.18	-5266	0.09	98.42
38	2013-11-01	4256.44	-3858	0.08	92.72
39	2013-10-01	4510.63	-1981	0.09	96.38
40	2013-09-01	4316.18	-365	0.08	102.33
41	2013-08-01	4195.09	-5695	0.08	107.65
42	2013-07-01	4610.38	-2480	0.09	105.03
43	2013-06-01	4818.90	-20131	0.09	96.56
44	2013-05-01	5068.63	-355	0.11	91.97
45	2013-04-01	5034.07	722	0.15	93.46
46	2013-03-01	4940.99	1827	0.14	97.23
47	2013-02-01	4795.79	11242	0.15	92.05
48	2013-01-01	4453.70	5695	0.14	97.49
49	2012-12-01	4316.69	122	0.16	91.82
50	2012-11-01	4276.14	-3074	0.16	88.91
51	2012-10-01	4350.29	2654	0.16	86.24
52	2012-09-01	4262.56	9356	0.14	92.19
53	2012-08-01	4060.33	412	0.13	96.47
54	2012-07-01	4142.34	4586	0.16	88.06
55	2012-06-01	3955.58	-1972	0.16	84.96
56	2012-05-01	3832.82	-7690	0.16	86.53
57	2012-04-01	4180.73	1464	0.14	104.87
58	2012-03-01	4121.55	9068	0.13	103.02
59	2012-02-01	3985.21	-1503	0.10	107.07
60	2012-01-01	3941.69	2455	0.08	98.48
61	2011-12-01	3821.99	3173	0.07	98.83
62	2011-11-01	3715.08	2565	0.08	100.36
63	2011-10-01	3790.85	2946	0.07	93.19
64	2011-09-01	3549.03	1643	0.08	79.2
65	2011-08-01	3841.73	-8448	0.10	88.81
66	2011-07-01	4130.80	5186	0.07	95.7

No	Tanggal	IHSG	<i>Foreign Net Value (Miliar)</i>	<i>The Fed Rate (%)</i>	WTI (USD/Barel)
67	2011-06-01	3888.57	4114	0.09	95.42
68	2011-05-01	3836.97	-253	0.09	102.7
69	2011-04-01	3819.62	17514	0.10	113.93
70	2011-03-01	3678.67	-2266	0.14	106.72
71	2011-02-01	3470.35	2122	0.16	96.97
72	2011-01-01	3409.17	-4009	0.17	92.19
73	2010-12-01	3703.51	2617	0.18	91.38
74	2010-11-01	3531.21	-2514	0.19	84.11
75	2010-10-01	3635.32	322	0.19	81.43
76	2010-09-01	3501.29	6002	0.19	79.97
77	2010-08-01	3081.88	2030	0.19	71.92
78	2010-07-01	3069.28	4811	0.18	78.95
79	2010-06-01	2913.68	4496	0.18	75.63
80	2010-05-01	2796.95	-1652	0.20	73.97
81	2010-04-01	2971.25	1524	0.20	86.15
82	2010-03-01	2777.30	4921	0.16	83.76
83	2010-02-01	2549.03	-2007	0.13	79.66
84	2010-01-01	2610.79	430	0.11	72.89
85	2009-12-01	2534.35	3839	0.12	79.36
86	2009-11-01	2415.83	1793	0.12	77.28
87	2009-10-01	2367.70	-2435	0.12	77
88	2009-09-01	2467.59	924	0.15	70.61
89	2009-08-01	2341.53	1344	0.16	69.96
90	2009-07-01	2323.23	3089	0.16	69.45
91	2009-06-01	2026.78	746	0.21	69.89
92	2009-05-01	1916.83	1973	0.18	66.31
93	2009-04-01	1722.83	2601	0.15	51.12
94	2009-03-01	1434.76	1815	0.18	49.66
95	2009-02-01	1285.07	-561	0.22	44.76
96	2009-01-01	1332.66	-1160	0.15	41.68
97	2008-12-01	1355.40	824	0.16	44.6
98	2008-11-01	1241.54	6461	0.39	54.43
99	2008-10-01	1256.70	4140	0.97	67.81
100	2008-09-01	1832.50	2694	1.81	100.64
101	2008-08-01	2165.94	467	2.00	115.46
102	2008-07-01	2304.50	-895	2.01	124.08

