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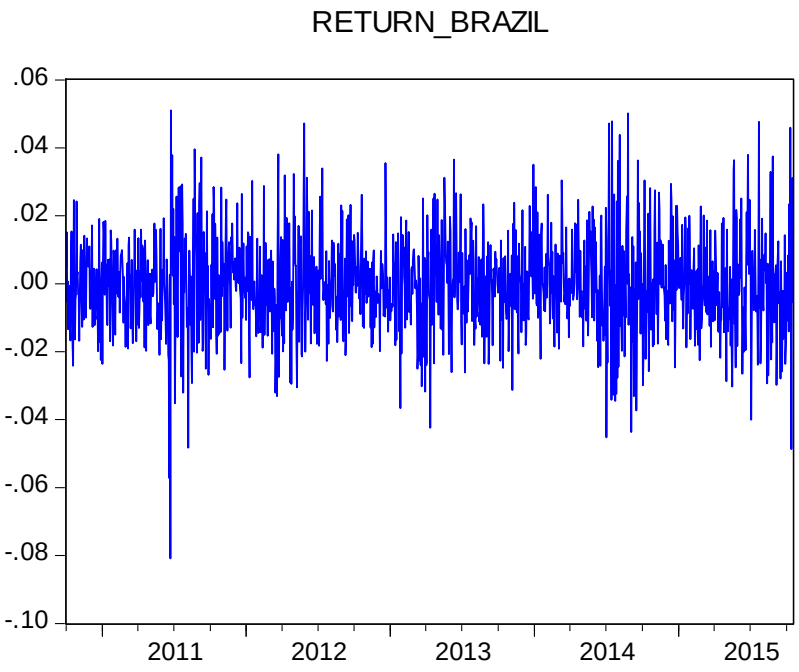
LAMPIRAN 1 :

HASIL PENGOLAHAN DATA

1. BRAZIL



Null Hypothesis: D(RETURN_BRAZIL) has a unit root
Exogenous: Constant
Lag Length: 14 (Automatic based on SIC, MAXLAG=22)

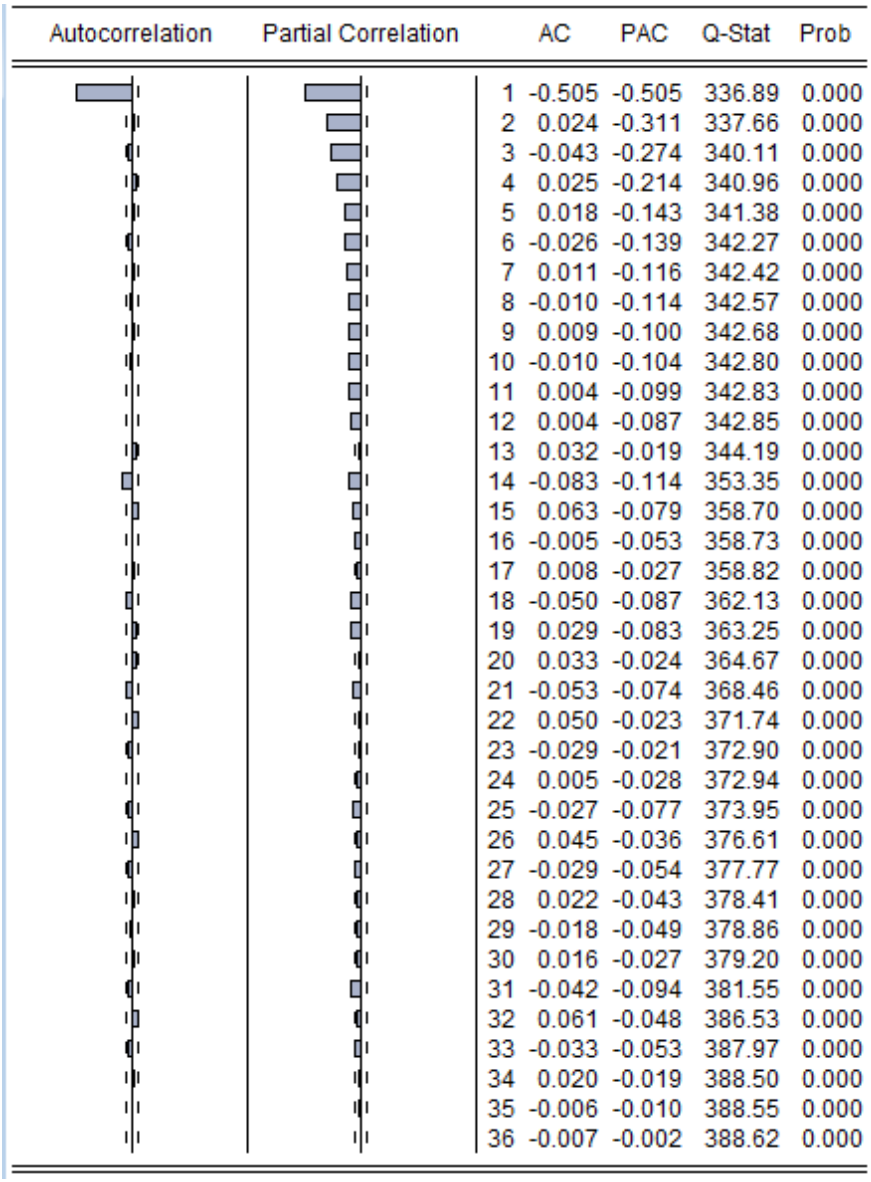
		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-16.64515	0.0000
Test critical values:	1% level	-3.435165	
	5% level	-2.863554	
	10% level	-2.567892	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RETURN_BRAZIL,2)
Method: Least Squares
Date: 04/03/16 Time: 14:23
Sample (adjusted): 10/25/2010 10/19/2015
Included observations: 1301 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RETURN_BRAZIL(-1))	-8.872619	0.533045	-16.64515	0.0000
D(RETURN_BRAZIL(-1),2)	6.929640	0.521772	13.28098	0.0000
D(RETURN_BRAZIL(-2),2)	6.059943	0.502029	12.07089	0.0000
D(RETURN_BRAZIL(-3),2)	5.219775	0.474875	10.99190	0.0000
D(RETURN_BRAZIL(-4),2)	4.455677	0.441689	10.08781	0.0000
D(RETURN_BRAZIL(-5),2)	3.768154	0.404157	9.323482	0.0000
D(RETURN_BRAZIL(-6),2)	3.119827	0.363425	8.584525	0.0000
D(RETURN_BRAZIL(-7),2)	2.528692	0.320217	7.896798	0.0000
D(RETURN_BRAZIL(-8),2)	1.987297	0.275584	7.211231	0.0000
D(RETURN_BRAZIL(-9),2)	1.507322	0.230239	6.546775	0.0000
D(RETURN_BRAZIL(-10),2)	1.087843	0.185159	5.875186	0.0000
D(RETURN_BRAZIL(-11),2)	0.737280	0.140907	5.232384	0.0000
D(RETURN_BRAZIL(-12),2)	0.468720	0.098855	4.741474	0.0000
D(RETURN_BRAZIL(-13),2)	0.273665	0.060989	4.487129	0.0000
D(RETURN_BRAZIL(-14),2)	0.081505	0.028097	2.900892	0.0038
C	5.17E-05	0.000417	0.124104	0.9013

R-squared	0.826668	Mean dependent var	-6.36E-06
Adjusted R-squared	0.824645	S.D. dependent var	0.035896
S.E. of regression	0.015032	Akaike info criterion	-5.545092
Sum squared resid	0.290347	Schwarz criterion	-5.481499
Log likelihood	3623.082	Hannan-Quinn criter.	-5.521233
F-statistic	408.5688	Durbin-Watson stat	2.007205
Prob(F-statistic)	0.000000		



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	-0.505	-0.505	336.89	0.000
		2	0.024	-0.311	337.66	0.000
		3	-0.043	-0.274	340.11	0.000
		4	0.025	-0.214	340.96	0.000
		5	0.018	-0.143	341.38	0.000
		6	-0.026	-0.139	342.27	0.000
		7	0.011	-0.116	342.42	0.000
		8	-0.010	-0.114	342.57	0.000
		9	0.009	-0.100	342.68	0.000
		10	-0.010	-0.104	342.80	0.000
		11	0.004	-0.099	342.83	0.000
		12	0.004	-0.087	342.85	0.000
		13	0.032	-0.019	344.19	0.000
		14	-0.083	-0.114	353.35	0.000
		15	0.063	-0.079	358.70	0.000
		16	-0.005	-0.053	358.73	0.000
		17	0.008	-0.027	358.82	0.000
		18	-0.050	-0.087	362.13	0.000
		19	0.029	-0.083	363.25	0.000
		20	0.033	-0.024	364.67	0.000
		21	-0.053	-0.074	368.46	0.000
		22	0.050	-0.023	371.74	0.000
		23	-0.029	-0.021	372.90	0.000
		24	0.005	-0.028	372.94	0.000
		25	-0.027	-0.077	373.95	0.000
		26	0.045	-0.036	376.61	0.000
		27	-0.029	-0.054	377.77	0.000
		28	0.022	-0.043	378.41	0.000
		29	-0.018	-0.049	378.86	0.000
		30	0.016	-0.027	379.20	0.000
		31	-0.042	-0.094	381.55	0.000
		32	0.061	-0.048	386.53	0.000
		33	-0.033	-0.053	387.97	0.000
		34	0.020	-0.019	388.50	0.000
		35	-0.006	-0.010	388.55	0.000
		36	-0.007	-0.002	388.62	0.000

Dependent Variable: D(RETURN_BRAZIL)
Method: Least Squares
Date: 04/03/16 Time: 14:28
Sample (adjusted): 10/04/2010 10/19/2015
Included observations: 1316 after adjustments
Convergence achieved after 6 iterations
MA Backcast: 10/01/2010

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.58E-07	1.90E-06	-0.082794	0.9340
MA(1)	-0.996885	0.005273	-189.0559	0.0000

R-squared	0.505190	Mean dependent var	-7.93E-06
Adjusted R-squared	0.504813	S.D. dependent var	0.020664
S.E. of regression	0.014541	Akaike info criterion	-5.622190
Sum squared resid	0.277828	Schwarz criterion	-5.614314
Log likelihood	3701.401	Hannan-Quinn criter.	-5.619237
F-statistic	1341.562	Durbin-Watson stat	2.026896
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

Heteroskedasticity Test: ARCH

F-statistic	12.71464	Prob. F(1,1313)	0.0004
Obs*R-squared	12.61188	Prob. Chi-Square(1)	0.0004

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/03/16 Time: 14:32
Sample (adjusted): 10/05/2010 10/19/2015
Included observations: 1315 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000190	1.20E-05	15.93196	0.0000
RESID^2(-1)	0.097941	0.027467	3.565760	0.0004

R-squared	0.009591	Mean dependent var	0.000211
Adjusted R-squared	0.008836	S.D. dependent var	0.000381
S.E. of regression	0.000379	Akaike info criterion	-12.91731
Sum squared resid	0.000188	Schwarz criterion	-12.90942
Log likelihood	8495.128	Hannan-Quinn criter.	-12.91435
F-statistic	12.71464	Durbin-Watson stat	2.039936
Prob(F-statistic)	0.000376		

ARCH

Dependent Variable: D(RETURN_BRAZIL)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 14:34
Sample (adjusted): 10/04/2010 10/19/2015
Included observations: 1316 after adjustments
Convergence achieved after 15 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-7.33E-07	2.05E-06	-0.357535	0.7207

MA(1)	-0.997223	0.004924	-202.5428	0.0000

Variance Equation

C	0.000200	7.26E-06	27.54675	0.0000
RESID(-1)^2	0.058734	0.024201	2.426952	0.0152

R-squared	0.505269	Mean dependent var	-7.93E-06
Adjusted R-squared	0.504137	S.D. dependent var	0.020664
S.E. of regression	0.014551	Akaike info criterion	-5.624573
Sum squared resid	0.277783	Schwarz criterion	-5.608821
Log likelihood	3704.969	Hannan-Quinn criter.	-5.618667
F-statistic	446.6481	Durbin-Watson stat	2.026535
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

GARCH

Dependent Variable: D(RETURN_BRAZIL)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 14:35
Sample (adjusted): 10/04/2010 10/19/2015
Included observations: 1316 after adjustments
Convergence achieved after 15 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	6.30E-07	1.39E-06	0.453199	0.6504
MA(1)	-0.997469	2.03E-05	-49237.39	0.0000

Variance Equation

C	4.86E-06	1.78E-06	2.722758	0.0065
RESID(-1)^2	0.064666	0.009882	6.543669	0.0000
GARCH(-1)	0.914233	0.014403	63.47648	0.0000

