

**APPENDIX 1**  
**LIST OF DATA VARIABLES**

					*in billion
YEAR	Q	FINANCING	DEPOSIT	GDP	GFCF
2003	1	3663	3354	386744	74344
2003	2	4162	3782	394621	74439
2003	3	4382	4646	405608	78950
2003	4	5530	5161	390199	81699
2004	1	6416	7023	402597	82093
2004	2	8356	8316	411936	85020
2004	3	10131	9676	423852	92870
2004	4	11489	11862	418132	94884
2005	1	12959	12259	426612	94306
2005	2	14270	13358	436121	99247
2005	3	14753	13358	448598	102502
2005	4	15232	15582	439484	97446
2006	1	15997	14956	448485	95674
2006	2	18162	16433	457637	100265
2006	3	19663	19976	474904	103351
2006	4	20445	20672	466101	104428
2007	1	20820	21883	475642	102897
2007	2	22969	22714	488421	107789
2007	3	25590	23309	506933	113228
2007	4	27994	28012	493332	117447
2008	1	26629	29552	505219	117200
2008	2	34100	33048	519205	120948
2008	3	37681	33568	583641	127215
2008	4	38199	36852	519392	128460

2009	1	39308	38040	528057	121246
2009	2	42195	42103	540678	123774
2009	3	44523	45381	561637	131318
2009	4	46886	52271	548479	133749
2010	1	50206	52811	559683	130882
2010	2	55801	58079	574713	133693
2010	3	60970	63912	594251	143432
2010	4	68181	76036	585812	145341
2011	1	74253	79651	595722	140372
2011	2	82616	87025	612501	145861
2011	3	92839	97756	632824	153577
2011	4	102655	115415	632520	162081
2012	1	104239	119639	633400	154364
2012	2	117592	119279	651327	164054
2012	3	130357	127678	672109	168629
2012	4	147505	147512	662096	173895
2013	1	161081	156964	671320	162854
2013	2	171227	163966	688527	171362
2013	3	177320	171701	709680	176240
2013	4	184122	183534	699526	181736
2014	1	184964	180945	705934	170872
2014	2	193136	191470	723412	177970
2014	3	196563	197141	745151	181745
2014	4	197279	217858	734648	188745

\*Data obtained from website of Statistics Indonesia (BPS) and website of Indonesia Financial Authority (OJK)

**APPENDIX 2**  
**LIST OF ISLAMIC BANKS IN INDONESIA**

<b>Individual Islamic Banking Network – June 2015</b>			
<b>Group of Banks</b>	<b>HOO/BO</b>	<b>SBO/SSU</b>	<b>CO</b>
<b>Syariah Commercial Bank</b>	450	1482	201
PT. Bank Muamalat Indonesia	85	261	108
PT. Bank Victoria Syariah	9	6	-
Bank BRI Syariah	52	205	10
B.P.D. Jawa Barat Banten Syariah	9	56	1
Bank BNI Syariah	67	165	65
Bank Syariah Mandiri	137	510	65
Bank Syariah Mega Indonesia	35	257	1
Bank Panin Syariah	8	5	-
PT. Bank Syariah Bukopin	12	7	4
PT. BCA Syariah	9	6	-
PT. Maybank Syariah Indonesia	1	-	-
PT. Tabungan Pensiunan Nasional Syariah	26	4	-
<b>Islamic Business Unit</b>	<b>143</b>	<b>140</b>	<b>44</b>
PT. Bank Danamon Indonesia Tbk	25	2	-
PT. Bank Permata Tbk	11	2	-
PT. Bank Internasional Indonesia Tbk	7	1	-
PT. Bank Cimb Niaga Tbk	7	-	-
PT. Bank OCBC Nisp Tbk	8	-	-
PT. BPD DKI	3	11	6
BPD Yogyakarta	1	2	5
PT. BPD Jawa Tengah	4	6	4
PT. BPD Jawa Timur	3	7	-
PT. BPD Jambi	1	-	-
PT. BPD Aceh	2	15	-

PT. BPD Sumatera Utara	5	17	-
BPD Sumatera Barat	3	6	-
PT. BPD Riau	2	3	-
PT. BPD Sumatera Selatan dan Bangka Belitung	3	1	5
PT. BPD Kalimantan Selatan	2	8	1
PT. BPD Kalimantan Barat	-	2	4
BPD Kalimantan Timur	2	13	-
PT. BPD Sulawesi Selatan Dan Sulawesi Barat	3	-	1
PT. BPD Nusa Tenggara Barat	2	6	1
PT. Bank Sinar Mas	28	-	10
PT. Bank Tabungan Negara (Persero) Tbk	21	20	7
<b>Islamic Rural Bank</b>	<b>90</b>	<b>-</b>	<b>182</b>
<b>Total</b>	<b>683</b>	<b>1622</b>	<b>427</b>
<b>HO = Head Office</b> <b>HOO = Head Operational Office</b> <b>BO = Branch Office</b> <b>SBO/SSU = Sub Branch Office/Sharia Service Unit</b> <b>CO = Cash Office</b>			

### APPENDIX 3

#### THE OUTPUT OF ECONOMETRIC TESTS

##### 1. DESCRIPTIVE STATISTICS

	LNDEPOSIT	LNFINANCING	LNGFCF	LNRGDP
Mean	10.53428	10.53148	11.72359	13.19029
Median	10.53053	10.56487	11.73992	13.18877
Maximum	12.29160	12.19237	12.14815	13.52134
Minimum	8.117909	8.206038	11.21646	12.86552
Std. Dev.	1.183286	1.162112	0.268792	0.198914
Skewness	-0.242399	-0.223582	-0.162754	0.004985
Kurtosis	2.046295	2.073010	1.925151	1.757263
Jarque-Bera	2.289165	2.118532	2.522511	3.088987
Probability	0.318357	0.346710	0.283298	0.213420
Sum	505.6455	505.5110	562.7323	633.1338
Sum Sq. Dev.	65.80776	63.47365	3.395719	1.859635
Observations	48	48	48	48