No	Tanggal	IHSG	<i>Foreign Net Value (Miliar)</i>	<i>The Fed Rate (%)</i>	WTI (USD/Barel)
103	2008-06-01	2349.10	-444	2.00	140
104	2008-05-01	2444.34	3793	1.98	127.35
105	2008-04-01	2304.51	1459	2.28	113.46
106	2008-03-01	2447.29	-2684	2.61	101.58
107	2008-02-01	2721.94	1989	2.98	101.84
108	2008-01-01	2627.25	846	3.94	91.75
109	2007-12-01	2745.82	4347	4.24	95.98
110	2007-11-01	2688.33	631	4.49	88.71
111	2007-10-01	2643.48	1127	4.76	94.53
112	2007-09-01	2359.20	3054	4.94	81.66
113	2007-08-01	2194.33	5217	5.02	74.04
114	2007-07-01	2348.67	3379	5.26	78.21
115	2007-06-01	2139.27	3294	5.25	70.68
116	2007-05-01	2084.32	2590	5.25	64.01
117	2007-04-01	1999.16	5669	5.25	65.71
118	2007-03-01	1830.92	2298	5.26	65.87
119	2007-02-01	1740.97	445	5.26	61.79
120	2007-01-01	1757.25	552	5.25	58.14

Lampiran 2

Uji Level

Null Hypothesis: IHSG has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=12)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-1.011620	0.7476
Test critical values:		
1% level	-3.486064	
5% level	-2.885863	
10% level	-2.579818	

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

Null Hypothesis: FOREIGN_NET_VALUE has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=12)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.493588	0.0000
Test critical values:		
1% level	-3.486064	
5% level	-2.885863	
10% level	-2.579818	

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

Null Hypothesis: FED_RATE has a unit root
Exogenous: Constant
Lag Length: 8 (Automatic - based on SIC, maxlag=12)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.530728	0.0000
Test critical values:		
1% level	-3.490210	
5% level	-2.887665	
10% level	-2.580778	

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

Null Hypothesis: WTI has a unit root
 Exogenous: Constant
 Lag Length: 1 (Automatic - based on SIC, maxlag=12)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.380140	0.1495
Test critical values:		
1% level	-3.486551	
5% level	-2.886074	
10% level	-2.579931	

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

Lampiran 3

Uji First Difference

Null Hypothesis: D(IHSG) has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=12)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.475249	0.0000
Test critical values:		
1% level	-3.486551	
5% level	-2.886074	
10% level	-2.579931	

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

Null Hypothesis: D(FOREIGN_NET_VALUE) has a unit root
 Exogenous: Constant
 Lag Length: 4 (Automatic - based on AIC, maxlag=12)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.364146	0.0000
Test critical values:		
1% level	-3.488585	
5% level	-2.886959	
10% level	-2.580402	

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

Null Hypothesis: D(FED_RATE) has a unit root
 Exogenous: Constant
 Lag Length: 12 (Automatic - based on AIC, maxlag=12)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.053523	0.0017
Test critical values:		
1% level	-3.493129	
5% level	-2.888932	
10% level	-2.581453	

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

Null Hypothesis: D(WTI) has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=12)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-7.921879	0.0000
Test critical values:		
1% level	-3.486551	
5% level	-2.886074	
10% level	-2.579931	

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

Lampiran 4

Uji Stabilitas VAR

Roots of Characteristic Polynomial
 Endogenous variables: D(IHSG)
 D(FOREIGN_NET_VALUE) D(FED_RATE) D(WTI)
 Exogenous variables: C
 Lag specification: 1 2
 Date: 11/07/17 Time: 19:17

Root	Modulus
0.641114	0.641114
0.463385	0.463385
-0.398364	0.398364
-0.223650 - 0.305459i	0.378582
-0.223650 + 0.305459i	0.378582
0.165954 - 0.179131i	0.244190
0.165954 + 0.179131i	0.244190
-0.189220	0.189220

No root lies outside the unit circle.
 VAR satisfies the stability condition.

