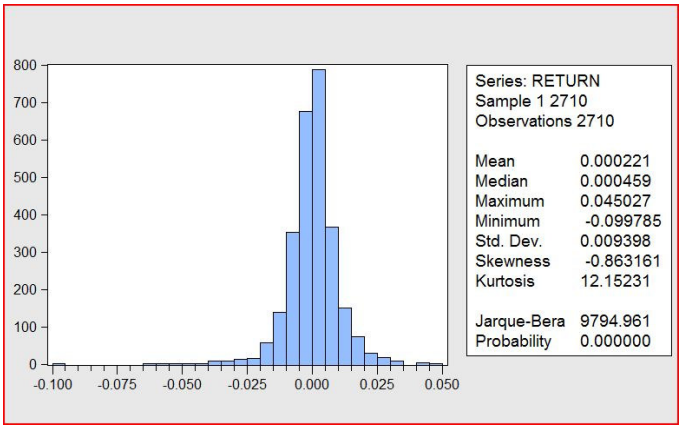
APPENDICES



APPENDIX 1:

Histogram and descriptive analysis for FBMKLCI Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH			
F-statistic	1.075684	Prob. F(1,2707)	0.2998
Obs*R-squared	1.076052	Prob. Chi-Square(1)	0.2996

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 11:14
Sample (adjusted): 2 2710
Included observations: 2709 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.980738	0.047649	20.58272	0.0000
WGT_RESID^2(-1)	0.019930	0.019216	1.037152	0.2998

R-squared	0.000397	Mean dependent var	1.000676
Adjusted R-squared	0.000028	S.D. dependent var	2.269243
S.E. of regression	2.269211	Akaike info criterion	4.477480
Sum squared resid	13939.21	Schwarz criterion	4.481839
Log likelihood	-6062.746	Hannan-Quinn criter.	4.479056
F-statistic	1.075684	Durbin-Watson stat	2.000733
Prob(F-statistic)	0.299758		

APPENDIX 2:

LM test for ARCH Eviews analysis output data for FBMKLCI Daily Index 2000 - 2010

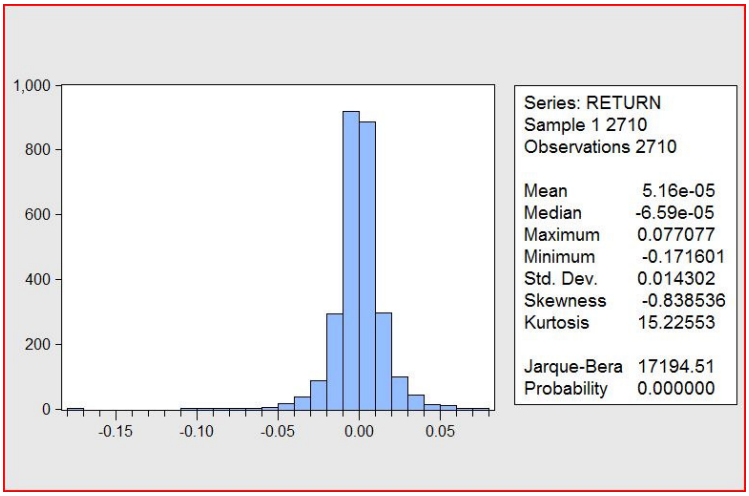
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/07/11 Time: 22:48
Sample (adjusted): 1 2710
Included observations: 2710 after adjustments
Convergence achieved after 23 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000562	0.000137	4.092373	0.0000
Variance Equation				
C	1.06E-06	1.83E-07	5.807869	0.0000
RESID(-1)^2	0.119586	0.007061	16.93546	0.0000
GARCH(-1)	0.877081	0.006247	140.4065	0.0000

R-squared	-0.001316	Mean dependent var	0.000221
Adjusted R-squared	-0.001316	S.D. dependent var	0.009398
S.E. of regression	0.009405	Akaike info criterion	-6.780027
Sum squared resid	0.239602	Schwarz criterion	-6.771312
Log likelihood	9190.937	Hannan-Quinn criter.	-6.776876
Durbin-Watson stat	1.652553		

APPENDIX 3:

GARCH(1,1) Eviews analysis output for FBMKLCI Daily Index 2000-2010



APPENDIX 4:

Histogram and descriptive analysis for KLCON Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	0.024358	Prob. F(1,2708)	0.8760
Obs*R-squared	0.024376	Prob. Chi-Square(1)	0.8759

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 11:22
Sample (adjusted): 2 2711
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.004256	0.055280	18.16661	0.0000
WGT_RESID^2(-1)	-0.002999	0.019217	-0.156072	0.8760

R-squared	0.000009	Mean dependent var	1.001255
Adjusted R-squared	-0.000360	S.D. dependent var	2.697624
S.E. of regression	2.698110	Akaike info criterion	4.823718
Sum squared resid	19713.69	Schwarz criterion	4.828075
Log likelihood	-6534.137	Hannan-Quinn criter.	4.825293
F-statistic	0.024358	Durbin-Watson stat	1.999765
Prob(F-statistic)	0.875988		

APPENDIX 5:

LM test for ARCH Eviews analysis output data for KLCON Daily Index 2000 - 2010

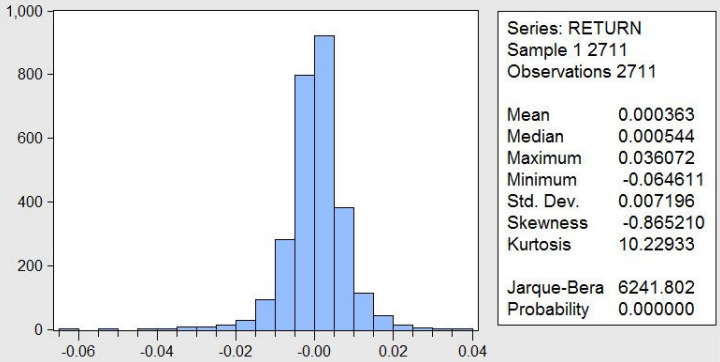
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/07/11 Time: 23:24
Sample (adjusted): 1 2711
Included observations: 2711 after adjustments
Convergence achieved after 15 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000372	0.000221	1.682141	0.0925
Variance Equation				
C	5.45E-06	4.95E-07	11.00621	0.0000
RESID(-1)^2	0.125640	0.008906	14.10781	0.0000
GARCH(-1)	0.854725	0.008295	103.0374	0.0000

R-squared	-0.000517	Mean dependent var	4.72E-05
Adjusted R-squared	-0.000517	S.D. dependent var	0.014301
S.E. of regression	0.014305	Akaike info criterion	-5.919000
Sum squared resid	0.554523	Schwarz criterion	-5.910288
Log likelihood	8027.205	Hannan-Quinn criter.	-5.915850
Durbin-Watson stat	1.776380		

APPENDIX 6:

GARCH(1,1) Eviews analysis output for KLCON Daily Index 2000-2010



APPENDIX 7:

Histogram and descriptive analysis for KLCSU Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	3.236260	Prob. F(1,2708)	0.0721
Obs*R-squared	3.234784	Prob. Chi-Square(1)	0.0721

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 11:28
Sample (adjusted): 4 2713
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.966092	0.050343	19.19038	0.0000
WGT_RESID^2(-1)	0.034549	0.019205	1.798961	0.0721

R-squared	0.001194	Mean dependent var	1.000665
Adjusted R-squared	0.000825	S.D. dependent var	2.423231
S.E. of regression	2.422231	Akaike info criterion	4.607993
Sum squared resid	15888.39	Schwarz criterion	4.612351
Log likelihood	-6241.830	Hannan-Quinn criter.	4.609568
F-statistic	3.236260	Durbin-Watson stat	2.000641
Prob(F-statistic)	0.072136		

APPENDIX 8:

LM test for ARCH Eviews analysis output data for KLCSU Daily Index 2000 - 2010

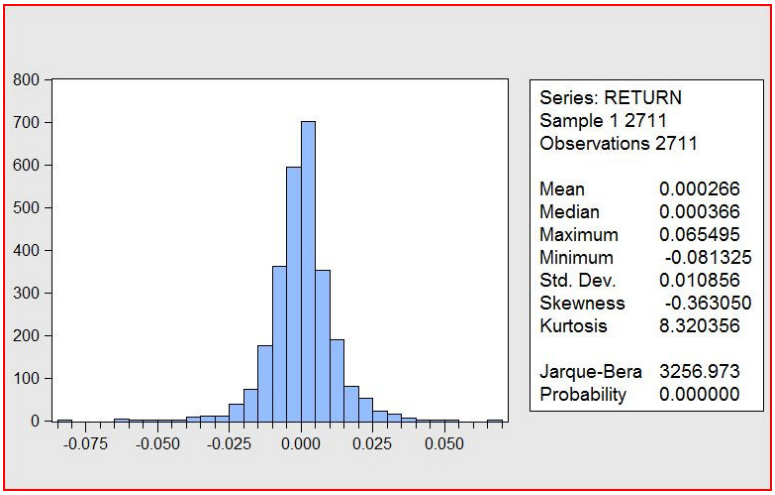
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/07/11 Time: 23:41
Sample (adjusted): 1 2711
Included observations: 2711 after adjustments
Convergence achieved after 18 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000479	0.000118	4.075785	0.0000
Variance Equation				
C	1.75E-06	1.67E-07	10.51320	0.0000
RESID(-1)^2	0.102756	0.007713	13.32279	0.0000
GARCH(-1)	0.864447	0.008214	105.2351	0.0000

R-squared	-0.000261	Mean dependent var	0.000363
Adjusted R-squared	-0.000261	S.D. dependent var	0.007196
S.E. of regression	0.007197	Akaike info criterion	-7.229831
Sum squared resid	0.140372	Schwarz criterion	-7.221119
Log likelihood	9804.036	Hannan-Quinn criter.	-7.226681
Durbin-Watson stat	1.801428		

APPENDIX 9:

GARCH(1,1) Eviews analysis output for KLCSU Daily Index 2000-2010



APPENDIX 10:

Histogram and descriptive analysis for KLFIN Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	3.046064	Prob. F(1,2708)	0.0810
Obs*R-squared	3.044888	Prob. Chi-Square(1)	0.0810

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 11:34
Sample (adjusted): 2 2711
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.967384	0.047171	20.50813	0.0000
WGT_RESID^2(-1)	0.033519	0.019206	1.745298	0.0810

R-squared	0.001124	Mean dependent var	1.000933
Adjusted R-squared	0.000755	S.D. dependent var	2.243304
S.E. of regression	2.242457	Akaike info criterion	4.453759
Sum squared resid	13617.49	Schwarz criterion	4.458117
Log likelihood	-6032.844	Hannan-Quinn criter.	4.455335
F-statistic	3.046064	Durbin-Watson stat	2.002301
Prob(F-statistic)	0.081047		

APPENDIX 11:

LM test for ARCH Eviews analysis output data for KLFIN Daily Index 2000 - 2010

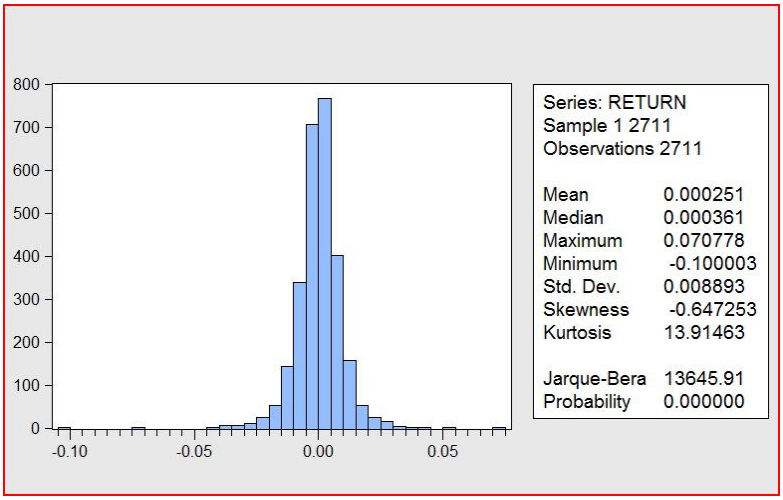
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/07/11 Time: 23:56
Sample (adjusted): 3 2713
Included observations: 2711 after adjustments
Convergence achieved after 28 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000608	0.000175	3.466232	0.0005
Variance Equation				
C	1.76E-06	2.61E-07	6.741776	0.0000
RESID(-1)^2	0.096559	0.006949	13.89476	0.0000
GARCH(-1)	0.892701	0.006325	141.1495	0.0000

R-squared	-0.000991	Mean dependent var	0.000266
Adjusted R-squared	-0.000991	S.D. dependent var	0.010856
S.E. of regression	0.010861	Akaike info criterion	-6.428078
Sum squared resid	0.319687	Schwarz criterion	-6.419365
Log likelihood	8717.259	Hannan-Quinn criter.	-6.424927
Durbin-Watson stat	1.627399		

APPENDIX 12:

GARCH(1,1) Eviews analysis output for KLFIN Daily Index 2000-2010



APPENDIX 13:

Histogram and descriptive analysis for KLIND Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	3.169855	Prob. F(1,2708)	0.0751
Obs*R-squared	3.168487	Prob. Chi-Square(1)	0.0751

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 11:41
Sample (adjusted): 2 2711
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.967422	0.052421	18.45471	0.0000
WGT_RESID^2(-1)	0.034193	0.019205	1.780409	0.0751

R-squared	0.001169	Mean dependent var	1.001668
Adjusted R-squared	0.000800	S.D. dependent var	2.539616
S.E. of regression	2.538599	Akaike info criterion	4.701840
Sum squared resid	17451.67	Schwarz criterion	4.706197
Log likelihood	-6368.993	Hannan-Quinn criter.	4.703415
F-statistic	3.169855	Durbin-Watson stat	2.002243
Prob(F-statistic)	0.075121		

APPENDIX 14:

LM test for ARCH Eviews analysis output data for KLIND Daily Index 2000 - 2010

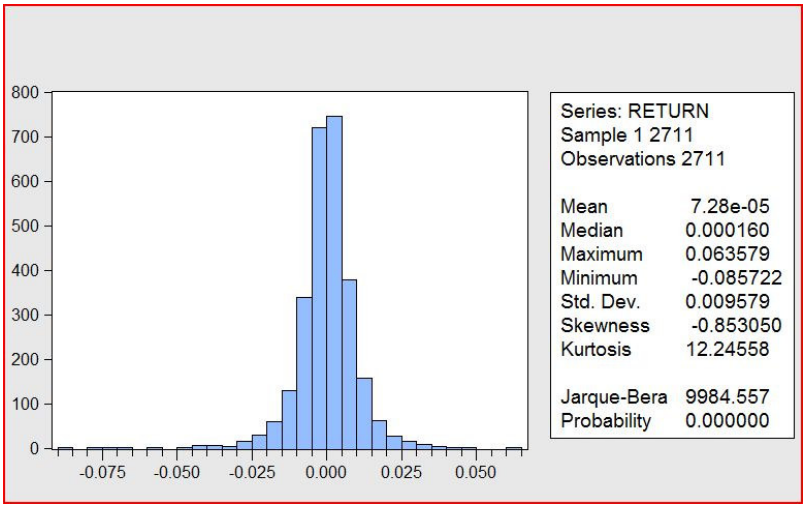
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/08/11 Time: 00:09
Sample (adjusted): 1 2711
Included observations: 2711 after adjustments
Convergence achieved after 30 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000378	0.000139	2.717400	0.0066
Variance Equation				
C	2.34E-07	6.21E-08	3.771137	0.0002
RESID(-1)^2	0.038476	0.002460	15.64270	0.0000
GARCH(-1)	0.958866	0.002061	465.2644	0.0000

R-squared	-0.000204	Mean dependent var	0.000251
Adjusted R-squared	-0.000204	S.D. dependent var	0.008893
S.E. of regression	0.008894	Akaike info criterion	-6.841303
Sum squared resid	0.214359	Schwarz criterion	-6.832591
Log likelihood	9277.387	Hannan-Quinn criter.	-6.838153
Durbin-Watson stat	1.842349		

APPENDIX 15:

GARCH(1,1) Eviews analysis output for KLIND Daily Index 2000-2010



APPENDIX 16:

Histogram and descriptive analysis for KLPRO Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	1.926632	Prob. F(1,2708)	0.1652
Obs*R-squared	1.926685	Prob. Chi-Square(1)	0.1651

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 22:13
Sample (adjusted): 2 2711
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.974456	0.046331	21.03249	0.0000
WGT_RESID^2(-1)	0.026663	0.019209	1.388032	0.1652

R-squared	0.000711	Mean dependent var	1.001136
Adjusted R-squared	0.000342	S.D. dependent var	2.194911
S.E. of regression	2.194536	Akaike info criterion	4.410556
Sum squared resid	13041.69	Schwarz criterion	4.414914
Log likelihood	-5974.303	Hannan-Quinn criter.	4.412131
F-statistic	1.926632	Durbin-Watson stat	1.999454
Prob(F-statistic)	0.165242		

APPENDIX 17:

LM test for ARCH Eviews analysis output data for KLPRO Daily Index 2000 - 2010

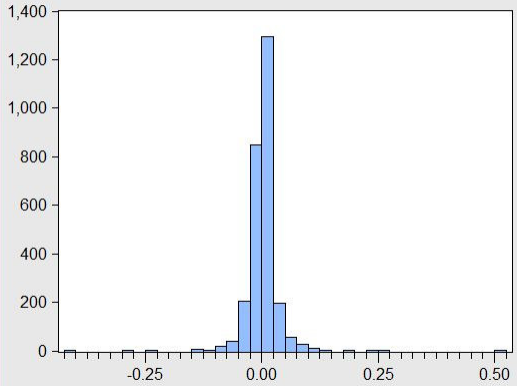
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/08/11 Time: 00:36
Sample (adjusted): 1 2711
Included observations: 2711 after adjustments
Convergence achieved after 17 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000251	0.000135	1.855238	0.0636
Variance Equation				
C	1.35E-06	2.21E-07	6.105691	0.0000
RESID(-1)^2	0.120266	0.007624	15.77391	0.0000
GARCH(-1)	0.872171	0.007078	123.2261	0.0000

R-squared	-0.000345	Mean dependent var	7.28E-05
Adjusted R-squared	-0.000345	S.D. dependent var	0.009579
S.E. of regression	0.009581	Akaike info criterion	-6.760320
Sum squared resid	0.248756	Schwarz criterion	-6.751607
Log likelihood	9167.613	Hannan-Quinn criter.	-6.757169
Durbin-Watson stat	1.767225		

APPENDIX 18:

GARCH(1,1) Eviews analysis output for KLPRO Daily Index 2000-2010



Series: RETURN
Sample 1 2711
Observations 2711

Mean	0.000364
Median	0.000000
Maximum	0.520143
Minimum	-0.407859
Std. Dev.	0.030877
Skewness	1.475863
Kurtosis	56.17457
Jarque-Bera	320377.8
Probability	0.000000

APPENDIX 19:

Histogram and descriptive analysis for KLTIN Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	0.002637	Prob. F(1,2708)	0.9590
Obs*R-squared	0.002639	Prob. Chi-Square(1)	0.9590

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 22:47
Sample (adjusted): 2 2711
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.998790	0.178203	5.604790	0.0000
WGT_RESID^2(-1)	0.000987	0.019217	0.051354	0.9590

R-squared	0.000001	Mean dependent var	0.999777
Adjusted R-squared	-0.000368	S.D. dependent var	9.221053
S.E. of regression	9.222751	Akaike info criterion	7.281961
Sum squared resid	230340.1	Schwarz criterion	7.286319
Log likelihood	-9865.058	Hannan-Quinn criter.	7.283537
F-statistic	0.002637	Durbin-Watson stat	1.999967
Prob(F-statistic)	0.959047		

APPENDIX 20:

LM test for ARCH Eviews analysis output data for KLTIN Daily Index 2000 - 2010

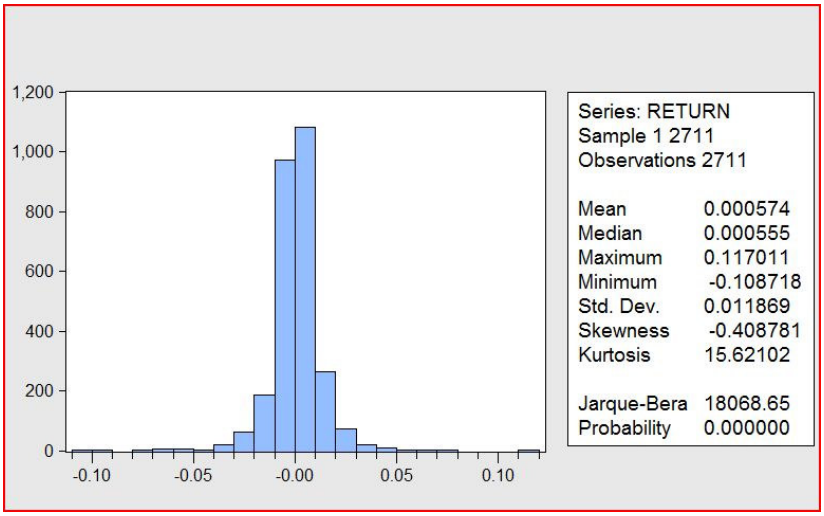
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/08/11 Time: 01:12
Sample (adjusted): 3 2713
Included observations: 2711 after adjustments
Convergence achieved after 73 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.001181	0.000424	2.787354	0.0053
Variance Equation				
C	9.10E-05	6.56E-06	13.88039	0.0000
RESID(-1)^2	0.173190	0.012187	14.21058	0.0000
GARCH(-1)	0.743999	0.015038	49.47487	0.0000

R-squared	-0.000700	Mean dependent var	0.000364
Adjusted R-squared	-0.000700	S.D. dependent var	0.030877
S.E. of regression	0.030888	Akaike info criterion	-4.437018
Sum squared resid	2.585535	Schwarz criterion	-4.428306
Log likelihood	6018.379	Hannan-Quinn criter.	-4.433868
Durbin-Watson stat	1.647831		

APPENDIX 21:

GARCH(1,1) Eviews analysis output for KLTIN Daily Index 2000-2010



APPENDIX 22:

Histogram and descriptive analysis for KLPLN Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	2.768689	Prob. F(1,2708)	0.0962
Obs*R-squared	2.767904	Prob. Chi-Square(1)	0.0962

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 22:09
Sample (adjusted): 2 2711
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.968702	0.051807	18.69812	0.0000
WGT_RESID^2(-1)	0.031958	0.019206	1.663938	0.0962

R-squared	0.001021	Mean dependent var	1.000674
Adjusted R-squared	0.000652	S.D. dependent var	2.505438
S.E. of regression	2.504621	Akaike info criterion	4.674890
Sum squared resid	16987.62	Schwarz criterion	4.679247
Log likelihood	-6332.475	Hannan-Quinn criter.	4.676465
F-statistic	2.768689	Durbin-Watson stat	1.998159
Prob(F-statistic)	0.096241		

APPENDIX 23:

LM test for ARCH Eviews analysis output data for KLPLN Daily Index 2000 - 2010

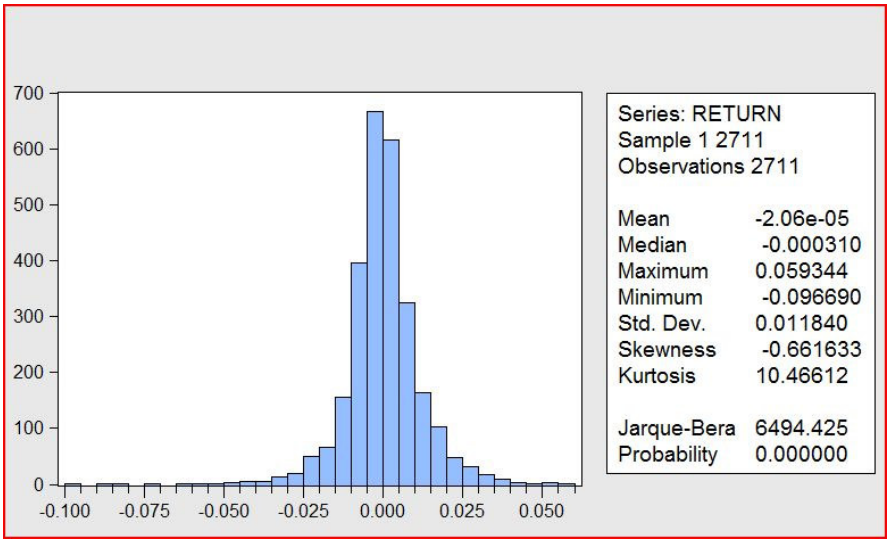
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/08/11 Time: 00:23
Sample (adjusted): 1 2711
Included observations: 2711 after adjustments
Convergence achieved after 15 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000730	0.000168	4.341838	0.0000
Variance Equation				
C	4.55E-06	4.48E-07	10.16055	0.0000
RESID(-1)^2	0.163364	0.010623	15.37831	0.0000
GARCH(-1)	0.812335	0.010961	74.11144	0.0000

