

LAMPIRAN

Lampiran 1

No	Data Bulanan dalam persen periode 2011 – 2016					
	Tahun	Pembiayaan UMKM(%)	CAR (%)	ROA (%)	BOPO (%)	FDR (%)
1	Januari 2011	75.32	20.23	2.26	75.75	91.97
2	Februari 2011	73.35	15.17	1.81	79.56	95.16
3	Maret 2011	73.58	16.57	1.97	77.63	93.22
4	April 2011	74.06	19.86	1.90	78.78	95.17
5	Mei 2011	73.66	19.58	1.84	79.05	94.88
6	Juni 2011	73.46	15.92	1.84	78.13	94.93
7	Juli 2011	73.28	15.92	1.86	77.13	94.18
8	Agustus 2011	71.70	15.83	1.81	77.65	98.39
9	September 2011	71.64	16.18	1.80	77.54	94.97
10	Oktober 2011	71.11	15.30	1.75	78.03	95.24
11	November 2011	69.59	14.88	1.78	77.92	94.40
12	Desember 2011	69.95	16.63	1.79	78.41	88.94
13	Januari 2012	71.31	16.27	1.36	86.22	87.27
14	Februari 2012	70.76	15.91	1.79	78.39	90.49
15	Maret 2012	70.51	15.33	1.83	77.77	87.13
16	April 2012	69.26	14.97	1.79	77.77	95.39
17	Mei 2012	69.22	13.40	1.99	76.24	97.95
18	Juni 2012	69.06	16.12	2.05	75.74	98.59
19	Juli 2012	69.03	16.12	2.05	75.87	99.91
20	Agustus 2012	61.06	15.63	2.04	75.89	101.03
21	September 2012	61.71	14.98	2.07	75.44	102.10
22	Oktober 2012	61.28	14.54	2.11	75.04	100.84
23	November 2012	61.44	14.82	2.09	75.29	101.19
24	Desember 2012	61.59	14.13	2.14	74.75	100.00
25	Januari 2013	61.91	15.29	2.25	70.43	100.63
26	Februari 2013	62.62	15.20	2.29	72.06	102.17
27	Maret 2013	62.57	14.30	2.39	72.95	102.62
28	April 2013	62.54	14.72	2.29	73.95	103.08
29	Mei 2013	61.87	14.28	2.07	76.87	102.08
30	Juni 2013	60.63	14.30	2.10	76.18	104.43
31	Juli 2013	62.43	15.28	2.02	76.13	104.83
32	Agustus 2013	60.00	14.71	2.01	77.87	102.53
33	September 2013	60.10	14.19	2.04	77.98	103.27
34	Oktober 2013	59.96	14.19	1.94	79.06	103.03

35	November 2013	59.89	12.23	1.96	78.95	102.58
36	Desember 2013	59.79	14.42	2.00	78.21	100.32
37	Januari 2014	59.61	16.76	0.08	80.05	100.07
38	Februari 2014	58.90	16.71	0.13	83.77	102.03
39	Maret 2014	58.84	16.20	1.16	91.90	102.22
40	April 2014	58.28	16.68	1.09	84.50	95.50
41	Mei 2014	33.60	16.85	1.13	76.49	99.43
42	Juni 2014	33.00	16.21	1.12	71.76	100.80
43	Juli 2014	32.33	15.62	1.05	79.80	99.89
44	Agustus 2014	33.95	14.73	0.93	81.20	98.99
45	September 2014	27.27	14.54	0.97	83.39	99.71
46	Oktober 2014	33.07	15.25	0.92	75.61	98.99
47	November 2014	29.81	15.66	0.87	93.50	94.62
48	Desember 2014	30.00	16.10	0.80	79.27	91.50
49	Januari 2015	29.47	14.16	0.88	94.80	88.85
50	Februari 2015	29.24	14.38	0.78	94.23	89.37
51	Maret 2015	28.50	14.43	0.69	95.98	89.15
52	April 2015	27.20	14.50	0.62	96.69	89.57
53	Mei 2015	25.30	14.37	0.60	96.51	90.05
54	Juni 2015	25.62	14.09	0.50	96.98	92.56
55	Juli 2015	24.44	14.47	0.50	97.08	90.13
56	Agustus 2015	20.27	15.05	0.46	97.30	90.72
57	September 2015	22.30	15.15	0.49	96.94	90.82
58	Oktober 2015	22.16	14.96	0.51	96.71	90.67
59	November 2015	22.37	15.31	0.52	96.75	90.26
60	Desember 2015	23.61	15.02	0.49	97.01	88.03
61	Januari 2016	23.25	15.11	1.01	95.28	105.65
62	Februari 2016	23.03	15.44	0.81	94.49	103.66
63	Maret 2016	23.14	14.90	0.88	94.40	104.56
64	April 2016	23.09	15.43	0.80	94.71	102.04
65	Mei 2016	22.89	14.78	0.16	99.04	97.07
66	Juni 2016	23.38	14.72	0.73	95.61	99.60
67	Juli 2016	23.31	14.86	0.63	96.15	98.69
68	Agustus 2016	23.07	14.87	0.48	96.96	96.84
69	September 2016	22.52	15.43	0.59	96.27	97.65
70	Oktober 2016	22.38	15.27	0.46	97.21	97.71
71	November 2016	22.38	15.78	0.67	95.91	96.60
72	Desember 2016	22.00	15.95	0.63	96.23	96.70