R-squared	0.505307	Mean dependent var	-7.93E-06
Adjusted R-squared	0.503798	S.D. dependent var	0.020664
S.E. of regression	0.014556	Akaike info criterion	-5.695773
Sum squared resid	0.277762	Schwarz criterion	-5.676083
Log likelihood	3752.819	Hannan-Quinn criter.	-5.688390
F-statistic	334.7819	Durbin-Watson stat	2.026192
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

ARCH - M

Dependent Variable: D(RETURN_BRAZIL)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 14:36
Sample (adjusted): 10/04/2010 10/19/2015
Included observations: 1316 after adjustments
Convergence achieved after 13 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(4) + C(5)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
@SQRT(GARCH)	0.007433	0.003774	1.969649	0.0489
C	-0.000150	7.61E-05	-1.964570	0.0495
MA(1)	-0.997456	0.002755	-362.0025	0.0000
Variance Equation				
C	0.000200	7.26E-06	27.49176	0.0000
RESID(-1)^2	0.049617	0.021578	2.299422	0.0215

R-squared	0.505515	Mean dependent var	-7.93E-06
Adjusted R-squared	0.504006	S.D. dependent var	0.020664
S.E. of regression	0.014553	Akaike info criterion	-5.623553
Sum squared resid	0.277645	Schwarz criterion	-5.603863
Log likelihood	3705.298	Hannan-Quinn criter.	-5.616170
F-statistic	335.0610	Durbin-Watson stat	2.026939
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

TGARCH

Dependent Variable: D(RETURN_BRAZIL)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 14:37
Sample (adjusted): 10/04/2010 10/19/2015
Included observations: 1316 after adjustments
Convergence achieved after 8 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*RESID(-1)^2*(RESID(-1)<0) +
C(6)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	1.05E-07	1.36E-06	0.077479	0.9382
MA(1)	-0.997357	0.000162	-6161.079	0.0000

Variance Equation

C	4.52E-06	1.58E-06	2.869682	0.0041
RESID(-1)^2	0.008344	0.013438	2.620926	0.0046
RESID(-1)^2*(RESID(-1)<0)	0.101489	0.018011	5.634749	0.0000
GARCH(-1)	0.924844	0.015820	58.46175	0.0000

R-squared	0.505355	Mean dependent var	-7.93E-06
Adjusted R-squared	0.503467	S.D. dependent var	0.020664
S.E. of regression	0.014561	Akaike info criterion	-5.719534
Sum squared resid	0.277735	Schwarz criterion	-5.695906
Log likelihood	3769.453	Hannan-Quinn criter.	-5.710674
F-statistic	267.6731	Durbin-Watson stat	2.026618
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

EGARCH

Dependent Variable: D(RETURN_BRAZIL)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 14:37
Sample (adjusted): 10/04/2010 10/19/2015
Included observations: 1316 after adjustments
Convergence achieved after 15 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

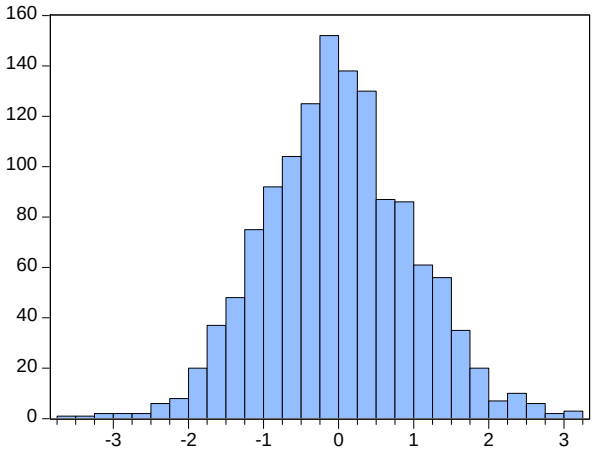
Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-1.48E-06	2.42E-06	-0.611346	0.5410
MA(1)	-0.997456	0.004284	-232.8123	0.0000

Variance Equation

C(3)	-7.443564	0.831382	-8.953241	0.0000
C(4)	-0.111173	0.030131	-3.689610	0.0002
C(5)	0.061119	0.022249	2.747019	0.0060
C(6)	0.115776	0.096129	1.204384	0.2284

R-squared	0.505122	Mean dependent var	-7.93E-06
Adjusted R-squared	0.503234	S.D. dependent var	0.020664
S.E. of regression	0.014564	Akaike info criterion	-5.588965
Sum squared resid	0.277865	Schwarz criterion	-5.565337
Log likelihood	3683.539	Hannan-Quinn criter.	-5.580105
F-statistic	267.4239	Durbin-Watson stat	2.025463
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00



Series: Standardized Residuals
Sample 10/04/2010 10/19/2015
Observations 1316

Mean	-0.011407
Median	-0.016764
Maximum	3.071899
Minimum	-3.702134
Std. Dev.	0.983353
Skewness	0.057786
Kurtosis	3.229238
Jarque-Bera	3.613881
Probability	0.164156

Heteroskedasticity Test: ARCH

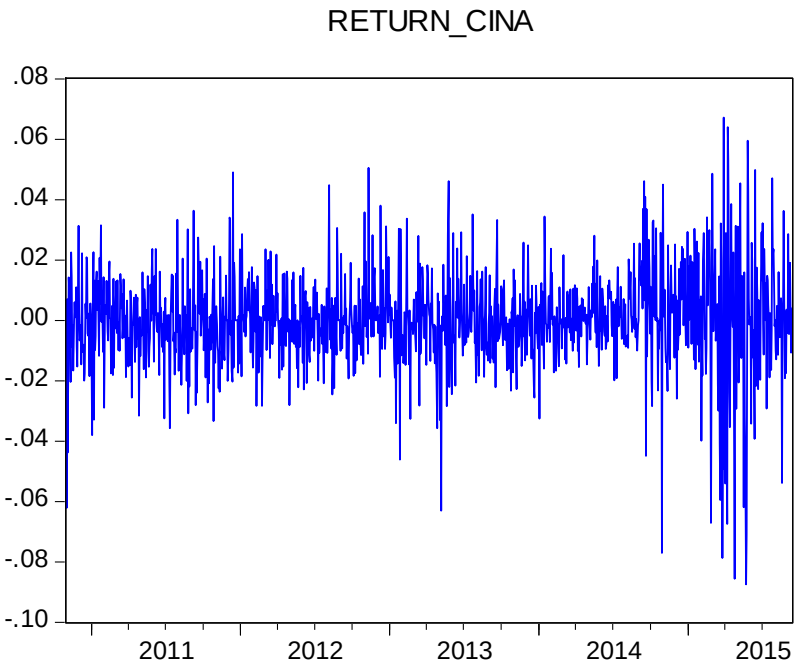
F-statistic	5.048851	Prob. F(1,1313)	0.2048
Obs*R-squared	5.037172	Prob. Chi-Square(1)	0.2048

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 04/03/16 Time: 14:50
Sample (adjusted): 10/05/2010 10/19/2015
Included observations: 1315 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.025336	0.047826	21.43867	0.0000
WGT_RESID^2(-1)	-0.061885	0.027542	-2.246965	0.0248

R-squared	0.003831	Mean dependent var	0.965489
Adjusted R-squared	0.003072	S.D. dependent var	1.442711
S.E. of regression	1.440494	Akaike info criterion	3.569369
Sum squared resid	2724.504	Schwarz criterion	3.577249
Log likelihood	-2344.860	Hannan-Quinn criter.	3.572324
F-statistic	5.048851	Durbin-Watson stat	1.988811
Prob(F-statistic)	0.024808		

2. CINA



Null Hypothesis: D(RETURN_CINA) has a unit root
Exogenous: Constant
Lag Length: 15 (Automatic based on SIC, MAXLAG=22)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-15.92745	0.0000
Test critical values:	1% level	-3.435352	
	5% level	-2.863637	
	10% level	-2.567936	

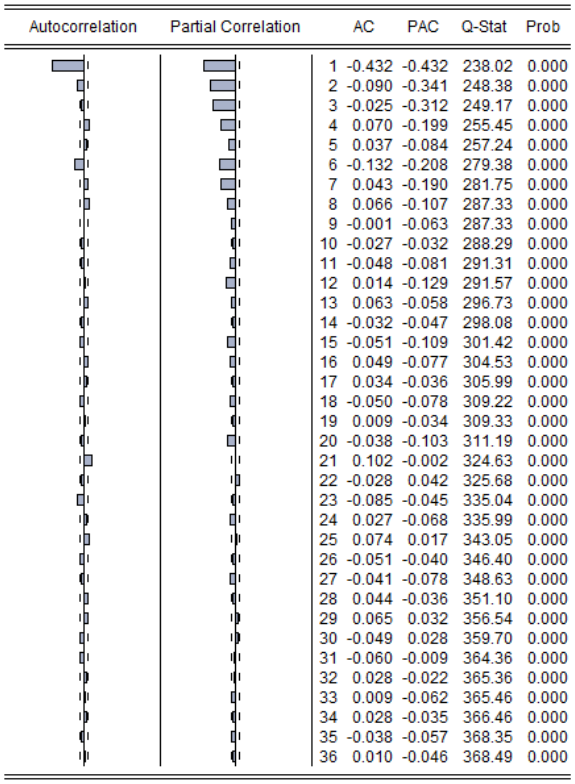
*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RETURN_CINA,2)
Method: Least Squares
Date: 04/06/16 Time: 03:12
Sample (adjusted): 11/24/2010 9/14/2015
Included observations: 1254 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RETURN_CINA(-1))	-9.240593	0.580168	-15.92745	0.0000
D(RETURN_CINA(-1),2)	7.353623	0.568881	12.92647	0.0000
D(RETURN_CINA(-2),2)	6.463850	0.549657	11.75980	0.0000

D(RETURN_CINA(-3),2)	5.600652	0.523200	10.70462	0.0000
D(RETURN_CINA(-4),2)	4.841930	0.490458	9.872266	0.0000
D(RETURN_CINA(-5),2)	4.150326	0.453770	9.146312	0.0000
D(RETURN_CINA(-6),2)	3.428422	0.414068	8.279847	0.0000
D(RETURN_CINA(-7),2)	2.821124	0.370889	7.606385	0.0000
D(RETURN_CINA(-8),2)	2.336865	0.325172	7.186560	0.0000
D(RETURN_CINA(-9),2)	1.900970	0.277797	6.843024	0.0000
D(RETURN_CINA(-10),2)	1.492417	0.230340	6.479187	0.0000
D(RETURN_CINA(-11),2)	1.088777	0.184834	5.890564	0.0000
D(RETURN_CINA(-12),2)	0.722017	0.140341	5.144732	0.0000
D(RETURN_CINA(-13),2)	0.462303	0.097784	4.727820	0.0000
D(RETURN_CINA(-14),2)	0.252388	0.059901	4.213422	0.0000
D(RETURN_CINA(-15),2)	0.076316	0.028143	2.711698	0.0068
C	2.90E-05	0.000453	0.064036	0.9490

R-squared	0.812773	Mean dependent var	1.11E-05
Adjusted R-squared	0.810352	S.D. dependent var	0.036795
S.E. of regression	0.016024	Akaike info criterion	-5.416034
Sum squared resid	0.317610	Schwarz criterion	-5.346433
Log likelihood	3412.853	Hannan-Quinn criter.	-5.389873
F-statistic	335.6226	Durbin-Watson stat	2.005682
Prob(F-statistic)	0.000000		



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	-0.432	-0.432	238.02	0.000
		2	-0.090	-0.341	248.38	0.000
		3	-0.025	-0.312	249.17	0.000
		4	0.070	-0.199	255.45	0.000
		5	0.037	-0.084	257.24	0.000
		6	-0.132	-0.208	279.38	0.000
		7	0.043	-0.190	281.75	0.000
		8	0.066	-0.107	287.33	0.000
		9	-0.001	-0.063	287.33	0.000
		10	-0.027	-0.032	288.29	0.000
		11	-0.048	-0.081	291.31	0.000
		12	0.014	-0.129	291.57	0.000
		13	0.063	-0.058	296.73	0.000
		14	-0.032	-0.047	298.08	0.000
		15	-0.051	-0.109	301.42	0.000
		16	0.049	-0.077	304.53	0.000
		17	0.034	-0.036	305.99	0.000
		18	-0.050	-0.078	309.22	0.000
		19	0.009	-0.034	309.33	0.000
		20	-0.038	-0.103	311.19	0.000
		21	0.102	-0.002	324.63	0.000
		22	-0.028	0.042	325.68	0.000
		23	-0.085	-0.045	335.04	0.000
		24	0.027	-0.068	335.99	0.000
		25	0.074	0.017	343.05	0.000
		26	-0.051	-0.040	346.40	0.000
		27	-0.041	-0.078	348.63	0.000
		28	0.044	-0.036	351.10	0.000
		29	0.065	0.032	356.54	0.000
		30	-0.049	0.028	359.70	0.000
		31	-0.060	-0.009	364.36	0.000
		32	0.028	-0.022	365.36	0.000
		33	0.009	-0.062	365.46	0.000
		34	0.028	-0.035	366.46	0.000
		35	-0.038	-0.057	368.35	0.000
		36	0.010	-0.046	368.49	0.000