R-squared	-0.000173	Mean dependent var	0.000574
Adjusted R-squared	-0.000173	S.D. dependent var	0.011869
S.E. of regression	0.011870	Akaike info criterion	-6.410337
Sum squared resid	0.381834	Schwarz criterion	-6.401624
Log likelihood	8693.211	Hannan-Quinn criter.	-6.407186
Durbin-Watson stat	1.659617		

APPENDIX 24:

GARCH(1,1) Eviews analysis output for KLPLN Daily Index 2000-2010



APPENDIX25:

Histogram and descriptive analysis for KLPRP Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	2.768689	Prob. F(1,2708)	0.0962
Obs*R-squared	2.767904	Prob. Chi-Square(1)	0.0962

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 22:09
Sample (adjusted): 2 2711
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.968702	0.051807	18.69812	0.0000
WGT_RESID^2(-1)	0.031958	0.019206	1.663938	0.0962

R-squared	0.001021	Mean dependent var	1.000674
Adjusted R-squared	0.000652	S.D. dependent var	2.505438
S.E. of regression	2.504621	Akaike info criterion	4.674890
Sum squared resid	16987.62	Schwarz criterion	4.679247
Log likelihood	-6332.475	Hannan-Quinn criter.	4.676465
F-statistic	2.768689	Durbin-Watson stat	1.998159
Prob(F-statistic)	0.096241		

APPENDIX 26:

LM test for ARCH Eviews analysis output data for KLPRP Daily Index 2000 - 2010

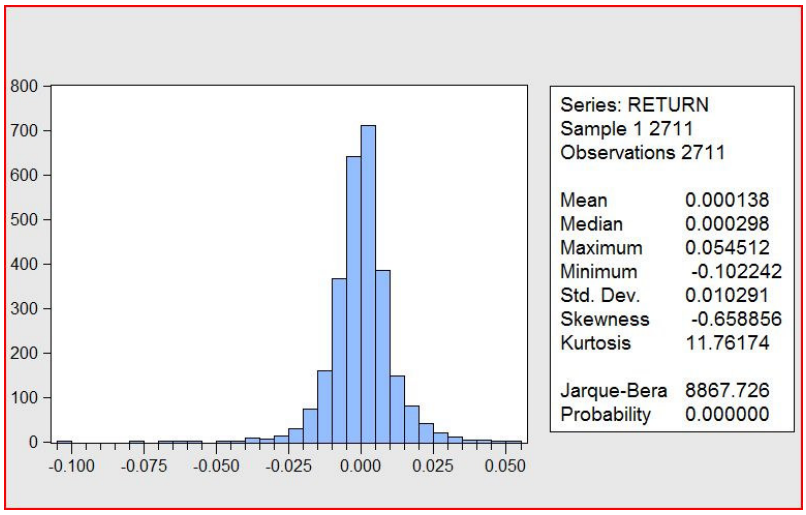
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/08/11 Time: 00:49
Sample (adjusted): 3 2713
Included observations: 2711 after adjustments
Convergence achieved after 23 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-9.71E-05	0.000167	-0.581925	0.5606
Variance Equation				
C	3.37E-06	3.36E-07	10.04647	0.0000
RESID(-1)^2	0.145739	0.007887	18.47883	0.0000
GARCH(-1)	0.841718	0.005894	142.8188	0.0000

R-squared	-0.000042	Mean dependent var	-2.06E-05
Adjusted R-squared	-0.000042	S.D. dependent var	0.011840
S.E. of regression	0.011841	Akaike info criterion	-6.316412
Sum squared resid	0.379948	Schwarz criterion	-6.307699
Log likelihood	8565.896	Hannan-Quinn criter.	-6.313262
Durbin-Watson stat	1.655208		

APPENDIX 27:

GARCH(1,1) Eviews analysis output for KLPRP Daily Index 2000-2010



APPENDIX 28:

Histogram and descriptive analysis for KLSER Daily

Heteroskedasticity Test: ARCH

F-statistic	0.148397	Prob. F(1,2708)	0.7001
Obs*R-squared	0.148499	Prob. Chi-Square(1)	0.7000

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 22:31
Sample (adjusted): 2 2711
Included observations: 2710 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.993602	0.055001	18.06524	0.0000
WGT_RESID^2(-1)	0.007402	0.019216	0.385223	0.7001

R-squared	0.000055	Mean dependent var	1.001011
Adjusted R-squared	-0.000314	S.D. dependent var	2.682028
S.E. of regression	2.682449	Akaike info criterion	4.812075
Sum squared resid	19485.51	Schwarz criterion	4.816433
Log likelihood	-6518.362	Hannan-Quinn criter.	4.813651
F-statistic	0.148397	Durbin-Watson stat	1.999845
Prob(F-statistic)	0.700102		

APPENDIX 29:

LM test for ARCH Eviews analysis output data for KLSER Daily Index 2000 - 2010

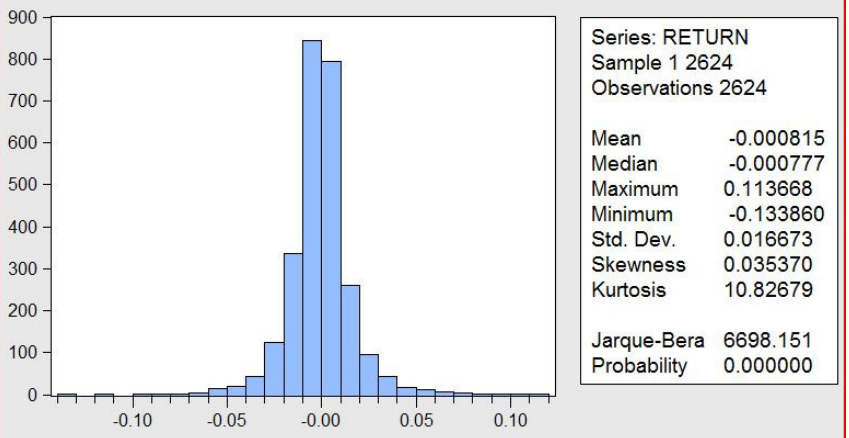
Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/08/11 Time: 00:57
Sample (adjusted): 1 2711
Included observations: 2711 after adjustments
Convergence achieved after 21 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000470	0.000139	3.373107	0.0007
Variance Equation				
C	7.36E-07	1.64E-07	4.497574	0.0000
RESID(-1)^2	0.101885	0.006830	14.91630	0.0000
GARCH(-1)	0.898023	0.006282	142.9547	0.0000

R-squared	-0.001043	Mean dependent var	0.000138
Adjusted R-squared	-0.001043	S.D. dependent var	0.010291
S.E. of regression	0.010296	Akaike info criterion	-6.627549
Sum squared resid	0.287308	Schwarz criterion	-6.618836
Log likelihood	8987.642	Hannan-Quinn criter.	-6.624399
Durbin-Watson stat	1.702514		

APPENDIX 30:

GARCH(1,1) Eviews analysis output for KLSER Daily Index 2000-2010



Series: RETURN
Sample 1 2624
Observations 2624

Mean	-0.000815
Median	-0.000777
Maximum	0.113668
Minimum	-0.133860
Std. Dev.	0.016673
Skewness	0.035370
Kurtosis	10.82679
Jarque-Bera	6698.151
Probability	0.000000

APPENDIX 31:

Histogram and descriptive analysis for KLTEC Daily Index 2000 - 2010

Heteroskedasticity Test: ARCH

F-statistic	2.383564	Prob. F(1,2621)	0.1227
Obs*R-squared	2.383216	Prob. Chi-Square(1)	0.1226

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/09/11 Time: 22:51
Sample (adjusted): 2 2624
Included observations: 2623 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.971015	0.048015	20.22299	0.0000
WGT_RESID^2(-1)	0.030143	0.019524	1.543880	0.1227

R-squared	0.000909	Mean dependent var	1.001195
Adjusted R-squared	0.000527	S.D. dependent var	2.246700
S.E. of regression	2.246108	Akaike info criterion	4.457037
Sum squared resid	13222.95	Schwarz criterion	4.461514
Log likelihood	-5843.404	Hannan-Quinn criter.	4.458659
F-statistic	2.383564	Durbin-Watson stat	2.002036
Prob(F-statistic)	0.122738		

APPENDIX 32:

LM test for ARCH Eviews analysis output data for KLTEC Daily Index 2000 - 2010

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/08/11 Time: 01:05
Sample (adjusted): 3 2626
Included observations: 2624 after adjustments
Convergence achieved after 14 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

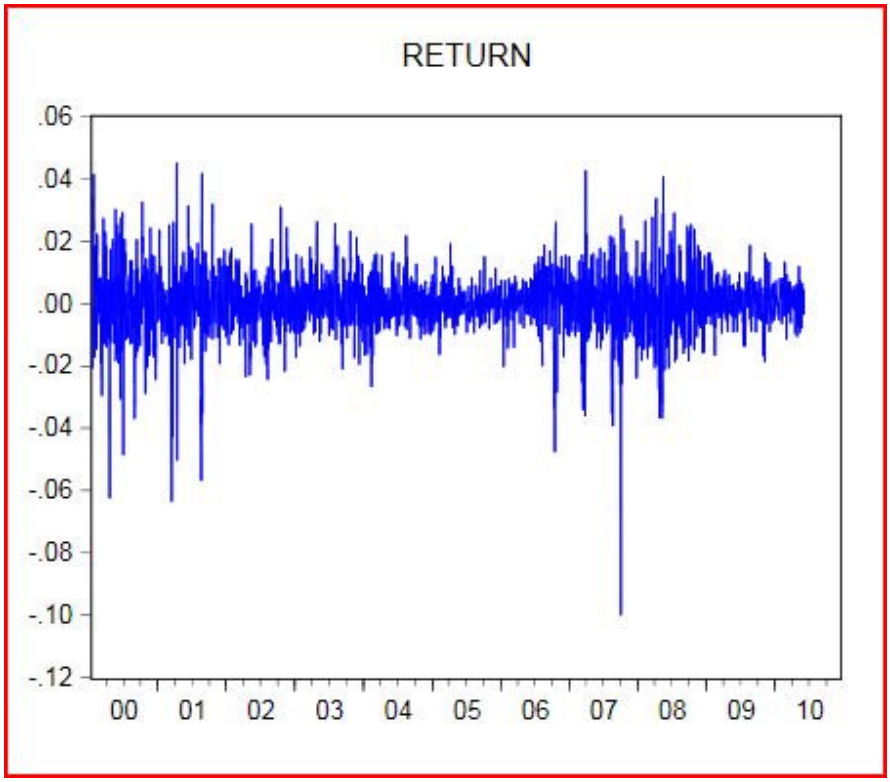
Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.000713	0.000216	-3.296886	0.0010
Variance Equation				
C	3.06E-06	4.25E-07	7.193401	0.0000
RESID(-1)^2	0.105896	0.006365	16.63806	0.0000
GARCH(-1)	0.888738	0.005173	171.8073	0.0000

R-squared	-0.000038	Mean dependent var	-0.000815
Adjusted R-squared	-0.000038	S.D. dependent var	0.016673
S.E. of regression	0.016673	Akaike info criterion	-5.705246
Sum squared resid	0.729162	Schwarz criterion	-5.696294
Log likelihood	7489.282	Hannan-Quinn criter.	-5.702004
Durbin-Watson stat	1.663234		

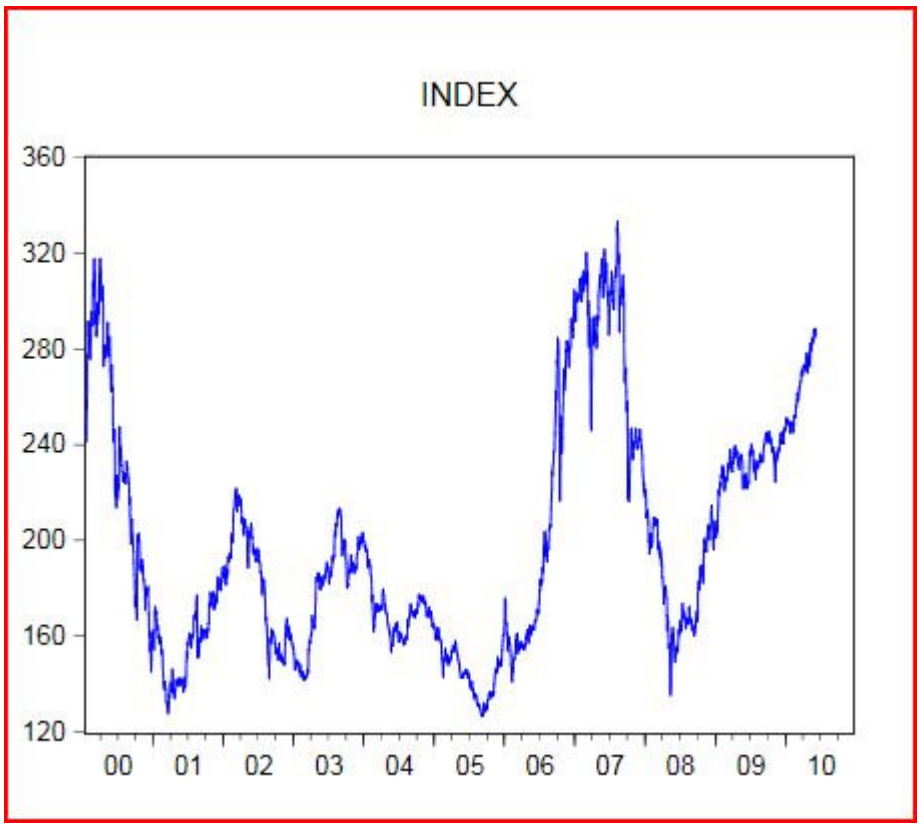
APPENDIX 33:

GARCH(1,1) Eviews analysis output for KLTEC Daily Index 2000-2010

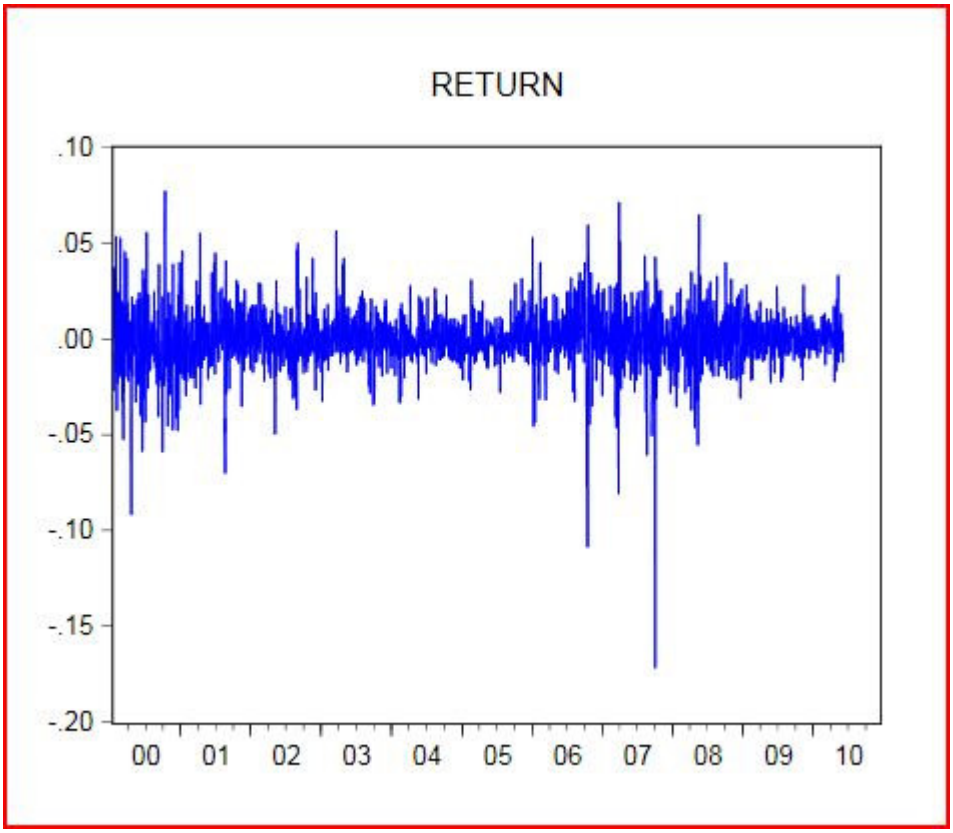
APPENDIX 34: FBMKLCI Daily Index 2000-2010 Plot



APPENDIX 35: FTBMKLCI Daily Returns 2000-2010 Plot

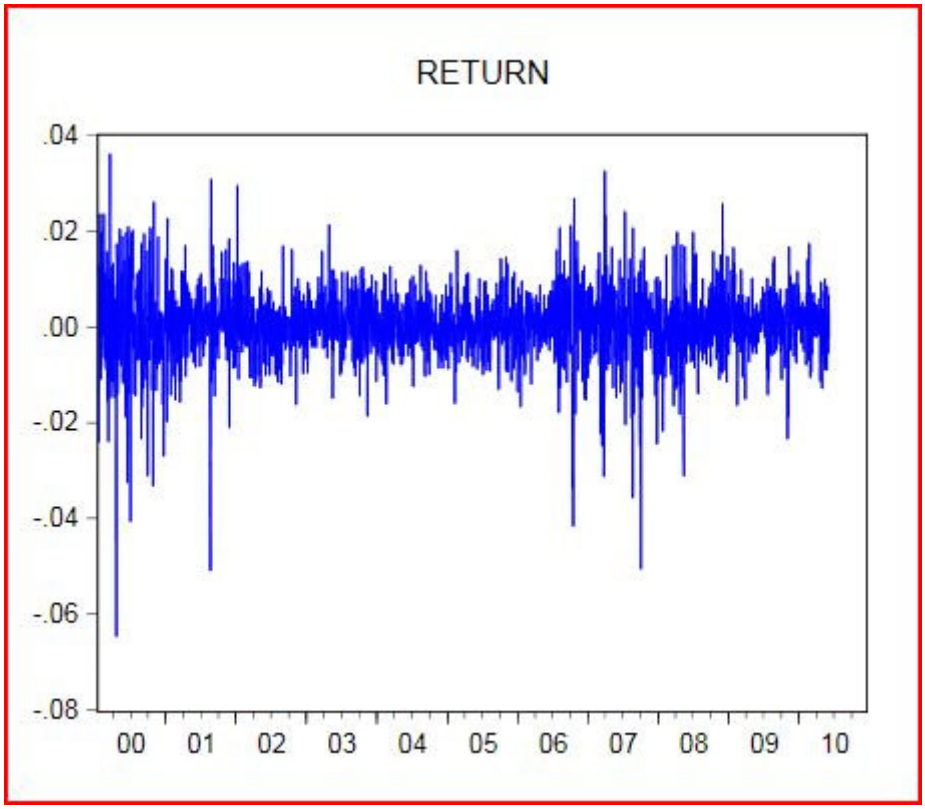


APPENDIX 36: KLCON Daily Index 2000-2010 Plot



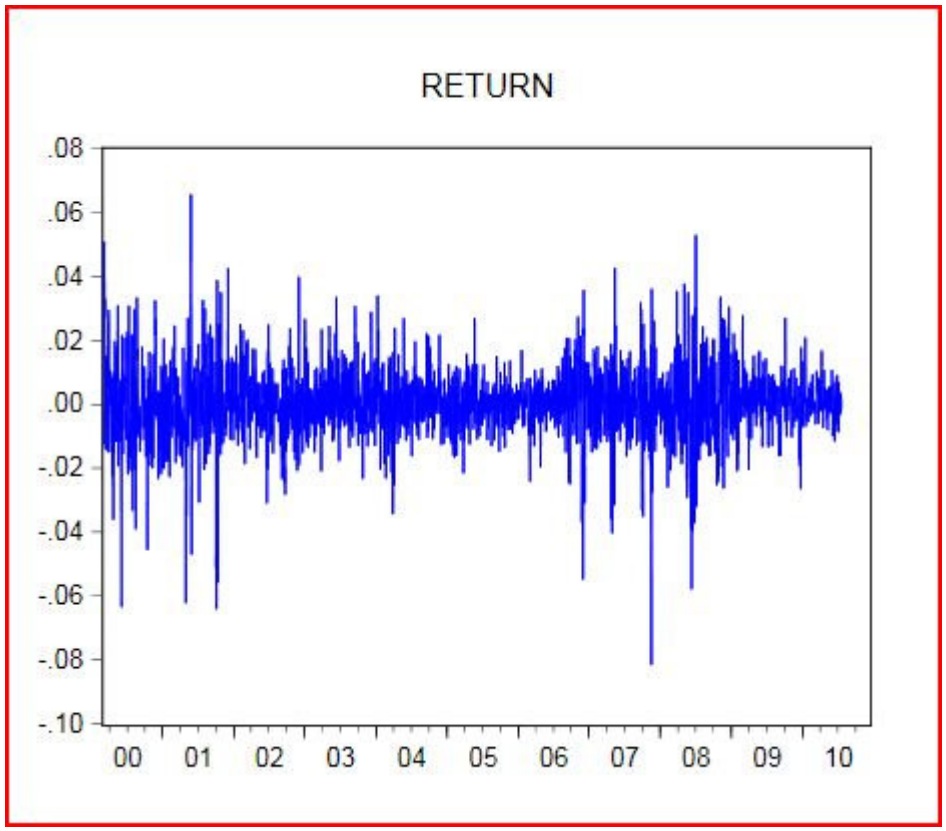
APPENDIX 37: KLCON Daily Returns 2000-2010 Plot

APPENDIX 38: KLCSU Daily Index 2000-2010 Plot



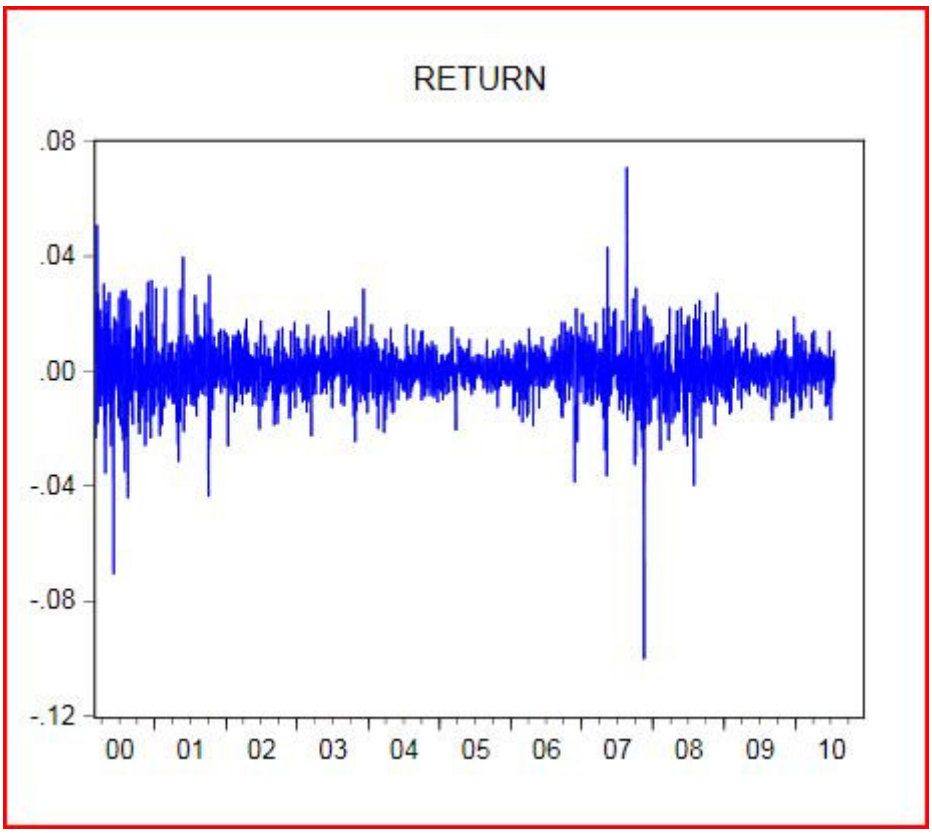
APPENDIX 39: KLCSU Daily Returns 2000-2010 Plot