Lampiran 5

Uji Panjang Lag

VAR Lag Order Selection Criteria

Endogenous variables: D(IHSG) D(FOREIGN_NET_VALUE) D(FED_RATE) D(WTI)

Exogenous variables: C

Date: 10/25/17 Time: 13:43

Sample: 2007M01 2016M12

Included observations: 111

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-2189.864	NA	1.73e+12	39.52907	39.62671	39.56868
1	-2122.101	129.4203	6.80e+11*	38.59642*	39.08462*	38.79447*
2	-2114.096	14.71211	7.86e+11	38.74047	39.61923	39.09696
3	-2100.945	23.22223	8.30e+11	38.79180	40.06112	39.30672
4	-2086.341	24.73367	8.56e+11	38.81696	40.47685	39.49033
5	-2069.577	27.18448	8.51e+11	38.80320	40.85365	39.63501
6	-2062.829	10.45732	1.02e+12	38.96989	41.41091	39.96014
7	-2060.127	3.991395	1.32e+12	39.20950	42.04108	40.35819
8	-2036.416	33.32345*	1.18e+12	39.07057	42.29271	40.37770

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Lampiran 6

Uji Kointegrasi

Date: 11/06/17 Time: 20:56

Sample (adjusted): 2007M04 2016M12

Included observations: 117 after adjustments

Trend assumption: Linear deterministic trend

Series: D(IHSG) D(FOREIGN_NET_VALUE) D(FED_RATE) D(WTI)

Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.553977	187.9296	47.85613	0.0000
At most 1 *	0.315474	93.46546	29.79707	0.0000
At most 2 *	0.231951	49.11911	15.49471	0.0000
At most 3 *	0.144372	18.24265	3.841466	0.0000

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.553977	94.46415	27.58434	0.0000
At most 1 *	0.315474	44.34635	21.13162	0.0000
At most 2 *	0.231951	30.87646	14.26460	0.0001
At most 3 *	0.144372	18.24265	3.841466	0.0000

Max-eigenvalue test indicates 4 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Lampiran 7

Vector Autoregression Estimates

Vector Autoregression Estimates

Date: 11/11/17 Time: 18:15

Sample (adjusted): 2007M03 2016M12

Included observations: 118 after adjustments

Standard errors in () & t-statistics in []

	D(IHSG)	D(FNV)	D(FED_RATE)	D(WTI)
D(IHSG(-1))	0.039157 (0.09977) [0.39247]	-10.52759 (3.30189) [-3.18835]	0.000102 (6.4E-05) [1.59596]	0.002219 (0.00415) [0.53513]
D(FNV(-1))	0.005265 (0.00253) [2.07730]	-0.384792 (0.08388) [-4.58726]	-5.61E-07 (1.6E-06) [-0.34411]	-3.48E-05 (0.00011) [-0.33059]
D(FED_RATE(-1))	165.5534 (112.899) [1.86638]	3887.501 (3736.45) [1.04043]	0.619074 (0.07256) [8.53143]	-1.612150 (4.69203) [-0.34359]
D(WTI(-1))	0.943035 (2.27277) [0.41493]	86.86512 (75.2182) [1.15484]	0.001307 (0.00146) [0.89454]	0.288571 (0.09446) [3.05512]
C	36.44407 (17.1935) [2.11965]	391.7358 (569.024) [0.68843]	-0.017514 (0.01105) [-1.58487]	-0.180825 (0.71455) [-0.25306]
R-squared	0.067265	0.265414	0.448445	0.091515
Adj. R-squared	0.034248	0.239411	0.428921	0.059356
Sum sq. resids	3465510.	3.80E+09	1.431615	5985.578
S.E. equation	175.1235	5795.777	0.112557	7.278030
F-statistic	2.037277	10.20704	22.96887	2.845717
Log likelihood	-774.4082	-1187.337	92.86626	-399.0937
Akaike AIC	13.21031	20.20910	-1.489259	6.849046
Schwarz SC	13.32771	20.32650	-1.371857	6.966448

Mean dependent	30.13340	-34.61017	-0.040000	-0.068390
S.D. dependent	178.2016	6645.638	0.148945	7.504144

Determinant resid covariance (dof adj.)	4.99E+11
Determinant resid covariance	4.20E+11
Log likelihood	-2248.776
Akaike information criterion	38.45383
Schwarz criterion	38.92344