Dependent Variable: D(RETURN_CINA)
Method: Least Squares
Date: 04/06/16 Time: 03:14

Sample (adjusted): 11/02/2010 9/14/2015
Included observations: 1270 after adjustments
Convergence achieved after 7 iterations
MA Backcast: 11/01/2010

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.22E-06	1.88E-06	1.719293	0.0858
MA(1)	-0.997357	0.003828	-260.5312	0.0000

R-squared	0.468308	Mean dependent var	9.07E-07
Adjusted R-squared	0.467888	S.D. dependent var	0.021938
S.E. of regression	0.016003	Akaike info criterion	-5.430497
Sum squared resid	0.324733	Schwarz criterion	-5.422392
Log likelihood	3450.366	Hannan-Quinn criter.	-5.427453
F-statistic	1116.838	Durbin-Watson stat	1.872644
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

Heteroskedasticity Test: ARCH

F-statistic	88.85860	Prob. F(1,1267)	0.0000
Obs*R-squared	83.16617	Prob. Chi-Square(1)	0.0000

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/06/16 Time: 03:14
Sample (adjusted): 11/03/2010 9/14/2015
Included observations: 1269 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000188	1.87E-05	10.04912	0.0000
RESID^2(-1)	0.253192	0.026860	9.426484	0.0000

R-squared	0.065537	Mean dependent var	0.000253
Adjusted R-squared	0.064799	S.D. dependent var	0.000642
S.E. of regression	0.000621	Akaike info criterion	-11.93010
Sum squared resid	0.000488	Schwarz criterion	-11.92199
Log likelihood	7571.646	Hannan-Quinn criter.	-11.92705
F-statistic	88.85860	Durbin-Watson stat	2.094103
Prob(F-statistic)	0.000000		

ARCH

Dependent Variable: D(RETURN_CINA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 03:15

Sample (adjusted): 11/02/2010 9/14/2015
Included observations: 1270 after adjustments
Convergence achieved after 14 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	3.74E-06	1.69E-06	2.212715	0.0269
MA(1)	-0.997144	0.002945	-338.5997	0.0000
Variance Equation				
C	0.000192	6.25E-06	30.73748	0.0000
RESID(-1)^2	0.226188	0.026278	8.607542	0.0000

R-squared	0.468063	Mean dependent var	9.07E-07
Adjusted R-squared	0.466803	S.D. dependent var	0.021938
S.E. of regression	0.016019	Akaike info criterion	-5.513920
Sum squared resid	0.324882	Schwarz criterion	-5.497710
Log likelihood	3505.339	Hannan-Quinn criter.	-5.507831
F-statistic	371.3274	Durbin-Watson stat	1.872184
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

GARCH

Dependent Variable: D(RETURN_CINA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 03:16
Sample (adjusted): 11/02/2010 9/14/2015
Included observations: 1270 after adjustments
Convergence achieved after 17 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	3.39E-06	1.65E-06	2.050702	0.0403
MA(1)	-0.997361	0.003135	-318.1448	0.0000
Variance Equation				
C	4.95E-06	1.15E-06	4.301460	0.0000
RESID(-1)^2	0.061577	0.008561	7.193025	0.0000
GARCH(-1)	0.915916	0.009926	92.27004	0.0000

R-squared	0.468256	Mean dependent var	9.07E-07
Adjusted R-squared	0.466574	S.D. dependent var	0.021938
S.E. of regression	0.016023	Akaike info criterion	-5.635897

Sum squared resid	0.324765	Schwarz criterion	-5.615634
Log likelihood	3583.794	Hannan-Quinn criter.	-5.628285
F-statistic	278.4906	Durbin-Watson stat	1.872452
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

ARCH-M

Dependent Variable: D(RETURN_CINA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 03:17
Sample (adjusted): 11/02/2010 9/14/2015
Included observations: 1270 after adjustments
Convergence achieved after 22 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(4) + C(5)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
@SQRT(GARCH)	-0.004000	0.001759	-2.273901	0.0230
C	8.59E-05	3.68E-05	2.334257	0.0196
MA(1)	-0.997332	0.003569	-279.4078	0.0000
Variance Equation				
C	0.000195	6.20E-06	31.38272	0.0000
RESID(-1)^2	0.217918	0.026160	8.330114	0.0000

R-squared	0.469618	Mean dependent var	9.07E-07
Adjusted R-squared	0.467941	S.D. dependent var	0.021938
S.E. of regression	0.016002	Akaike info criterion	-5.510701
Sum squared resid	0.323933	Schwarz criterion	-5.490438
Log likelihood	3504.295	Hannan-Quinn criter.	-5.503089
F-statistic	280.0183	Durbin-Watson stat	1.877376
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

TGARCH

Dependent Variable: D(RETURN_CINA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 03:19
Sample (adjusted): 11/02/2010 9/14/2015
Included observations: 1270 after adjustments
Convergence achieved after 16 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*RESID(-1)^2*(RESID(-1)<0) +

C(6)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	3.51E-06	1.71E-06	2.046207	0.0407
MA(1)	-0.997436	0.003308	-301.4876	0.0000
Variance Equation				
C	6.12E-06	1.33E-06	4.614249	0.0000
RESID(-1)^2	0.042032	0.008745	4.806164	0.0000
RESID(-1)^2*(RESID(-1)<0)	0.040101	0.012879	3.113686	0.0018
GARCH(-1)	0.909050	0.010652	85.34466	0.0000

R-squared	0.468233	Mean dependent var	9.07E-07
Adjusted R-squared	0.466129	S.D. dependent var	0.021938
S.E. of regression	0.016030	Akaike info criterion	-5.635925
Sum squared resid	0.324779	Schwarz criterion	-5.611610
Log likelihood	3584.813	Hannan-Quinn criter.	-5.626791
F-statistic	222.5960	Durbin-Watson stat	1.872232
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

EGARCH

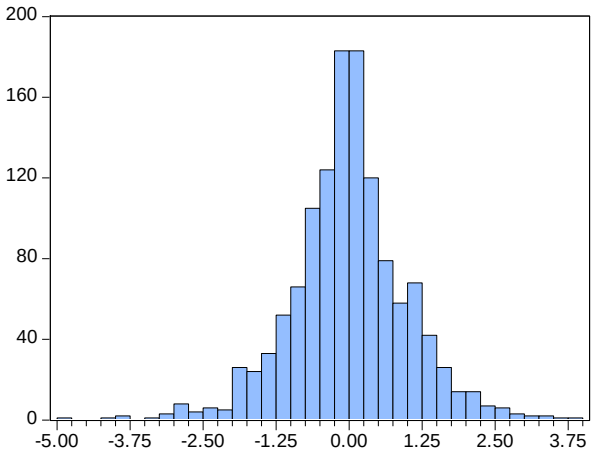
Dependent Variable: D(RETURN_CINA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 03:19
Sample (adjusted): 11/02/2010 9/14/2015
Included observations: 1270 after adjustments
Convergence achieved after 19 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	3.30E-06	1.54E-06	2.145265	0.0319
MA(1)	-0.997473	6.08E-05	-16415.86	0.0000
Variance Equation				
C(3)	-0.278698	0.043672	-6.381678	0.0000
C(4)	0.143394	0.017307	8.285474	0.0000
C(5)	-0.029027	0.009469	-3.065382	0.0022
C(6)	0.979691	0.004668	209.8953	0.0000

R-squared	0.468318	Mean dependent var	9.07E-07
Adjusted R-squared	0.466215	S.D. dependent var	0.021938
S.E. of regression	0.016028	Akaike info criterion	-5.640309
Sum squared resid	0.324727	Schwarz criterion	-5.615993

Log likelihood	3587.596	Hannan-Quinn criter.	-5.631175
F-statistic	222.6721	Durbin-Watson stat	1.872462
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00



Series: Standardized Residuals
Sample 11/02/2010 9/14/2015
Observations 1270

Mean	-0.012474
Median	-0.011556
Maximum	3.906064
Minimum	-4.896513
Std. Dev.	0.998081
Skewness	-0.102276
Kurtosis	4.678256
Jarque-Bera	151.2562
Probability	0.000000

Dependent Variable: D(RETURN_CINA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 03:23
Sample (adjusted): 11/02/2010 9/14/2015
Included observations: 1270 after adjustments
Convergence achieved after 19 iterations
Bollerslev-Wooldridge robust standard errors & covariance
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	3.30E-06	1.75E-06	1.890412	0.0587
MA(1)	-0.997473	0.003545	-281.3734	0.0000
Variance Equation				
C(3)	-0.278698	0.083854	-3.323597	0.0009
C(4)	0.143394	0.037305	3.843792	0.0001
C(5)	-0.029027	0.024028	-1.208062	0.2270
C(6)	0.979691	0.008323	117.7104	0.0000

R-squared	0.468318	Mean dependent var	9.07E-07
Adjusted R-squared	0.466215	S.D. dependent var	0.021938
S.E. of regression	0.016028	Akaike info criterion	-5.640309
Sum squared resid	0.324727	Schwarz criterion	-5.615993
Log likelihood	3587.596	Hannan-Quinn criter.	-5.631175

F-statistic	222.6721	Durbin-Watson stat	1.872462
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

Heteroskedasticity Test: ARCH

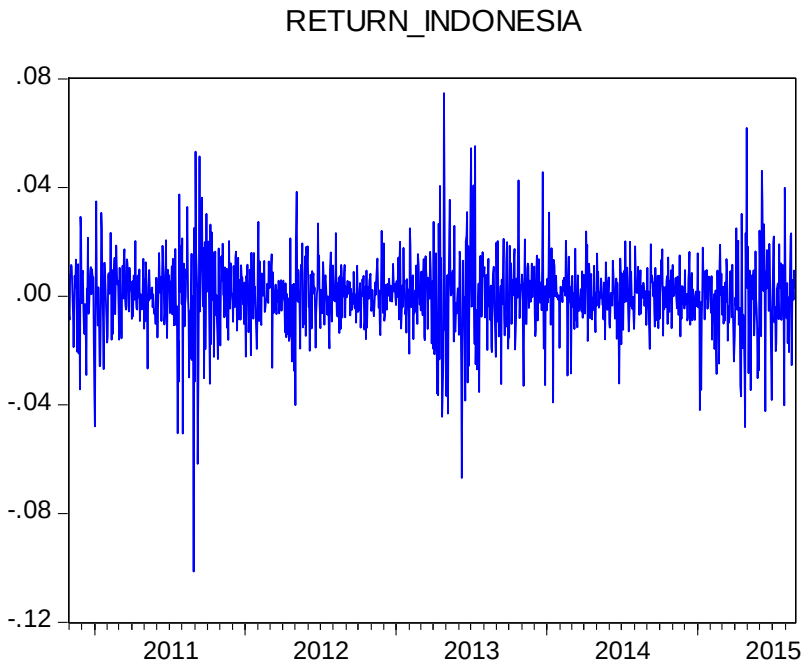
F-statistic	0.942339	Prob. F(1,1267)	0.3319
Obs*R-squared	0.943125	Prob. Chi-Square(1)	0.3315

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 04/06/16 Time: 03:25
Sample (adjusted): 11/03/2010 9/14/2015
Included observations: 1269 after adjustments
White Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.021439	0.059577	17.14484	0.0000
WGT_RESID^2(-1)	-0.027257	0.021942	-1.242240	0.2144

R-squared	0.000743	Mean dependent var	0.994283
Adjusted R-squared	-0.000045	S.D. dependent var	1.911492
S.E. of regression	1.911536	Akaike info criterion	4.135266
Sum squared resid	4629.578	Schwarz criterion	4.143376
Log likelihood	-2621.826	Hannan-Quinn criter.	4.138312
F-statistic	0.942339	Durbin-Watson stat	1.995719
Prob(F-statistic)	0.331862		

3. INDONESIA



Null Hypothesis: RETURN_INDONESIA has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic based on SIC, MAXLAG=22)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-23.90864	0.0000
Test critical values:	1% level	-3.435348	
	5% level	-2.863635	
	10% level	-2.567935	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RETURN_INDONESIA)
Method: Least Squares
Date: 04/05/16 Time: 19:55
Sample (adjusted): 11/04/2010 8/26/2015
Included observations: 1255 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RETURN_INDONESIA(-1)	-1.133251	0.047399	-23.90864	0.0000
D(RETURN_INDONESIA(-1))	0.178739	0.038525	4.639510	0.0000
D(RETURN_INDONESIA(-2))	0.148117	0.027957	5.297947	0.0000