APPENDIX 40: KLFIN Daily Index 2000-2010 Plot



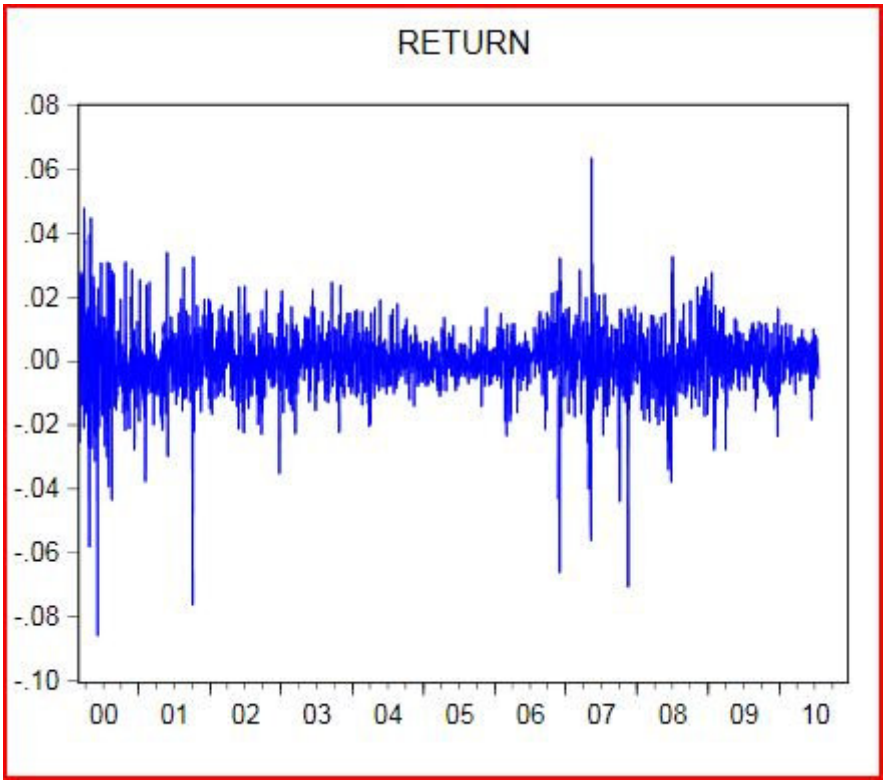
APPENDIX 41: KLFIN Daily Returns 2000-2010 Plot

APPENDIX 42: KLIND Daily Index 2000-2010 Plot

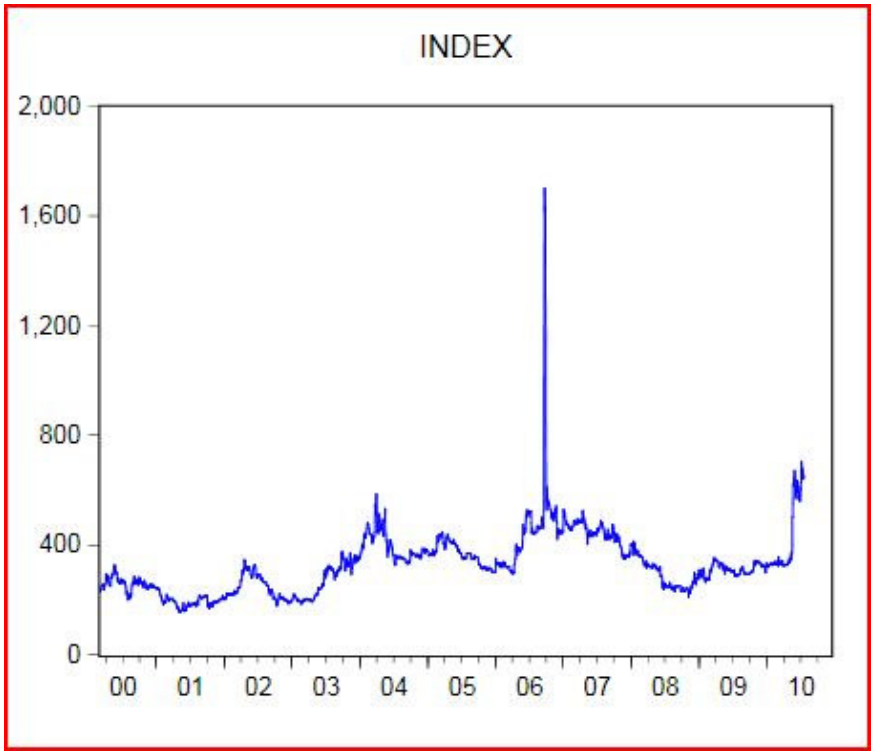


APPENDIX 43: KLIND Daily Returns 2000-2010 Plot

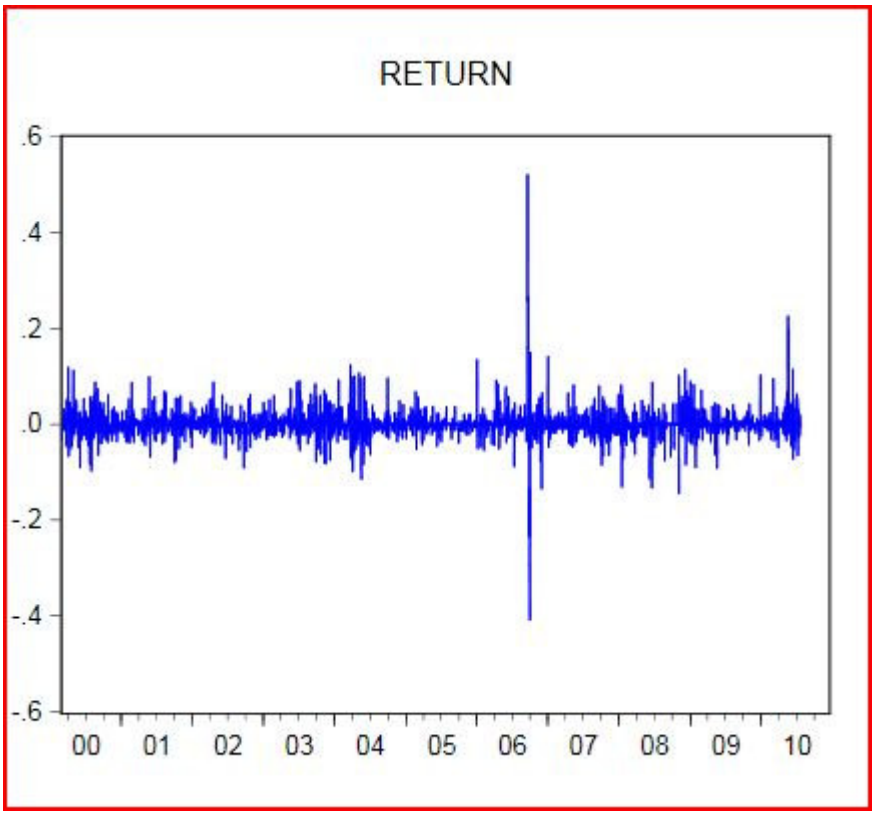
APPENDIX 44: KLPRO Daily Index 2000-2010 Plot



APPENDIX 45: KLPRO Daily Returns 2000-2010 Plot

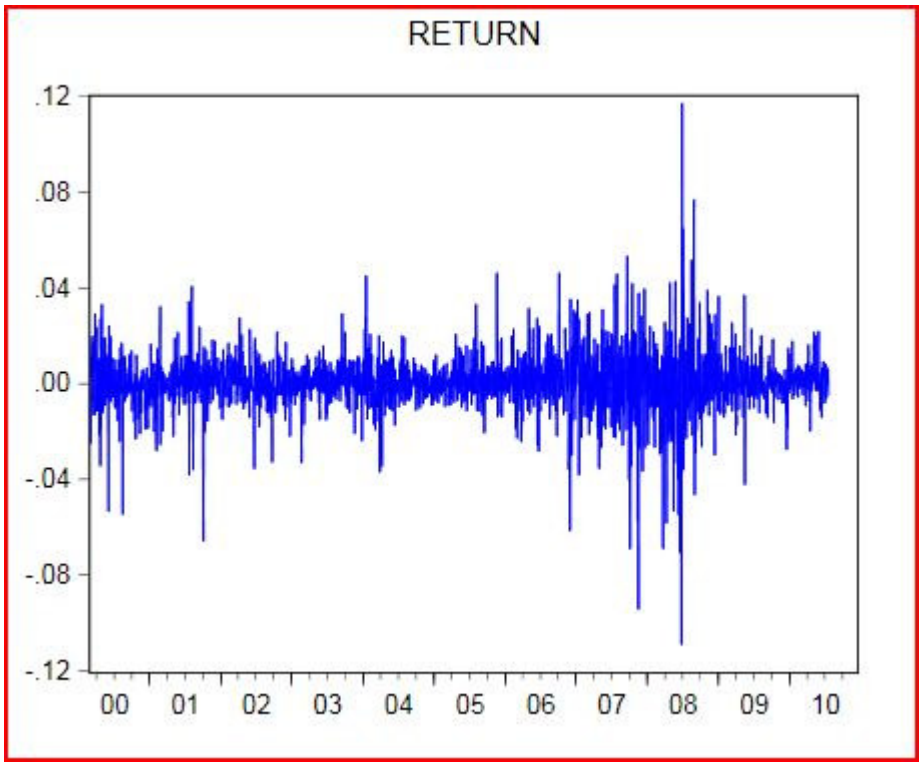


APPENDIX 46: KLTIN Daily Index 2000-2010 Plot

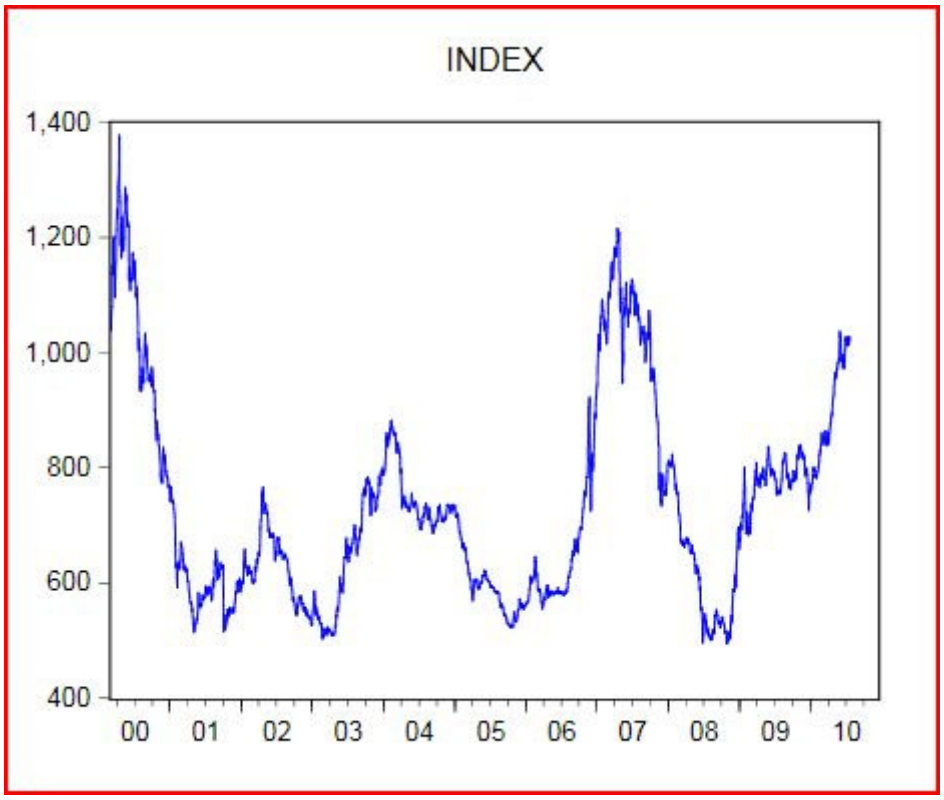


APPENDIX 47: KLTIN Daily Returns 2000-2010 Plot

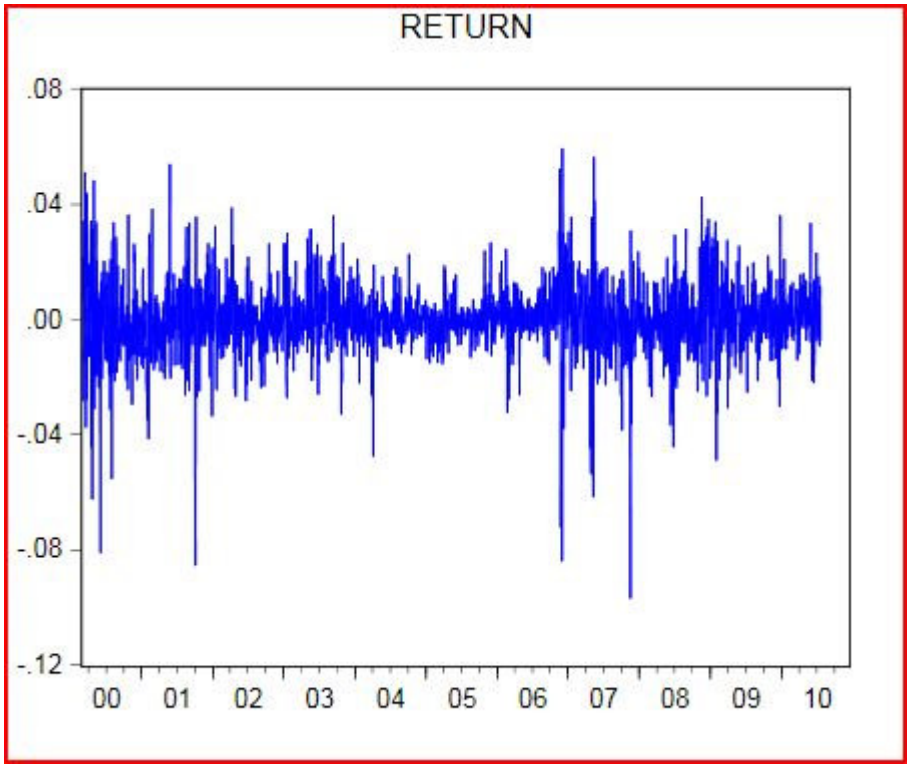
APPENDIX 48: KLPLN Daily Index 2000-2010 Plot



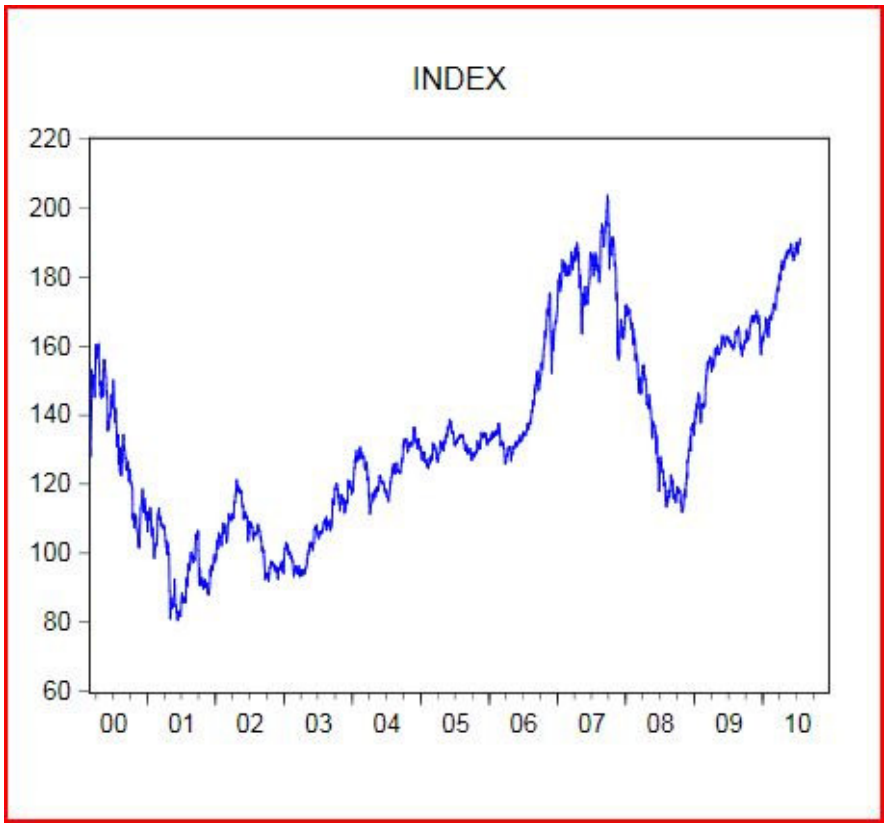
APPENDIX 49: KLPLN Daily Returns 2000-2010 Plot



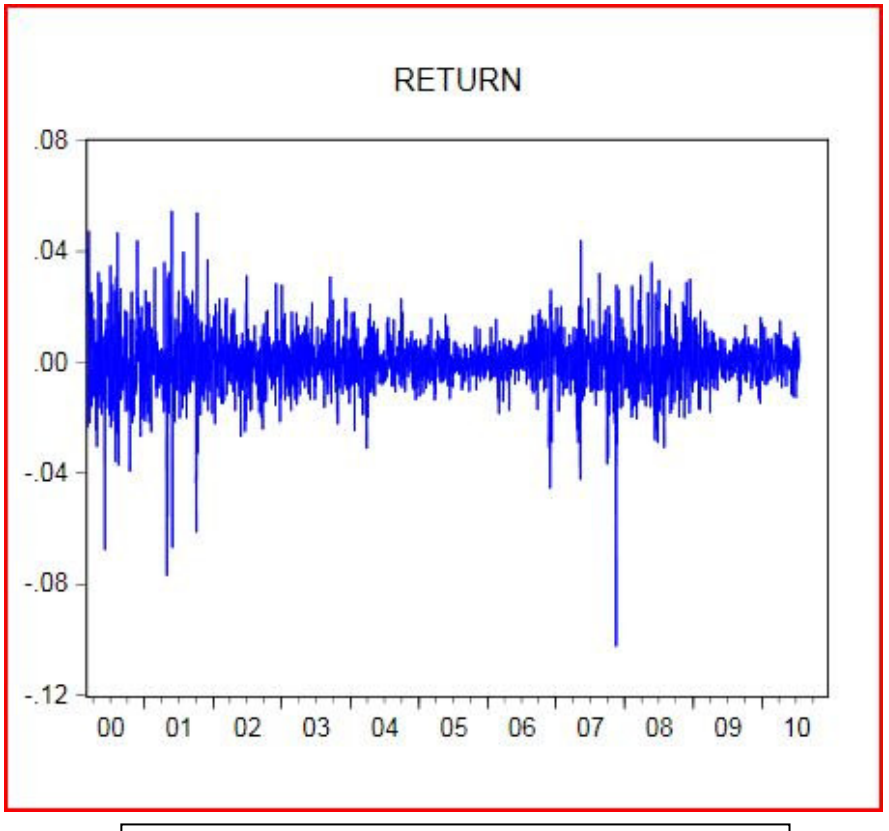
APPENDIX 50: KLPRP Daily Index 2000-2010 Plot



APPENDIX 51: KLPRP Daily Returns 2000-2010 Plot

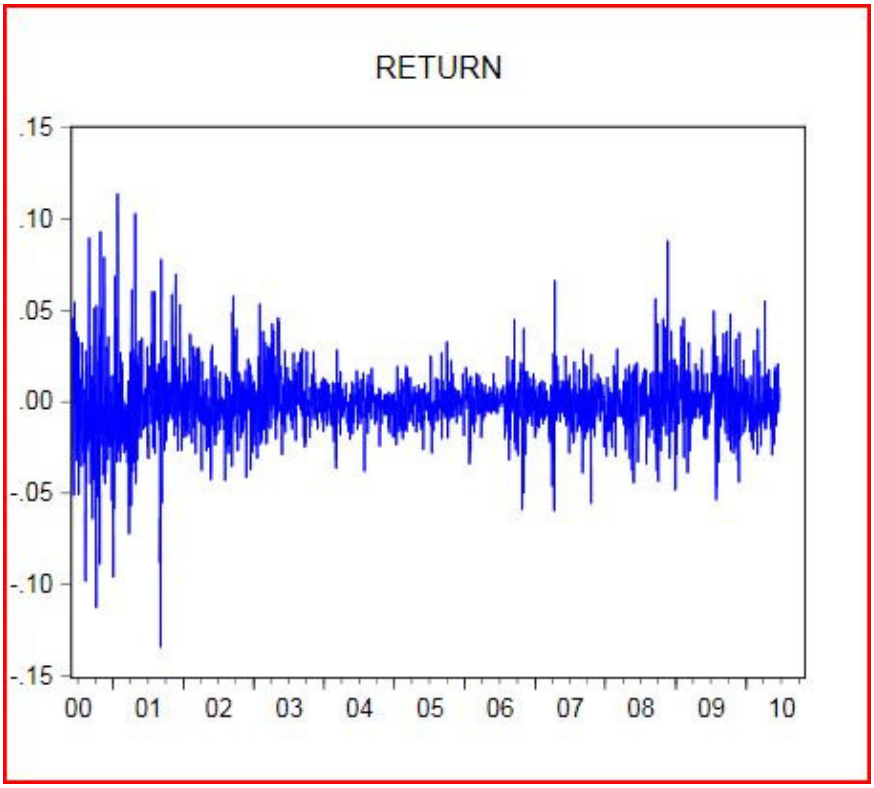


APPENDIX 52: KLSER Daily Index 2000-2010 Plot



APPENDIX 53: KLSER Daily Returns 2000-2010 Plot

APPENDIX 54: KLTEC Daily Index 2000-2010 Plot



APPENDIX 55: KLTEC Daily Returns 2000-2010 Plot

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/05/11 Time: 19:07
Sample: 1 2710
Included observations: 2710
Convergence achieved after 21 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000414	0.000138	3.004728	0.0027
Variance Equation				
C(2)	-0.388098	0.033357	-11.63467	0.0000
C(3)	0.214241	0.013658	15.68658	0.0000
C(4)	-0.058413	0.006945	-8.411271	0.0000
C(5)	0.976459	0.003154	309.6376	0.0000

R-squared	-0.000422	Mean dependent var	0.000221
Adjusted R-squared	-0.000422	S.D. dependent var	0.009398
S.E. of regression	0.009400	Akaike info criterion	-6.799685
Sum squared resid	0.239388	Schwarz criterion	-6.788791
Log likelihood	9218.573	Hannan-Quinn criter.	-6.795746
Durbin-Watson stat	1.654029		

APPENDIX 56:

FBMKLCI EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/05/11 Time: 19:12
Sample: 1 2711
Included observations: 2711
Convergence achieved after 28 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000248	0.000215	1.157121	0.2472
Variance Equation				
C(2)	-0.491391	0.037853	-12.98157	0.0000
C(3)	0.237053	0.014702	16.12352	0.0000
C(4)	-0.053785	0.007395	-7.273623	0.0000
C(5)	0.963704	0.003633	265.2687	0.0000

R-squared	-0.000198	Mean dependent var	4.72E-05
Adjusted R-squared	-0.000198	S.D. dependent var	0.014301
S.E. of regression	0.014302	Akaike info criterion	-5.935186
Sum squared resid	0.554346	Schwarz criterion	-5.924295
Log likelihood	8050.144	Hannan-Quinn criter.	-5.931248
Durbin-Watson stat	1.776947		