Lampiran 8

Uji Kausalitas Granger

Pairwise Granger Causality Tests

Date: 10/25/17 Time: 13:55

Sample: 2007M01 2016M12

Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
FOREIGN_NET_VALUE does not Granger Cause IHSG	119	4.55693	0.0349
IHSG does not Granger Cause FOREIGN_NET_VALUE		2.21834	0.1391
FED_RATE does not Granger Cause IHSG	119	0.55245	0.4588
IHSG does not Granger Cause FED_RATE		4.80779	0.0303
WTI does not Granger Cause IHSG	119	2.17866	0.1426
IHSG does not Granger Cause WTI		0.62565	0.4306
FED_RATE does not Granger Cause FOREIGN_NET_VALUE	119	0.76790	0.3827
FOREIGN_NET_VALUE does not Granger Cause FED_RATE		0.12614	0.7231
WTI does not Granger Cause FOREIGN_NET_VALUE	119	0.70232	0.4037
FOREIGN_NET_VALUE does not Granger Cause WTI		0.07407	0.7860
WTI does not Granger Cause FED_RATE	119	4.23608	0.0418
FED_RATE does not Granger Cause WTI		1.80188	0.1821

Lampiran 9

Regresi Model Var

Dependent Variable: D(IHSG)

Method: Least Squares

Date: 11/13/17 Time: 12:08

Sample (adjusted): 2007M03 2016M12

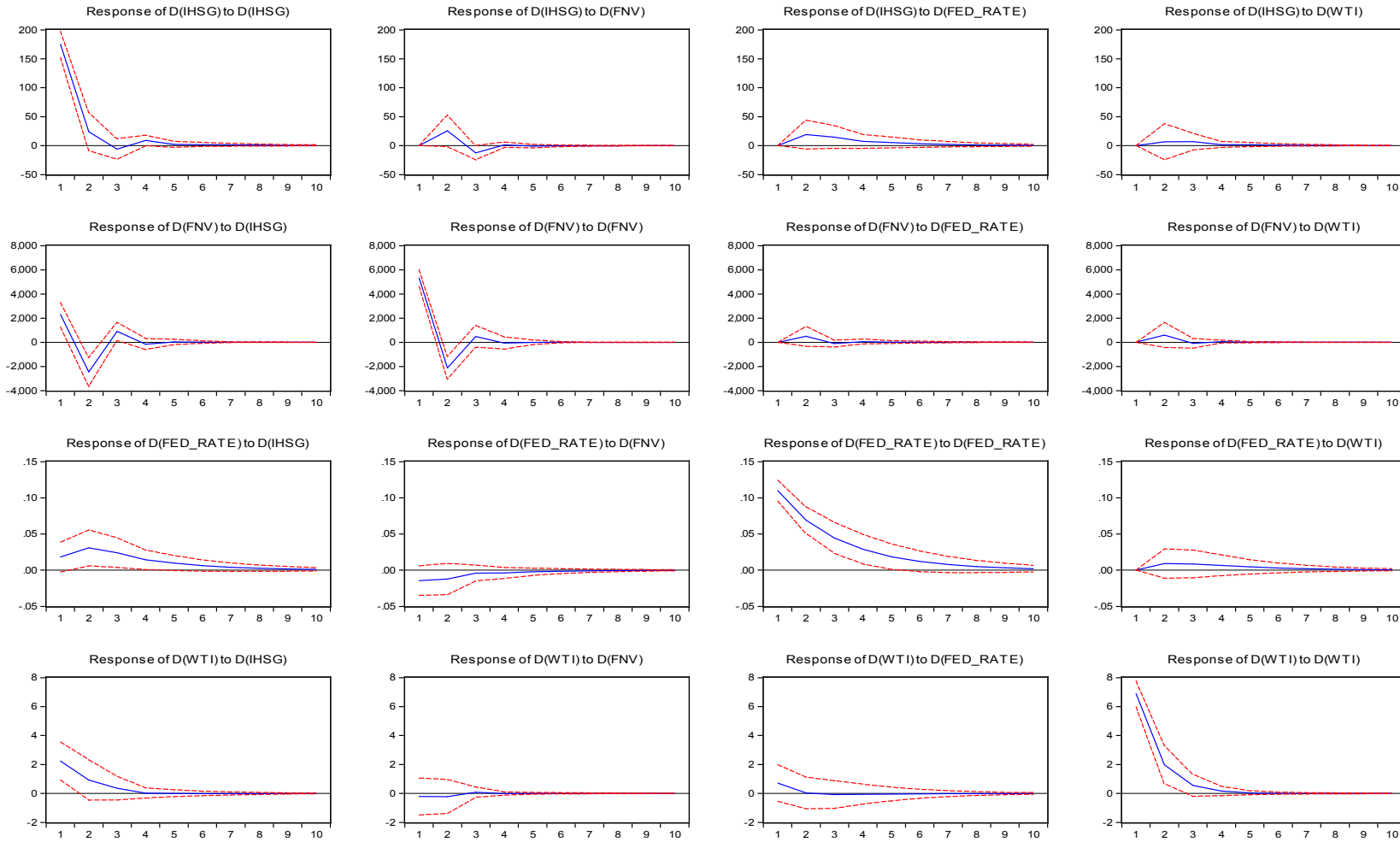
Included observations: 118 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	38.27473	16.62536	2.302189	0.0231
D(FNV(-1))	0.005597	0.002440	2.293726	0.0236
D(FED_RATE(-1))	183.5557	108.6109	1.690030	0.0937
R-squared	0.063590	Mean dependent var		30.13340
Adjusted R-squared	0.047304	S.D. dependent var		178.2016
S.E. of regression	173.9357	Akaike info criterion		13.18034
Sum squared resid	3479167.	Schwarz criterion		13.25078
Log likelihood	-774.6403	Hannan-Quinn criter.		13.20894
F-statistic	3.904694	Durbin-Watson stat		1.877828
Prob(F-statistic)	0.022872			