C	0.000261	0.000394	0.663498	0.5071

R-squared	0.487628	Mean dependent var	-2.08E-06
Adjusted R-squared	0.486399	S.D. dependent var	0.019456
S.E. of regression	0.013943	Akaike info criterion	-5.704492
Sum squared resid	0.243205	Schwarz criterion	-5.688126
Log likelihood	3583.569	Hannan-Quinn criter.	-5.698340
F-statistic	396.8614	Durbin-Watson stat	2.020035
Prob(F-statistic)	0.000000		

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.049	0.049	3.0627	0.080
		2	-0.036	-0.038	4.6871	0.096
		3	-0.151	-0.148	33.558	0.000
		4	-0.078	-0.067	41.337	0.000
		5	0.005	0.000	41.363	0.000
		6	-0.055	-0.085	45.235	0.000
		7	0.061	0.046	49.875	0.000
		8	-0.005	-0.019	49.909	0.000
		9	0.056	0.042	53.923	0.000
		10	0.018	0.020	54.315	0.000
		11	-0.026	-0.020	55.144	0.000
		12	-0.009	0.003	55.239	0.000
		13	-0.044	-0.027	57.697	0.000
		14	0.002	-0.005	57.704	0.000
		15	-0.035	-0.035	59.227	0.000
		16	-0.008	-0.020	59.303	0.000
		17	-0.048	-0.061	62.297	0.000
		18	0.045	0.040	64.936	0.000
		19	-0.000	-0.025	64.936	0.000
		20	-0.018	-0.027	65.345	0.000
		21	-0.007	-0.005	65.399	0.000
		22	-0.056	-0.052	69.409	0.000
		23	0.021	0.012	69.992	0.000
		24	0.028	0.032	71.013	0.000
		25	-0.006	-0.031	71.062	0.000
		26	0.038	0.045	72.952	0.000
		27	0.033	0.041	74.375	0.000
		28	0.060	0.048	78.993	0.000
		29	-0.042	-0.023	81.233	0.000
		30	0.026	0.048	82.078	0.000
		31	-0.041	-0.027	84.206	0.000
		32	-0.048	-0.044	87.193	0.000
		33	-0.040	-0.043	89.287	0.000
		34	-0.022	-0.028	89.900	0.000
		35	0.061	0.031	94.750	0.000
		36	0.025	0.001	95.547	0.000

AR 3

Dependent Variable: RETURN_INDONESIA
Method: Least Squares
Date: 04/05/16 Time: 19:58
Sample (adjusted): 11/04/2010 8/26/2015
Included observations: 1255 after adjustments
Convergence achieved after 3 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000231	0.000342	0.674619	0.5000
AR(3)	-0.151263	0.027921	-5.417439	0.0000

R-squared	0.022887	Mean dependent var	0.000233
Adjusted R-squared	0.022107	S.D. dependent var	0.014109
S.E. of regression	0.013952	Akaike info criterion	-5.704746
Sum squared resid	0.243919	Schwarz criterion	-5.696563
Log likelihood	3581.728	Hannan-Quinn criter.	-5.701671
F-statistic	29.34865	Durbin-Watson stat	1.932325
Prob(F-statistic)	0.000000		

Inverted AR Roots	.27+.46i	.27-.46i	-.53

MA(3)

Dependent Variable: RETURN_INDONESIA
Method: Least Squares
Date: 04/05/16 Time: 19:58
Sample: 11/01/2010 8/26/2015
Included observations: 1258
Convergence achieved after 6 iterations
MA Backcast: 10/27/2010 10/29/2010

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000225	0.000326	0.690130	0.4902
MA(3)	-0.170137	0.027816	-6.116517	0.0000

R-squared	0.025976	Mean dependent var	0.000227
Adjusted R-squared	0.025201	S.D. dependent var	0.014098
S.E. of regression	0.013919	Akaike info criterion	-5.709560
Sum squared resid	0.243330	Schwarz criterion	-5.701393
Log likelihood	3593.314	Hannan-Quinn criter.	-5.706491
F-statistic	33.49623	Durbin-Watson stat	1.932753
Prob(F-statistic)	0.000000		

Inverted MA Roots	.55	-.28+.48i	-.28-.48i

ARMA(3,3)

Dependent Variable: RETURN_INDONESIA
Method: Least Squares
Date: 04/05/16 Time: 19:59
Sample (adjusted): 11/04/2010 8/26/2015

Included observations: 1255 after adjustments
Convergence achieved after 18 iterations
MA Backcast: 11/01/2010 11/03/2010

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000224	0.000318	0.703076	0.4821
AR(3)	0.138660	0.162182	0.854961	0.3927
MA(3)	-0.303427	0.156099	-1.943810	0.0521

R-squared	0.026770	Mean dependent var	0.000233
Adjusted R-squared	0.025215	S.D. dependent var	0.014109
S.E. of regression	0.013930	Akaike info criterion	-5.707135
Sum squared resid	0.242949	Schwarz criterion	-5.694861
Log likelihood	3584.227	Hannan-Quinn criter.	-5.702522
F-statistic	17.21906	Durbin-Watson stat	1.929856
Prob(F-statistic)	0.000000		

Inverted AR Roots	.52	-.26+.45i	-.26-.45i
Inverted MA Roots	.67	-.34+.58i	-.34-.58i

Heteroskedasticity Test: ARCH

F-statistic	20.56384	Prob. F(1,1255)	0.0000
Obs*R-squared	20.26456	Prob. Chi-Square(1)	0.0000

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/05/16 Time: 20:00
Sample (adjusted): 11/02/2010 8/26/2015
Included observations: 1257 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000169	1.52E-05	11.12219	0.0000
RESID^2(-1)	0.126972	0.028000	4.534737	0.0000

R-squared	0.016121	Mean dependent var	0.000194
Adjusted R-squared	0.015337	S.D. dependent var	0.000507
S.E. of regression	0.000503	Akaike info criterion	-12.34972
Sum squared resid	0.000318	Schwarz criterion	-12.34155
Log likelihood	7763.801	Hannan-Quinn criter.	-12.34665
F-statistic	20.56384	Durbin-Watson stat	2.017424
Prob(F-statistic)	0.000006		

ARCH (1)

Dependent Variable: RETURN_INDONESIA
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/05/16 Time: 20:01
Sample: 11/01/2010 8/26/2015
Included observations: 1258
Convergence achieved after 15 iterations
MA Backcast: 10/27/2010 10/29/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000529	0.000314	1.687558	0.0915
MA(3)	-0.131833	0.016606	-7.938841	0.0000
Variance Equation				
C	0.000136	5.32E-06	25.56567	0.0000
RESID(-1)^2	0.350614	0.037624	9.318873	0.0000

R-squared	0.024001	Mean dependent var	0.000227
Adjusted R-squared	0.021666	S.D. dependent var	0.014098
S.E. of regression	0.013944	Akaike info criterion	-5.774520
Sum squared resid	0.243823	Schwarz criterion	-5.758185
Log likelihood	3636.173	Hannan-Quinn criter.	-5.768381
F-statistic	10.27898	Durbin-Watson stat	1.924803
Prob(F-statistic)	0.000001		

Inverted MA Roots	.51	-.25+.44i	-.25-.44i

GARCH

Dependent Variable: RETURN_INDONESIA
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/05/16 Time: 20:03
Sample: 11/01/2010 8/26/2015
Included observations: 1258
Convergence achieved after 13 iterations
MA Backcast: 10/27/2010 10/29/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000518	0.000293	1.766163	0.0774
MA(3)	-0.120955	0.030747	-3.933843	0.0001
Variance Equation				

C	5.22E-06	1.19E-06	4.390284	0.0000
RESID(-1)^2	0.112506	0.018299	6.148305	0.0000
GARCH(-1)	0.864779	0.020263	42.67858	0.0000

R-squared	0.023189	Mean dependent var	0.000227
Adjusted R-squared	0.020071	S.D. dependent var	0.014098
S.E. of regression	0.013955	Akaike info criterion	-5.917397
Sum squared resid	0.244026	Schwarz criterion	-5.896979
Log likelihood	3727.043	Hannan-Quinn criter.	-5.909724
F-statistic	7.436348	Durbin-Watson stat	1.922975
Prob(F-statistic)	0.000006		

Inverted MA Roots	.49	-.25-.43i	-.25+.43i

ARCH-M

Dependent Variable: RETURN_INDONESIA
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/05/16 Time: 20:03
Sample: 11/01/2010 8/26/2015
Included observations: 1258
Convergence achieved after 18 iterations
MA Backcast: 10/27/2010 10/29/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(4) + C(5)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
@SQRT(GARCH)	0.112697	0.103946	1.084188	0.2783
C	-0.000943	0.001416	-0.665717	0.5056
MA(3)	-0.126995	0.016822	-7.549341	0.0000
Variance Equation				
C	0.000136	5.33E-06	25.44912	0.0000
RESID(-1)^2	0.355484	0.038241	9.295921	0.0000

R-squared	0.024479	Mean dependent var	0.000227
Adjusted R-squared	0.021365	S.D. dependent var	0.014098
S.E. of regression	0.013946	Akaike info criterion	-5.773487
Sum squared resid	0.243704	Schwarz criterion	-5.753068
Log likelihood	3636.523	Hannan-Quinn criter.	-5.765813
F-statistic	7.860454	Durbin-Watson stat	1.910118
Prob(F-statistic)	0.000003		

Inverted MA Roots	.50	-.25-.44i	-.25+.44i

TGARCH

Dependent Variable: RETURN_INDONESIA
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/05/16 Time: 20:04
Sample: 11/01/2010 8/26/2015
Included observations: 1258
Convergence achieved after 13 iterations
MA Backcast: 10/27/2010 10/29/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*RESID(-1)^2*(RESID(-1)<0) +
C(6)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000265	0.000302	0.878800	0.3795
MA(3)	-0.110726	0.030626	-3.615477	0.0003
Variance Equation				
C	4.98E-06	1.04E-06	4.796421	0.0000
RESID(-1)^2	0.035702	0.014790	2.413878	0.0158
RESID(-1)^2*(RESID(-1)<0)	0.092531	0.019955	4.636973	0.0000
GARCH(-1)	0.889715	0.016625	53.51802	0.0000

R-squared	0.022720	Mean dependent var	0.000227
Adjusted R-squared	0.018817	S.D. dependent var	0.014098
S.E. of regression	0.013964	Akaike info criterion	-5.926092
Sum squared resid	0.244143	Schwarz criterion	-5.901590
Log likelihood	3733.512	Hannan-Quinn criter.	-5.916883
F-statistic	5.821442	Durbin-Watson stat	1.922198
Prob(F-statistic)	0.000025		

Inverted MA Roots	.48	-.24+.42i	-.24-.42i

EGARCH

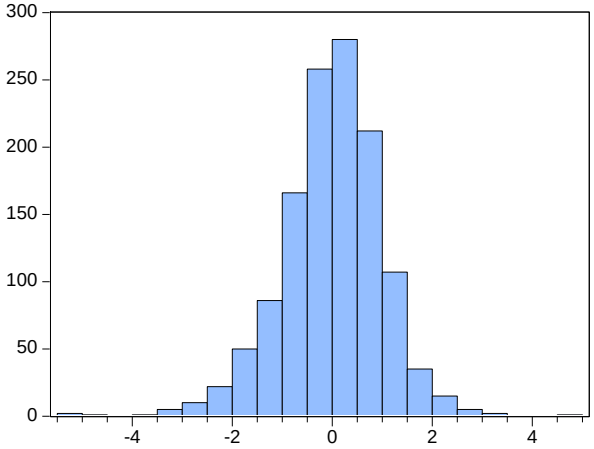
Dependent Variable: RETURN_INDONESIA
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/05/16 Time: 20:05
Sample: 11/01/2010 8/26/2015
Included observations: 1258
Convergence achieved after 13 iterations
MA Backcast: 10/27/2010 10/29/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000275	0.000300	0.916396	0.3595
MA(3)	-0.106052	0.028575	-3.711373	0.0002

Variance Equation				
C(3)	-0.348910	0.060744	-5.743935	0.0000
C(4)	0.151075	0.022615	6.680154	0.0000
C(5)	-0.084706	0.012329	-6.870351	0.0000
C(6)	0.973255	0.005725	170.0116	0.0000

R-squared	0.022190	Mean dependent var	0.000227
Adjusted R-squared	0.018285	S.D. dependent var	0.014098
S.E. of regression	0.013968	Akaike info criterion	-5.932294
Sum squared resid	0.244275	Schwarz criterion	-5.907792
Log likelihood	3737.413	Hannan-Quinn criter.	-5.923086
F-statistic	5.682452	Durbin-Watson stat	1.921336
Prob(F-statistic)	0.000034		

Inverted MA Roots	.47	-.24-.41i	-.24+.41i



Series: Standardized Residuals
Sample 11/01/2010 8/26/2015
Observations 1258

Mean	-0.010914
Median	0.052791
Maximum	4.675044
Minimum	-5.401367
Std. Dev.	1.000854
Skewness	-0.488506
Kurtosis	5.150064
Jarque-Bera	292.3449
Probability	0.000000