APPENDIX 57:

KLCON EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/05/11 Time: 19:16
Sample: 1 2711
Included observations: 2711
Convergence achieved after 21 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000360	0.000111	3.241785	0.0012
Variance Equation				
C(2)	-0.720738	0.058438	-12.33342	0.0000
C(3)	0.225460	0.013504	16.69617	0.0000
C(4)	-0.058351	0.009040	-6.455008	0.0000
C(5)	0.944905	0.005263	179.5355	0.0000

R-squared	-0.000000	Mean dependent var	0.000363
Adjusted R-squared	-0.000000	S.D. dependent var	0.007196
S.E. of regression	0.007196	Akaike info criterion	-7.233813
Sum squared resid	0.140336	Schwarz criterion	-7.222922
Log likelihood	9810.433	Hannan-Quinn criter.	-7.229875
Durbin-Watson stat	1.801897		

APPENDIX 58:

KLCSU EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/05/11 Time: 19:18
Sample: 1 2711
Included observations: 2711
Convergence achieved after 18 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000498	0.000170	2.924890	0.0034
Variance Equation				
C(2)	-0.295234	0.026008	-11.35180	0.0000
C(3)	0.163042	0.010809	15.08370	0.0000
C(4)	-0.045767	0.005991	-7.639822	0.0000
C(5)	0.981383	0.002588	379.1448	0.0000

R-squared	-0.000453	Mean dependent var	0.000266
Adjusted R-squared	-0.000453	S.D. dependent var	0.010856
S.E. of regression	0.010858	Akaike info criterion	-6.441873
Sum squared resid	0.319515	Schwarz criterion	-6.430982
Log likelihood	8736.959	Hannan-Quinn criter.	-6.437936
Durbin-Watson stat	1.628273		

APPENDIX 59:

KLFIN EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/05/11 Time: 19:21
Sample: 1 2711
Included observations: 2711
Convergence achieved after 28 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000322	0.000140	2.297527	0.0216
Variance Equation				
C(2)	-0.218672	0.023498	-9.306069	0.0000
C(3)	0.135197	0.009416	14.35825	0.0000
C(4)	-0.033190	0.006431	-5.160774	0.0000
C(5)	0.987863	0.002160	457.2908	0.0000

R-squared	-0.000062	Mean dependent var	0.000251
Adjusted R-squared	-0.000062	S.D. dependent var	0.008893
S.E. of regression	0.008893	Akaike info criterion	-6.845629
Sum squared resid	0.214329	Schwarz criterion	-6.834738
Log likelihood	9284.250	Hannan-Quinn criter.	-6.841691
Durbin-Watson stat	1.842610		

APPENDIX 60:

KLIND EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/06/11 Time: 12:13
Sample: 1 2711
Included observations: 2711
Convergence achieved after 24 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	4.45E-05	0.000136	0.326924	0.7437
Variance Equation				
C(2)	-0.435706	0.034089	-12.78153	0.0000
C(3)	0.249392	0.012762	19.54204	0.0000
C(4)	-0.032480	0.006946	-4.676229	0.0000
C(5)	0.973950	0.003404	286.0939	0.0000

R-squared	-0.000009	Mean dependent var	7.28E-05
Adjusted R-squared	-0.000009	S.D. dependent var	0.009579
S.E. of regression	0.009579	Akaike info criterion	-6.766884
Sum squared resid	0.248672	Schwarz criterion	-6.755993
Log likelihood	9177.512	Hannan-Quinn criter.	-6.762947
Durbin-Watson stat	1.767819		

APPENDIX 61:

KLPRO EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/06/11 Time: 12:01
Sample: 1 2711
Included observations: 2711
Convergence achieved after 59 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.001282	0.000464	2.764860	0.0057
Variance Equation				
C(2)	-1.184930	0.080186	-14.77732	0.0000
C(3)	0.321154	0.014564	22.05149	0.0000
C(4)	-0.040648	0.007364	-5.519782	0.0000
C(5)	0.863967	0.010075	85.75466	0.0000

R-squared	-0.000885	Mean dependent var	0.000364
Adjusted R-squared	-0.000885	S.D. dependent var	0.030877
S.E. of regression	0.030891	Akaike info criterion	-4.450018
Sum squared resid	2.586012	Schwarz criterion	-4.439127
Log likelihood	6036.999	Hannan-Quinn criter.	-4.446080
Durbin-Watson stat	1.647527		

APPENDIX 62:

KLTIN EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/05/11 Time: 19:23
Sample: 1 2711
Included observations: 2711
Convergence achieved after 19 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000620	0.000166	3.724377	0.0002
Variance Equation				
C(2)	-0.568387	0.041495	-13.69779	0.0000
C(3)	0.291149	0.012651	23.01374	0.0000
C(4)	-0.014266	0.007181	-1.986556	0.0470
C(5)	0.961014	0.003902	246.3056	0.0000

R-squared	-0.000015	Mean dependent var	0.000574
Adjusted R-squared	-0.000015	S.D. dependent var	0.011869
S.E. of regression	0.011869	Akaike info criterion	-6.412537
Sum squared resid	0.381774	Schwarz criterion	-6.401646
Log likelihood	8697.193	Hannan-Quinn criter.	-6.408599
Durbin-Watson stat	1.659878		

APPENDIX 63:

KLPLN EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/06/11 Time: 11:52
Sample: 1 2711
Included observations: 2711
Convergence achieved after 33 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.000161	0.000181	-0.890445	0.3732
Variance Equation				
C(2)	-0.500218	0.031179	-16.04367	0.0000
C(3)	0.268714	0.011797	22.77911	0.0000
C(4)	-0.011644	0.005285	-2.203256	0.0276
C(5)	0.966790	0.003288	294.0000	0.0000

R-squared	-0.000141	Mean dependent var	-2.06E-05
Adjusted R-squared	-0.000141	S.D. dependent var	0.011840
S.E. of regression	0.011841	Akaike info criterion	-6.318683
Sum squared resid	0.379985	Schwarz criterion	-6.307792
Log likelihood	8569.975	Hannan-Quinn criter.	-6.314746
Durbin-Watson stat	1.655044		

APPENDIX 64:

KLPRP EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/06/11 Time: 11:56
Sample: 1 2711
Included observations: 2711
Convergence achieved after 18 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000284	0.000146	1.951329	0.0510
Variance Equation				
C(2)	-0.326655	0.031017	-10.53138	0.0000
C(3)	0.209370	0.013857	15.10962	0.0000
C(4)	-0.057918	0.006836	-8.472137	0.0000
C(5)	0.982314	0.002941	334.0049	0.0000

R-squared	-0.000201	Mean dependent var	0.000138
Adjusted R-squared	-0.000201	S.D. dependent var	0.010291
S.E. of regression	0.010292	Akaike info criterion	-6.647294
Sum squared resid	0.287067	Schwarz criterion	-6.636403
Log likelihood	9015.407	Hannan-Quinn criter.	-6.643356
Durbin-Watson stat	1.703947		

APPENDIX 65:

KLSER EGARCH OUTPUT

Dependent Variable: RETURN
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 02/06/11 Time: 12:04
Sample: 1 2624
Included observations: 2624
Convergence achieved after 16 iterations
Presample variance: backcast (parameter = 0.7)
LOG(GARCH) = C(2) + C(3)*ABS(RESID(-1)/@SQRT(GARCH(-1))) + C(4)
*RESID(-1)/@SQRT(GARCH(-1)) + C(5)*LOG(GARCH(-1))

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.000817	0.000206	-3.966389	0.0001
Variance Equation				
C(2)	-0.347875	0.025064	-13.87929	0.0000
C(3)	0.238199	0.011987	19.87143	0.0000
C(4)	-0.014979	0.006203	-2.414939	0.0157
C(5)	0.979501	0.002505	391.0092	0.0000

R-squared	-0.000000	Mean dependent var	-0.000815
Adjusted R-squared	-0.000000	S.D. dependent var	0.016673
S.E. of regression	0.016673	Akaike info criterion	-5.706678
Sum squared resid	0.729134	Schwarz criterion	-5.695488
Log likelihood	7492.162	Hannan-Quinn criter.	-5.702626
Durbin-Watson stat	1.663296		

APPENDIX 66:

KLTEC EGARCH OUTPUT

APPENDIX 67

Yearly Data LM Test for ARCH For FBMKLCI

Heteroskedasticity Test: ARCH

F-statistic	0.494837	Prob. F(1,240)	0.4825
Obs*R-squared	0.497934	Prob. Chi-Square(1)	0.4804

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 00:27
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.976525	0.146144	6.681917	0.0000
WGT_RESID^2(-1)	0.045438	0.064594	0.703447	0.4825

R-squared	0.002058	Mean dependent var	1.022395
Adjusted R-squared	-0.002101	S.D. dependent var	2.032495
S.E. of regression	2.034628	Akaike info criterion	4.266733
Sum squared resid	993.5307	Schwarz criterion	4.295567
Log likelihood	-514.2747	Hannan-Quinn criter.	4.278349
F-statistic	0.494837	Durbin-Watson stat	1.998014
Prob(F-statistic)	0.482459		

2000

Heteroskedasticity Test: ARCH

F-statistic	0.028159	Prob. F(1,240)	0.8669
Obs*R-squared	0.028391	Prob. Chi-Square(1)	0.8662

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 00:36
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.986189	0.156726	6.292445	0.0000
WGT_RESID^2(-1)	0.010828	0.064526	0.167808	0.8669

R-squared	0.000117	Mean dependent var	0.997065
Adjusted R-squared	-0.004049	S.D. dependent var	2.215385
S.E. of regression	2.219865	Akaike info criterion	4.441000
Sum squared resid	1182.673	Schwarz criterion	4.469835
Log likelihood	-535.3610	Hannan-Quinn criter.	4.452616
F-statistic	0.028159	Durbin-Watson stat	2.001257
Prob(F-statistic)	0.866876		

2001

Heteroskedasticity Test: ARCH

F-statistic	0.655550	Prob. F(1,245)	0.4189
Obs*R-squared	0.659138	Prob. Chi-Square(1)	0.4169

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 14:24
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.048679	0.132160	7.934930	0.0000
WGT_RESID^2(-1)	-0.051591	0.063719	-0.809660	0.4189

R-squared	0.002669	Mean dependent var	0.996737
Adjusted R-squared	-0.001402	S.D. dependent var	1.814660
S.E. of regression	1.815931	Akaike info criterion	4.039138
Sum squared resid	807.9137	Schwarz criterion	4.067554
Log likelihood	-496.8336	Hannan-Quinn criter.	4.050579
F-statistic	0.655550	Durbin-Watson stat	1.991303
Prob(F-statistic)	0.418921		

2002

Heteroskedasticity Test: ARCH

F-statistic	0.427264	Prob. F(1,243)	0.5140
Obs*R-squared	0.430025	Prob. Chi-Square(1)	0.5120

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 14:35
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.948717	0.118136	8.030739	0.0000
WGT_RESID^2(-1)	0.041526	0.063529	0.653655	0.5140

R-squared	0.001755	Mean dependent var	0.990591
Adjusted R-squared	-0.002353	S.D. dependent var	1.551808
S.E. of regression	1.553633	Akaike info criterion	3.727199
Sum squared resid	586.5472	Schwarz criterion	3.755780
Log likelihood	-454.5818	Hannan-Quinn criter.	3.738708
F-statistic	0.427264	Durbin-Watson stat	1.980894
Prob(F-statistic)	0.513952		

2003

Heteroskedasticity Test: ARCH

F-statistic	0.458050	Prob. F(1,245)	0.4992
Obs*R-squared	0.460928	Prob. Chi-Square(1)	0.4972

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 14:39
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.051700	0.130356	8.067886	0.0000
WGT_RESID^2(-1)	-0.043204	0.063836	-0.676794	0.4992

R-squared	0.001866	Mean dependent var	1.008114
Adjusted R-squared	-0.002208	S.D. dependent var	1.779267
S.E. of regression	1.781230	Akaike info criterion	4.000550
Sum squared resid	777.3316	Schwarz criterion	4.028966
Log likelihood	-492.0679	Hannan-Quinn criter.	4.011991
F-statistic	0.458050	Durbin-Watson stat	2.000038
Prob(F-statistic)	0.499175		

2004

Heteroskedasticity Test: ARCH

F-statistic	0.099335	Prob. F(1,244)	0.7529
Obs*R-squared	0.100109	Prob. Chi-Square(1)	0.7517

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 14:42
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.979745	0.128185	7.643222	0.0000
WGT_RESID^2(-1)	0.020185	0.064043	0.315175	0.7529

R-squared	0.000407	Mean dependent var	0.999985
Adjusted R-squared	-0.003690	S.D. dependent var	1.736812
S.E. of regression	1.740013	Akaike info criterion	3.953760
Sum squared resid	738.7458	Schwarz criterion	3.982258
Log likelihood	-484.3124	Hannan-Quinn criter.	3.965235
F-statistic	0.099335	Durbin-Watson stat	1.997889
Prob(F-statistic)	0.752898		

2005

Dependent Variable: SER01
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 01/31/11 Time: 14:47
Sample: 1 246
Included observations: 246
Convergence achieved after 11 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(2) + C(3)*RESID(-1)^2 + C(4)*GARCH(-1)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000879	0.000331	2.655683	0.0079
Variance Equation				
C	4.21E-06	2.03E-06	2.076209	0.0379
RESID(-1)^2	0.192580	0.060374	3.189768	0.0014
GARCH(-1)	0.660352	0.110938	5.952460	0.0000

R-squared	-0.000211	Mean dependent var	0.000803
Adjusted R-squared	-0.000211	S.D. dependent var	0.005264
S.E. of regression	0.005264	Akaike info criterion	-7.735836
Sum squared resid	0.006790	Schwarz criterion	-7.678839
Log likelihood	955.5079	Hannan-Quinn criter.	-7.712886
Durbin-Watson stat	1.789232		

2006

Heteroskedasticity Test: ARCH

F-statistic	0.389815	Prob. F(1,245)	0.5330
Obs*R-squared	0.392373	Prob. Chi-Square(1)	0.5311

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 14:50
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.953965	0.122868	7.764133	0.0000
WGT_RESID^2(-1)	0.039781	0.063715	0.624352	0.5330

R-squared	0.001589	Mean dependent var	0.993935
Adjusted R-squared	-0.002487	S.D. dependent var	1.646155
S.E. of regression	1.648201	Akaike info criterion	3.845310
Sum squared resid	665.5585	Schwarz criterion	3.873726
Log likelihood	-472.8957	Hannan-Quinn criter.	3.856750
F-statistic	0.389815	Durbin-Watson stat	1.984915
Prob(F-statistic)	0.532977		

2007

Heteroskedasticity Test: ARCH

F-statistic	0.518368	Prob. F(1,242)	0.4722
Obs*R-squared	0.521535	Prob. Chi-Square(1)	0.4702

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 14:53
Sample (adjusted): 2 245
Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.052091	0.212780	4.944497	0.0000
WGT_RESID^2(-1)	-0.046234	0.064215	-0.719978	0.4722

R-squared	0.002137	Mean dependent var	1.005584
Adjusted R-squared	-0.001986	S.D. dependent var	3.163741
S.E. of regression	3.166881	Akaike info criterion	5.151535
Sum squared resid	2427.051	Schwarz criterion	5.180200
Log likelihood	-626.4872	Hannan-Quinn criter.	5.163079
F-statistic	0.518368	Durbin-Watson stat	2.000857
Prob(F-statistic)	0.472233		

2008

Heteroskedasticity Test: ARCH

F-statistic	0.346491	Prob. F(1,245)	0.5566
Obs*R-squared	0.348826	Prob. Chi-Square(1)	0.5548

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 14:56
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.952272	0.104224	9.136799	0.0000
WGT_RESID^2(-1)	-0.037614	0.063900	-0.588635	0.5566

R-squared	0.001412	Mean dependent var	0.917586
Adjusted R-squared	-0.002664	S.D. dependent var	1.349269
S.E. of regression	1.351064	Akaike info criterion	3.447727
Sum squared resid	447.2168	Schwarz criterion	3.476143
Log likelihood	-423.7942	Hannan-Quinn criter.	3.459167
F-statistic	0.346491	Durbin-Watson stat	1.984781
Prob(F-statistic)	0.556648		

2009

Heteroskedasticity Test: ARCH

F-statistic	0.063085	Prob. F(1,245)	0.8019
Obs*R-squared	0.063583	Prob. Chi-Square(1)	0.8009

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 14:58
Sample (adjusted): 2 248
Included observations: 247 after adjustments

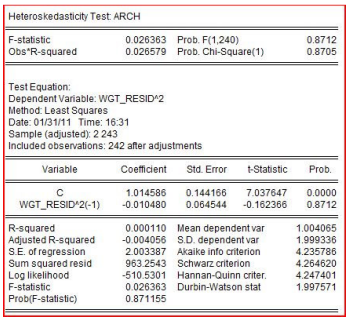
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.988061	0.125093	7.898589	0.0000
WGT_RESID^2(-1)	0.016034	0.063840	0.251167	0.8019

R-squared	0.000257	Mean dependent var	1.004099
Adjusted R-squared	-0.003823	S.D. dependent var	1.687340
S.E. of regression	1.690562	Akaike info criterion	3.896063
Sum squared resid	700.2099	Schwarz criterion	3.924479
Log likelihood	-479.1638	Hannan-Quinn criter.	3.907504
F-statistic	0.063085	Durbin-Watson stat	1.982590
Prob(F-statistic)	0.801896		

2010

APPENDIX 68

Yearly Data LM Test for ARCH For KLCON



Heteroskedasticity Test: ARCH

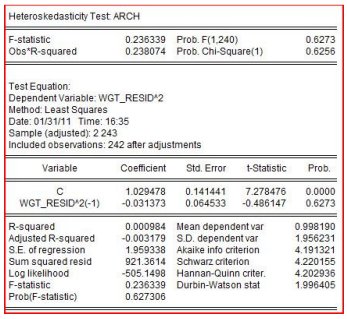
F-statistic	0.026363	Prob. F(1,240)	0.8712
Obs*R-squared	0.026579	Prob. Chi-Square(1)	0.8705

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 16:31
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.014586	0.144166	7.037647	0.0000
WGT_RESID^2(-1)	-0.010480	0.064544	-0.162366	0.8712

R-squared	0.000110	Mean dependent var	1.004065
Adjusted R-squared	-0.004056	S.D. dependent var	1.999336
S.E. of regression	2.003387	Akaike info criterion	4.235786
Sum squared resid	963.2543	Schwarz criterion	4.264620
Log likelihood	-510.5301	Hannan-Quinn criter.	4.247401
F-statistic	0.026363	Durbin-Watson stat	1.997571
Prob(F-statistic)	0.871155		

2000



Heteroskedasticity Test: ARCH

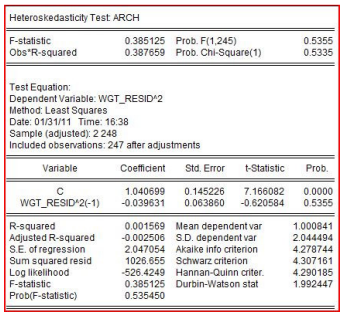
F-statistic	0.236339	Prob. F(1,240)	0.6273
Obs*R-squared	0.238074	Prob. Chi-Square(1)	0.6256

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 16:35
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.029478	0.141441	7.278476	0.0000
WGT_RESID^2(-1)	-0.031373	0.064533	-0.486147	0.6273

R-squared	0.000984	Mean dependent var	0.998190
Adjusted R-squared	-0.003179	S.D. dependent var	1.956231
S.E. of regression	1.959338	Akaike info criterion	4.191321
Sum squared resid	921.3614	Schwarz criterion	4.220155
Log likelihood	-505.1498	Hannan-Quinn criter.	4.202936
F-statistic	0.236339	Durbin-Watson stat	1.996405
Prob(F-statistic)	0.627306		

2001



Heteroskedasticity Test: ARCH

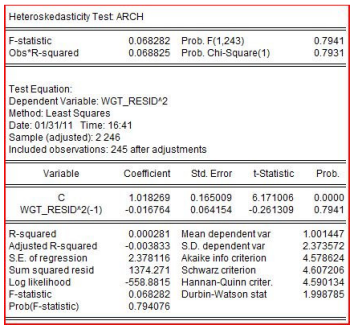
F-statistic	0.385125	Prob. F(1,245)	0.5355
Obs*R-squared	0.387659	Prob. Chi-Square(1)	0.5335

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 16:38
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.040699	0.145226	7.166082	0.0000
WGT_RESID^2(-1)	-0.039631	0.063860	-0.620584	0.5355

R-squared	0.001569	Mean dependent var	1.000841
Adjusted R-squared	-0.002506	S.D. dependent var	2.044494
S.E. of regression	2.047054	Akaike info criterion	4.278744
Sum squared resid	1026.655	Schwarz criterion	4.307161
Log likelihood	-526.4249	Hannan-Quinn criter.	4.290185
F-statistic	0.385125	Durbin-Watson stat	1.992447
Prob(F-statistic)	0.535450		

2002



Heteroskedasticity Test: ARCH

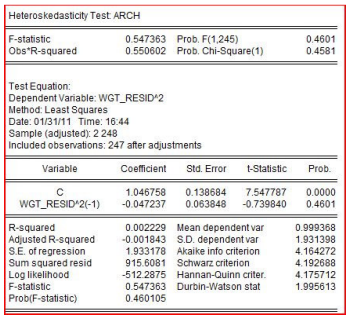
F-statistic	0.068282	Prob. F(1,243)	0.7941
Obs*R-squared	0.068825	Prob. Chi-Square(1)	0.7931

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 16:41
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.018269	0.165009	6.171006	0.0000
WGT_RESID^2(-1)	-0.016764	0.064154	-0.261309	0.7941

R-squared	0.000281	Mean dependent var	1.001447
Adjusted R-squared	-0.003833	S.D. dependent var	2.373572
S.E. of regression	2.378116	Akaike info criterion	4.578624
Sum squared resid	1374.271	Schwarz criterion	4.607206
Log likelihood	-558.8815	Hannan-Quinn criter.	4.590134
F-statistic	0.068282	Durbin-Watson stat	1.998785
Prob(F-statistic)	0.794076		

2003



Heteroskedasticity Test: ARCH

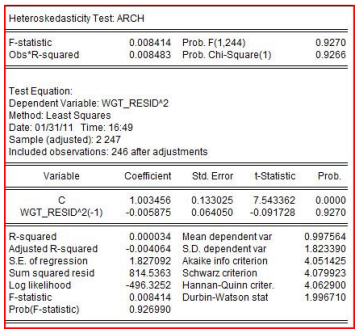
F-statistic	0.547363	Prob. F(1,245)	0.4601
Obs*R-squared	0.550602	Prob. Chi-Square(1)	0.4581

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 16:44
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.046758	0.138684	7.547787	0.0000
WGT_RESID^2(-1)	-0.047237	0.063848	-0.739840	0.4601

R-squared	0.002229	Mean dependent var	0.999368
Adjusted R-squared	-0.001843	S.D. dependent var	1.931398
S.E. of regression	1.933178	Akaike info criterion	4.164272
Sum squared resid	915.6081	Schwarz criterion	4.192688
Log likelihood	-512.2875	Hannan-Quinn criter.	4.175712
F-statistic	0.547363	Durbin-Watson stat	1.995613
Prob(F-statistic)	0.460105		

2004



Heteroskedasticity Test: ARCH

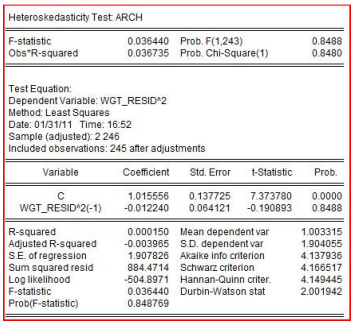
F-statistic	0.008414	Prob. F(1,244)	0.9270
Obs*R-squared	0.008483	Prob. Chi-Square(1)	0.9266

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 16:49
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.003456	0.133025	7.543362	0.0000
WGT_RESID^2(-1)	-0.005875	0.064050	-0.091728	0.9270