##### 2. UNIT ROOT TEST

###### A. DEPOSIT

Null Hypothesis: LNDEPOSIT has a unit root  
 Exogenous: Constant  
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.995309	0.0426
Test critical values:		
1% level	-3.577723	
5% level	-2.925169	
10% level	-2.600658	

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

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LNDEPOSIT)  
 Method: Least Squares  
 Date: 01/14/16 Time: 18:53  
 Sample (adjusted): 2003Q2 2014Q4  
 Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNDEPOSIT(-1)	-0.024177	0.008072	-2.995309	0.0044
C	0.342582	0.085237	4.019180	0.0002
R-squared	0.166232	Mean dependent var		0.088802
Adjusted R-squared	0.147704	S.D. dependent var		0.069204
S.E. of regression	0.063889	Akaike info criterion		-2.621707

Sum squared resid	0.183683	Schwarz criterion	-2.542977
Log likelihood	63.61010	Hannan-Quinn criter.	-2.592080
F-statistic	8.971879	Durbin-Watson stat	2.220541
Prob(F-statistic)	0.004446		

Null Hypothesis: D(LNDEPOSIT) has a unit root  
Exogenous: Constant  
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.325958	0.0000
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

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

Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(LNDEPOSIT,2)  
Method: Least Squares  
Date: 01/14/16 Time: 18:54  
Sample (adjusted): 2003Q3 2014Q4  
Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNDEPOSIT(-1))	-0.950612	0.150272	-6.325958	0.0000
C	0.083748	0.016888	4.959123	0.0000
S.E. of regression	0.070512	Akaike info criterion	-2.423555	
Sum squared resid	0.218767	Schwarz criterion	-2.344048	
Log likelihood	57.74176	Hannan-Quinn criter.	-2.393771	
Durbin-Watson stat	1.996772			

## B. FINANCING

Null Hypothesis: LNFINANCING has a unit root  
Exogenous: Constant  
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.231147	0.0243
Test critical values:		
1% level	-3.577723	
5% level	-2.925169	
10% level	-2.600658	

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

Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(LNFINANCING)  
Method: Least Squares

Date: 01/14/16 Time: 18:52  
Sample (adjusted): 2003Q2 2014Q4  
Included observations: 47 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNFINANCING(-1)	-0.023806	0.007368	-3.231147	0.0023
C	0.334691	0.077785	4.302773	0.0001
R-squared	0.188316	Mean dependent var		0.084816
Adjusted R-squared	0.170279	S.D. dependent var		0.062995
S.E. of regression	0.057382	Akaike info criterion		-2.836553
Sum squared resid	0.148171	Schwarz criterion		-2.757824
Log likelihood	68.65900	Hannan-Quinn criter.		-2.806927
F-statistic	10.44031	Durbin-Watson stat		1.708029
Prob(F-statistic)	0.002308			

Null Hypothesis: D(LNFINANCING) has a unit root  
Exogenous: Constant  
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.917125	0.0002
Test critical values:		
1% level	-3.581152	
5% level	-2.926622	
10% level	-2.601424	

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

Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(LNFINANCING,2)  
Method: Least Squares  
Date: 01/14/16 Time: 18:53  
Sample (adjusted): 2003Q3 2014Q4  
Included observations: 46 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNFINANCING(-1))	-0.722807	0.146998	-4.917125	0.0000
C	0.059884	0.015639	3.829198	0.0004
R-squared	0.354632	Mean dependent var		-0.002697
Adjusted R-squared	0.339964	S.D. dependent var		0.075867
S.E. of regression	0.061636	Akaike info criterion		-2.692621
Sum squared resid	0.167158	Schwarz criterion		-2.613115
Log likelihood	63.93028	Hannan-Quinn criter.		-2.662837
F-statistic	24.17812	Durbin-Watson stat		2.049847
Prob(F-statistic)	0.000013			

### C. GFCF

Null Hypothesis: LNGFCF has a unit root  
 Exogenous: Constant  
 Lag Length: 6 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.905780	0.7764
Test critical values:		
1% level	-3.600987	
5% level	-2.935001	
10% level	-2.605836	

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

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LNGFCF)  
 Method: Least Squares  
 Date: 01/14/16 Time: 18:50  
 Sample (adjusted): 2004Q4 2014Q4  
 Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNGFCF(-1)	-0.014764	0.016300	-0.905780	0.3716
D(LNGFCF(-1))	-0.087013	0.158837	-0.547817	0.5875
D(LNGFCF(-2))	-0.080397	0.144045	-0.558139	0.5805
D(LNGFCF(-3))	-0.339543	0.119455	-2.842438	0.0076
D(LNGFCF(-4))	0.509287	0.129325	3.938042	0.0004
D(LNGFCF(-5))	-0.307051	0.155203	-1.978382	0.0563
D(LNGFCF(-6))	-0.288643	0.163541	-1.764965	0.0868
C	0.202405	0.194338	1.041511	0.3052
R-squared	0.712855	Mean dependent var		0.017297
Adjusted R-squared	0.651946	S.D. dependent var		0.036539
S.E. of regression	0.021557	Akaike info criterion		-4.663075
Sum squared resid	0.015335	Schwarz criterion		-4.328720
Log likelihood	103.5930	Hannan-Quinn criter.		-4.541321
F-statistic	11.70352	Durbin-Watson stat		2.167744
Prob(F-statistic)	0.000000			