Dependent Variable: RETURN_INDONESIA
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/05/16 Time: 20:07
Sample: 11/01/2010 8/26/2015
Included observations: 1258
Convergence achieved after 13 iterations
Bollerslev-Wooldridge robust standard errors & covariance
MA Backcast: 10/27/2010 10/29/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000275	0.000276	0.996160	0.3192

MA(3)	-0.106052	0.030950	-3.426501	0.0006

Variance Equation

C(3)	-0.348910	0.089506	-3.898186	0.0001
C(4)	0.151075	0.035609	4.242558	0.0000
C(5)	-0.084706	0.031478	-2.690968	0.0071
C(6)	0.973255	0.009039	107.6730	0.0000

R-squared	0.022190	Mean dependent var	0.000227
Adjusted R-squared	0.018285	S.D. dependent var	0.014098
S.E. of regression	0.013968	Akaike info criterion	-5.932294
Sum squared resid	0.244275	Schwarz criterion	-5.907792
Log likelihood	3737.413	Hannan-Quinn criter.	-5.923086
F-statistic	5.682452	Durbin-Watson stat	1.921336
Prob(F-statistic)	0.000034		

Inverted MA Roots	.47	-.24-.41i	-.24+.41i

Heteroskedasticity Test: ARCH

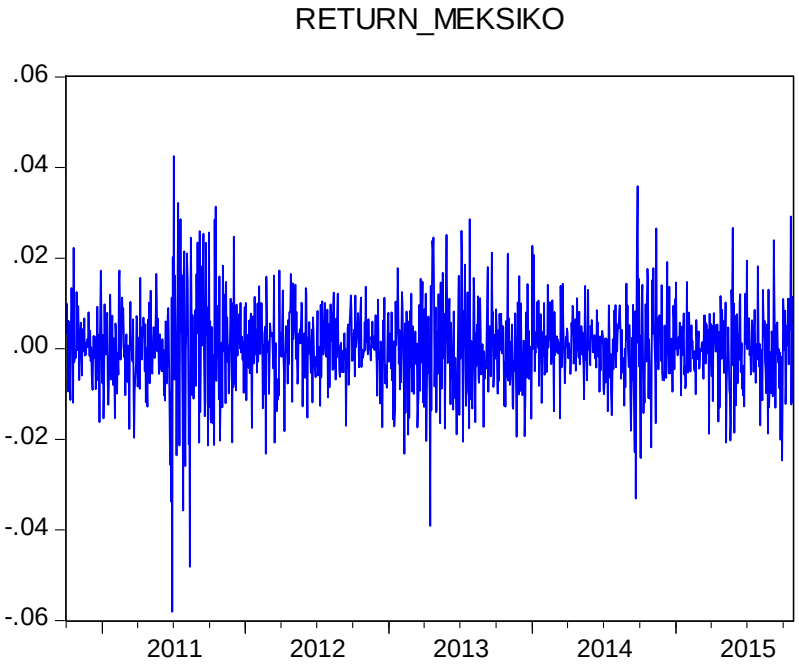
F-statistic	0.183039	Prob. F(1,1255)	0.6688
Obs*R-squared	0.183304	Prob. Chi-Square(1)	0.6685

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 04/05/16 Time: 20:08
Sample (adjusted): 11/02/2010 8/26/2015
Included observations: 1257 after adjustments
White Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.989169	0.062176	15.90921	0.0000
WGT_RESID^2(-1)	0.012077	0.021358	0.565451	0.5719

R-squared	0.000146	Mean dependent var	1.001267
Adjusted R-squared	-0.000651	S.D. dependent var	2.045988
S.E. of regression	2.046653	Akaike info criterion	4.271879
Sum squared resid	5256.932	Schwarz criterion	4.280051
Log likelihood	-2682.876	Hannan-Quinn criter.	4.274950
F-statistic	0.183039	Durbin-Watson stat	2.000333
Prob(F-statistic)	0.668848		

4. MEKSIKO



Null Hypothesis: D(RETURN_MEKSIKO) has a unit root
Exogenous: Constant
Lag Length: 10 (Automatic based on SIC, MAXLAG=22)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-20.55933	0.0000
Test critical values:	1% level	-3.435127	
	5% level	-2.863537	
	10% level	-2.567883	

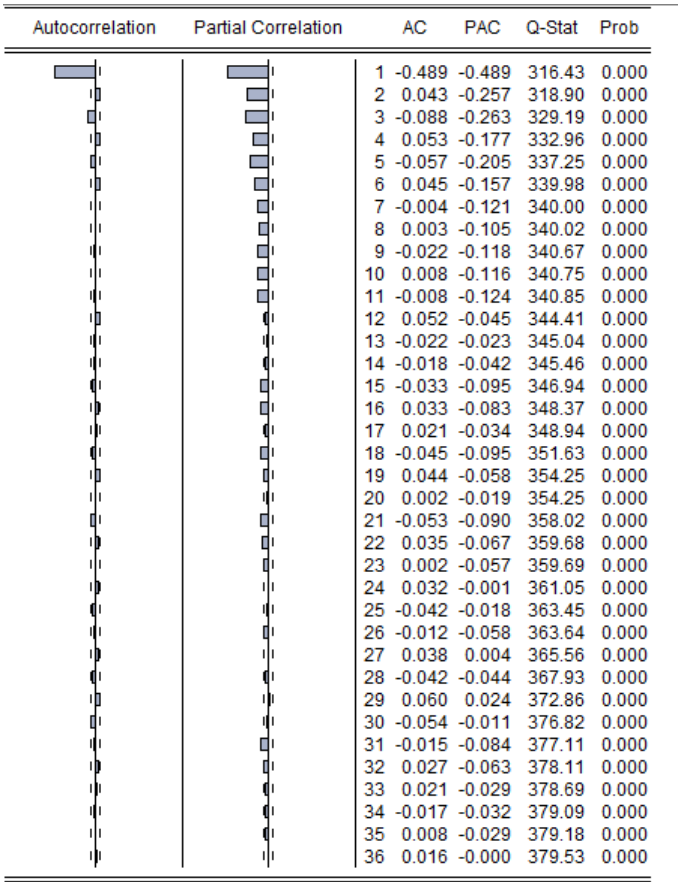
*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RETURN_MEKSIKO,2)
Method: Least Squares
Date: 04/03/16 Time: 06:50
Sample (adjusted): 10/19/2010 10/27/2015
Included observations: 1311 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RETURN_MEKSIKO(-1))	-6.959354	0.338501	-20.55933	0.0000
D(RETURN_MEKSIKO(-1),2)	5.077697	0.325584	15.59567	0.0000
D(RETURN_MEKSIKO(-2),2)	4.295070	0.303880	14.13411	0.0000

D(RETURN_MEKSIKO(-3),2)	3.512422	0.276115	12.72088	0.0000
D(RETURN_MEKSIKO(-4),2)	2.801364	0.243194	11.51907	0.0000
D(RETURN_MEKSIKO(-5),2)	2.124489	0.206595	10.28334	0.0000
D(RETURN_MEKSIKO(-6),2)	1.555571	0.167820	9.269286	0.0000
D(RETURN_MEKSIKO(-7),2)	1.084609	0.129314	8.387375	0.0000
D(RETURN_MEKSIKO(-8),2)	0.688860	0.092041	7.484263	0.0000
D(RETURN_MEKSIKO(-9),2)	0.365303	0.058204	6.276254	0.0000
D(RETURN_MEKSIKO(-10),2)	0.130783	0.027623	4.734514	0.0000
C	1.17E-05	0.000269	0.043422	0.9654

R-squared	0.814358	Mean dependent var	-1.35E-05
Adjusted R-squared	0.812786	S.D. dependent var	0.022519
S.E. of regression	0.009744	Akaike info criterion	-6.415292
Sum squared resid	0.123325	Schwarz criterion	-6.367891
Log likelihood	4217.224	Hannan-Quinn criter.	-6.397515
F-statistic	518.0316	Durbin-Watson stat	2.010256
Prob(F-statistic)	0.000000		



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	-0.489	-0.489	316.43	0.000
		2	0.043	-0.257	318.90	0.000
		3	-0.088	-0.263	329.19	0.000
		4	0.053	-0.177	332.96	0.000
		5	-0.057	-0.205	337.25	0.000
		6	0.045	-0.157	339.98	0.000
		7	-0.004	-0.121	340.00	0.000
		8	0.003	-0.105	340.02	0.000
		9	-0.022	-0.118	340.67	0.000
		10	0.008	-0.116	340.75	0.000
		11	-0.008	-0.124	340.85	0.000
		12	0.052	-0.045	344.41	0.000
		13	-0.022	-0.023	345.04	0.000
		14	-0.018	-0.042	345.46	0.000
		15	-0.033	-0.095	346.94	0.000
		16	0.033	-0.083	348.37	0.000
		17	0.021	-0.034	348.94	0.000
		18	-0.045	-0.095	351.63	0.000
		19	0.044	-0.058	354.25	0.000
		20	0.002	-0.019	354.25	0.000
		21	-0.053	-0.090	358.02	0.000
		22	0.035	-0.067	359.68	0.000
		23	0.002	-0.057	359.69	0.000
		24	0.032	-0.001	361.05	0.000
		25	-0.042	-0.018	363.45	0.000
		26	-0.012	-0.058	363.64	0.000
		27	0.038	0.004	365.56	0.000
		28	-0.042	-0.044	367.93	0.000
		29	0.060	0.024	372.86	0.000
		30	-0.054	-0.011	376.82	0.000
		31	-0.015	-0.084	377.11	0.000
		32	0.027	-0.063	378.11	0.000
		33	0.021	-0.029	378.69	0.000
		34	-0.017	-0.032	379.09	0.000
		35	0.008	-0.029	379.18	0.000
		36	0.016	-0.000	379.53	0.000

Dependent Variable: D(RETURN_MEKSIKO)
Method: Least Squares
Date: 04/03/16 Time: 07:09
Sample (adjusted): 10/04/2010 10/27/2015
Included observations: 1322 after adjustments

Convergence achieved after 9 iterations
MA Backcast: 10/01/2010

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.83E-07	1.00E-06	-0.382430	0.7022
MA(1)	-0.997420	0.001176	-848.2336	0.0000

R-squared	0.482835	Mean dependent var	-1.16E-05
Adjusted R-squared	0.482443	S.D. dependent var	0.013031
S.E. of regression	0.009375	Akaike info criterion	-6.500129
Sum squared resid	0.116004	Schwarz criterion	-6.492282
Log likelihood	4298.585	Hannan-Quinn criter.	-6.497187
F-statistic	1232.378	Durbin-Watson stat	1.938249
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

Heteroskedasticity Test: ARCH

F-statistic	8.550742	Prob. F(1,1319)	0.0035
Obs*R-squared	8.508548	Prob. Chi-Square(1)	0.0035

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/03/16 Time: 07:38
Sample (adjusted): 10/05/2010 10/27/2015
Included observations: 1321 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.07E-05	5.74E-06	14.05646	0.0000
RESID^2(-1)	0.080258	0.027447	2.924165	0.0035

R-squared	0.006441	Mean dependent var	8.77E-05
Adjusted R-squared	0.005688	S.D. dependent var	0.000190
S.E. of regression	0.000189	Akaike info criterion	-14.30348
Sum squared resid	4.73E-05	Schwarz criterion	-14.29563
Log likelihood	9449.450	Hannan-Quinn criter.	-14.30054
F-statistic	8.550742	Durbin-Watson stat	2.035210
Prob(F-statistic)	0.003513		

ARCH(1)

Dependent Variable: D(RETURN_MEKSIKO)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 08:28
Sample (adjusted): 10/04/2010 10/27/2015
Included observations: 1322 after adjustments

Convergence achieved after 37 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2.91E-07	1.04E-06	-0.279753	0.7797
MA(1)	-0.997433	0.001092	-913.4313	0.0000
Variance Equation				
C	7.35E-05	3.14E-06	23.38554	0.0000
RESID(-1)^2	0.179989	0.034065	5.283743	0.0000

R-squared	0.482844	Mean dependent var	-1.16E-05
Adjusted R-squared	0.481667	S.D. dependent var	0.013031
S.E. of regression	0.009382	Akaike info criterion	-6.516152
Sum squared resid	0.116002	Schwarz criterion	-6.500458
Log likelihood	4311.176	Hannan-Quinn criter.	-6.510268
F-statistic	410.1849	Durbin-Watson stat	1.938258
Prob(F-statistic)	0.000000		
Inverted MA Roots	1.00		

GARCH(1,1)