R-squared	0.000034	Mean dependent var	0.997564
Adjusted R-squared	-0.004064	S.D. dependent var	1.823390
S.E. of regression	1.827092	Akaike info criterion	4.051425
Sum squared resid	814.5363	Schwarz criterion	4.079923
Log likelihood	-496.3252	Hannan-Quinn criter.	4.062900
F-statistic	0.008414	Durbin-Watson stat	1.996710
Prob(F-statistic)	0.926990		

2005



Heteroskedasticity Test: ARCH

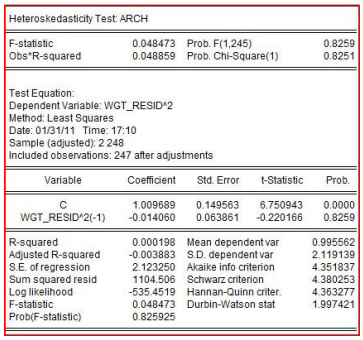
F-statistic	0.036440	Prob. F(1,243)	0.8488
Obs*R-squared	0.036735	Prob. Chi-Square(1)	0.8480

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 16:52
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.015556	0.137725	7.373780	0.0000
WGT_RESID^2(-1)	-0.012240	0.064121	-0.190893	0.8488

R-squared	0.000150	Mean dependent var	1.003315
Adjusted R-squared	-0.003965	S.D. dependent var	1.904055
S.E. of regression	1.907826	Akaike info criterion	4.137936
Sum squared resid	884.4714	Schwarz criterion	4.166517
Log likelihood	-504.8971	Hannan-Quinn criter.	4.149445
F-statistic	0.036440	Durbin-Watson stat	2.001942
Prob(F-statistic)	0.848769		

2006



Heteroskedasticity Test: ARCH

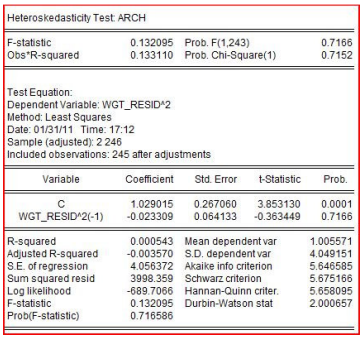
F-statistic	0.048473	Prob. F(1,245)	0.8259
Obs*R-squared	0.048859	Prob. Chi-Square(1)	0.8251

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 17:10
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.009689	0.149563	6.750943	0.0000
WGT_RESID^2(-1)	-0.014060	0.063861	-0.220166	0.8259

R-squared	0.000198	Mean dependent var	0.995562
Adjusted R-squared	-0.003883	S.D. dependent var	2.119139
S.E. of regression	2.123250	Akaike info criterion	4.351837
Sum squared resid	1104.506	Schwarz criterion	4.380253
Log likelihood	-535.4519	Hannan-Quinn criter.	4.363277
F-statistic	0.048473	Durbin-Watson stat	1.997421
Prob(F-statistic)	0.825925		

2007



Heteroskedasticity Test: ARCH

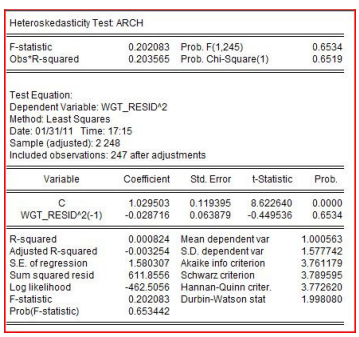
F-statistic	0.132095	Prob. F(1,243)	0.7166
Obs*R-squared	0.133110	Prob. Chi-Square(1)	0.7152

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 17:12
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.029015	0.267060	3.853130	0.0001
WGT_RESID^2(-1)	-0.023309	0.064133	-0.363449	0.7166

R-squared	0.000543	Mean dependent var	1.005571
Adjusted R-squared	-0.003570	S.D. dependent var	4.049151
S.E. of regression	4.056372	Akaike info criterion	5.646585
Sum squared resid	3998.359	Schwarz criterion	5.675166
Log likelihood	-689.7066	Hannan-Quinn criter.	5.658095
F-statistic	0.132095	Durbin-Watson stat	2.000657
Prob(F-statistic)	0.716586		

2008



Heteroskedasticity Test: ARCH

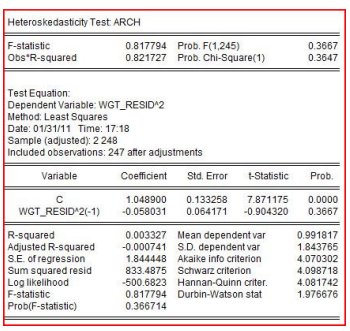
F-statistic	0.202083	Prob. F(1,245)	0.6534
Obs*R-squared	0.203565	Prob. Chi-Square(1)	0.6519

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 17:15
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.029503	0.119395	8.622640	0.0000
WGT_RESID^2(-1)	-0.028716	0.063879	-0.449536	0.6534

R-squared	0.000824	Mean dependent var	1.000563
Adjusted R-squared	-0.003254	S.D. dependent var	1.577742
S.E. of regression	1.580307	Akaike info criterion	3.761179
Sum squared resid	611.8556	Schwarz criterion	3.789595
Log likelihood	-462.5056	Hannan-Quinn criter.	3.772620
F-statistic	0.202083	Durbin-Watson stat	1.998080
Prob(F-statistic)	0.653442		

2009



Heteroskedasticity Test: ARCH

F-statistic	0.817794	Prob. F(1,245)	0.3667
Obs*R-squared	0.821727	Prob. Chi-Square(1)	0.3647

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 01/31/11 Time: 17:18
Sample (adjusted): 2 248
Included observations: 247 after adjustments

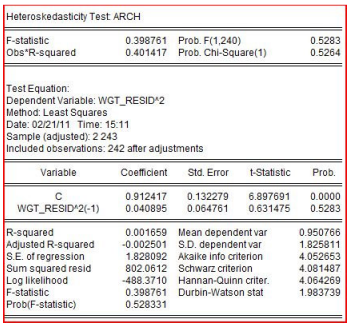
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.048900	0.133258	7.871175	0.0000
WGT_RESID^2(-1)	-0.058031	0.064171	-0.904320	0.3667

R-squared	0.003327	Mean dependent var	0.991817
Adjusted R-squared	-0.000741	S.D. dependent var	1.843765
S.E. of regression	1.844448	Akaike info criterion	4.070302
Sum squared resid	833.4875	Schwarz criterion	4.098718
Log likelihood	-500.6823	Hannan-Quinn criter.	4.081742
F-statistic	0.817794	Durbin-Watson stat	1.976676
Prob(F-statistic)	0.366714		

2010

APPENDIX 69

Yearly Data LM Test for ARCH For KLCSU



Heteroskedasticity Test: ARCH

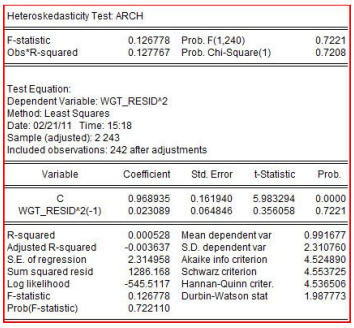
F-statistic	0.398761	Prob. F(1,240)	0.5283
Obs*R-squared	0.401417	Prob. Chi-Square(1)	0.5264

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:11
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.912417	0.132279	6.897691	0.0000
WGT_RESID^2(-1)	0.040895	0.064761	0.631475	0.5283

R-squared	0.001659	Mean dependent var	0.950766
Adjusted R-squared	-0.002501	S.D. dependent var	1.825811
S.E. of regression	1.828092	Akaike info criterion	4.052653
Sum squared resid	802.0612	Schwarz criterion	4.081487
Log likelihood	-488.3710	Hannan-Quinn criter.	4.064269
F-statistic	0.398761	Durbin-Watson stat	1.983739
Prob(F-statistic)	0.528331		

2000



Heteroskedasticity Test: ARCH

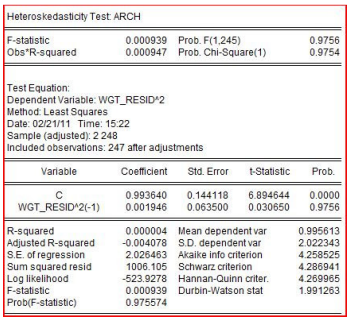
F-statistic	0.126778	Prob. F(1,240)	0.7221
Obs*R-squared	0.127767	Prob. Chi-Square(1)	0.7208

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:18
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.968935	0.161940	5.983294	0.0000
WGT_RESID^2(-1)	0.023089	0.064846	0.356058	0.7221

R-squared	0.000528	Mean dependent var	0.991677
Adjusted R-squared	-0.003637	S.D. dependent var	2.310760
S.E. of regression	2.314958	Akaike info criterion	4.524890
Sum squared resid	1286.168	Schwarz criterion	4.553725
Log likelihood	-545.5117	Hannan-Quinn criter.	4.536506
F-statistic	0.126778	Durbin-Watson stat	1.987773
Prob(F-statistic)	0.722110		

2001



Heteroskedasticity Test: ARCH

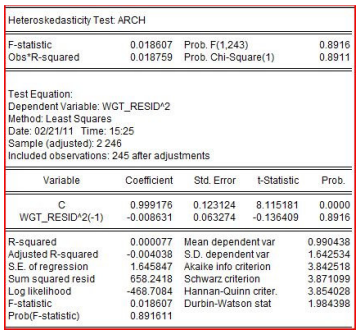
F-statistic	0.000939	Prob. F(1,245)	0.9756
Obs*R-squared	0.000947	Prob. Chi-Square(1)	0.9754

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:22
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.993640	0.144118	6.894644	0.0000
WGT_RESID^2(-1)	0.001946	0.063500	0.030650	0.9756

R-squared	0.000004	Mean dependent var	0.995613
Adjusted R-squared	-0.004078	S.D. dependent var	2.022343
S.E. of regression	2.026463	Akaike info criterion	4.258525
Sum squared resid	1006.105	Schwarz criterion	4.286941
Log likelihood	-523.9278	Hannan-Quinn criter.	4.269965
F-statistic	0.000939	Durbin-Watson stat	1.991263
Prob(F-statistic)	0.975574		

2002



Heteroskedasticity Test: ARCH

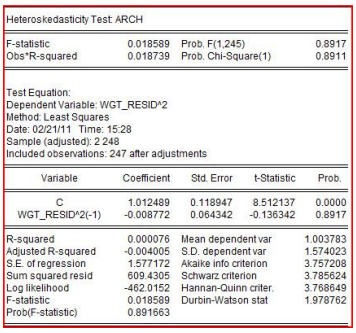
F-statistic	0.018607	Prob. F(1,243)	0.8916
Obs*R-squared	0.018759	Prob. Chi-Square(1)	0.8911

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:25
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.999176	0.123124	8.115181	0.0000
WGT_RESID^2(-1)	-0.008631	0.063274	-0.136409	0.8916

R-squared	0.000077	Mean dependent var	0.990438
Adjusted R-squared	-0.004038	S.D. dependent var	1.642534
S.E. of regression	1.645847	Akaike info criterion	3.842519
Sum squared resid	658.2418	Schwarz criterion	3.871099
Log likelihood	-468.7084	Hannan-Quinn criter.	3.854028
F-statistic	0.018607	Durbin-Watson stat	1.984398
Prob(F-statistic)	0.891611		

2003



Heteroskedasticity Test: ARCH

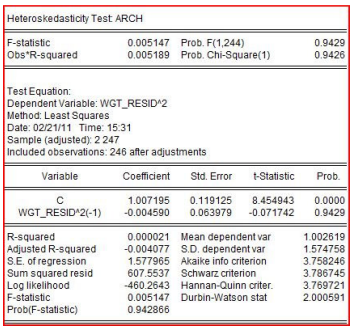
F-statistic	0.018589	Prob. F(1,245)	0.8917
Obs*R-squared	0.018739	Prob. Chi-Square(1)	0.8911

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:28
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.012489	0.118947	8.512137	0.0000
WGT_RESID^2(-1)	-0.008772	0.064342	-0.136342	0.8917

R-squared	0.000076	Mean dependent var	1.003783
Adjusted R-squared	-0.004005	S.D. dependent var	1.574023
S.E. of regression	1.577172	Akaike info criterion	3.757208
Sum squared resid	609.4305	Schwarz criterion	3.785624
Log likelihood	-462.0152	Hannan-Quinn criter.	3.768649
F-statistic	0.018589	Durbin-Watson stat	1.978762
Prob(F-statistic)	0.891663		

2004



Heteroskedasticity Test: ARCH

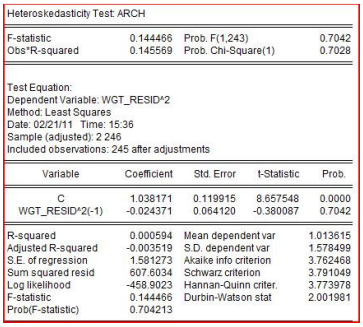
F-statistic	0.005147	Prob. F(1,244)	0.9429
Obs*R-squared	0.005189	Prob. Chi-Square(1)	0.9426

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:31
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.007195	0.119125	8.454943	0.0000
WGT_RESID^2(-1)	-0.004590	0.063979	-0.071742	0.9429

R-squared	0.000021	Mean dependent var	1.002619
Adjusted R-squared	-0.004077	S.D. dependent var	1.574758
S.E. of regression	1.577965	Akaike info criterion	3.758246
Sum squared resid	607.5537	Schwarz criterion	3.786745
Log likelihood	-460.2643	Hannan-Quinn criter.	3.769721
F-statistic	0.005147	Durbin-Watson stat	2.000591
Prob(F-statistic)	0.942866		

2005



Heteroskedasticity Test: ARCH

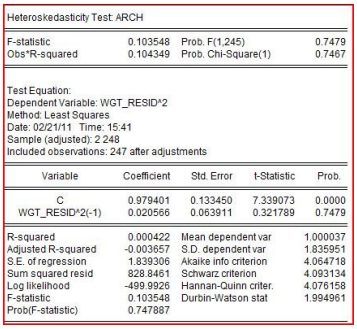
F-statistic	0.144466	Prob. F(1,243)	0.7042
Obs*R-squared	0.145569	Prob. Chi-Square(1)	0.7028

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:36
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.038171	0.119915	8.657548	0.0000
WGT_RESID^2(-1)	-0.024371	0.064120	-0.380087	0.7042

R-squared	0.000594	Mean dependent var	1.013615
Adjusted R-squared	-0.003519	S.D. dependent var	1.578499
S.E. of regression	1.581273	Akaike info criterion	3.762468
Sum squared resid	607.6034	Schwarz criterion	3.791049
Log likelihood	-458.9023	Hannan-Quinn criter.	3.773978
F-statistic	0.144466	Durbin-Watson stat	2.001981
Prob(F-statistic)	0.704213		

2006



Heteroskedasticity Test: ARCH

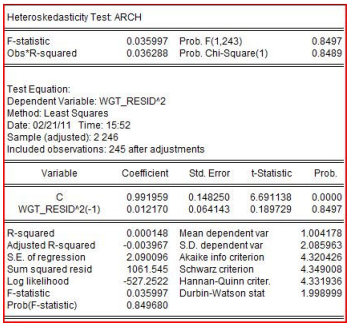
F-statistic	0.103548	Prob. F(1,245)	0.7479
Obs*R-squared	0.104349	Prob. Chi-Square(1)	0.7467

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:41
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.979401	0.133450	7.339073	0.0000
WGT_RESID^2(-1)	0.020566	0.063911	0.321789	0.7479

R-squared	0.000422	Mean dependent var	1.000037
Adjusted R-squared	-0.003657	S.D. dependent var	1.835951
S.E. of regression	1.839306	Akaike info criterion	4.064718
Sum squared resid	828.8461	Schwarz criterion	4.093134
Log likelihood	-499.9926	Hannan-Quinn criter.	4.076158
F-statistic	0.103548	Durbin-Watson stat	1.994961
Prob(F-statistic)	0.747887		

2007



Heteroskedasticity Test: ARCH

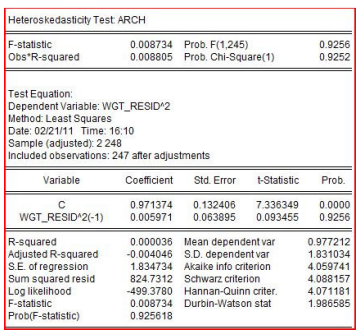
F-statistic	0.035997	Prob. F(1,243)	0.8497
Obs*R-squared	0.036288	Prob. Chi-Square(1)	0.8489

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 15:52
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.991959	0.148250	6.691138	0.0000
WGT_RESID^2(-1)	0.012170	0.064143	0.189729	0.8497

R-squared	0.000148	Mean dependent var	1.004178
Adjusted R-squared	-0.003957	S.D. dependent var	2.085963
S.E. of regression	2.090096	Akaike info criterion	4.320426
Sum squared resid	1061.545	Schwarz criterion	4.349008
Log likelihood	-527.2522	Hannan-Quinn criter.	4.331936
F-statistic	0.035997	Durbin-Watson stat	1.998999
Prob(F-statistic)	0.849680		

2008



Heteroskedasticity Test: ARCH

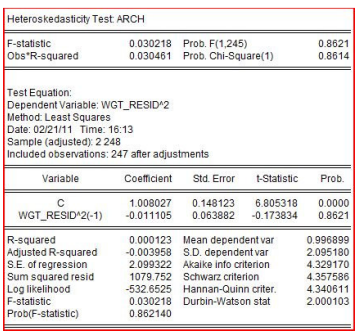
F-statistic	0.008734	Prob. F(1,245)	0.9256
Obs*R-squared	0.008805	Prob. Chi-Square(1)	0.9252

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 16:10
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.971374	0.132406	7.336349	0.0000
WGT_RESID^2(-1)	0.005971	0.063895	0.093455	0.9256

R-squared	0.000036	Mean dependent var	0.977212
Adjusted R-squared	-0.004046	S.D. dependent var	1.831034
S.E. of regression	1.834734	Akaike info criterion	4.059741
Sum squared resid	824.7312	Schwarz criterion	4.088157
Log likelihood	-499.3780	Hannan-Quinn criter.	4.071181
F-statistic	0.008734	Durbin-Watson stat	1.986585
Prob(F-statistic)	0.925618		

2009



Heteroskedasticity Test: ARCH

F-statistic	0.030218	Prob. F(1,245)	0.8621
Obs*R-squared	0.030461	Prob. Chi-Square(1)	0.8614

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/21/11 Time: 16:13
Sample (adjusted): 2 248
Included observations: 247 after adjustments

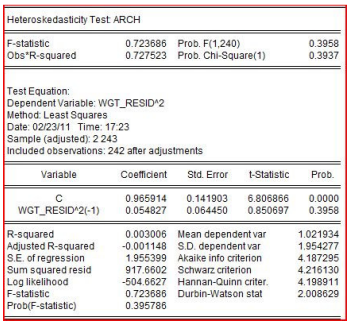
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.008027	0.148123	6.805318	0.0000
WGT_RESID^2(-1)	-0.011105	0.063882	-0.173834	0.8621

R-squared	0.000123	Mean dependent var	0.996899
Adjusted R-squared	-0.003958	S.D. dependent var	2.095180
S.E. of regression	2.099322	Akaike info criterion	4.329170
Sum squared resid	1079.752	Schwarz criterion	4.357586
Log likelihood	-532.6525	Hannan-Quinn criter.	4.340611
F-statistic	0.030218	Durbin-Watson stat	2.000103
Prob(F-statistic)	0.862140		

2010

APPENDIX 70

Yearly Data LM Test for ARCH For KLFIN



Heteroskedasticity Test: ARCH

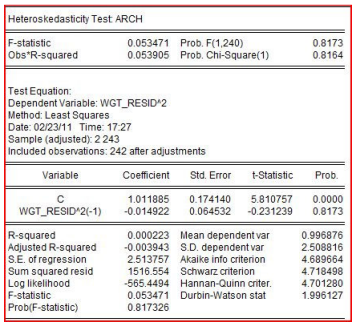
F-statistic	0.723686	Prob. F(1,240)	0.3958
Obs*R-squared	0.727523	Prob. Chi-Square(1)	0.3937

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:23
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.965914	0.141903	6.806866	0.0000
WGT_RESID^2(-1)	0.054827	0.064450	0.850697	0.3958

R-squared	0.003006	Mean dependent var	1.021934
Adjusted R-squared	-0.001148	S.D. dependent var	1.954277
S.E. of regression	1.955399	Akaike info criterion	4.187295
Sum squared resid	917.6602	Schwarz criterion	4.216130
Log likelihood	-504.6627	Hannan-Quinn criter.	4.198911
F-statistic	0.723686	Durbin-Watson stat	2.008629
Prob(F-statistic)	0.395786		

2000



Heteroskedasticity Test: ARCH

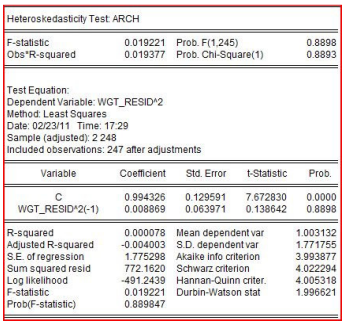
F-statistic	0.053471	Prob. F(1,240)	0.8173
Obs*R-squared	0.053905	Prob. Chi-Square(1)	0.8164

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:27
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.011885	0.174140	5.810757	0.0000
WGT_RESID^2(-1)	-0.014922	0.064532	-0.231239	0.8173

R-squared	0.000223	Mean dependent var	0.996876
Adjusted R-squared	-0.003943	S.D. dependent var	2.508816
S.E. of regression	2.513757	Akaike info criterion	4.689664
Sum squared resid	1516.554	Schwarz criterion	4.718498
Log likelihood	-565.4494	Hannan-Quinn criter.	4.701280
F-statistic	0.053471	Durbin-Watson stat	1.996127
Prob(F-statistic)	0.817326		

2001



Heteroskedasticity Test: ARCH

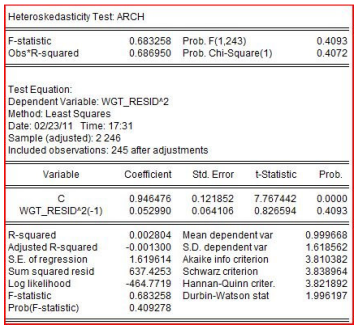
F-statistic	0.019221	Prob. F(1,245)	0.8898
Obs*R-squared	0.019377	Prob. Chi-Square(1)	0.8893

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:29
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.994326	0.129591	7.672830	0.0000
WGT_RESID^2(-1)	0.008869	0.063971	0.138642	0.8898

R-squared	0.000078	Mean dependent var	1.003132
Adjusted R-squared	-0.004003	S.D. dependent var	1.771755
S.E. of regression	1.775298	Akaike info criterion	3.993877
Sum squared resid	772.1620	Schwarz criterion	4.022294
Log likelihood	-491.2439	Hannan-Quinn criter.	4.005318
F-statistic	0.019221	Durbin-Watson stat	1.996621
Prob(F-statistic)	0.889847		

2002



Heteroskedasticity Test: ARCH

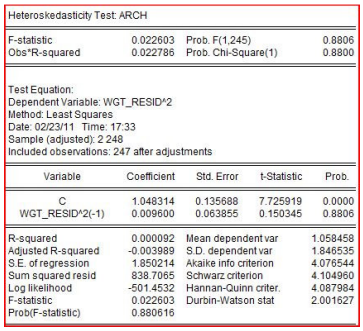
F-statistic	0.683258	Prob. F(1,243)	0.4093
Obs*R-squared	0.686950	Prob. Chi-Square(1)	0.4072

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:31
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.946476	0.121852	7.767442	0.0000
WGT_RESID^2(-1)	0.052990	0.064106	0.826594	0.4093

R-squared	0.002804	Mean dependent var	0.999668
Adjusted R-squared	-0.001300	S.D. dependent var	1.618562
S.E. of regression	1.619614	Akaike info criterion	3.810382
Sum squared resid	637.4253	Schwarz criterion	3.838964
Log likelihood	-464.7719	Hannan-Quinn criter.	3.821892
F-statistic	0.683258	Durbin-Watson stat	1.996197
Prob(F-statistic)	0.409278		