Lampiran 10

Impuls Response Function (IRF)

Response to Cholesky One S.D. Innovations ± 2 S.E.



Period	Response of D(IHSG):			
	D(IHSG)	D(FNV)	D(FED_RATE)	D(WTI)
1	175.1235 (11.3996)	0.00000 (0.00000)	0.00000 (0.00000)	0.00000 (0.00000)
2	24.06230 (16.4611)	25.41130 (13.6647)	18.90307 (12.4597)	6.492331 (15.6526)
3	-6.035587 (8.91353)	-12.42836 (6.19238)	14.78732 (9.77123)	6.765697 (7.25080)
4	8.803546 (4.62379)	1.454908 (2.36049)	7.255189 (6.01546)	1.713436 (2.55715)
5	1.910282 (2.65020)	-0.945645 (1.44905)	5.323577 (4.63703)	1.570482 (1.79126)
6	1.843441 (1.75040)	-0.448137 (0.74154)	3.294210 (3.26823)	0.874364 (1.11331)
7	1.154880 (1.21171)	-0.237361 (0.41480)	2.125174 (2.32747)	0.552429 (0.73056)
8	0.712705 (0.83990)	-0.181131 (0.26548)	1.370735 (1.64911)	0.356950 (0.48779)
9	0.469926 (0.58741)	-0.108610 (0.17919)	0.879312 (1.15841)	0.226508 (0.32583)
10	0.299114 (0.40985)	-0.071141 (0.12193)	0.566020 (0.81008)	0.145837 (0.21913)

Lampiran 11

Varians Decomposition

Period	S.E.	Variance Decomposition of D(IHSG):			
		D(IHSG)	D(FNV)	D(FED_RATE)	D(WTI)
1	175.1235	100.0000	0.000000	0.000000	0.000000
2	179.7010	96.76330	1.999645	1.106532	0.130527
3	180.9634	95.52912	2.443521	1.758871	0.268492
4	181.3366	95.37206	2.439912	1.911716	0.276316
5	181.4340	95.28072	2.440008	1.995757	0.283512
6	181.4760	95.24702	2.439491	2.027785	0.285702
7	181.4931	95.23311	2.439202	2.041114	0.286575
8	181.5001	95.22729	2.439113	2.046660	0.286939
9	181.5030	95.22490	2.439070	2.048941	0.287086
10	181.5042	95.22391	2.439053	2.049886	0.287147