Lampiran 2

1. Uji data stasioner pada tingkat level

Null Hypothesis: UMKM has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.728530	0.8323
Test critical values:		
1% level	-3.525618	
5% level	-2.902953	
10% level	-2.588902	

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

Null Hypothesis: CAR has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.773269	0.0000
Test critical values:		
1% level	-3.525618	
5% level	-2.902953	
10% level	-2.588902	

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

Null Hypothesis: ROA has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.037404	0.2706
Test critical values:		
1% level	-3.525618	
5% level	-2.902953	
10% level	-2.588902	

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

Null Hypothesis: BOPO has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.871129	0.7918

Test critical values:	1% level	-3.527045
	5% level	-2.903566
	10% level	-2.589227

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

Null Hypothesis: FDR has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.785348	0.0655
Test critical values:		
1% level	-3.525618	
5% level	-2.902953	
10% level	-2.588902	

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

Lampiran 3

2. Uji stasioner data pada tingkat *first difference*.

Null Hypothesis: D(UMKM) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.197673	0.0000
Test critical values:		
1% level	-3.528515	
5% level	-2.904198	
10% level	-2.589562	

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

Null Hypothesis: D(CAR) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.463321	0.0000
Test critical values:		
1% level	-3.528515	
5% level	-2.904198	
10% level	-2.589562	

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

Null Hypothesis: D(ROA) has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.697951	0.0000
Test critical values:		
1% level	-3.530030	
5% level	-2.904848	

10% level	-2.589907
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*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(BOPO) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-14.25333	0.0001
Test critical values:		
1% level	-3.528515	
5% level	-2.904198	
10% level	-2.589562	

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

Null Hypothesis: D(FDR) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=11)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.412441	0.0000
Test critical values:		
1% level	-3.527045	
5% level	-2.903566	
10% level	-2.589227	

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

Lampiran 4

2. Uji Panjang lag optimal

VAR Lag Order Selection Criteria
Endogenous variables: D(UMKM) D(CAR) D(ROA) D(BOPO)
D(FDR)

Exogenous variables: C

Date: 02/20/18 Time: 07:47

Sample: 2011M01 2016M12

Included observations: 68

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-8.800291	NA	1.03e-06	0.405891	0.569090*	0.470555*
1	25.38191	62.33225	7.90e-07	0.135826	1.115021	0.523813
2	60.66071	59.14387*	5.91e-07*	-0.166491*	1.628699	0.544818

* 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

3. Uji stabilitas VECM

Roots of Characteristic Polynomial

Endogenous variables: D(UMKM) D(CAR) D(ROA) D(BOPO) D(FDR)

Exogenous variables: C

Lag specification: 1 2

Date: 02/20/18 Time: 07:50

Root	Modulus
-0.729857	0.729857
0.227070 - 0.588174i	0.630483
0.227070 + 0.588174i	0.630483
-0.095832 - 0.604044i	0.611598
-0.095832 + 0.604044i	0.611598

-0.277505 - 0.509962i	0.580578
-0.277505 + 0.509962i	0.580578
0.334356	0.334356
-0.260508	0.260508
-0.101663	0.101663

No root lies outside the unit circle.