2003



Heteroskedasticity Test: ARCH

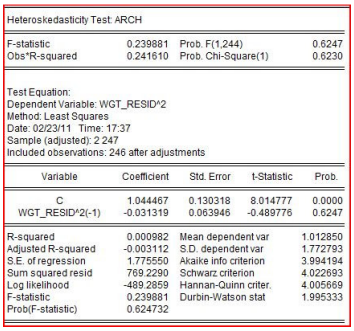
F-statistic	0.022603	Prob. F(1,245)	0.8806
Obs*R-squared	0.022786	Prob. Chi-Square(1)	0.8800

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:33
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.048314	0.135688	7.725919	0.0000
WGT_RESID^2(-1)	0.009600	0.063855	0.150345	0.8806

R-squared	0.000092	Mean dependent var	1.058458
Adjusted R-squared	-0.003989	S.D. dependent var	1.846535
S.E. of regression	1.850214	Akaike info criterion	4.076544
Sum squared resid	838.7065	Schwarz criterion	4.104960
Log likelihood	-501.4532	Hannan-Quinn criter.	4.087984
F-statistic	0.022603	Durbin-Watson stat	2.001627
Prob(F-statistic)	0.880616		

2004



Heteroskedasticity Test: ARCH

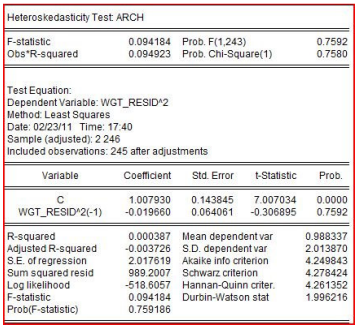
F-statistic	0.239881	Prob. F(1,244)	0.6247
Obs*R-squared	0.241610	Prob. Chi-Square(1)	0.6230

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:37
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.044467	0.130318	8.014777	0.0000
WGT_RESID^2(-1)	-0.031319	0.063946	-0.489776	0.6247

R-squared	0.000982	Mean dependent var	1.012850
Adjusted R-squared	-0.003112	S.D. dependent var	1.772793
S.E. of regression	1.775550	Akaike info criterion	3.994194
Sum squared resid	769.2290	Schwarz criterion	4.022693
Log likelihood	-489.2859	Hannan-Quinn criter.	4.005669
F-statistic	0.239881	Durbin-Watson stat	1.995333
Prob(F-statistic)	0.624732		

2005



Heteroskedasticity Test: ARCH

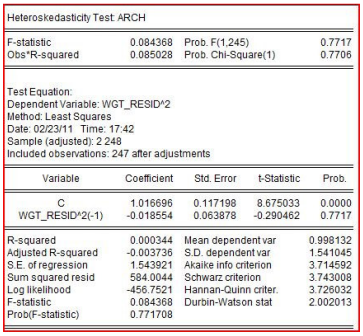
F-statistic	0.094184	Prob. F(1,243)	0.7592
Obs*R-squared	0.094923	Prob. Chi-Square(1)	0.7580

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:40
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.007930	0.143845	7.007034	0.0000
WGT_RESID^2(-1)	-0.019660	0.064061	-0.306895	0.7592

R-squared	0.000387	Mean dependent var	0.988337
Adjusted R-squared	-0.003726	S.D. dependent var	2.013870
S.E. of regression	2.017619	Akaike info criterion	4.249843
Sum squared resid	989.2007	Schwarz criterion	4.278424
Log likelihood	-518.6057	Hannan-Quinn criter.	4.261352
F-statistic	0.094184	Durbin-Watson stat	1.996216
Prob(F-statistic)	0.759186		

2006



Heteroskedasticity Test: ARCH

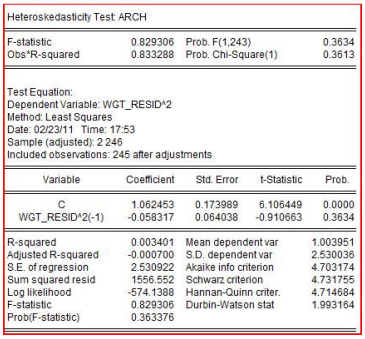
F-statistic	0.084368	Prob. F(1,245)	0.7717
Obs*R-squared	0.085028	Prob. Chi-Square(1)	0.7706

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:42
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.016696	0.117198	8.675033	0.0000
WGT_RESID^2(-1)	-0.018554	0.063878	-0.290462	0.7717

R-squared	0.000344	Mean dependent var	0.998132
Adjusted R-squared	-0.003736	S.D. dependent var	1.541045
S.E. of regression	1.543921	Akaike info criterion	3.714592
Sum squared resid	584.0044	Schwarz criterion	3.743008
Log likelihood	-456.7521	Hannan-Quinn criter.	3.726032
F-statistic	0.084368	Durbin-Watson stat	2.002013
Prob(F-statistic)	0.771708		

2007



Heteroskedasticity Test: ARCH

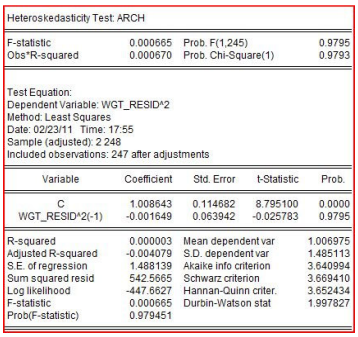
F-statistic	0.829306	Prob. F(1,243)	0.3634
Obs*R-squared	0.833288	Prob. Chi-Square(1)	0.3613

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:53
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.062453	0.173989	6.106449	0.0000
WGT_RESID^2(-1)	-0.058317	0.064038	-0.910663	0.3634

R-squared	0.003401	Mean dependent var	1.003951
Adjusted R-squared	-0.000700	S.D. dependent var	2.530036
S.E. of regression	2.530922	Akaike info criterion	4.703174
Sum squared resid	1556.552	Schwarz criterion	4.731755
Log likelihood	-574.1388	Hannan-Quinn criter.	4.714684
F-statistic	0.829306	Durbin-Watson stat	1.993164
Prob(F-statistic)	0.363376		

2008



Heteroskedasticity Test: ARCH

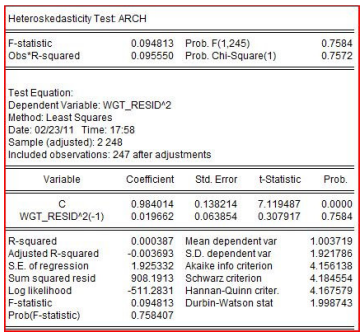
F-statistic	0.000665	Prob. F(1,245)	0.9795
Obs*R-squared	0.000670	Prob. Chi-Square(1)	0.9793

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:55
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.008643	0.114682	8.795100	0.0000
WGT_RESID^2(-1)	-0.001649	0.063942	-0.025783	0.9795

R-squared	0.000003	Mean dependent var	1.006975
Adjusted R-squared	-0.004079	S.D. dependent var	1.485113
S.E. of regression	1.488139	Akaike info criterion	3.640994
Sum squared resid	542.5665	Schwarz criterion	3.669410
Log likelihood	-447.6627	Hannan-Quinn criter.	3.652434
F-statistic	0.000665	Durbin-Watson stat	1.997827
Prob(F-statistic)	0.979451		

2009



Heteroskedasticity Test: ARCH

F-statistic	0.094813	Prob. F(1,245)	0.7584
Obs*R-squared	0.095550	Prob. Chi-Square(1)	0.7572

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/23/11 Time: 17:58
Sample (adjusted): 2 248
Included observations: 247 after adjustments

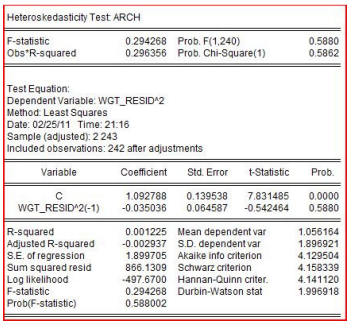
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.984014	0.138214	7.119487	0.0000
WGT_RESID^2(-1)	0.019662	0.063854	0.307917	0.7584

R-squared	0.000387	Mean dependent var	1.003719
Adjusted R-squared	-0.003693	S.D. dependent var	1.921786
S.E. of regression	1.925332	Akaike info criterion	4.156138
Sum squared resid	908.1913	Schwarz criterion	4.184554
Log likelihood	-511.2831	Hannan-Quinn criter.	4.167579
F-statistic	0.094813	Durbin-Watson stat	1.998743
Prob(F-statistic)	0.758407		

2010

APPENDIX 71

Yearly Data LM Test for ARCH For KLIND



Heteroskedasticity Test: ARCH

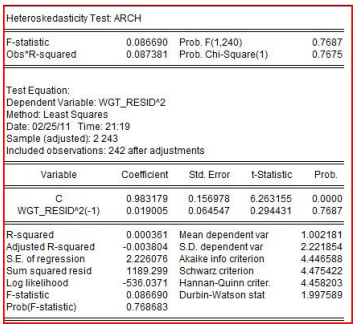
F-statistic	0.294268	Prob. F(1,240)	0.5880
Obs*R-squared	0.296356	Prob. Chi-Square(1)	0.5862

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:16
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.092788	0.139538	7.831485	0.0000
WGT_RESID^2(-1)	-0.035036	0.064587	-0.542464	0.5880

R-squared	0.001225	Mean dependent var	1.056164
Adjusted R-squared	-0.002937	S.D. dependent var	1.896921
S.E. of regression	1.899705	Akaike info criterion	4.129504
Sum squared resid	866.1309	Schwarz criterion	4.158339
Log likelihood	-497.6700	Hannan-Quinn criter.	4.141120
F-statistic	0.294268	Durbin-Watson stat	1.996918
Prob(F-statistic)	0.588002		

2000



Heteroskedasticity Test: ARCH

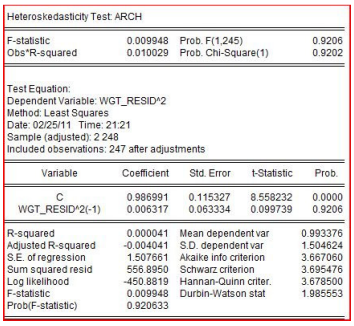
F-statistic	0.086690	Prob. F(1,240)	0.7687
Obs*R-squared	0.087381	Prob. Chi-Square(1)	0.7675

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:19
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.983179	0.156978	6.263155	0.0000
WGT_RESID^2(-1)	0.019005	0.064547	0.294431	0.7687

R-squared	0.000361	Mean dependent var	1.002181
Adjusted R-squared	-0.003804	S.D. dependent var	2.221854
S.E. of regression	2.226076	Akaike info criterion	4.446588
Sum squared resid	1189.299	Schwarz criterion	4.475422
Log likelihood	-536.0371	Hannan-Quinn criter.	4.458203
F-statistic	0.086690	Durbin-Watson stat	1.997589
Prob(F-statistic)	0.768683		

2001



Heteroskedasticity Test: ARCH

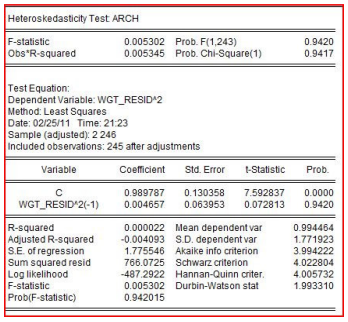
F-statistic	0.009948	Prob. F(1,245)	0.9206
Obs*R-squared	0.010029	Prob. Chi-Square(1)	0.9202

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:21
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.986991	0.115327	8.558232	0.0000
WGT_RESID^2(-1)	0.006317	0.063334	0.099739	0.9206

R-squared	0.000041	Mean dependent var	0.993376
Adjusted R-squared	-0.004041	S.D. dependent var	1.504624
S.E. of regression	1.507661	Akaike info criterion	3.667060
Sum squared resid	556.8950	Schwarz criterion	3.695476
Log likelihood	-450.8819	Hannan-Quinn criter.	3.678500
F-statistic	0.009948	Durbin-Watson stat	1.985553
Prob(F-statistic)	0.920633		

2002



Heteroskedasticity Test: ARCH

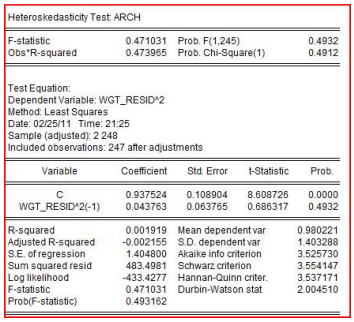
F-statistic	0.005302	Prob. F(1,243)	0.9420
Obs*R-squared	0.005345	Prob. Chi-Square(1)	0.9417

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:23
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.989787	0.130358	7.592837	0.0000
WGT_RESID^2(-1)	0.004657	0.063953	0.072813	0.9420

R-squared	0.000022	Mean dependent var	0.994464
Adjusted R-squared	-0.004093	S.D. dependent var	1.771923
S.E. of regression	1.775546	Akaike info criterion	3.994222
Sum squared resid	766.0725	Schwarz criterion	4.022804
Log likelihood	-487.2922	Hannan-Quinn criter.	4.005732
F-statistic	0.005302	Durbin-Watson stat	1.993310
Prob(F-statistic)	0.942015		

2003



Heteroskedasticity Test: ARCH

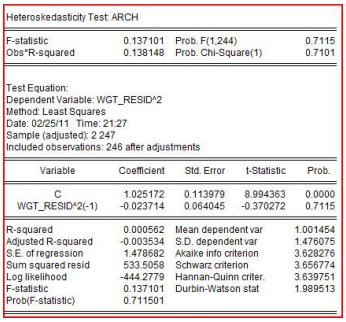
F-statistic	0.471031	Prob. F(1,245)	0.4932
Obs*R-squared	0.473965	Prob. Chi-Square(1)	0.4912

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:25
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.937524	0.108904	8.608726	0.0000
WGT_RESID^2(-1)	0.043763	0.063765	0.686317	0.4932

R-squared	0.001919	Mean dependent var	0.980221
Adjusted R-squared	-0.002155	S.D. dependent var	1.403288
S.E. of regression	1.404800	Akaike info criterion	3.525730
Sum squared resid	483.4981	Schwarz criterion	3.554147
Log likelihood	-433.4277	Hannan-Quinn criter.	3.537171
F-statistic	0.471031	Durbin-Watson stat	2.004510
Prob(F-statistic)	0.493162		

2004



Heteroskedasticity Test: ARCH

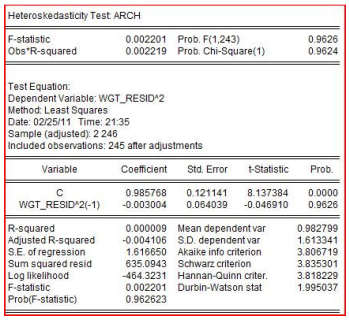
F-statistic	0.137101	Prob. F(1,244)	0.7115
Obs*R-squared	0.138148	Prob. Chi-Square(1)	0.7101

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:27
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.025172	0.113979	8.994363	0.0000
WGT_RESID^2(-1)	-0.023714	0.064045	-0.370272	0.7115

R-squared	0.000562	Mean dependent var	1.001454
Adjusted R-squared	-0.003534	S.D. dependent var	1.476075
S.E. of regression	1.478682	Akaike info criterion	3.628276
Sum squared resid	533.5058	Schwarz criterion	3.656774
Log likelihood	-444.2779	Hannan-Quinn criter.	3.639751
F-statistic	0.137101	Durbin-Watson stat	1.989513
Prob(F-statistic)	0.711501		

2005



Heteroskedasticity Test: ARCH

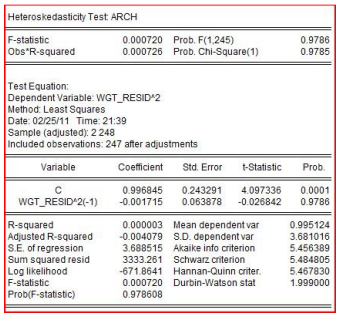
F-statistic	0.002201	Prob. F(1,243)	0.9626
Obs*R-squared	0.002219	Prob. Chi-Square(1)	0.9624

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:35
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.985768	0.121141	8.137384	0.0000
WGT_RESID^2(-1)	-0.003004	0.064039	-0.046910	0.9626

R-squared	0.000009	Mean dependent var	0.982799
Adjusted R-squared	-0.004106	S.D. dependent var	1.613341
S.E. of regression	1.616650	Akaike info criterion	3.806719
Sum squared resid	635.0943	Schwarz criterion	3.835301
Log likelihood	-464.3231	Hannan-Quinn criter.	3.818229
F-statistic	0.002201	Durbin-Watson stat	1.995037
Prob(F-statistic)	0.962623		

2006



Heteroskedasticity Test: ARCH

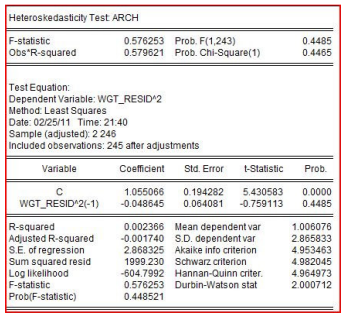
F-statistic	0.000720	Prob. F(1,245)	0.9786
Obs*R-squared	0.000726	Prob. Chi-Square(1)	0.9785

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:39
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.996845	0.243291	4.097336	0.0001
WGT_RESID^2(-1)	-0.001715	0.063878	-0.026842	0.9786

R-squared	0.000003	Mean dependent var	0.995124
Adjusted R-squared	-0.004079	S.D. dependent var	3.681016
S.E. of regression	3.688515	Akaike info criterion	5.456389
Sum squared resid	3333.261	Schwarz criterion	5.484805
Log likelihood	-671.8641	Hannan-Quinn criter.	5.467830
F-statistic	0.000720	Durbin-Watson stat	1.999000
Prob(F-statistic)	0.978608		

2007



Heteroskedasticity Test: ARCH

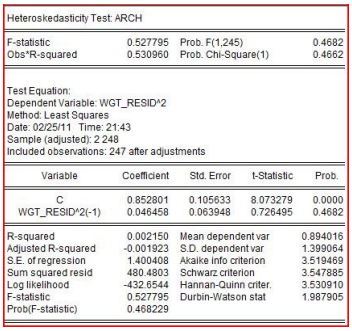
F-statistic	0.576253	Prob. F(1,243)	0.4485
Obs*R-squared	0.579621	Prob. Chi-Square(1)	0.4465

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:40
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.055066	0.194282	5.430583	0.0000
WGT_RESID^2(-1)	-0.048645	0.064081	-0.759113	0.4485

R-squared	0.002366	Mean dependent var	1.006076
Adjusted R-squared	-0.001740	S.D. dependent var	2.865833
S.E. of regression	2.868325	Akaike info criterion	4.953463
Sum squared resid	1999.230	Schwarz criterion	4.982045
Log likelihood	-604.7992	Hannan-Quinn criter.	4.964973
F-statistic	0.576253	Durbin-Watson stat	2.000712
Prob(F-statistic)	0.448521		

2008



Heteroskedasticity Test: ARCH

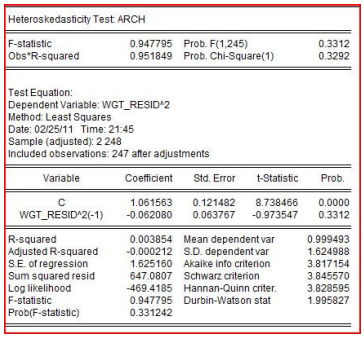
F-statistic	0.527795	Prob. F(1,245)	0.4682
Obs*R-squared	0.530960	Prob. Chi-Square(1)	0.4662

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:43
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.852801	0.105633	8.073279	0.0000
WGT_RESID^2(-1)	0.046458	0.063948	0.726495	0.4682

R-squared	0.002150	Mean dependent var	0.894016
Adjusted R-squared	-0.001923	S.D. dependent var	1.399064
S.E. of regression	1.400408	Akaike info criterion	3.519469
Sum squared resid	480.4803	Schwarz criterion	3.547885
Log likelihood	-432.6544	Hannan-Quinn criter.	3.530910
F-statistic	0.527795	Durbin-Watson stat	1.987905
Prob(F-statistic)	0.468229		

2009



Heteroskedasticity Test: ARCH

F-statistic	0.947795	Prob. F(1,245)	0.3312
Obs*R-squared	0.951849	Prob. Chi-Square(1)	0.3292

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/25/11 Time: 21:45
Sample (adjusted): 2 248
Included observations: 247 after adjustments

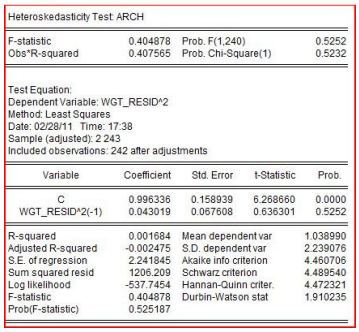
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.061563	0.121482	8.738466	0.0000
WGT_RESID^2(-1)	-0.062080	0.063767	-0.973547	0.3312

R-squared	0.003854	Mean dependent var	0.999493
Adjusted R-squared	-0.000212	S.D. dependent var	1.624988
S.E. of regression	1.625160	Akaike info criterion	3.817154
Sum squared resid	647.0807	Schwarz criterion	3.845570
Log likelihood	-469.4185	Hannan-Quinn criter.	3.828595
F-statistic	0.947795	Durbin-Watson stat	1.995827
Prob(F-statistic)	0.331242		

2010

APPENDIX 72

Yearly data LM Test for ARCH For KLPRO



Heteroskedasticity Test: ARCH

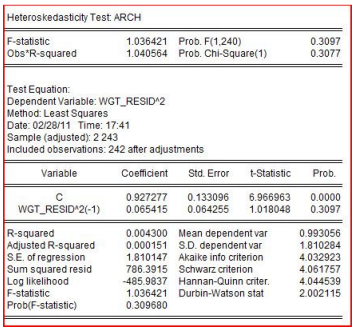
F-statistic	0.404878	Prob. F(1,240)	0.5252
Obs*R-squared	0.407565	Prob. Chi-Square(1)	0.5232

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:38
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.996336	0.158939	6.268660	0.0000
WGT_RESID^2(-1)	0.043019	0.067608	0.636301	0.5252

R-squared	0.001684	Mean dependent var	1.038990
Adjusted R-squared	-0.002475	S.D. dependent var	2.239076
S.E. of regression	2.241845	Akaike info criterion	4.460706
Sum squared resid	1206.209	Schwarz criterion	4.489540
Log likelihood	-537.7454	Hannan-Quinn criter.	4.472321
F-statistic	0.404878	Durbin-Watson stat	1.910235
Prob(F-statistic)	0.525187		

2000



Heteroskedasticity Test: ARCH

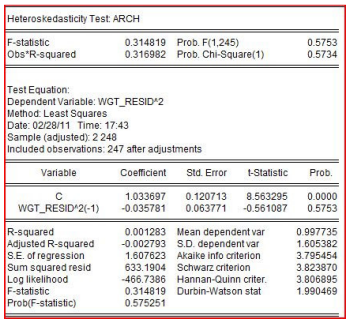
F-statistic	1.036421	Prob. F(1,240)	0.3097
Obs*R-squared	1.040564	Prob. Chi-Square(1)	0.3077

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:41
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.927277	0.133096	6.966963	0.0000
WGT_RESID^2(-1)	0.065415	0.064255	1.018048	0.3097

R-squared	0.004300	Mean dependent var	0.993056
Adjusted R-squared	0.000151	S.D. dependent var	1.810284
S.E. of regression	1.810147	Akaike info criterion	4.032923
Sum squared resid	786.3915	Schwarz criterion	4.061757
Log likelihood	-485.9837	Hannan-Quinn criter.	4.044539
F-statistic	1.036421	Durbin-Watson stat	2.002115
Prob(F-statistic)	0.309680		