Null Hypothesis: D(LNGFCF) has a unit root  
 Exogenous: Constant  
 Lag Length: 5 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.800844	0.0059
Test critical values:		
1% level	-3.600987	
5% level	-2.935001	
10% level	-2.605836	

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



Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LNGFCF,2)  
 Method: Least Squares  
 Date: 01/14/16 Time: 18:51  
 Sample (adjusted): 2004Q4 2014Q4  
 Included observations: 41 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNGFCF(-1))	-1.491614	0.392443	-3.800844	0.0006
D(LNGFCF(-1),2)	0.417352	0.352597	1.183653	0.2448
D(LNGFCF(-2),2)	0.347900	0.337432	1.031023	0.3098
D(LNGFCF(-3),2)	0.035235	0.270997	0.130021	0.8973
D(LNGFCF(-4),2)	0.571270	0.204927	2.787684	0.0086
D(LNGFCF(-5),2)	0.273836	0.162291	1.687311	0.1007
C	0.026541	0.008339	3.182728	0.0031
R-squared	0.877582	Mean dependent var		-0.001232
Adjusted R-squared	0.855978	S.D. dependent var		0.056653
S.E. of regression	0.021500	Akaike info criterion		-4.687298
Sum squared resid	0.015716	Schwarz criterion		-4.394737
Log likelihood	103.0896	Hannan-Quinn criter.		-4.580763
F-statistic	40.62269	Durbin-Watson stat		2.161989
Prob(F-statistic)	0.000000			

#### D. RGDP

Null Hypothesis: LNRGDP has a unit root  
 Exogenous: Constant, Linear Trend  
 Lag Length: 3 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.596662	0.2837
Test critical values:		
1% level	-4.180911	
5% level	-3.515523	
10% level	-3.188259	

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

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LNRGDP\_\_KONSTAN\_)  
 Method: Least Squares  
 Date: 01/14/16 Time: 18:45  
 Sample (adjusted): 2004Q1 2014Q4  
 Included observations: 44 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNRGDP__KONSTAN_(-1)	-0.988189	0.380561	-2.596662	0.0133
D(LNRGDP__KONSTAN_(-1))	-0.087905	0.295896	-0.297080	0.7680
D(LNRGDP__KONSTAN_(-2))	-0.276044	0.217350	-1.270044	0.2118
D(LNRGDP__KONSTAN_(-3))	-0.440591	0.141270	-3.118776	0.0035
C	12.71498	4.879086	2.606016	0.0130
@TREND(2003Q1)	0.014047	0.005417	2.593153	0.0134

S.E. of regression	0.018528	Akaike info criterion	-5.012955
Sum squared resid	0.013045	Schwarz criterion	-4.769656
Log likelihood	116.2850	Hannan-Quinn criter.	-4.922728
Durbin-Watson stat	1.787092		

Null Hypothesis: D(LNRGDP\_\_KONSTAN\_) has a unit root  
 Exogenous: Constant  
 Lag Length: 2 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-12.03204	0.0000
Test critical values:		
1% level	-3.588509	
5% level	-2.929734	
10% level	-2.603064	

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

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LNRGDP\_\_KONSTAN\_,2)  
 Method: Least Squares  
 Date: 01/14/16 Time: 18:54  
 Sample (adjusted): 2004Q1 2014Q4  
 Included observations: 44 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNRGDP__KONSTAN_(-1))	-3.259227	0.270879	-12.03204	0.0000
D(LNRGDP__KONSTAN_(-1),2)	1.451202	0.197748	7.338648	0.0000
D(LNRGDP__KONSTAN_(-2),2)	0.690363	0.109428	6.308842	0.0000
C	0.045471	0.004756	9.561304	0.0000

  

R-squared	0.875446	Mean dependent var	0.000558
Adjusted R-squared	0.866105	S.D. dependent var	0.053552
S.E. of regression	0.019596	Akaike info criterion	-4.940498
Sum squared resid	0.015360	Schwarz criterion	-4.778299
Log likelihood	112.6910	Hannan-Quinn criter.	-4.880347
F-statistic	93.71540	Durbin-Watson stat	1.952681

### 3. OPTIMUM LAG LENGTH

VAR Lag Order Selection Criteria  
 Endogenous variables: LNFINANCING LNRGDP LNGFCF  
 Exogenous variables: C  
 Date: 01/15/16 Time: 08:33  
 Sample: 2003Q1 2014Q4  
 Included observations: 45

Lag	LogL	LR	FPE	AIC	SC	HQ
0	141.3030	NA	4.30e-07	-6.146800	-6.026356	-6.101899
1	283.8832	259.8128	1.14e-09	-12.08370	-11.60192	-11.90410
2	297.8489	23.58651	9.17e-10	-12.30440	-11.46129	-11.99009

3      321.5097      36.80577\*      4.85e-10\*      -12.95599\*      -11.75155\*      -12.50698\*

\* 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

VAR Lag Order Selection Criteria  
 Endogenous variables: LNDEPOSIT LNGFCF LNRGDP  
 Exogenous variables: C  
 Date: 01/15/16 Time: 08:35  
 Sample: 2003Q1 2014Q4  
 Included observations: 45

Lag	LogL	LR	FPE	AIC	SC	HQ
0	135.7291	NA	5.50e-07	-5.899072	-5.778628	-5.854172
1	278.1334	259.4922	1.47e-09	-11.82815	-11.34637*	-11.64855*
2	286.3560	13.88718	1.53e-09	-11.79360	-10.95049	-11.47930
3	300.6985	22.31050*	1.22e-09*	-12.03104*	-10.82660	-11.58204

\* 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

#### 4. CO-INTEGRATION TEST

##### A. FINC AND GDP

Date: 01/15/16 Time: 08:37  
 Sample (adjusted): 2004Q1 2014Q4  
 Included observations: 44 after adjustments  
 Trend assumption: Linear deterministic trend  
 Series: LNFINANCING LNRGDP  
 Lags interval (in first differences): 1 to 3