VAR satisfies the stability condition.

4. Uji Kointegrasi

Date: 02/20/18 Time: 07:49

Sample (adjusted): 2011M05 2016M11

Included observations: 67 after adjustments

Trend assumption: Linear deterministic trend

Series: D(UMKM) D(CAR) D(ROA) D(BOPO) D(FDR)

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 *	0.637818	166.4160	69.81889	0.0000
At most 1 *	0.490027	98.37023	47.85613	0.0000
At most 2 *	0.297367	53.25262	29.79707	0.0000
At most 3 *	0.231018	29.60692	15.49471	0.0002
At most 4 *	0.164067	12.00686	3.841466	0.0005

Trace test indicates 5 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 5

5. Uji Kausalitas Granger

Pairwise Granger Causality Tests

Date: 02/20/18 Time: 07:59

Sample: 2011M01 2016M12

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
D(CAR) does not Granger Cause D(UMKM)	68	0.09918	0.9057
D(UMKM) does not Granger Cause D(CAR)		0.58692	0.5590
D(ROA) does not Granger Cause D(UMKM)	68	5.32818	0.0073
D(UMKM) does not Granger Cause D(ROA)		0.00591	0.9941
D(BOPO) does not Granger Cause D(UMKM)	68	2.45248	0.0943
D(UMKM) does not Granger Cause D(BOPO)		11.7135	5.E-05
D(FDR) does not Granger Cause D(UMKM)	68	0.65274	0.5241
D(UMKM) does not Granger Cause D(FDR)		0.21898	0.8039
D(ROA) does not Granger Cause D(CAR)	68	0.17413	0.8406
D(CAR) does not Granger Cause D(ROA)		8.12800	0.0007
D(BOPO) does not Granger Cause D(CAR)	68	0.98747	0.3782
D(CAR) does not Granger Cause D(BOPO)		0.75693	0.4733
D(FDR) does not Granger Cause D(CAR)	68	0.46831	0.6282
D(CAR) does not Granger Cause D(FDR)		0.20503	0.8152
D(BOPO) does not Granger Cause D(ROA)	68	0.13730	0.8720
D(ROA) does not Granger Cause D(BOPO)		5.93836	0.0043
D(FDR) does not Granger Cause D(ROA)	68	0.38192	0.6841
D(ROA) does not Granger Cause D(FDR)		0.62149	0.5404
D(FDR) does not Granger Cause D(BOPO)	68	0.38422	0.6826
D(BOPO) does not Granger Cause D(FDR)		0.27817	0.7581

Lampiran 6

6. Model VECM

Vector Error Correction Estimates

Date: 02/20/18 Time: 08:06

Sample (adjusted): 2011M05 2016M11

Included observations: 67 after adjustments

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

Cointegrating Eq:	CointEq1				
D(UMKM(-1))	1.000000				
D(CAR(-1))	18.07570 (2.41183) [7.49461]				
D(ROA(-1))	73.78411 (9.38027) [7.86588]				
D(BOPO(-1))	34.67105 (76.3605) [4.54045]				
D(FDR(-1))	28.60234 (81.4002) [3.51379]				
C	2.528012				
Error Correction:	D(UMKM,2)	D(CAR,2)	D(ROA,2)	D(BOPO,2)	D(FDR,2)
CointEq1	-0.150423 (0.04201) [-3.58097]	-0.047925 (0.01402) [-3.41916]	-0.009726 (0.00402) [-2.41861]	-0.001038 (0.00048) [-2.17121]	-0.000347 (0.00035) [-0.97830]
D(UMKM(-1),2)	-0.812435 (0.11338) [-7.16549]	0.008593 (0.03783) [0.22713]	0.003504 (0.01085) [0.32280]	0.005599 (0.00129) [4.34037]	-9.44E-05 (0.00096) [-0.09853]
D(UMKM(-2),2)	-0.451719 (0.12099) [-3.73348]	0.041424 (0.04037) [1.02604]	0.003745 (0.01158) [0.32333]	-4.73E-05 (0.00138) [-0.03439]	-4.06E-05 (0.00102) [-0.03974]
D(CAR(-1),2)	1.907177 (0.55107) [3.46086]	0.010365 (0.18388) [0.05637]	-0.001613 (0.05276) [-0.03057]	0.016935 (0.00627) [2.70114]	0.003855 (0.00466) [0.82796]
D(CAR(-2),2)	0.484009 (0.44604) [1.08512]	-0.129181 (0.14884) [-0.86794]	0.095257 (0.04270) [2.23075]	0.007320 (0.00507) [1.44253]	0.001616 (0.00377) [0.42876]