2001



Heteroskedasticity Test: ARCH

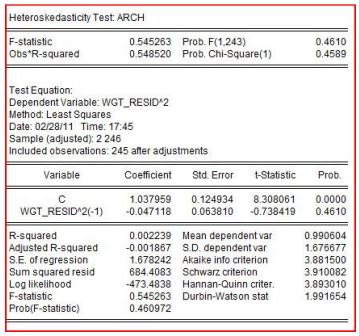
F-statistic	0.314819	Prob. F(1,245)	0.5753
Obs*R-squared	0.316982	Prob. Chi-Square(1)	0.5734

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:43
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.033697	0.120713	8.563295	0.0000
WGT_RESID^2(-1)	-0.035781	0.063771	-0.561087	0.5753

R-squared	0.001283	Mean dependent var	0.997735
Adjusted R-squared	-0.002793	S.D. dependent var	1.605382
S.E. of regression	1.607623	Akaike info criterion	3.795454
Sum squared resid	633.1904	Schwarz criterion	3.823870
Log likelihood	-466.7386	Hannan-Quinn criter.	3.806895
F-statistic	0.314819	Durbin-Watson stat	1.990469
Prob(F-statistic)	0.575251		

2002



Heteroskedasticity Test: ARCH

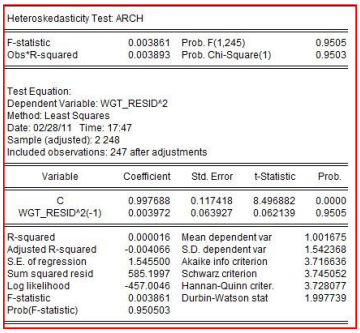
F-statistic	0.545263	Prob. F(1,243)	0.4610
Obs*R-squared	0.548520	Prob. Chi-Square(1)	0.4589

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:45
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.037959	0.124934	8.308061	0.0000
WGT_RESID^2(-1)	-0.047118	0.063810	-0.738419	0.4610

R-squared	0.002239	Mean dependent var	0.990604
Adjusted R-squared	-0.001867	S.D. dependent var	1.676677
S.E. of regression	1.678242	Akaike info criterion	3.881500
Sum squared resid	684.4083	Schwarz criterion	3.910082
Log likelihood	-473.4838	Hannan-Quinn criter.	3.893010
F-statistic	0.545263	Durbin-Watson stat	1.991654
Prob(F-statistic)	0.460972		

2003



Heteroskedasticity Test: ARCH

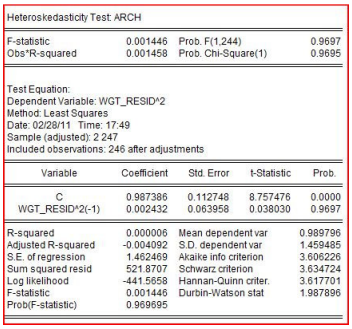
F-statistic	0.003861	Prob. F(1,245)	0.9505
Obs*R-squared	0.003893	Prob. Chi-Square(1)	0.9503

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:47
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.997688	0.117418	8.496882	0.0000
WGT_RESID^2(-1)	0.003972	0.063927	0.062139	0.9505

R-squared	0.000016	Mean dependent var	1.001675
Adjusted R-squared	-0.004066	S.D. dependent var	1.542368
S.E. of regression	1.545500	Akaike info criterion	3.716636
Sum squared resid	585.1997	Schwarz criterion	3.745052
Log likelihood	-457.0046	Hannan-Quinn criter.	3.728077
F-statistic	0.003861	Durbin-Watson stat	1.997739
Prob(F-statistic)	0.950503		

2004



Heteroskedasticity Test: ARCH

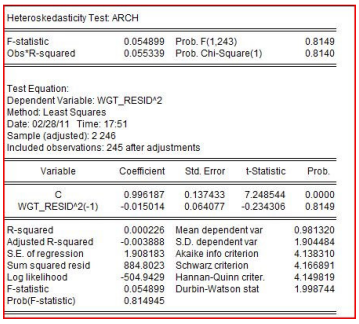
F-statistic	0.001446	Prob. F(1,244)	0.9697
Obs*R-squared	0.001458	Prob. Chi-Square(1)	0.9695

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:49
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.987386	0.112748	8.757476	0.0000
WGT_RESID^2(-1)	0.002432	0.063958	0.038030	0.9697

R-squared	0.000006	Mean dependent var	0.989796
Adjusted R-squared	-0.004092	S.D. dependent var	1.459485
S.E. of regression	1.462469	Akaike info criterion	3.606226
Sum squared resid	521.8707	Schwarz criterion	3.634724
Log likelihood	-441.5658	Hannan-Quinn criter.	3.617701
F-statistic	0.001446	Durbin-Watson stat	1.987896
Prob(F-statistic)	0.969695		

2005



Heteroskedasticity Test: ARCH

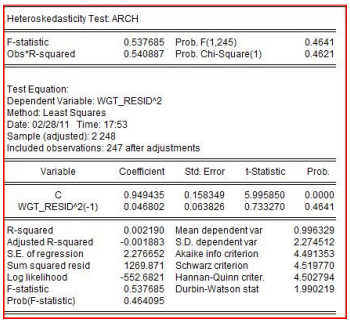
F-statistic	0.054899	Prob. F(1,243)	0.8149
Obs*R-squared	0.055339	Prob. Chi-Square(1)	0.8140

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:51
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.996187	0.137433	7.248544	0.0000
WGT_RESID^2(-1)	-0.015014	0.064077	-0.234306	0.8149

R-squared	0.000226	Mean dependent var	0.981320
Adjusted R-squared	-0.003888	S.D. dependent var	1.904484
S.E. of regression	1.908183	Akaike info criterion	4.138310
Sum squared resid	884.8023	Schwarz criterion	4.166891
Log likelihood	-504.9429	Hannan-Quinn criter.	4.149819
F-statistic	0.054899	Durbin-Watson stat	1.998744
Prob(F-statistic)	0.814945		

2006



Heteroskedasticity Test: ARCH

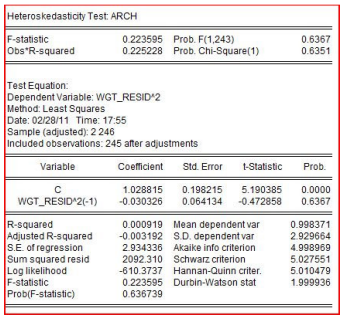
F-statistic	0.537685	Prob. F(1,245)	0.4641
Obs*R-squared	0.540887	Prob. Chi-Square(1)	0.4621

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:53
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.949435	0.158349	5.995850	0.0000
WGT_RESID^2(-1)	0.046802	0.063826	0.733270	0.4641

R-squared	0.002190	Mean dependent var	0.996329
Adjusted R-squared	-0.001883	S.D. dependent var	2.274512
S.E. of regression	2.276652	Akaike info criterion	4.491353
Sum squared resid	1269.871	Schwarz criterion	4.519770
Log likelihood	-552.6821	Hannan-Quinn criter.	4.502794
F-statistic	0.537685	Durbin-Watson stat	1.990219
Prob(F-statistic)	0.464095		

2007



Heteroskedasticity Test: ARCH

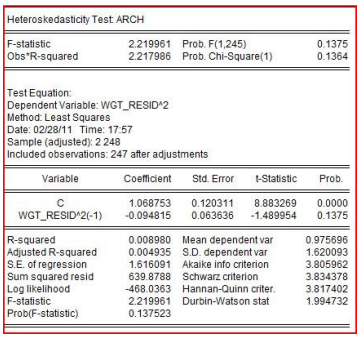
F-statistic	0.223595	Prob. F(1,243)	0.6367
Obs*R-squared	0.225228	Prob. Chi-Square(1)	0.6351

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:55
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.028815	0.198215	5.190385	0.0000
WGT_RESID^2(-1)	-0.030326	0.064134	-0.472858	0.6367

R-squared	0.000919	Mean dependent var	0.998371
Adjusted R-squared	-0.003192	S.D. dependent var	2.929664
S.E. of regression	2.934336	Akaike info criterion	4.998969
Sum squared resid	2092.310	Schwarz criterion	5.027551
Log likelihood	-610.3737	Hannan-Quinn criter.	5.010479
F-statistic	0.223595	Durbin-Watson stat	1.999936
Prob(F-statistic)	0.636739		

2008



Heteroskedasticity Test: ARCH

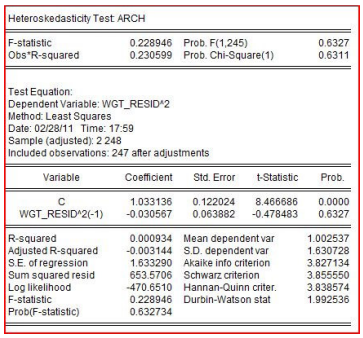
F-statistic	2.219961	Prob. F(1,245)	0.1375
Obs*R-squared	2.217986	Prob. Chi-Square(1)	0.1364

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:57
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.068753	0.120311	8.883269	0.0000
WGT_RESID^2(-1)	-0.094815	0.063636	-1.489954	0.1375

R-squared	0.008980	Mean dependent var	0.975696
Adjusted R-squared	0.004935	S.D. dependent var	1.620093
S.E. of regression	1.616091	Akaike info criterion	3.805962
Sum squared resid	639.8788	Schwarz criterion	3.834378
Log likelihood	-468.0363	Hannan-Quinn criter.	3.817402
F-statistic	2.219961	Durbin-Watson stat	1.994732
Prob(F-statistic)	0.137523		

2009



Heteroskedasticity Test: ARCH

F-statistic	0.228946	Prob. F(1,245)	0.6327
Obs*R-squared	0.230599	Prob. Chi-Square(1)	0.6311

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/28/11 Time: 17:59
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.033136	0.122024	8.466686	0.0000
WGT_RESID^2(-1)	-0.030567	0.063882	-0.478483	0.6327

R-squared	0.000934	Mean dependent var	1.002537
Adjusted R-squared	-0.003144	S.D. dependent var	1.630728
S.E. of regression	1.633290	Akaike info criterion	3.827134
Sum squared resid	653.5706	Schwarz criterion	3.855550
Log likelihood	-470.6510	Hannan-Quinn criter.	3.838574
F-statistic	0.228946	Durbin-Watson stat	1.992536
Prob(F-statistic)	0.632734		

2010

APPENDIX 73

Yearly Data LM Test for ARCH For KLTIN

Heteroskedasticity Test: ARCH

F-statistic	0.143034	Prob. F(1,240)	0.7056
Obs*R-squared	0.144140	Prob. Chi-Square(1)	0.7042

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:26
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.980694	0.165917	5.910735	0.0000
WGT_RESID^2(-1)	0.024399	0.064515	0.378199	0.7056

R-squared	0.000596	Mean dependent var	1.005124
Adjusted R-squared	-0.003569	S.D. dependent var	2.373198
S.E. of regression	2.377429	Akaike info criterion	4.578146
Sum squared resid	1356.520	Schwarz criterion	4.606981
Log likelihood	-551.9557	Hannan-Quinn criter.	4.589762
F-statistic	0.143034	Durbin-Watson stat	1.992054
Prob(F-statistic)	0.705617		

2000

Heteroskedasticity Test: ARCH

F-statistic	0.062010	Prob. F(1,240)	0.8036
Obs*R-squared	0.062511	Prob. Chi-Square(1)	0.8026

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:28
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.984066	0.159044	6.187395	0.0000
WGT_RESID^2(-1)	0.016076	0.064559	0.249019	0.8036

R-squared	0.000258	Mean dependent var	1.000227
Adjusted R-squared	-0.003907	S.D. dependent var	2.254386
S.E. of regression	2.258786	Akaike info criterion	4.475762
Sum squared resid	1224.508	Schwarz criterion	4.504596
Log likelihood	-539.5672	Hannan-Quinn criter.	4.487378
F-statistic	0.062010	Durbin-Watson stat	1.997557
Prob(F-statistic)	0.803559		

2001

Heteroskedasticity Test: ARCH

F-statistic	0.447257	Prob. F(1,245)	0.5043
Obs*R-squared	0.450086	Prob. Chi-Square(1)	0.5023

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:30
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.045128	0.152767	6.841333	0.0000
WGT_RESID^2(-1)	-0.042683	0.063822	-0.668773	0.5043

R-squared	0.001822	Mean dependent var	1.002532
Adjusted R-squared	-0.002252	S.D. dependent var	2.179827
S.E. of regression	2.182281	Akaike info criterion	4.406682
Sum squared resid	1166.775	Schwarz criterion	4.435098
Log likelihood	-542.2253	Hannan-Quinn criter.	4.418123
F-statistic	0.447257	Durbin-Watson stat	1.995438
Prob(F-statistic)	0.504270		

2002

Heteroskedasticity Test: ARCH

F-statistic	0.545051	Prob. F(1,243)	0.4611
Obs*R-squared	0.548307	Prob. Chi-Square(1)	0.4590

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:35
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.952539	0.140524	6.778469	0.0000
WGT_RESID^2(-1)	0.047314	0.064088	0.738276	0.4611

R-squared	0.002238	Mean dependent var	0.999885
Adjusted R-squared	-0.001868	S.D. dependent var	1.955311
S.E. of regression	1.957136	Akaike info criterion	4.188972
Sum squared resid	930.7831	Schwarz criterion	4.217553
Log likelihood	-511.1490	Hannan-Quinn criter.	4.200482
F-statistic	0.545051	Durbin-Watson stat	1.999020
Prob(F-statistic)	0.461059		

2003

Heteroskedasticity Test: ARCH

F-statistic	0.001502	Prob. F(1,245)	0.9691
Obs*R-squared	0.001515	Prob. Chi-Square(1)	0.9690

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:37
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.001823	0.159037	6.299309	0.0000
WGT_RESID^2(-1)	0.002476	0.063887	0.038762	0.9691

R-squared	0.000006	Mean dependent var	1.004310
Adjusted R-squared	-0.004075	S.D. dependent var	2.282383
S.E. of regression	2.287029	Akaike info criterion	4.500449
Sum squared resid	1281.473	Schwarz criterion	4.528865
Log likelihood	-553.8054	Hannan-Quinn criter.	4.511889
F-statistic	0.001502	Durbin-Watson stat	1.999452
Prob(F-statistic)	0.969112		

2004

Heteroskedasticity Test: ARCH

F-statistic	3.201094	Prob. F(1,244)	0.0748
Obs*R-squared	3.185541	Prob. Chi-Square(1)	0.0743

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:39
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.900421	0.164273	5.481259	0.0000
WGT_RESID^2(-1)	0.113769	0.063588	1.789160	0.0748

R-squared	0.012949	Mean dependent var	1.015811
Adjusted R-squared	0.008904	S.D. dependent var	2.380260
S.E. of regression	2.369639	Akaike info criterion	4.571450
Sum squared resid	1370.107	Schwarz criterion	4.599948
Log likelihood	-560.2883	Hannan-Quinn criter.	4.582925
F-statistic	3.201094	Durbin-Watson stat	1.994406
Prob(F-statistic)	0.074829		

2005

Heteroskedasticity Test: ARCH

F-statistic	0.021937	Prob. F(1,243)	0.8824
Obs*R-squared	0.022115	Prob. Chi-Square(1)	0.8818

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:41
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.005678	0.535616	1.877612	0.0616
WGT_RESID^2(-1)	-0.009501	0.064149	-0.148111	0.8824

R-squared	0.000090	Mean dependent var	0.996180
Adjusted R-squared	-0.004025	S.D. dependent var	8.306708
S.E. of regression	8.323406	Akaike info criterion	7.084150
Sum squared resid	16834.82	Schwarz criterion	7.112732
Log likelihood	-865.8084	Hannan-Quinn criter.	7.095660
F-statistic	0.021937	Durbin-Watson stat	2.000107
Prob(F-statistic)	0.882378		

2006

Heteroskedasticity Test: ARCH

F-statistic	1.23E-05	Prob. F(1,245)	0.9972
Obs*R-squared	1.24E-05	Prob. Chi-Square(1)	0.9972

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:43
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.006160	0.210921	4.770320	0.0000
WGT_RESID^2(-1)	-0.000224	0.063887	-0.003503	0.9972

R-squared	0.000000	Mean dependent var	1.005935
Adjusted R-squared	-0.004082	S.D. dependent var	3.150884
S.E. of regression	3.157308	Akaike info criterion	5.145381
Sum squared resid	2442.306	Schwarz criterion	5.173797
Log likelihood	-633.4545	Hannan-Quinn criter.	5.156821
F-statistic	1.23E-05	Durbin-Watson stat	1.995597
Prob(F-statistic)	0.997208		

2007

Heteroskedasticity Test: ARCH

F-statistic	7.84E-05	Prob. F(1,243)	0.9929
Obs*R-squared	7.91E-05	Prob. Chi-Square(1)	0.9929

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:47
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.012416	0.187376	5.403118	0.0000
WGT_RESID^2(-1)	0.000568	0.064151	0.008856	0.9929

R-squared	0.000000	Mean dependent var	1.012992
Adjusted R-squared	-0.004115	S.D. dependent var	2.745172
S.E. of regression	2.750814	Akaike info criterion	4.869800
Sum squared resid	1838.775	Schwarz criterion	4.898382
Log likelihood	-594.5505	Hannan-Quinn criter.	4.881310
F-statistic	7.84E-05	Durbin-Watson stat	1.999871
Prob(F-statistic)	0.992941		

2008

Heteroskedasticity Test: ARCH

F-statistic	0.190149	Prob. F(1,245)	0.6632
Obs*R-squared	0.191553	Prob. Chi-Square(1)	0.6616

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:49
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.971780	0.209046	4.648645	0.0000
WGT_RESID^2(-1)	0.027854	0.063876	0.436061	0.6632

R-squared	0.000776	Mean dependent var	0.999746
Adjusted R-squared	-0.003303	S.D. dependent var	3.121834
S.E. of regression	3.126985	Akaike info criterion	5.126080
Sum squared resid	2395.619	Schwarz criterion	5.154496
Log likelihood	-631.0709	Hannan-Quinn criter.	5.137521
F-statistic	0.190149	Durbin-Watson stat	2.001028
Prob(F-statistic)	0.663177		

2009

Heteroskedasticity Test: ARCH

F-statistic	0.107997	Prob. F(1,245)	0.7427
Obs*R-squared	0.108831	Prob. Chi-Square(1)	0.7415

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 20:51
Sample (adjusted): 2 248
Included observations: 247 after adjustments

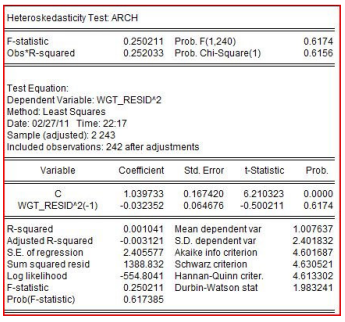
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.027294	0.236557	4.342687	0.0000
WGT_RESID^2(-1)	-0.020990	0.063872	-0.328630	0.7427

R-squared	0.000441	Mean dependent var	1.006181
Adjusted R-squared	-0.003639	S.D. dependent var	3.571561
S.E. of regression	3.578054	Akaike info criterion	5.395580
Sum squared resid	3136.606	Schwarz criterion	5.423996
Log likelihood	-664.3541	Hannan-Quinn criter.	5.407020
F-statistic	0.107997	Durbin-Watson stat	1.994561
Prob(F-statistic)	0.742716		

2010

APPENDIX 74

Yearly Data LM Test for ARCH For KLPLN



Heteroskedasticity Test: ARCH

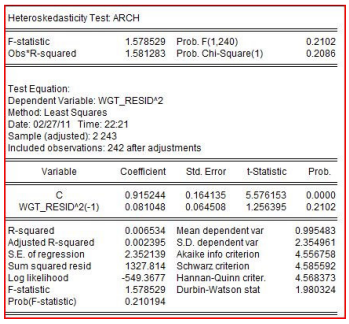
F-statistic	0.250211	Prob. F(1,240)	0.6174
Obs*R-squared	0.252033	Prob. Chi-Square(1)	0.6156

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:17
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.039733	0.167420	6.210323	0.0000
WGT_RESID^2(-1)	-0.032352	0.064676	-0.500211	0.6174

R-squared	0.001041	Mean dependent var	1.007637
Adjusted R-squared	-0.003121	S.D. dependent var	2.401832
S.E. of regression	2.405577	Akaike info criterion	4.601687
Sum squared resid	1388.832	Schwarz criterion	4.630521
Log likelihood	-554.8041	Hannan-Quinn criter.	4.613302
F-statistic	0.250211	Durbin-Watson stat	1.983241
Prob(F-statistic)	0.617385		

2000



Heteroskedasticity Test: ARCH

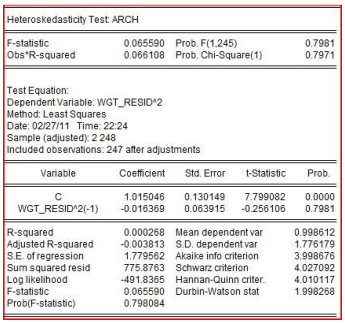
F-statistic	1.578529	Prob. F(1,240)	0.2102
Obs*R-squared	1.581283	Prob. Chi-Square(1)	0.2086

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:21
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.915244	0.164135	5.576153	0.0000
WGT_RESID^2(-1)	0.081048	0.064508	1.256395	0.2102

R-squared	0.006534	Mean dependent var	0.995483
Adjusted R-squared	0.002395	S.D. dependent var	2.354961
S.E. of regression	2.352139	Akaike info criterion	4.556758
Sum squared resid	1327.814	Schwarz criterion	4.585592
Log likelihood	-549.3677	Hannan-Quinn criter.	4.568373
F-statistic	1.578529	Durbin-Watson stat	1.980324
Prob(F-statistic)	0.210194		

2001



Heteroskedasticity Test: ARCH

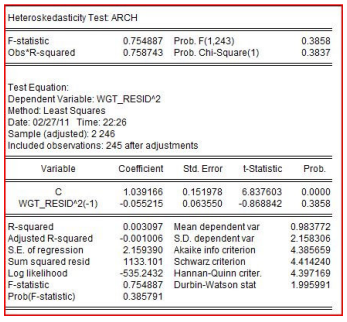
F-statistic	0.065590	Prob. F(1,245)	0.7981
Obs*R-squared	0.066108	Prob. Chi-Square(1)	0.7971

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:24
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.015046	0.130149	7.799082	0.0000
WGT_RESID^2(-1)	-0.016369	0.063915	-0.256106	0.7981

R-squared	0.000268	Mean dependent var	0.998612
Adjusted R-squared	-0.003813	S.D. dependent var	1.776179
S.E. of regression	1.779562	Akaike info criterion	3.998676
Sum squared resid	775.8763	Schwarz criterion	4.027092
Log likelihood	-491.8365	Hannan-Quinn criter.	4.010117
F-statistic	0.065590	Durbin-Watson stat	1.998268
Prob(F-statistic)	0.798084		

2002



Heteroskedasticity Test: ARCH

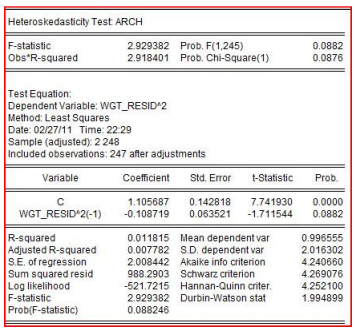
F-statistic	0.754887	Prob. F(1,243)	0.3858
Obs*R-squared	0.758743	Prob. Chi-Square(1)	0.3837

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:26
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.039166	0.151978	6.837603	0.0000
WGT_RESID^2(-1)	-0.055215	0.063550	-0.868842	0.3858

R-squared	0.003097	Mean dependent var	0.983772
Adjusted R-squared	-0.001006	S.D. dependent var	2.158306
S.E. of regression	2.159390	Akaike info criterion	4.385659
Sum squared resid	1133.101	Schwarz criterion	4.414240
Log likelihood	-535.2432	Hannan-Quinn criter.	4.397169
F-statistic	0.754887	Durbin-Watson stat	1.995991
Prob(F-statistic)	0.385791		