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.353482	19.34687	15.49471	0.0125
At most 1	0.003541	0.156061	3.841466	0.6928

Trace test indicates 1 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	Max-Eigen	0.05

No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.353482	19.19080	14.26460	0.0077
At most 1	0.003541	0.156061	3.841466	0.6928

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

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

## B. FINC AND GFCF

Date: 01/15/16 Time: 08:39

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

Trend assumption: Linear deterministic trend

Series: LNFINANCING LNGFCF

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 *	0.420685	27.01517	15.49471	0.0006
At most 1	0.052974	2.449279	3.841466	0.1176

Trace test indicates 1 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 *	0.420685	24.56589	14.26460	0.0009
At most 1	0.052974	2.449279	3.841466	0.1176

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

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

## C. DEPT AND GDP

Date: 01/15/16 Time: 08:40

Sample (adjusted): 2004Q1 2014Q4

Included observations: 44 after adjustments

Trend assumption: Linear deterministic trend

Series: LNDEPOSIT LNRGDP

Lags interval (in first differences): 1 to 3

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
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None *	0.414311	23.66117	15.49471	0.0024
At most 1	0.002783	0.122626	3.841466	0.7262

Trace test indicates 1 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 *	0.414311	23.53854	14.26460	0.0013
At most 1	0.002783	0.122626	3.841466	0.7262

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

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

#### D. DEPT AND GFCF

Date: 01/15/16 Time: 08:49

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

Trend assumption: Linear deterministic trend

Series: LNDEPOSIT LNGFCF

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 *	0.238034	16.00752	15.49471	0.0418
At most 1	0.080449	3.774116	3.841466	0.0520

Trace test indicates 1 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	0.238034	12.23341	14.26460	0.1022
At most 1	0.080449	3.774116	3.841466	0.0520

Max-eigenvalue test indicates no cointegration at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

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

## 5. GRANGER CAUSALITIES BASED ON VECM

### A. EQUATION (5-A)

Vector Error Correction Estimates

Date: 01/15/16 Time: 09:17

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

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

Cointegrating Eq:	CointEq1	
LNFINANCING(-1)	1.000000	
LNRGDP(-1)	-5.411697 (0.12002) [-45.0908]	
C	60.82435	
Error Correction:	D(LNFINANCING)	D(LNRGDP)
CointEq1	-0.199371 (0.05616) [-3.54982]	0.063440 (0.02000) [ 3.17226]
D(LNFINANCING(-1))	0.306889 (0.12708) [ 2.41496]	0.237390 (0.04525) [ 5.24627]
D(LNFINANCING(-2))	0.150224 (0.13407) [ 1.12045]	-0.236234 (0.04774) [-4.94829]
D(LNRGDP(-1))	-0.753822 (0.31013) [-2.43064]	-0.327796 (0.11043) [-2.96835]
D(LNRGDP(-2))	-1.070263 (0.27614) [-3.87575]	-0.312377 (0.09833) [-3.17690]
C	0.070618 (0.01638) [ 4.30990]	0.022657 (0.00583) [ 3.88336]
R-squared	0.447965	0.725210
Adj. R-squared	0.377191	0.689981
Sum sq. resids	0.099143	0.012570
S.E. equation	0.050420	0.017953
F-statistic	6.329543	20.58532
Log likelihood	73.79944	120.2671
Akaike AIC	-3.013308	-5.078537
Schwarz SC	-2.772420	-4.837649
Mean dependent	0.084603	0.013200
S.D. dependent	0.063888	0.032244

Determinant resid covariance (dof adj.)	5.93E-07
Determinant resid covariance	4.45E-07
Log likelihood	201.3489
Akaike information criterion	-8.326616
Schwarz criterion	-7.764543

Dependent Variable: D(LNFINANCING)

Method: Least Squares

Date: 01/15/16 Time: 09:18

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

$$D(LNFINANCING) = C(1) * (LNFINANCING(-1) - 5.4116973735 * LNRGDP(-1) + 60.8243467107) + C(2) * D(LNFINANCING(-1)) + C(3) * D(LNFINANCING(-2)) + C(4) * D(LNRGDP(-1)) + C(5) * D(LNRGDP(-2)) + C(6)$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.199371	0.056164	-3.549819	0.0003
C(2)	0.306889	0.127078	2.414961	0.2234
C(3)	0.150224	0.134075	1.120454	0.2694
C(4)	-0.753822	0.310133	-2.430644	0.0198
C(5)	-1.070263	0.276143	-3.875752	0.0004
C(6)	0.070618	0.016385	4.309902	0.0001

  

S.E. of regression	0.050420	Akaike info criterion	-3.013308
Sum squared resid	0.099143	Schwarz criterion	-2.772420
Log likelihood	73.79944	Hannan-Quinn criter.	-2.923508
Durbin-Watson stat	2.221193		

Wald Test:  
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	7.719288	(2, 39)	0.0015
Chi-square	15.43858	2	0.0004

Null Hypothesis: C(4)=C(5)=0

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	-0.753822	0.310133
C(5)	-1.070263	0.276143

Restrictions are linear in coefficients.