Dependent Variable: D(RETURN_MEKSIKO)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 08:29
Sample (adjusted): 10/04/2010 10/27/2015
Included observations: 1322 after adjustments
Convergence achieved after 17 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	2.17E-07	9.02E-07	0.241126	0.8095
MA(1)	-0.997105	0.001413	-705.8049	0.0000
Variance Equation				
C	1.72E-06	5.47E-07	3.150263	0.0016
RESID(-1)^2	0.077667	0.009597	8.092772	0.0000
GARCH(-1)	0.903521	0.013456	67.14626	0.0000

R-squared	0.482711	Mean dependent var	-1.16E-05
Adjusted R-squared	0.481140	S.D. dependent var	0.013031
S.E. of regression	0.009386	Akaike info criterion	-6.659193

Sum squared resid	0.116032	Schwarz criterion	-6.639575
Log likelihood	4406.727	Hannan-Quinn criter.	-6.651839
F-statistic	307.2413	Durbin-Watson stat	1.938394
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

ARCH_M

Dependent Variable: D(RETURN_MEKSIKO)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 08:30
Sample (adjusted): 10/04/2010 10/27/2015
Included observations: 1322 after adjustments
Convergence achieved after 23 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(4) + C(5)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
@SQRT(GARCH)	0.003518	0.001681	2.093120	0.0363
C	-4.42E-05	2.10E-05	-2.106734	0.0351
MA(1)	-0.997383	0.000997	-1000.706	0.0000
Variance Equation				
C	7.33E-05	3.10E-06	23.68695	0.0000
RESID(-1)^2	0.179286	0.034308	5.225712	0.0000

R-squared	0.484104	Mean dependent var	-1.16E-05
Adjusted R-squared	0.482537	S.D. dependent var	0.013031
S.E. of regression	0.009374	Akaike info criterion	-6.517687
Sum squared resid	0.115719	Schwarz criterion	-6.498069
Log likelihood	4313.191	Hannan-Quinn criter.	-6.510333
F-statistic	308.9598	Durbin-Watson stat	1.942875
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

TGARCH

Dependent Variable: D(RETURN_MEKSIKO)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 08:31
Sample (adjusted): 10/04/2010 10/27/2015

Included observations: 1322 after adjustments
Convergence achieved after 18 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*RESID(-1)^2*(RESID(-1)<0) +
C(6)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-9.41E-07	6.62E-07	-1.419853	0.1557
MA(1)	-0.997452	0.000959	-1040.624	0.0000
Variance Equation				
C	1.36E-06	3.23E-07	4.218942	0.0000
RESID(-1)^2	-0.020445	0.013804	-1.481134	0.1386
RESID(-1)^2*(RESID(-1)<0)	0.150200	0.019080	7.872298	0.0000
GARCH(-1)	0.932842	0.012730	73.27884	0.0000

R-squared	0.482641	Mean dependent var	-1.16E-05
Adjusted R-squared	0.480676	S.D. dependent var	0.013031
S.E. of regression	0.009391	Akaike info criterion	-6.607587
Sum squared resid	0.116047	Schwarz criterion	-6.634046
Log likelihood	4439.715	Hannan-Quinn criter.	-6.698761
F-statistic	245.5381	Durbin-Watson stat	1.937460
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

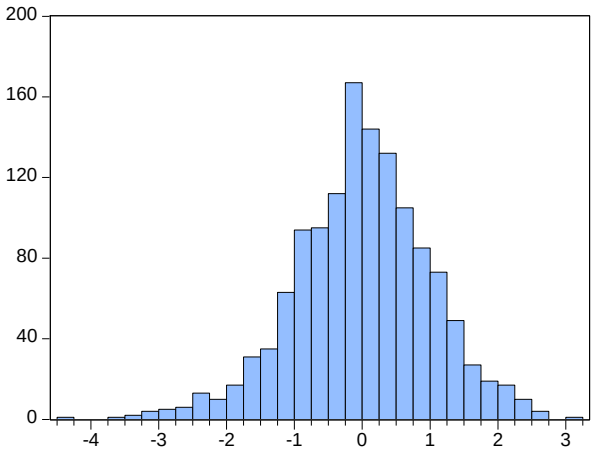
EGARCH

Dependent Variable: D(RETURN_MEKSIKO)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 08:32
Sample (adjusted): 10/04/2010 10/27/2015
Included observations: 1322 after adjustments
Convergence achieved after 61 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2.51E-07	6.01E-07	-0.417533	0.6763
MA(1)	-0.997496	0.000702	-1420.008	0.0000
Variance Equation				
C(3)	-0.203432	0.041857	-4.860200	0.0000
C(4)	0.089127	0.017150	5.196971	0.0000
C(5)	-0.097863	0.012296	-7.958671	0.0000
C(6)	0.985893	0.003818	258.2043	0.0000

R-squared	0.482846	Mean dependent var	-1.16E-05
Adjusted R-squared	0.480881	S.D. dependent var	0.013031
S.E. of regression	0.009389	Akaike info criterion	-6.693377
Sum squared resid	0.116002	Schwarz criterion	-6.669836
Log likelihood	4430.322	Hannan-Quinn criter.	-6.684552
F-statistic	245.7396	Durbin-Watson stat	1.938144
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00



Series: Standardized Residuals
Sample 10/04/2010 10/27/2015
Observations 1322

Mean	-0.001859
Median	0.004781
Maximum	3.248179
Minimum	-4.402706
Std. Dev.	1.003309
Skewness	-0.261845
Kurtosis	3.646036
Jarque-Bera	38.09642
Probability	0.000000

Dependent Variable: D(RETURN_MEKSIKO)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 08:52
Sample (adjusted): 10/04/2010 10/27/2015
Included observations: 1322 after adjustments
Convergence achieved after 61 iterations
Bollerslev-Wooldridge robust standard errors & covariance
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2.51E-07	6.78E-07	-0.369939	0.7114
MA(1)	-0.997496	3.96E-07	-2517377.	0.0000
Variance Equation				
C(3)	-0.203432	0.067011	-3.035787	0.0024
C(4)	0.089127	0.030035	2.967417	0.0030
C(5)	-0.097863	0.017608	-5.557886	0.0000
C(6)	0.985893	0.005887	167.4591	0.0000

R-squared	0.482846	Mean dependent var	-1.16E-05
Adjusted R-squared	0.480881	S.D. dependent var	0.013031
S.E. of regression	0.009389	Akaike info criterion	-6.693377
Sum squared resid	0.116002	Schwarz criterion	-6.669836
Log likelihood	4430.322	Hannan-Quinn criter.	-6.684552
F-statistic	245.7396	Durbin-Watson stat	1.938144
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

Heteroskedasticity Test: ARCH

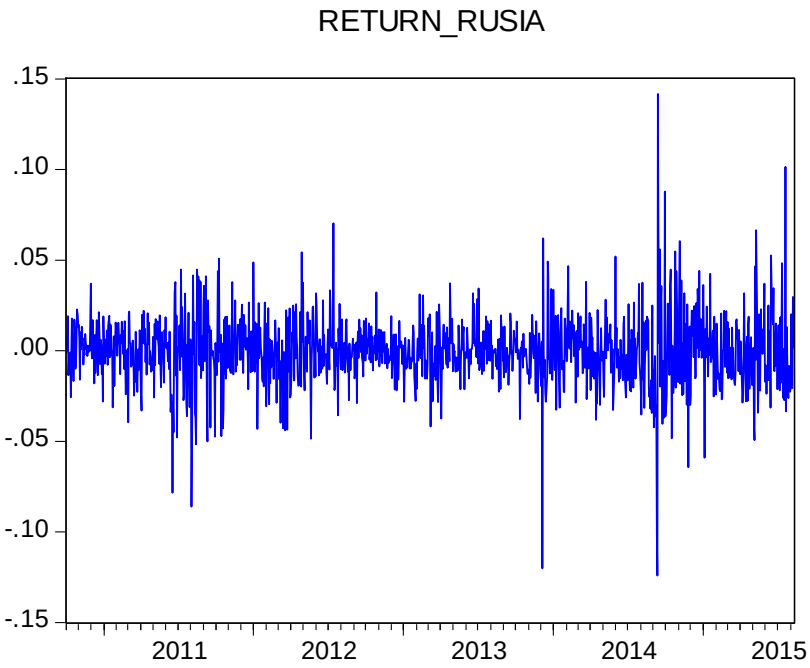
F-statistic	0.696895	Prob. F(1,1319)	0.4040
Obs*R-squared	0.697583	Prob. Chi-Square(1)	0.4036

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 04/03/16 Time: 08:54
Sample (adjusted): 10/05/2010 10/27/2015
Included observations: 1321 after adjustments
White Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.028491	0.051674	19.90354	0.0000
WGT_RESID^2(-1)	-0.022981	0.021673	-1.060340	0.2892

R-squared	0.000528	Mean dependent var	1.005390
Adjusted R-squared	-0.000230	S.D. dependent var	1.637958
S.E. of regression	1.638146	Akaike info criterion	3.826520
Sum squared resid	3539.566	Schwarz criterion	3.834372
Log likelihood	-2525.417	Hannan-Quinn criter.	3.829464
F-statistic	0.696895	Durbin-Watson stat	1.997328
Prob(F-statistic)	0.403980		

5. RUSIA



Null Hypothesis: D(RETURN_RUSIA) has a unit root
Exogenous: Constant
Lag Length: 10 (Automatic based on SIC, MAXLAG=22)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-19.49826	0.0000
Test critical values:	1% level	-3.435344	
	5% level	-2.863633	
	10% level	-2.567934	

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

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RETURN_RUSIA,2)
Method: Least Squares
Date: 04/03/16 Time: 09:19
Sample (adjusted): 10/19/2010 8/11/2015
Included observations: 1256 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RETURN_RUSIA(-1))	-6.651513	0.341134	-19.49826	0.0000
D(RETURN_RUSIA(-1),2)	4.802758	0.328366	14.62625	0.0000
D(RETURN_RUSIA(-2),2)	3.994450	0.307300	12.99854	0.0000

D(RETURN_RUSIA(-3),2)	3.270981	0.279184	11.71621	0.0000
D(RETURN_RUSIA(-4),2)	2.557080	0.246258	10.38376	0.0000
D(RETURN_RUSIA(-5),2)	1.945554	0.209799	9.273421	0.0000
D(RETURN_RUSIA(-6),2)	1.446833	0.170734	8.474181	0.0000
D(RETURN_RUSIA(-7),2)	0.989069	0.131453	7.524119	0.0000
D(RETURN_RUSIA(-8),2)	0.624429	0.093994	6.643299	0.0000
D(RETURN_RUSIA(-9),2)	0.353747	0.058764	6.019813	0.0000
D(RETURN_RUSIA(-10),2)	0.128793	0.028180	4.570312	0.0000
C	-1.15E-05	0.000569	-0.020284	0.9838

R-squared	0.804591	Mean dependent var	1.88E-05
Adjusted R-squared	0.802863	S.D. dependent var	0.045379
S.E. of regression	0.020148	Akaike info criterion	-4.961866
Sum squared resid	0.505016	Schwarz criterion	-4.912799
Log likelihood	3128.052	Hannan-Quinn criter.	-4.943425
F-statistic	465.6480	Durbin-Watson stat	2.014918
Prob(F-statistic)	0.000000		

Dependent Variable: D(RETURN_RUSIA)
Method: Least Squares
Date: 04/03/16 Time: 09:35
Sample (adjusted): 10/04/2010 8/11/2015
Included observations: 1267 after adjustments
Convergence achieved after 9 iterations
MA Backcast: OFF (Roots of MA process too large)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.22E-06	3.84E-06	0.839133	0.4016
MA(1)	-1.002900	0.002659	-377.1656	0.0000

R-squared	0.464842	Mean dependent var	7.88E-06
Adjusted R-squared	0.464419	S.D. dependent var	0.026602
S.E. of regression	0.019468	Akaike info criterion	-5.038473
Sum squared resid	0.479457	Schwarz criterion	-5.030353
Log likelihood	3193.873	Hannan-Quinn criter.	-5.035422
F-statistic	1098.788	Durbin-Watson stat	1.863065
Prob(F-statistic)	0.000000		

Inverted MA Roots 1.00
Estimated MA process is noninvertible

Heteroskedasticity Test: ARCH

F-statistic	255.1624	Prob. F(1,1264)	0.0000
Obs*R-squared	212.6406	Prob. Chi-Square(1)	0.0000

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/03/16 Time: 09:39

Sample (adjusted): 10/05/2010 8/11/2015
Included observations: 1266 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000223	2.96E-05	7.543075	0.0000
RESID^2(-1)	0.409831	0.025656	15.97380	0.0000

R-squared	0.167963	Mean dependent var	0.000379
Adjusted R-squared	0.167304	S.D. dependent var	0.001091
S.E. of regression	0.000996	Akaike info criterion	-10.98429
Sum squared resid	0.001254	Schwarz criterion	-10.97617
Log likelihood	6955.058	Hannan-Quinn criter.	-10.98124
F-statistic	255.1624	Durbin-Watson stat	2.053653
Prob(F-statistic)	0.000000		