D(ROA(-1),2)	8.991474 (2.50929) [3.58327]	2.589357 (0.83731) [3.09249]	-0.092248 (0.24023) [-0.38401]	0.044280 (0.02855) [1.55106]	0.017683 (0.02120) [0.83412]
D(ROA(-2),2)	2.589420 (1.69912) [1.52398]	1.618823 (0.56697) [2.85524]	-0.144921 (0.16266) [-0.89092]	-0.011699 (0.01933) [-0.60518]	0.006585 (0.01435) [0.45876]
D(BOPO(-1),2)	62.25079 (12.6379) [4.92572]	8.522462 (4.21705) [2.02095]	2.378005 (1.20989) [1.96547]	-0.782086 (0.14378) [-5.43938]	0.130805 (0.10677) [1.22513]
D(BOPO(-2),2)	23.75533 (9.91165) [2.39671]	0.300104 (3.30734) [0.09074]	1.987427 (0.94889) [2.09447]	-0.339761 (0.11277) [-3.01300]	0.076049 (0.08374) [0.90820]
D(FDR(-1),2)	22.18125 (15.4435) [1.43629]	11.10266 (5.15322) [2.15451]	0.975232 (1.47848) [0.65962]	0.292486 (0.17570) [1.66468]	-0.771268 (0.13047) [-5.91146]
D(FDR(-2),2)	4.303797 (14.1442) [0.30428]	3.933042 (4.71968) [0.83333]	1.040945 (1.35410) [0.76874]	0.160085 (0.16092) [0.99482]	-0.483668 (0.11949) [-4.04765]
C	0.084116 (0.41323) [0.20356]	0.011947 (0.13789) [0.08665]	0.003232 (0.03956) [0.08170]	0.000783 (0.00470) [0.16646]	-0.000618 (0.00349) [-0.17696]
R-squared	0.641509	0.440809	0.614686	0.796829	0.512822
Adj. R-squared	0.569811	0.328971	0.537623	0.756195	0.415387
Sum sq. resids	624.7305	69.56003	5.725768	0.080863	0.044589
S.E. equation	3.370273	1.124601	0.322653	0.038344	0.028473
F-statistic	8.947349	3.941491	7.976420	19.60978	5.263200
Log likelihood	-169.8619	-96.32505	-12.66840	130.0407	149.9826
Akaike AIC	5.428714	3.233584	0.736370	-3.523603	-4.118884
Schwarz SC	5.823584	3.628454	1.131240	-3.128733	-3.724013
Mean dependent	0.000299	0.006716	0.000299	7.46E-06	-0.000136
S.D. dependent	5.138487	1.372865	0.474501	0.077656	0.037239
Determinant resid covariance (dof adj.)		8.88E-07			
Determinant resid covariance		3.31E-07			
Log likelihood		24.52930			
Akaike information criterion		1.208081			
Schwarz criterion		3.346962			