## B. EQUATION (5-B)

Vector Error Correction Estimates

Date: 01/15/16 Time: 09:23

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

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

Cointegrating Eq:	CointEq1	
LNRGDP(-1)	1.000000	
LNFINANCING(-1)	-0.184785 (0.00386) [-47.8412]	
C	-11.23942	
Error Correction:	D(LNRGDP)	D(LNFINANCING)
CointEq1	-0.343319 (0.10823) [-3.17226]	1.078933 (0.30394) [ 3.54982]
D(LNRGDP(-1))	-0.327796 (0.11043) [-2.96835]	-0.753822 (0.31013) [-2.43064]
D(LNRGDP(-2))	-0.312377 (0.09833) [-3.17690]	-1.070263 (0.27614) [-3.87575]
	0.237390	
D(LNFINANCING(-1))	(0.04525) [ 5.24627]	0.306889 (0.12708) [ 2.41496]
D(LNFINANCING(-2))	-0.236234 (0.04774) [-4.94829]	0.150224 (0.13407) [ 1.12045]
C	0.022657 (0.00583) [ 3.88336]	0.070618 (0.01638) [ 4.30990]
R-squared	0.725210	0.447965
Adj. R-squared	0.689981	0.377191
Sum sq. resids	0.012570	0.099143
S.E. equation	0.017953	0.050420
F-statistic	20.58532	6.329543
Log likelihood	120.2671	73.79944
Akaike AIC	-5.078537	-3.013308
Schwarz SC	-4.837649	-2.772420
Mean dependent	0.013200	0.084603



S.D. dependent	0.032244	0.063888
Determinant resid covariance (dof adj.)		5.93E-07
Determinant resid covariance		4.45E-07
Log likelihood		201.3489
Akaike information criterion		-8.326616
Schwarz criterion		-7.764543

Dependent Variable: D(LNRGDP)

Method: Least Squares

Date: 01/15/16 Time: 09:24

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

$$D(LNRGDP) = C(1) * (LNRGDP(-1) - 0.184784907762 * LNFINANCING(-1) - 11.2394212966) + C(2) * D(LNRGDP(-1)) + C(3) * D(LNRGDP(-2)) + C(4) * D(LNFINANCING(-1)) + C(5) * D(LNFINANCING(-2)) + C(6)$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.343319	0.108226	-3.172259	0.0007
C(2)	-0.327796	0.110430	-2.968347	0.0078
C(3)	-0.312377	0.098328	-3.176899	0.0029
C(4)	0.237390	0.045249	5.246268	0.0000
C(5)	-0.236234	0.047741	-4.948293	0.0000
C(6)	0.022657	0.005834	3.883358	0.0004
S.E. of regression	0.017953	Akaike info criterion		-5.078537
Sum squared resid	0.012570	Schwarz criterion		-4.837649
Log likelihood	120.2671	Hannan-Quinn criter.		-4.988736
Durbin-Watson stat	2.321381			

Wald Test:  
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	21.91733	(2, 39)	0.0000
Chi-square	43.83466	2	0.0000

Null Hypothesis: C(4)=C(5)=0

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	0.237390	0.045249
C(5)	-0.236234	0.047741

Restrictions are linear in coefficients.

### C. EQUATION (5-C)

Vector Error Correction Estimates

Date: 01/15/16 Time: 09:25

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

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

Cointegrating Eq:	CointEq1	
LNGFCF(-1)	1.000000	
LNFINANCING(-1)	-0.243194 (0.00397) [-61.2096]	
C	-9.160008	
Error Correction:	D(LNGFCF)	D(LNFINANCING)
CointEq1	-0.370175 (0.22678) [-1.63229]	1.362070 (0.40255) [ 3.38361]
D(LNGFCF(-1))	-0.147207 (0.18869) [-0.78014]	-1.159115 (0.33494) [-3.46066]
D(LNGFCF(-2))	-0.391570 (0.16865) [-2.32181]	-0.838528 (0.29936) [-2.80108]
D(LNFINANCING(-1))	0.164650 (0.08169) [ 2.01560]	0.334431 (0.14500) [ 2.30643]
D(LNFINANCING(-2))	0.113467 (0.08672) [ 1.30847]	0.270705 (0.15393) [ 1.75865]
C	0.005781 (0.01032) [ 0.55998]	0.071358 (0.01833) [ 3.89388]
R-squared	0.379242	0.357331
Adj. R-squared	0.299658	0.274938
Sum sq. resids	0.036632	0.115421
S.E. equation	0.030648	0.054401
F-statistic	4.765281	4.336894
Log likelihood	96.20121	70.37903
Akaike AIC	-4.008943	-2.861290
Schwarz SC	-3.768055	-2.620402
Mean dependent	0.019368	0.084603
S.D. dependent	0.036622	0.063888
Determinant resid covariance (dof adj.)	1.97E-06	

Determinant resid covariance	1.48E-06
Log likelihood	174.3242
Akaike information criterion	-7.125521
Schwarz criterion	-6.563448

Dependent Variable: D(LNGFCF)

Method: Least Squares

Date: 01/15/16 Time: 09:26

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

$$D(LNGFCF) = C(1) * (LNGFCF(-1) - 0.243193579002 * LNFINANCING(-1) - 9.16000836601) + C(2) * D(LNGFCF(-1)) + C(3) * D(LNGFCF(-2)) + C(4) * D(LNFINANCING(-1)) + C(5) * D(LNFINANCING(-2)) + C(6)$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.370175	0.226783	-1.632291	0.6549
C(2)	-0.147207	0.188694	-0.780136	0.7645
C(3)	-0.391570	0.168649	-2.321810	0.0256
C(4)	0.164650	0.081688	2.015600	0.0508
C(5)	0.113467	0.086718	1.308469	0.1984
C(6)	0.005781	0.010324	0.559975	0.5787
S.E. of regression	0.030648	Akaike info criterion		-4.008943
Sum squared resid	0.036632	Schwarz criterion		-3.768055
Log likelihood	96.20121	Hannan-Quinn criter.		-3.919142
Durbin-Watson stat	2.261737			

Wald Test:  
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	NA	(2, 38)	0.07396
Chi-square	NA	2	0.08676

Null Hypothesis: C(4)=C(5)=0

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	0.189356	0.080960
C(5)	NA	0.085125

Restrictions are linear in coefficients.