ARCH
Dependent Variable: D(RETURN_RUSIA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 09:40
Sample (adjusted): 10/04/2010 8/11/2015
Included observations: 1267 after adjustments
Convergence achieved after 34 iterations
MA Backcast: OFF (Roots of MA process too large)
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	4.22E-06	3.32E-06	1.270589	0.2039
MA(1)	-1.003507	0.002089	-480.4651	0.0000
Variance Equation				
C	0.000301	9.25E-06	32.53764	0.0000
RESID(-1)^2	0.166836	0.025578	6.522583	0.0000

R-squared	0.464573	Mean dependent var	7.88E-06
Adjusted R-squared	0.463301	S.D. dependent var	0.026602
S.E. of regression	0.019489	Akaike info criterion	-5.117620
Sum squared resid	0.479698	Schwarz criterion	-5.101379
Log likelihood	3246.013	Hannan-Quinn criter.	-5.111519
F-statistic	365.2883	Durbin-Watson stat	1.860999
Prob(F-statistic)	0.000000		

Inverted MA Roots 1.00
Estimated MA process is noninvertible

GARCH (1,1)

Dependent Variable: D(RETURN_RUSIA)
Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/03/16 Time: 09:42
Sample (adjusted): 10/04/2010 8/11/2015
Included observations: 1267 after adjustments
Convergence achieved after 19 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-1.52E-06	1.98E-06	-0.768847	0.4420
MA(1)	-0.997457	0.002318	-430.3079	0.0000
Variance Equation				
C	1.10E-05	2.03E-06	5.402281	0.0000
RESID(-1)^2	0.066997	0.008562	7.824689	0.0000
GARCH(-1)	0.904680	0.012517	72.27764	0.0000

R-squared	0.463392	Mean dependent var	7.88E-06
Adjusted R-squared	0.461691	S.D. dependent var	0.026602
S.E. of regression	0.019518	Akaike info criterion	-5.218075
Sum squared resid	0.480757	Schwarz criterion	-5.197774
Log likelihood	3310.651	Hannan-Quinn criter.	-5.210448
F-statistic	272.4524	Durbin-Watson stat	1.868172
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

ARCH-M

Dependent Variable: D(RETURN_RUSIA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 09:43
Sample (adjusted): 10/04/2010 8/11/2015
Included observations: 1267 after adjustments
Failure to improve Likelihood after 33 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(4) + C(5)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
@SQRT(GARCH)	0.006085	0.004321	1.408402	0.1590
C	-0.000159	0.000113	-1.406590	0.1595
MA(1)	-0.997495	0.002644	-377.2600	0.0000
Variance Equation				
C	0.000328	9.09E-06	36.07115	0.0000
RESID(-1)^2	0.059779	0.007630	7.834238	0.0000

R-squared	0.464517	Mean dependent var	7.88E-06
Adjusted R-squared	0.462819	S.D. dependent var	0.026602
S.E. of regression	0.019497	Akaike info criterion	-5.103477
Sum squared resid	0.479749	Schwarz criterion	-5.083176
Log likelihood	3238.053	Hannan-Quinn criter.	-5.095850
F-statistic	273.6872	Durbin-Watson stat	1.872106
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

TGARCH

Dependent Variable: D(RETURN_RUSIA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 09:44
Sample (adjusted): 10/04/2010 8/11/2015
Included observations: 1267 after adjustments
Convergence achieved after 30 iterations
MA Backcast: OFF (Roots of MA process too large)
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*RESID(-1)^2*(RESID(-1)<0) + C(6)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	5.66E-06	2.94E-06	1.923779	0.0544
MA(1)	-1.004334	0.001569	-640.1710	0.0000
Variance Equation				
C	4.98E-06	7.82E-07	6.369996	0.0000
RESID(-1)^2	-0.016769	0.004843	-3.462547	0.0005
RESID(-1)^2*(RESID(-1)<0)	0.088405	0.007703	11.47716	0.0000
GARCH(-1)	0.960708	0.005805	165.4878	0.0000

R-squared	0.464705	Mean dependent var	7.88E-06
Adjusted R-squared	0.462582	S.D. dependent var	0.026602
S.E. of regression	0.019502	Akaike info criterion	-5.256413
Sum squared resid	0.479581	Schwarz criterion	-5.232051
Log likelihood	3335.937	Hannan-Quinn criter.	-5.247260
F-statistic	218.9417	Durbin-Watson stat	1.859918
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00
	Estimated MA process is noninvertible

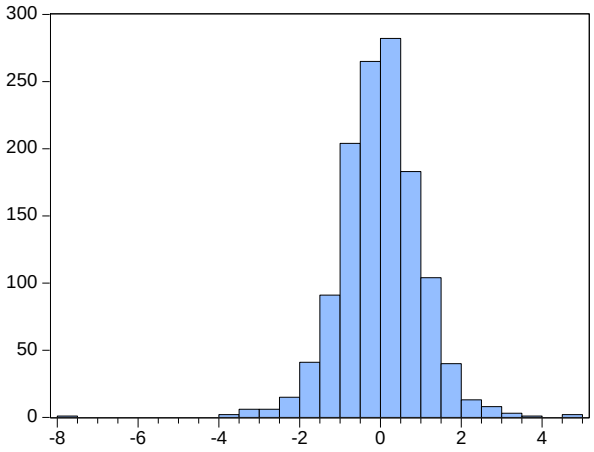
EGARCH

Dependent Variable: D(RETURN_RUSIA)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/03/16 Time: 09:45
Sample (adjusted): 10/04/2010 8/11/2015
Included observations: 1267 after adjustments
Convergence achieved after 37 iterations
MA Backcast: 10/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2.30E-06	1.53E-06	-1.507916	0.1316
MA(1)	-0.997022	0.002169	-459.7515	0.0000
Variance Equation				
C(3)	-0.106595	0.025039	-4.257176	0.0000
C(4)	0.048159	0.012061	3.993090	0.0001
C(5)	-0.080783	0.005565	-14.51608	0.0000
C(6)	0.991202	0.002095	473.0439	0.0000

R-squared	0.463129	Mean dependent var	7.88E-06
Adjusted R-squared	0.461000	S.D. dependent var	0.026602
S.E. of regression	0.019530	Akaike info criterion	-5.262280
Sum squared resid	0.480992	Schwarz criterion	-5.237918
Log likelihood	3339.654	Hannan-Quinn criter.	-5.253128
F-statistic	217.5588	Durbin-Watson stat	1.868068
Prob(F-statistic)	0.000000		

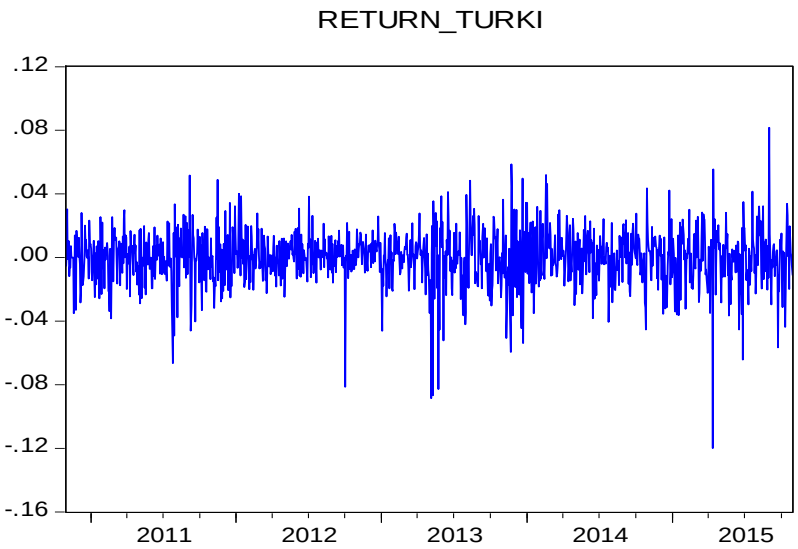
Inverted MA Roots	1.00



Series: Standardized Residuals
Sample 10/04/2010 8/11/2015
Observations 1267

Mean	-0.004464
Median	0.004552
Maximum	4.930811
Minimum	-7.516387
Std. Dev.	1.001934
Skewness	-0.238829
Kurtosis	6.830659
Jarque-Bera	786.7068
Probability	0.000000

6. TURKI



Null Hypothesis: D(RETURN_TURKI) has a unit root
Exogenous: Constant
Lag Length: 13 (Automatic based on SIC, MAXLAG=22)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-17.19899	0.0000
Test critical values:	1% level	-3.435211	
	5% level	-2.863574	
	10% level	-2.567903	

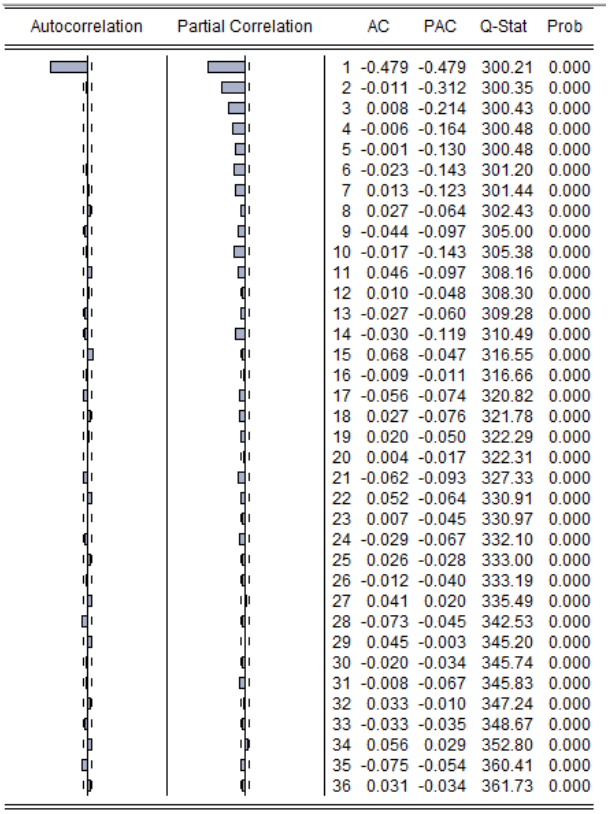
*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RETURN_TURKI,2)
Method: Least Squares
Date: 04/06/16 Time: 04:24
Sample (adjusted): 11/22/2010 10/29/2015
Included observations: 1289 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RETURN_TURKI(-1))	-7.312822	0.425189	-17.19899	0.0000
D(RETURN_TURKI(-1),2)	5.465182	0.414118	13.19715	0.0000
D(RETURN_TURKI(-2),2)	4.728496	0.395201	11.96478	0.0000
D(RETURN_TURKI(-3),2)	4.074686	0.370151	11.00816	0.0000
D(RETURN_TURKI(-4),2)	3.470072	0.340642	10.18687	0.0000
D(RETURN_TURKI(-5),2)	2.910313	0.308439	9.435630	0.0000
D(RETURN_TURKI(-6),2)	2.383681	0.274286	8.690492	0.0000

D(RETURN_TURKI(-7),2)	1.913972	0.238258	8.033195	0.0000
D(RETURN_TURKI(-8),2)	1.500909	0.201369	7.453530	0.0000
D(RETURN_TURKI(-9),2)	1.092250	0.164659	6.633421	0.0000
D(RETURN_TURKI(-10),2)	0.724858	0.128260	5.651497	0.0000
D(RETURN_TURKI(-11),2)	0.464456	0.092604	5.015495	0.0000
D(RETURN_TURKI(-12),2)	0.278944	0.058595	4.760560	0.0000
D(RETURN_TURKI(-13),2)	0.119306	0.027922	4.272903	0.0000
C	3.31E-05	0.000493	0.067135	0.9465

R-squared	0.806883	Mean dependent var	2.25E-05
Adjusted R-squared	0.804761	S.D. dependent var	0.040054
S.E. of regression	0.017698	Akaike info criterion	-5.219148
Sum squared resid	0.399047	Schwarz criterion	-5.159082
Log likelihood	3378.741	Hannan-Quinn criter.	-5.196602
F-statistic	380.2173	Durbin-Watson stat	2.013551
Prob(F-statistic)	0.000000		



Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	-0.479	-0.479	300.21	0.000
		2	-0.011	-0.312	300.35	0.000
		3	0.008	-0.214	300.43	0.000
		4	-0.006	-0.164	300.48	0.000
		5	-0.001	-0.130	300.48	0.000
		6	-0.023	-0.143	301.20	0.000
		7	0.013	-0.123	301.44	0.000
		8	0.027	-0.064	302.43	0.000
		9	-0.044	-0.097	305.00	0.000
		10	-0.017	-0.143	305.38	0.000
		11	0.046	-0.097	308.16	0.000
		12	0.010	-0.048	308.30	0.000
		13	-0.027	-0.060	309.28	0.000
		14	-0.030	-0.119	310.49	0.000
		15	0.068	-0.047	316.55	0.000
		16	-0.009	-0.011	316.66	0.000
		17	-0.056	-0.074	320.82	0.000
		18	0.027	-0.076	321.78	0.000
		19	0.020	-0.050	322.29	0.000
		20	0.004	-0.017	322.31	0.000
		21	-0.062	-0.093	327.33	0.000
		22	0.052	-0.064	330.91	0.000
		23	0.007	-0.045	330.97	0.000
		24	-0.029	-0.067	332.10	0.000
		25	0.026	-0.028	333.00	0.000
		26	-0.012	-0.040	333.19	0.000
		27	0.041	0.020	335.49	0.000
		28	-0.073	-0.045	342.53	0.000
		29	0.045	-0.003	345.20	0.000
		30	-0.020	-0.034	345.74	0.000
		31	-0.008	-0.067	345.83	0.000
		32	0.033	-0.010	347.24	0.000
		33	-0.033	-0.035	348.67	0.000
		34	0.056	0.029	352.80	0.000
		35	-0.075	-0.054	360.41	0.000
		36	0.031	-0.034	361.73	0.000

Dependent Variable: D(RETURN_TURKI)
Method: Least Squares
Date: 04/06/16 Time: 04:26
Sample (adjusted): 11/02/2010 10/29/2015
Included observations: 1303 after adjustments
Convergence achieved after 8 iterations
MA Backcast: 11/01/2010

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.02E-07	1.83E-06	0.494321	0.6212
MA(1)	-0.997472	0.001604	-621.7994	0.0000

R-squared	0.451450	Mean dependent var	-4.35E-06
Adjusted R-squared	0.451029	S.D. dependent var	0.023210
S.E. of regression	0.017197	Akaike info criterion	-5.286602
Sum squared resid	0.384764	Schwarz criterion	-5.278662
Log likelihood	3446.221	Hannan-Quinn criter.	-5.283623
F-statistic	1070.709	Durbin-Watson stat	1.827461
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

Heteroskedasticity Test: ARCH

F-statistic	20.85618	Prob. F(1,1300)	0.0000
Obs*R-squared	20.55845	Prob. Chi-Square(1)	0.0000

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 04/06/16 Time: 04:26
Sample (adjusted): 11/03/2010 10/29/2015
Included observations: 1302 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000258	2.19E-05	11.78652	0.0000
RESID^2(-1)	0.125653	0.027514	4.566857	0.0000

R-squared	0.015790	Mean dependent var	0.000296
Adjusted R-squared	0.015033	S.D. dependent var	0.000740
S.E. of regression	0.000735	Akaike info criterion	-11.59281
Sum squared resid	0.000702	Schwarz criterion	-11.58487
Log likelihood	7548.920	Hannan-Quinn criter.	-11.58983
F-statistic	20.85618	Durbin-Watson stat	2.011647
Prob(F-statistic)	0.000005		

ARCH

Dependent Variable: D(RETURN_TURKI)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 04:27
Sample (adjusted): 11/02/2010 10/29/2015
Included observations: 1303 after adjustments
Convergence achieved after 10 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-2.34E-07	1.76E-06	-0.132620	0.8945
MA(1)	-0.997395	0.002617	-381.1550	0.0000
Variance Equation				
C	0.000264	7.35E-06	35.93975	0.0000
RESID(-1)^2	0.127700	0.026901	4.746974	0.0000

R-squared	0.451673	Mean dependent var	-4.35E-06
Adjusted R-squared	0.450406	S.D. dependent var	0.023210
S.E. of regression	0.017207	Akaike info criterion	-5.306725
Sum squared resid	0.384608	Schwarz criterion	-5.290847
Log likelihood	3461.331	Hannan-Quinn criter.	-5.300768
F-statistic	356.6744	Durbin-Watson stat	1.828342
Prob(F-statistic)	0.000000		
Inverted MA Roots	1.00		

Dependent Variable: D(RETURN_TURKI)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 04:27
Sample (adjusted): 11/02/2010 10/29/2015
Included observations: 1303 after adjustments
Convergence achieved after 23 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	1.24E-06	1.94E-06	0.637997	0.5235
MA(1)	-0.997044	0.002315	-430.6838	0.0000
Variance Equation				
C	2.16E-05	3.58E-06	6.045190	0.0000
RESID(-1)^2	0.077980	0.011068	7.045717	0.0000
GARCH(-1)	0.849769	0.019087	44.52187	0.0000

R-squared	0.451247	Mean dependent var	-4.35E-06
Adjusted R-squared	0.449556	S.D. dependent var	0.023210
S.E. of regression	0.017220	Akaike info criterion	-5.350959
Sum squared resid	0.384907	Schwarz criterion	-5.331110
Log likelihood	3491.150	Hannan-Quinn criter.	-5.343512
F-statistic	266.8409	Durbin-Watson stat	1.827566
Prob(F-statistic)	0.000000		
Inverted MA Roots	1.00		

ARCH-M

Dependent Variable: D(RETURN_TURKI)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 04:28
Sample (adjusted): 11/02/2010 10/29/2015
Included observations: 1303 after adjustments
Convergence achieved after 16 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(4) + C(5)*RESID(-1)^2

Variable	Coefficient	Std. Error	z-Statistic	Prob.
@SQRT(GARCH)	0.009896	0.003845	2.573979	0.0101
C	-0.000223	8.64E-05	-2.576216	0.0100
MA(1)	-0.997403	0.000193	-5168.196	0.0000
Variance Equation				
C	0.000260	7.59E-06	34.21067	0.0000
RESID(-1)^2	0.118856	0.026255	4.527040	0.0000

R-squared	0.453638	Mean dependent var	-4.35E-06
Adjusted R-squared	0.451955	S.D. dependent var	0.023210
S.E. of regression	0.017183	Akaike info criterion	-5.309255
Sum squared resid	0.383230	Schwarz criterion	-5.289407
Log likelihood	3463.980	Hannan-Quinn criter.	-5.301809
F-statistic	269.4289	Durbin-Watson stat	1.834308
Prob(F-statistic)	0.000000		

Inverted MA Roots 1.00

TGARCH

Dependent Variable: D(RETURN_TURKI)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 04:29
Sample (adjusted): 11/02/2010 10/29/2015
Included observations: 1303 after adjustments
Convergence achieved after 13 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*RESID(-1)^2*(RESID(-1)<0) +
C(6)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	2.08E-06	1.65E-06	1.255525	0.2093
MA(1)	-0.997411	0.000184	-5426.978	0.0000
Variance Equation				
C	3.62E-05	4.28E-06	8.454982	0.0000
RESID(-1)^2	0.012864	0.011686	1.100782	0.2710

RESID(-1)^2*(RESID(-1)<0)	0.163704	0.027068	6.047787	0.0000
GARCH(-1)	0.775913	0.023319	33.27448	0.0000

R-squared	0.450860	Mean dependent var	-4.35E-06
Adjusted R-squared	0.448743	S.D. dependent var	0.023210
S.E. of regression	0.017233	Akaike info criterion	-5.372994
Sum squared resid	0.385178	Schwarz criterion	-5.349176
Log likelihood	3506.506	Hannan-Quinn criter.	-5.364058
F-statistic	212.9752	Durbin-Watson stat	1.825607
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

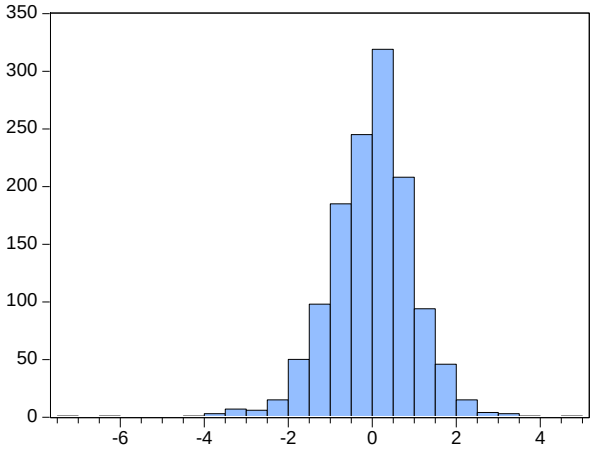
EGARCH

Dependent Variable: D(RETURN_TURKI)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 04:30
Sample (adjusted): 11/02/2010 10/29/2015
Included observations: 1303 after adjustments
Convergence achieved after 23 iterations
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	2.35E-06	1.79E-06	1.310946	0.1899
MA(1)	-0.997401	0.001233	-808.6672	0.0000
Variance Equation				
C(3)	-1.127820	0.126563	-8.911173	0.0000
C(4)	0.115648	0.019981	5.787906	0.0000
C(5)	-0.130508	0.015571	-8.381702	0.0000
C(6)	0.873981	0.014591	59.89909	0.0000

R-squared	0.450680	Mean dependent var	-4.35E-06
Adjusted R-squared	0.448563	S.D. dependent var	0.023210
S.E. of regression	0.017236	Akaike info criterion	-5.373429
Sum squared resid	0.385305	Schwarz criterion	-5.349611
Log likelihood	3506.789	Hannan-Quinn criter.	-5.364494
F-statistic	212.8204	Durbin-Watson stat	1.825028
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00



Series: Standardized Residuals
Sample 11/02/2010 10/29/2015
Observations 1303

Mean	-0.016802
Median	0.052818
Maximum	4.819546
Minimum	-7.149381
Std. Dev.	1.013324
Skewness	-0.619932
Kurtosis	7.079735
Jarque-Bera	987.1041
Probability	0.000000

Dependent Variable: D(RETURN_TURKI)
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/06/16 Time: 04:32
Sample (adjusted): 11/02/2010 10/29/2015
Included observations: 1303 after adjustments
Convergence achieved after 23 iterations
Bollerslev-Wooldridge robust standard errors & covariance
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	2.35E-06	1.62E-06	1.450057	0.1470
MA(1)	-0.997401	0.001129	-883.7994	0.0000
Variance Equation				
C(3)	-1.127820	0.578581	-1.949286	0.0513
C(4)	0.115648	0.063502	1.821175	0.0686
C(5)	-0.130508	0.033433	-3.903536	0.0001
C(6)	0.873981	0.067009	13.04272	0.0000

R-squared	0.450680	Mean dependent var	-4.35E-06
Adjusted R-squared	0.448563	S.D. dependent var	0.023210
S.E. of regression	0.017236	Akaike info criterion	-5.373429
Sum squared resid	0.385305	Schwarz criterion	-5.349611
Log likelihood	3506.789	Hannan-Quinn criter.	-5.364494
F-statistic	212.8204	Durbin-Watson stat	1.825028
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

Dependent Variable: D(RETURN_TURKI)
Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/06/16 Time: 04:32
Sample (adjusted): 11/02/2010 10/29/2015
Included observations: 1303 after adjustments
Convergence achieved after 23 iterations
Bollerslev-Wooldridge robust standard errors & covariance
MA Backcast: 11/01/2010
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(3) + C(4)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(5)
*RESID(-1)/@SQRT(GARCH(-1)) + C(6)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	2.35E-06	1.62E-06	1.450057	0.1470
MA(1)	-0.997401	0.001129	-883.7994	0.0000
Variance Equation				
C(3)	-1.127820	0.578581	-1.949286	0.0513
C(4)	0.115648	0.063502	1.821175	0.0686
C(5)	-0.130508	0.033433	-3.903536	0.0001
C(6)	0.873981	0.067009	13.04272	0.0000

R-squared	0.450680	Mean dependent var	-4.35E-06
Adjusted R-squared	0.448563	S.D. dependent var	0.023210
S.E. of regression	0.017236	Akaike info criterion	-5.373429
Sum squared resid	0.385305	Schwarz criterion	-5.349611
Log likelihood	3506.789	Hannan-Quinn criter.	-5.364494
F-statistic	212.8204	Durbin-Watson stat	1.825028
Prob(F-statistic)	0.000000		

Inverted MA Roots	1.00

Heteroskedasticity Test: ARCH

F-statistic	0.250549	Prob. F(1,1300)	0.6168
Obs*R-squared	0.250886	Prob. Chi-Square(1)	0.6165

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 04/06/16 Time: 04:33
Sample (adjusted): 11/03/2010 10/29/2015
Included observations: 1302 after adjustments
White Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.041324	0.078802	13.21444	0.0000
WGT_RESID^2(-1)	-0.013881	0.016099	-0.862208	0.3887

R-squared	0.000193	Mean dependent var	1.027073
Adjusted R-squared	-0.000576	S.D. dependent var	2.540490
S.E. of regression	2.541222	Akaike info criterion	4.704702
Sum squared resid	8395.153	Schwarz criterion	4.712646
Log likelihood	-3060.761	Hannan-Quinn criter.	4.707683

F-statistic	0.250549	Durbin-Watson stat	1.997563
Prob(F-statistic)	0.616773		