Lampiran 7

7. Analisis Impulse Respon Function

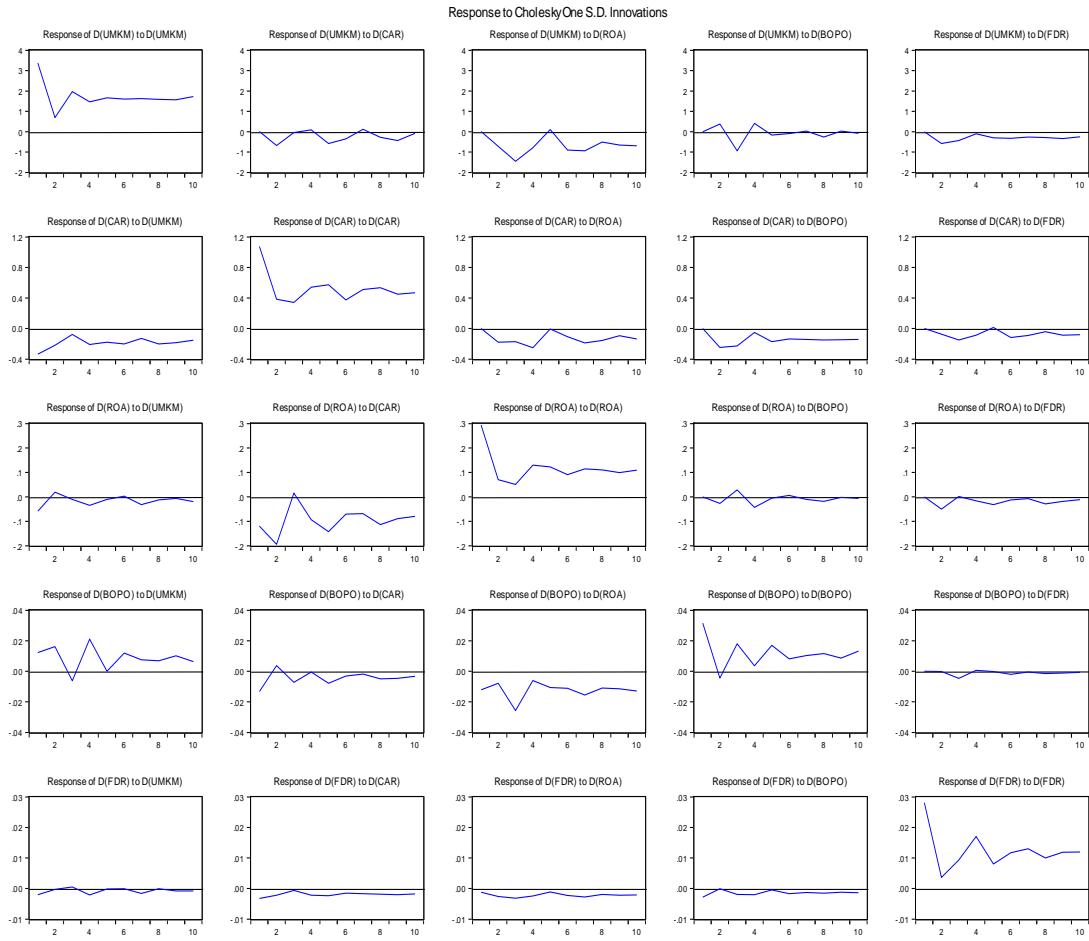
Respon se of D(UMK M):		D(UMKM)	D(CAR)	D(ROA)	D(BOPO)	D(FDR)
Period						
1	3.370273	0.000000	0.000000	0.000000	0.000000	0.000000
2	0.688293	-0.686010	-0.715580	0.378634	-0.584405	
3	1.968672	-0.037803	-1.450236	-0.938608	-0.433765	
4	1.463333	0.093264	-0.792935	0.405737	-0.105340	
5	1.659709	-0.577098	0.108467	-0.162594	-0.305315	
6	1.606172	-0.347354	-0.900420	-0.088577	-0.322376	
7	1.620165	0.112039	-0.932827	0.029198	-0.266944	
8	1.594556	-0.280664	-0.515232	-0.268248	-0.290630	
9	1.564550	-0.439306	-0.661891	0.025932	-0.333983	
10	1.726835	-0.078724	-0.688695	-0.080481	-0.250405	
Respon se of D(CAR):		D(UMKM)	D(CAR)	D(ROA)	D(BOPO)	D(FDR)
Period						
1	-0.336408	1.073107	0.000000	0.000000	0.000000	0.000000
2	-0.219304	0.383523	-0.177569	-0.248300	-0.073044	
3	-0.078051	0.339538	-0.171424	-0.228848	-0.149077	
4	-0.209133	0.541509	-0.250919	-0.052570	-0.088905	
5	-0.178100	0.572037	-0.006165	-0.171185	0.014667	
6	-0.202477	0.373568	-0.107497	-0.137269	-0.118027	
7	-0.130299	0.509790	-0.188555	-0.143863	-0.091992	
8	-0.203231	0.534189	-0.156944	-0.148348	-0.041071	
9	-0.185485	0.450175	-0.092473	-0.147837	-0.087790	
10	-0.153949	0.467997	-0.135995	-0.143576	-0.080132	
Respon se of D(ROA):		D(UMKM)	D(CAR)	D(ROA)	D(BOPO)	D(FDR)
Period						
1	-0.058625	-0.119239	0.294024	0.000000	0.000000	0.000000
2	0.019104	-0.193958	0.070116	-0.026251	-0.050657	
3	-0.010776	0.014784	0.050890	0.028695	0.002372	
4	-0.034931	-0.093057	0.130101	-0.043127	-0.016195	
5	-0.010525	-0.142374	0.122622	-0.005064	-0.032000	
6	0.003348	-0.070577	0.090652	0.005769	-0.012426	
7	-0.031844	-0.068173	0.114232	-0.009966	-0.007438	
8	-0.012415	-0.113097	0.110308	-0.018570	-0.028761	
9	-0.006300	-0.089424	0.098917	-0.002198	-0.018227	
10	-0.019765	-0.079917	0.109426	-0.005959	-0.011480	
Respon se of D(BOP O):		D(UMKM)	D(CAR)	D(ROA)	D(BOPO)	D(FDR)
Period						
1	0.012247	-0.013284	-0.012057	0.031598	0.000000	0.000000
2	0.016149	0.003793	-0.007776	-0.004470	-0.000121	
3	-0.006191	-0.007181	-0.025718	0.018016	-0.004608	
4	0.021114	-0.000474	-0.006013	0.003603	0.000645	