## D. EQUATION (5-D)

Vector Error Correction Estimates

Date: 01/15/16 Time: 09:28

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

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

Cointegrating Eq:	CointEq1	
LNFINANCING(-1)	1.000000	
LNGFCF(-1)	-4.111951 (0.07022) [-58.5543]	
C	37.66550	
Error Correction:	D(LNFINANCIN G)	D(LNGFCF)
CointEq1	-0.331247 (0.09790) [-3.38361]	0.090024 (0.05515) [ 1.63229]
D(LNFINANCING(-1))	0.334431 (0.14500) [ 2.30643]	0.164650 (0.08169) [ 2.01560]
D(LNFINANCING(-2))	0.270705 (0.15393) [ 1.75865]	0.113467 (0.08672) [ 1.30847]
D(LNGFCF(-1))	-1.159115 (0.33494) [-3.46066]	-0.147207 (0.18869) [-0.78014]
D(LNGFCF(-2))	-0.838528 (0.29936) [-2.80108]	-0.391570 (0.16865) [-2.32181]
C	0.071358 (0.01833) [ 3.89388]	0.005781 (0.01032) [ 0.55998]
R-squared	0.357331	0.379242
Adj. R-squared	0.274938	0.299658
Sum sq. resids	0.115421	0.036632
S.E. equation	0.054401	0.030648
F-statistic	4.336894	4.765281
Log likelihood	70.37903	96.20121
Akaike AIC	-2.861290	-4.008943
Schwarz SC	-2.620402	-3.768055
Mean dependent	0.084603	0.019368
S.D. dependent	0.063888	0.036622
Determinant resid covariance (dof adj.)	1.97E-06	

Determinant resid covariance	1.48E-06
Log likelihood	174.3242
Akaike information criterion	-7.125521
Schwarz criterion	-6.563448

Dependent Variable: D(LNFINANCING)

Method: Least Squares

Date: 01/15/16 Time: 09:31

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

$$D(LNFINANCING) = C(1) * (LNFINANCING(-1) - 4.11195066952 * LNGFCF(-1) + 37.6655025334) + C(2) * D(LNFINANCING(-1)) + C(3) * D(LNFINANCING(-2)) + C(4) * D(LNGFCF(-1)) + C(5) * D(LNGFCF(-2)) + C(6)$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.331247	0.097897	-3.383611	0.0016
C(2)	0.334431	0.144999	2.306428	0.0265
C(3)	0.270705	0.153928	1.758649	0.0865
C(4)	-1.159115	0.334941	-3.460657	0.0013
C(5)	-0.838528	0.299359	-2.801076	0.0079
C(6)	0.071358	0.018326	3.893883	0.0004
R-squared	0.357331	Mean dependent var		0.084603
S.D. dependent var	0.063888	S.E. of regression		0.054401
Akaike info criterion	-2.861290	Sum squared resid		0.115421
Schwarz criterion	-2.620402	Log likelihood		70.37903
Hannan-Quinn criter.	-2.771490	F-statistic		4.336894
Durbin-Watson stat	1.984035			

Wald Test:  
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	6.734893	(2, 39)	0.0031
Chi-square	13.46979	2	0.0012

Null Hypothesis: C(4)=C(5)=0

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	-1.159115	0.334941
C(5)	-0.838528	0.299359

Restrictions are linear in coefficients.

## E. EQUATION (6-A)

Vector Error Correction Estimates

Date: 01/15/16 Time: 09:33

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

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

Cointegrating Eq:	CointEq1	
LNRGDP(-1)	1.000000	
LNDEPOSIT(-1)	-0.179486 (0.00540) [-33.2378]	
C	-11.29469	
Error Correction:	D(LNRGDP)	D(LNDEPOSIT)
CointEq1	-0.514751 (0.16010) [-3.21516]	1.219148 (0.37859) [ 3.22023]
D(LNRGDP(-1))	-0.224118 (0.16885) [-1.32731]	-0.242034 (0.39928) [-0.60617]
D(LNRGDP(-2))	-0.261980 (0.14490) [-1.80802]	-0.258880 (0.34264) [-0.75554]
D(LNDEPOSIT(-1))	0.022281 (0.05668) [ 0.39311]	0.039327 (0.13403) [ 0.29343]
D(LNDEPOSIT(-2))	-0.036667 (0.05646) [-0.64944]	0.216253 (0.13351) [ 1.61979]
C	0.021350 (0.00906) [ 2.35689]	0.069637 (0.02142) [ 3.25098]
R-squared	0.450616	0.315018
Adj. R-squared	0.380183	0.227200
Sum sq. resids	0.025132	0.140531
S.E. equation	0.025385	0.060028
F-statistic	6.397731	3.587164
Log likelihood	104.6793	65.95011
Akaike AIC	-4.385747	-2.664449
Schwarz SC	-4.144859	-2.423561
Mean dependent	0.013200	0.085507
S.D. dependent	0.032244	0.068284
Determinant resid covariance (dof adj.)	2.31E-06	
Determinant resid covariance	1.73E-06	

Log likelihood	170.7719
Akaike information criterion	-6.967639
Schwarz criterion	-6.405566

Dependent Variable: D(LNRGDP)

Method: Least Squares

Date: 01/15/16 Time: 09:34

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

$$D(LNRGDP) = C(1) * (LNRGDP(-1) - 0.179485659769 * LNDEPOSIT(-1) - 11.2946932175) + C(2) * D(LNRGDP(-1)) + C(3) * D(LNRGDP(-2)) + C(4) * D(LNDEPOSIT(-1)) + C(5) * D(LNDEPOSIT(-2)) + C(6)$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.514751	0.160101	-3.215161	0.0006
C(2)	-0.224118	0.168851	-1.327308	0.0987
C(3)	-0.261980	0.144899	-1.808019	0.0783
C(4)	0.022281	0.056678	0.393110	0.6964
C(5)	-0.036667	0.056458	-0.649445	0.5199
C(6)	0.021350	0.009058	2.356894	0.0235
S.E. of regression	0.025385	Akaike info criterion		-4.385747
Sum squared resid	0.025132	Schwarz criterion		-4.144859
Log likelihood	104.6793	Hannan-Quinn criter.		-4.295946
Durbin-Watson stat	2.335674			

Wald Test:  
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	0.266393	(2, 39)	0.7675
Chi-square	0.532786	2	0.7661

Null Hypothesis: C(4)=C(5)=0  
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	0.022281	0.056678
C(5)	-0.036667	0.056458

Restrictions are linear in coefficients.

## F. EQUATION (6-B)

Vector Error Correction Estimates

Date: 01/15/16 Time: 09:35

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

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

Cointegrating Eq:	CointEq1	
LNDEPOSIT(-1)	1.000000	
LNRGDP(-1)	-5.571476 (0.17499) [-31.8386]	
C	62.92811	
Error Correction:	D(LNDEPOSIT)	D(LNRGDP)
CointEq1	-0.218820 (0.06795) [-3.22023]	0.092390 (0.02874) [ 3.21516]
D(LNDEPOSIT(-1))	0.039327 (0.13403) [ 0.29343]	0.022281 (0.05668) [ 0.39311]
D(LNDEPOSIT(-2))	0.216253 (0.13351) [ 1.61979]	-0.036667 (0.05646) [-0.64944]
D(LNRGDP(-1))	-0.242034 (0.39928) [-0.60617]	-0.224118 (0.16885) [-1.32731]
D(LNRGDP(-2))	-0.258880 (0.34264) [-0.75554]	-0.261980 (0.14490) [-1.80802]
C	0.069637 (0.02142) [ 3.25098]	0.021350 (0.00906) [ 2.35689]
R-squared	0.315018	0.450616
Adj. R-squared	0.227200	0.380183
Sum sq. resids	0.140531	0.025132
S.E. equation	0.060028	0.025385
F-statistic	3.587164	6.397731
Log likelihood	65.95011	104.6793
Akaike AIC	-2.664449	-4.385747
Schwarz SC	-2.423561	-4.144859
Mean dependent	0.085507	0.013200
S.D. dependent	0.068284	0.032244
Determinant resid covariance (dof adj.)	2.31E-06	
Determinant resid covariance	1.73E-06	



Log likelihood	170.7719
Akaike information criterion	-6.967639
Schwarz criterion	-6.405566

Dependent Variable: D(LNDEPOSIT)

Method: Least Squares

Date: 01/15/16 Time: 09:35

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

$$D(LNDEPOSIT) = C(1) * (LNDEPOSIT(-1) - 5.57147574511 * LNRGDP(-1) + 62.9281093098) + C(2) * D(LNDEPOSIT(-1)) + C(3) * D(LNDEPOSIT(-2)) + C(4) * D(LNRGDP(-1)) + C(5) * D(LNRGDP(-2)) + C(6)$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.218820	0.067952	-3.220229	0.0006
C(2)	0.039327	0.134027	0.293425	0.0987
C(3)	0.216253	0.133507	1.619790	0.1133
C(4)	-0.242034	0.399282	-0.606173	0.5479
C(5)	-0.258880	0.342642	-0.755541	0.4545
C(6)	0.069637	0.021420	3.250978	0.0024
S.E. of regression	0.060028	Akaike info criterion		-2.664449
Sum squared resid	0.140531	Schwarz criterion		-2.423561
Log likelihood	65.95011	Hannan-Quinn criter.		-2.574649
Durbin-Watson stat	2.020763			

Wald Test:  
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	-0.74685	(2, 39)	0.3944
Chi-square	-.049348	2	0.0789

Null Hypothesis: C(4)=C(5)=0

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	-0.242034	0.399282
C(5)	-0.454863	0.342642

Restrictions are linear in coefficients.

## G. EQUATION (6-C)

Vector Error Correction Estimates

Date: 01/15/16 Time: 09:38

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

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

Cointegrating Eq:	CointEq1	
LNGFCF(-1)	1.000000	
LNDEPOSIT(-1)	-0.229693 (0.00543) [-42.2793]	
C	-9.301927	
Error Correction:	D(LNGFCF)	D(LNDEPOSIT)
CointEq1	-0.740179 (0.25605) [-2.89074]	0.345064 (0.54428) [ 0.63398]
D(LNGFCF(-1))	0.296117 (0.20079) [ 1.47477]	0.584573 (0.42681) [ 1.36964]
D(LNGFCF(-2))	-0.223353 (0.16806) [-1.32898]	0.013239 (0.35725) [ 0.03706]
D(LNDEPOSIT(-1))	-0.075197 (0.07509) [-1.00142]	-0.076211 (0.15962) [-0.47746]
D(LNDEPOSIT(-2))	0.102675 (0.06772) [ 1.51611]	0.333183 (0.14396) [ 2.31447]
C	0.015206 (0.00932) [ 1.63207]	0.050405 (0.01980) [ 2.54513]
R-squared	0.416894	0.242143
Adj. R-squared	0.342137	0.144982
Sum sq. resids	0.034410	0.155482
S.E. equation	0.029704	0.063140
F-statistic	5.576648	2.492177
Log likelihood	97.60911	63.67530
Akaike AIC	-4.071516	-2.563347
Schwarz SC	-3.830628	-2.322458
Mean dependent	0.019368	0.085507
S.D. dependent	0.036622	0.068284
Determinant resid covariance (dof adj.)	2.95E-06	
Determinant resid covariance	2.22E-06	