5	3.17E-05	-0.007919	-0.010599	0.016974	-0.000197
6	0.011905	-0.003043	-0.011126	0.008218	-0.001970
7	0.007569	-0.001872	-0.015549	0.010359	-0.000447
8	0.006851	-0.004958	-0.010904	0.011630	-0.001421
9	0.010171	-0.004575	-0.011518	0.008662	-0.001124
10	0.006410	-0.003336	-0.012900	0.013227	-0.000645

Period	D(UMKM)	D(CAR)	D(ROA)	D(BOPO)	D(FDR)
1	-0.002053	-0.003263	-0.001237	-0.002858	0.028038
2	-0.000347	-0.002213	-0.002619	-4.02E-05	0.003629
3	0.000523	-0.000624	-0.003189	-0.001962	0.009369
4	-0.002118	-0.002182	-0.002393	-0.002010	0.017004
5	-0.000166	-0.002343	-0.001094	-0.000430	0.008021
6	-6.93E-05	-0.001566	-0.002245	-0.001686	0.011707
7	-0.001578	-0.001675	-0.002727	-0.001290	0.013066
8	-0.000100	-0.001876	-0.001920	-0.001536	0.010015
9	-0.000760	-0.002004	-0.002158	-0.001216	0.011865
10	-0.000762	-0.001756	-0.002146	-0.001370	0.011923

Cholesky
Ordering
:
D(UMKM)
D(CAR)
D(ROA)
D(BOP)
D(FDR)

Lampiran 8



Lampiran 9

8. Analisis Variance Decomposition

Varian ce Decom position of D(UMK M):		S.E.	D(UMKM)	D(CAR)	D(ROA)	D(BOPO)	D(FDR)
Period							
1	3.370273	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000
2	3.646922	88.96577	3.538407	3.850021	1.077919	2.567879	
3	4.511038	77.19199	2.319661	12.85164	5.033787	2.602924	
4	4.827418	76.59424	2.062897	13.92032	5.102012	2.320538	
5	5.150055	77.68383	3.068195	12.27517	4.582457	2.390353	
6	5.490541	76.90537	3.099692	13.48936	4.057760	2.447822	
7	5.807392	76.52555	2.807901	14.63767	3.629584	2.399293	
8	6.063750	77.10683	2.789734	14.14813	3.524874	2.430431	
9	6.321407	77.07490	3.049907	14.11464	3.245069	2.515483	
10	6.594834	77.67261	2.816497	14.05905	2.996455	2.455391	