Log likelihood	165.2227
Akaike information criterion	-6.721009
Schwarz criterion	-6.158937

Dependent Variable: D(LNGFCF)

Method: Least Squares

Date: 01/15/16 Time: 09:39

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

$$D(LNGFCF) = C(1) * (LNGFCF(-1) - 0.229693271489 * LNDEPOSIT(-1) - 9.30192671201) + C(2) * D(LNGFCF(-1)) + C(3) * D(LNGFCF(-2)) + C(4) * D(LNDEPOSIT(-1)) + C(5) * D(LNDEPOSIT(-2)) + C(6)$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.740179	0.256052	-2.890739	0.0012
C(2)	0.296117	0.200788	1.474771	NA
C(3)	-0.223353	0.168064	-1.328980	0.1916
C(4)	-0.075197	0.075090	-1.001418	0.3228
C(5)	0.102675	0.067723	1.516106	0.1376
C(6)	0.015206	0.009317	1.632071	0.1107
S.E. of regression	0.029704	Akaike info criterion		-4.071516
Sum squared resid	0.034410	Schwarz criterion		-3.830628
Log likelihood	97.60911	Hannan-Quinn criter.		-3.981715
Durbin-Watson stat	2.337856			

Wald Test:  
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	1.737929	(2, 39)	0.1892
Chi-square	3.475858	2	0.1759

Null Hypothesis: C(4)=C(5)=0

Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	-0.075197	0.075090
C(5)	0.102675	0.067723

Restrictions are linear in coefficients.

## H. EQUATION (6-D)

Vector Error Correction Estimates

Date: 01/15/16 Time: 09:40

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

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

Cointegrating Eq:	CointEq1	
LNDEPOSIT(-1)	1.000000	
LNGFCF(-1)	-4.353632	
	(0.10378)	
	[-41.9495]	
C	40.49717	
Error Correction:	D(LNDEPOSIT)	D(LNGFCF)
CointEq1	-0.079259	0.170014
	(0.12502)	(0.05881)
	[-0.63398]	[ 2.89074]
D(LNDEPOSIT(-1))	-0.076211	-0.075197
	(0.15962)	(0.07509)
	[-0.47746]	[-1.00142]
D(LNDEPOSIT(-2))	0.333183	0.102675
	(0.14396)	(0.06772)
	[ 2.31447]	[ 1.51611]
D(LNGFCF(-1))	0.584573	0.296117
	(0.42681)	(0.20079)
	[ 1.36964]	[ 1.47477]
D(LNGFCF(-2))	0.013239	-0.223353
	(0.35725)	(0.16806)
	[ 0.03706]	[-1.32898]
C	0.050405	0.015206
	(0.01980)	(0.00932)
	[ 2.54513]	[ 1.63207]
R-squared	0.242143	0.416894
Adj. R-squared	0.144982	0.342137
Sum sq. resids	0.155482	0.034410
S.E. equation	0.063140	0.029704
F-statistic	2.492177	5.576648
Log likelihood	63.67530	97.60911
Akaike AIC	-2.563347	-4.071516
Schwarz SC	-2.322458	-3.830628
Mean dependent	0.085507	0.019368
S.D. dependent	0.068284	0.036622
Determinant resid covariance (dof adj.)		2.95E-06
Determinant resid covariance		2.22E-06

Log likelihood	165.2227
Akaike information criterion	-6.721009
Schwarz criterion	-6.158937

Dependent Variable: D(LNDEPOSIT)

Method: Least Squares

Date: 01/15/16 Time: 09:40

Sample (adjusted): 2003Q4 2014Q4

Included observations: 45 after adjustments

$$D(LNDEPOSIT) = C(1) * LNDEPOSIT(-1) - 4.3536321004 * LNGFCF(-1) + 40.497166729 + C(2) * D(LNDEPOSIT(-1)) + C(3) * D(LNDEPOSIT(-2)) + C(4) * D(LNGFCF(-1)) + C(5) * D(LNGFCF(-2)) + C(6)$$

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.079259	0.125018	-0.633981	0.5906
C(2)	-0.076211	0.159617	-0.477461	0.5634
C(3)	0.333183	0.143957	2.314468	0.0260
C(4)	0.584573	0.426809	1.369638	0.1786
C(5)	0.013239	0.357247	0.037058	0.9706
C(6)	0.050405	0.019804	2.545129	0.0150
S.E. of regression	0.063140	Akaike info criterion		-2.563347
Sum squared resid	0.155482	Schwarz criterion		-2.322458
Log likelihood	63.67530	Hannan-Quinn criter.		-2.473546
Durbin-Watson stat	1.986732			

Wald Test:  
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	0.47658	(2, 39)	0.4355
Chi-square	0.37648	2	0.6848

Null Hypothesis: C(4)=C(5)=0  
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	0.584573	0.426809
C(5)	0.347643	0.357247

Restrictions are linear in coefficients.

Pairwise Granger Causality Tests

Date: 01/15/16 Time: 23:24

Sample: 2003Q1 2014Q4

Lags: 3

Null Hypothesis:	Obs	F-Statistic	Prob.
LNGFCF does not Granger Cause LNFINANCING	45	3.17627	0.0349
LNFINANCING does not Granger Cause LNGFCF		2.69686	0.0594
LNRGDP does not Granger Cause LNFINANCING	45	5.17625	0.0043
LNFINANCING does not Granger Cause LNRGDP		21.1005	3.E-08
LNGFCF does not Granger Cause LNDEPOSIT	45	2.56846	0.0686
LNDEPOSIT does not Granger Cause LNGFCF		3.80616	0.0176
LNRGDP does not Granger Cause LNDEPOSIT	45	3.32906	0.0120
LNDEPOSIT does not Granger Cause LNRGDP		4.16968	0.0120