2003



Heteroskedasticity Test: ARCH

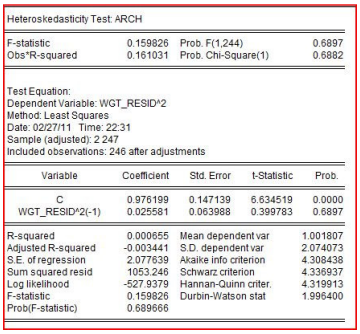
F-statistic	2.929382	Prob. F(1,245)	0.0882
Obs*R-squared	2.918401	Prob. Chi-Square(1)	0.0876

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:29
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.105687	0.142818	7.741930	0.0000
WGT_RESID^2(-1)	-0.108719	0.063521	-1.711544	0.0882

R-squared	0.011815	Mean dependent var	0.996555
Adjusted R-squared	0.007782	S.D. dependent var	2.016302
S.E. of regression	2.008442	Akaike info criterion	4.240660
Sum squared resid	988.2903	Schwarz criterion	4.269076
Log likelihood	-521.7215	Hannan-Quinn criter.	4.252100
F-statistic	2.929382	Durbin-Watson stat	1.994899
Prob(F-statistic)	0.088246		

2004



Heteroskedasticity Test: ARCH

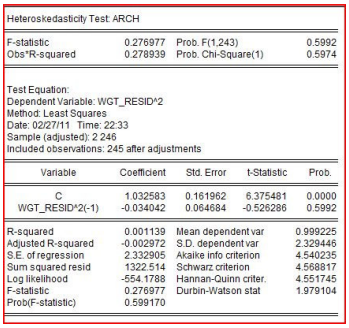
F-statistic	0.159826	Prob. F(1,244)	0.6897
Obs*R-squared	0.161031	Prob. Chi-Square(1)	0.6882

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:31
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.976199	0.147139	6.634519	0.0000
WGT_RESID^2(-1)	0.025581	0.063988	0.399783	0.6897

R-squared	0.000655	Mean dependent var	1.001807
Adjusted R-squared	-0.003441	S.D. dependent var	2.074073
S.E. of regression	2.077639	Akaike info criterion	4.308438
Sum squared resid	1053.246	Schwarz criterion	4.336937
Log likelihood	-527.9379	Hannan-Quinn criter.	4.319913
F-statistic	0.159826	Durbin-Watson stat	1.996400
Prob(F-statistic)	0.689666		

2005



Heteroskedasticity Test: ARCH

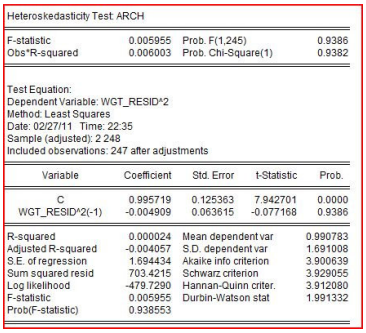
F-statistic	0.276977	Prob. F(1,243)	0.5992
Obs*R-squared	0.278939	Prob. Chi-Square(1)	0.5974

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:33
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.032583	0.161962	6.375481	0.0000
WGT_RESID^2(-1)	-0.034042	0.064684	-0.526286	0.5992

R-squared	0.001139	Mean dependent var	0.999225
Adjusted R-squared	-0.002972	S.D. dependent var	2.329446
S.E. of regression	2.332905	Akaike info criterion	4.540235
Sum squared resid	1322.514	Schwarz criterion	4.568817
Log likelihood	-554.1788	Hannan-Quinn criter.	4.551745
F-statistic	0.276977	Durbin-Watson stat	1.979104
Prob(F-statistic)	0.599170		

2006



Heteroskedasticity Test: ARCH

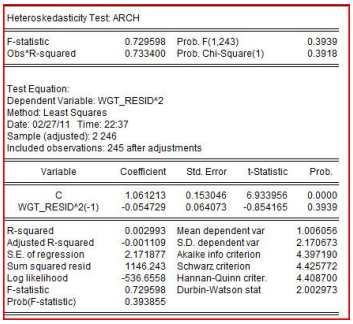
F-statistic	0.005955	Prob. F(1,245)	0.9386
Obs*R-squared	0.006003	Prob. Chi-Square(1)	0.9382

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:35
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.995719	0.125363	7.942701	0.0000
WGT_RESID^2(-1)	-0.004909	0.063615	-0.077168	0.9386

R-squared	0.000024	Mean dependent var	0.990783
Adjusted R-squared	-0.004057	S.D. dependent var	1.691008
S.E. of regression	1.694434	Akaike info criterion	3.900639
Sum squared resid	703.4215	Schwarz criterion	3.929055
Log likelihood	-479.7290	Hannan-Quinn criter.	3.912080
F-statistic	0.005955	Durbin-Watson stat	1.991332
Prob(F-statistic)	0.938553		

2007



Heteroskedasticity Test: ARCH

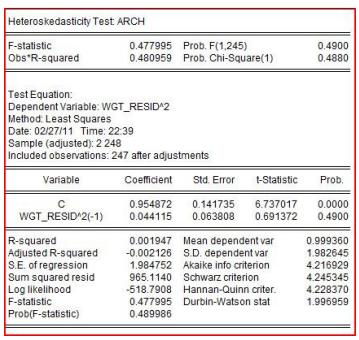
F-statistic	0.729598	Prob. F(1,243)	0.3939
Obs*R-squared	0.733400	Prob. Chi-Square(1)	0.3918

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:37
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.061213	0.153046	6.933956	0.0000
WGT_RESID^2(-1)	-0.054729	0.064073	-0.854165	0.3939

R-squared	0.002993	Mean dependent var	1.006056
Adjusted R-squared	-0.001109	S.D. dependent var	2.170673
S.E. of regression	2.171877	Akaike info criterion	4.397190
Sum squared resid	1146.243	Schwarz criterion	4.425772
Log likelihood	-536.6558	Hannan-Quinn criter.	4.408700
F-statistic	0.729598	Durbin-Watson stat	2.002973
Prob(F-statistic)	0.393855		

2008



Heteroskedasticity Test: ARCH

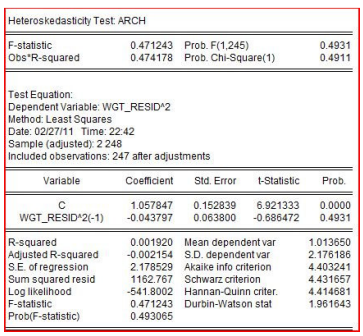
F-statistic	0.477995	Prob. F(1,245)	0.4900
Obs*R-squared	0.480959	Prob. Chi-Square(1)	0.4880

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:39
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.954872	0.141735	6.737017	0.0000
WGT_RESID^2(-1)	0.044115	0.063808	0.691372	0.4900

R-squared	0.001947	Mean dependent var	0.999360
Adjusted R-squared	-0.002126	S.D. dependent var	1.982645
S.E. of regression	1.984752	Akaike info criterion	4.216929
Sum squared resid	965.1140	Schwarz criterion	4.245345
Log likelihood	-518.7908	Hannan-Quinn criter.	4.228370
F-statistic	0.477995	Durbin-Watson stat	1.996959
Prob(F-statistic)	0.489986		

2009



Heteroskedasticity Test: ARCH

F-statistic	0.471243	Prob. F(1,245)	0.4931
Obs*R-squared	0.474178	Prob. Chi-Square(1)	0.4911

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 02/27/11 Time: 22:42
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.057847	0.152839	6.921333	0.0000
WGT_RESID^2(-1)	-0.043797	0.063800	-0.686472	0.4931

R-squared	0.001920	Mean dependent var	1.013650
Adjusted R-squared	-0.002154	S.D. dependent var	2.176186
S.E. of regression	2.178529	Akaike info criterion	4.403241
Sum squared resid	1162.767	Schwarz criterion	4.431657
Log likelihood	-541.8002	Hannan-Quinn criter.	4.414681
F-statistic	0.471243	Durbin-Watson stat	1.961643
Prob(F-statistic)	0.493065		

2010

APPENDIX 75

Yearly Data LM Test for ARCH For KLPRP

Heteroskedasticity Test: ARCH

F-statistic	0.125454	Prob. F(1,240)	0.7235
Obs*R-squared	0.126433	Prob. Chi-Square(1)	0.7222

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 16:57
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.020307	0.150962	6.758683	0.0000
WGT_RESID^2(-1)	0.022856	0.064531	0.354195	0.7235

R-squared	0.000522	Mean dependent var	1.044168
Adjusted R-squared	-0.003642	S.D. dependent var	2.097788
S.E. of regression	2.101605	Akaike info criterion	4.331510
Sum squared resid	1060.018	Schwarz criterion	4.360344
Log likelihood	-522.1127	Hannan-Quinn criter.	4.343125
F-statistic	0.125454	Durbin-Watson stat	1.997253
Prob(F-statistic)	0.723504		

2000

Heteroskedasticity Test: ARCH

F-statistic	0.302378	Prob. F(1,240)	0.5829
Obs*R-squared	0.304514	Prob. Chi-Square(1)	0.5811

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:00
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.957575	0.160737	5.957399	0.0000
WGT_RESID^2(-1)	0.035405	0.064386	0.549889	0.5829

R-squared	0.001258	Mean dependent var	0.993238
Adjusted R-squared	-0.002903	S.D. dependent var	2.284604
S.E. of regression	2.287918	Akaike info criterion	4.501391
Sum squared resid	1256.296	Schwarz criterion	4.530225
Log likelihood	-542.6683	Hannan-Quinn criter.	4.513007
F-statistic	0.302378	Durbin-Watson stat	2.004654
Prob(F-statistic)	0.582907		

2001

Heteroskedasticity Test: ARCH

F-statistic	1.112646	Prob. F(1,245)	0.2925
Obs*R-squared	1.116658	Prob. Chi-Square(1)	0.2906

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:02
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.942730	0.137134	6.874535	0.0000
WGT_RESID^2(-1)	0.067205	0.063712	1.054821	0.2925

R-squared	0.004521	Mean dependent var	1.010449
Adjusted R-squared	0.000458	S.D. dependent var	1.904897
S.E. of regression	1.904461	Akaike info criterion	4.134339
Sum squared resid	888.6081	Schwarz criterion	4.162755
Log likelihood	-508.5909	Hannan-Quinn criter.	4.145780
F-statistic	1.112646	Durbin-Watson stat	1.997568
Prob(F-statistic)	0.292546		

2002

Heteroskedasticity Test: ARCH

F-statistic	0.000381	Prob. F(1,243)	0.9844
Obs*R-squared	0.000384	Prob. Chi-Square(1)	0.9844

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:04
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.998584	0.122887	8.126004	0.0000
WGT_RESID^2(-1)	0.001254	0.064199	0.019526	0.9844

R-squared	0.000002	Mean dependent var	0.999842
Adjusted R-squared	-0.004114	S.D. dependent var	1.634415
S.E. of regression	1.637773	Akaike info criterion	3.832681
Sum squared resid	651.7989	Schwarz criterion	3.861263
Log likelihood	-467.5035	Hannan-Quinn criter.	3.844191
F-statistic	0.000381	Durbin-Watson stat	1.998240
Prob(F-statistic)	0.984438		

2003

Heteroskedasticity Test: ARCH

F-statistic	0.536020	Prob. F(1,245)	0.4648
Obs*R-squared	0.539216	Prob. Chi-Square(1)	0.4628

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:07
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.049507	0.141789	7.401876	0.0000
WGT_RESID^2(-1)	-0.046725	0.063820	-0.732134	0.4648

R-squared	0.002183	Mean dependent var	1.002650
Adjusted R-squared	-0.001890	S.D. dependent var	1.986593
S.E. of regression	1.988469	Akaike info criterion	4.220671
Sum squared resid	968.7322	Schwarz criterion	4.249087
Log likelihood	-519.2529	Hannan-Quinn criter.	4.232112
F-statistic	0.536020	Durbin-Watson stat	1.996706
Prob(F-statistic)	0.464787		

2004

Heteroskedasticity Test: ARCH

F-statistic	0.000910	Prob. F(1,244)	0.9760
Obs*R-squared	0.000917	Prob. Chi-Square(1)	0.9758

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:09
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.004619	0.133467	7.527072	0.0000
WGT_RESID^2(-1)	-0.001932	0.064050	-0.030165	0.9760

R-squared	0.000004	Mean dependent var	1.002675
Adjusted R-squared	-0.004095	S.D. dependent var	1.829608
S.E. of regression	1.833350	Akaike info criterion	4.058263
Sum squared resid	820.1257	Schwarz criterion	4.086762
Log likelihood	-497.1664	Hannan-Quinn criter.	4.069738
F-statistic	0.000910	Durbin-Watson stat	1.998556
Prob(F-statistic)	0.975961		

2005

Heteroskedasticity Test: ARCH

F-statistic	0.115565	Prob. F(1,243)	0.7342
Obs*R-squared	0.116461	Prob. Chi-Square(1)	0.7329

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:11
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.033587	0.156092	6.621653	0.0000
WGT_RESID^2(-1)	-0.021797	0.064118	-0.339949	0.7342

R-squared	0.000475	Mean dependent var	1.011596
Adjusted R-squared	-0.003638	S.D. dependent var	2.219509
S.E. of regression	2.223543	Akaike info criterion	4.444210
Sum squared resid	1201.426	Schwarz criterion	4.472792
Log likelihood	-542.4158	Hannan-Quinn criter.	4.455720
F-statistic	0.115565	Durbin-Watson stat	2.000349
Prob(F-statistic)	0.734189		

2006

Heteroskedasticity Test: ARCH

F-statistic	0.016038	Prob. F(1,245)	0.8993
Obs*R-squared	0.016168	Prob. Chi-Square(1)	0.8988

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:14
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.008550	0.142316	7.086700	0.0000
WGT_RESID^2(-1)	-0.008089	0.063871	-0.126640	0.8993

R-squared	0.000065	Mean dependent var	1.000467
Adjusted R-squared	-0.004016	S.D. dependent var	1.995082
S.E. of regression	1.999084	Akaike info criterion	4.231319
Sum squared resid	979.1024	Schwarz criterion	4.259735
Log likelihood	-520.5679	Hannan-Quinn criter.	4.242760
F-statistic	0.016038	Durbin-Watson stat	2.002006
Prob(F-statistic)	0.899329		

2007

Heteroskedasticity Test: ARCH

F-statistic	0.039396	Prob. F(1,243)	0.8428
Obs*R-squared	0.039714	Prob. Chi-Square(1)	0.8420

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:16
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.014200	0.304522	3.330467	0.0010
WGT_RESID^2(-1)	-0.012731	0.064143	-0.198484	0.8428

R-squared	0.000162	Mean dependent var	1.001498
Adjusted R-squared	-0.003952	S.D. dependent var	4.650905
S.E. of regression	4.660088	Akaike info criterion	5.924075
Sum squared resid	5277.089	Schwarz criterion	5.952657
Log likelihood	-723.6992	Hannan-Quinn criter.	5.935585
F-statistic	0.039396	Durbin-Watson stat	2.000524
Prob(F-statistic)	0.842832		

2008

Heteroskedasticity Test: ARCH

F-statistic	3.040577	Prob. F(1,245)	0.0825
Obs*R-squared	3.027821	Prob. Chi-Square(1)	0.0818

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:18
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.106301	0.128378	8.617503	0.0000
WGT_RESID^2(-1)	-0.110789	0.063536	-1.743725	0.0825

R-squared	0.012258	Mean dependent var	0.995508
Adjusted R-squared	0.008227	S.D. dependent var	1.760438
S.E. of regression	1.753182	Akaike info criterion	3.968806
Sum squared resid	753.0434	Schwarz criterion	3.997222
Log likelihood	-488.1475	Hannan-Quinn criter.	3.980246
F-statistic	3.040577	Durbin-Watson stat	1.978067
Prob(F-statistic)	0.082461		

2009

Heteroskedasticity Test: ARCH

F-statistic	1.030054	Prob. F(1,245)	0.3111
Obs*R-squared	1.034115	Prob. Chi-Square(1)	0.3092

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/01/11 Time: 17:20
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.062874	0.133175	7.981043	0.0000
WGT_RESID^2(-1)	-0.064690	0.063739	-1.014916	0.3111

R-squared	0.004187	Mean dependent var	0.998164
Adjusted R-squared	0.000122	S.D. dependent var	1.837663
S.E. of regression	1.837551	Akaike info criterion	4.062808
Sum squared resid	827.2651	Schwarz criterion	4.091224
Log likelihood	-499.7568	Hannan-Quinn criter.	4.074249
F-statistic	1.030054	Durbin-Watson stat	1.984154
Prob(F-statistic)	0.311147		

2010

APPENDIX 76

Yearly Data LM Test for ARCH For KLSER

Heteroskedasticity Test: ARCH

F-statistic	1.181842	Prob. F(1,240)	0.2781
Obs*R-squared	1.185851	Prob. Chi-Square(1)	0.2762

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:38
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.950639	0.133083	7.143194	0.0000
WGT_RESID^2(-1)	0.069975	0.064367	1.087126	0.2781

R-squared	0.004900	Mean dependent var	1.021657
Adjusted R-squared	0.000754	S.D. dependent var	1.804380
S.E. of regression	1.803700	Akaike info criterion	4.025787
Sum squared resid	780.7999	Schwarz criterion	4.054621
Log likelihood	-485.1202	Hannan-Quinn criter.	4.037403
F-statistic	1.181842	Durbin-Watson stat	1.998933
Prob(F-statistic)	0.278072		

2000

Heteroskedasticity Test: ARCH

F-statistic	0.117619	Prob. F(1,240)	0.7319
Obs*R-squared	0.118541	Prob. Chi-Square(1)	0.7306

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:41
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.975107	0.147907	6.592690	0.0000
WGT_RESID^2(-1)	0.022126	0.064517	0.342956	0.7319

R-squared	0.000490	Mean dependent var	0.997322
Adjusted R-squared	-0.003675	S.D. dependent var	2.064725
S.E. of regression	2.068515	Akaike info criterion	4.299769
Sum squared resid	1026.901	Schwarz criterion	4.328604
Log likelihood	-518.2721	Hannan-Quinn criter.	4.311385
F-statistic	0.117619	Durbin-Watson stat	2.003316
Prob(F-statistic)	0.731932		

2001

Heteroskedasticity Test: ARCH

F-statistic	1.094712	Prob. F(1,245)	0.2965
Obs*R-squared	1.098740	Prob. Chi-Square(1)	0.2945

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:44
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.066000	0.122766	8.683173	0.0000
WGT_RESID^2(-1)	-0.066653	0.063705	-1.046285	0.2965

R-squared	0.004448	Mean dependent var	0.998792
Adjusted R-squared	0.000385	S.D. dependent var	1.644552
S.E. of regression	1.644236	Akaike info criterion	3.840492
Sum squared resid	662.3601	Schwarz criterion	3.868909
Log likelihood	-472.3008	Hannan-Quinn criter.	3.851933
F-statistic	1.094712	Durbin-Watson stat	1.986942
Prob(F-statistic)	0.296461		

2002

Heteroskedasticity Test: ARCH

F-statistic	0.165815	Prob. F(1,243)	0.6842
Obs*R-squared	0.167066	Prob. Chi-Square(1)	0.6827

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:47
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.967562	0.115872	8.350279	0.0000
WGT_RESID^2(-1)	0.025974	0.063786	0.407204	0.6842

R-squared	0.000682	Mean dependent var	0.993756
Adjusted R-squared	-0.003431	S.D. dependent var	1.505948
S.E. of regression	1.508529	Akaike info criterion	3.668277
Sum squared resid	552.9856	Schwarz criterion	3.696859
Log likelihood	-447.3640	Hannan-Quinn criter.	3.679787
F-statistic	0.165815	Durbin-Watson stat	1.986992
Prob(F-statistic)	0.684217		

2003

Heteroskedasticity Test: ARCH

F-statistic	0.072541	Prob. F(1,245)	0.7879
Obs*R-squared	0.073111	Prob. Chi-Square(1)	0.7869

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:49
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.026084	0.131623	7.795643	0.0000
WGT_RESID^2(-1)	-0.017209	0.063896	-0.269334	0.7879

R-squared	0.000296	Mean dependent var	1.008698
Adjusted R-squared	-0.003784	S.D. dependent var	1.799349
S.E. of regression	1.802750	Akaike info criterion	4.024568
Sum squared resid	796.2272	Schwarz criterion	4.052984
Log likelihood	-495.0341	Hannan-Quinn criter.	4.036008
F-statistic	0.072541	Durbin-Watson stat	2.000879
Prob(F-statistic)	0.787899		

2004

Heteroskedasticity Test: ARCH

F-statistic	0.002406	Prob. F(1,244)	0.9609
Obs*R-squared	0.002426	Prob. Chi-Square(1)	0.9607

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:52
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.999422	0.117011	8.541264	0.0000
WGT_RESID^2(-1)	0.003141	0.064046	0.049049	0.9609

R-squared	0.000010	Mean dependent var	1.002576
Adjusted R-squared	-0.004088	S.D. dependent var	1.530218
S.E. of regression	1.533343	Akaike info criterion	3.700874
Sum squared resid	573.6782	Schwarz criterion	3.729373
Log likelihood	-453.2075	Hannan-Quinn criter.	3.712349
F-statistic	0.002406	Durbin-Watson stat	1.998729
Prob(F-statistic)	0.960920		

2005

Heteroskedasticity Test: ARCH

F-statistic	0.007866	Prob. F(1,243)	0.9294
Obs*R-squared	0.007931	Prob. Chi-Square(1)	0.9290

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:54
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.999135	0.133726	7.471509	0.0000
WGT_RESID^2(-1)	0.005691	0.064170	0.088691	0.9294

R-squared	0.000032	Mean dependent var	1.004864
Adjusted R-squared	-0.004083	S.D. dependent var	1.828944
S.E. of regression	1.832674	Akaike info criterion	4.057559
Sum squared resid	816.1623	Schwarz criterion	4.086140
Log likelihood	-495.0509	Hannan-Quinn criter.	4.069068
F-statistic	0.007866	Durbin-Watson stat	1.999653
Prob(F-statistic)	0.929401		

2006

Heteroskedasticity Test: ARCH

F-statistic	0.773693	Prob. F(1,245)	0.3799
Obs*R-squared	0.777553	Prob. Chi-Square(1)	0.3779

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:57
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.938186	0.129064	7.269149	0.0000
WGT_RESID^2(-1)	0.056027	0.063696	0.879598	0.3799

R-squared	0.003148	Mean dependent var	0.994539
Adjusted R-squared	-0.000921	S.D. dependent var	1.760049
S.E. of regression	1.760859	Akaike info criterion	3.977544
Sum squared resid	759.6527	Schwarz criterion	4.005961
Log likelihood	-489.2267	Hannan-Quinn criter.	3.988985
F-statistic	0.773693	Durbin-Watson stat	1.981291
Prob(F-statistic)	0.379939		

2007

Heteroskedasticity Test: ARCH

F-statistic	0.062712	Prob. F(1,243)	0.8025
Obs*R-squared	0.063212	Prob. Chi-Square(1)	0.8015

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 17:59
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.018846	0.260569	3.910074	0.0001
WGT_RESID^2(-1)	-0.016063	0.064142	-0.250424	0.8025

R-squared	0.000258	Mean dependent var	1.002740
Adjusted R-squared	-0.003856	S.D. dependent var	3.944765
S.E. of regression	3.952364	Akaike info criterion	5.594634
Sum squared resid	3795.946	Schwarz criterion	5.623216
Log likelihood	-683.3427	Hannan-Quinn criter.	5.606144
F-statistic	0.062712	Durbin-Watson stat	2.000346
Prob(F-statistic)	0.802471		

2008

Heteroskedasticity Test: ARCH

F-statistic	1.863675	Prob. F(1,245)	0.1735
Obs*R-squared	1.864704	Prob. Chi-Square(1)	0.1721

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 18:02
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.061492	0.111068	9.557173	0.0000
WGT_RESID^2(-1)	-0.086958	0.063698	-1.365165	0.1735

R-squared	0.007549	Mean dependent var	0.976338
Adjusted R-squared	0.003499	S.D. dependent var	1.446824
S.E. of regression	1.444291	Akaike info criterion	3.581178
Sum squared resid	511.0642	Schwarz criterion	3.609594
Log likelihood	-440.2755	Hannan-Quinn criter.	3.592619
F-statistic	1.863675	Durbin-Watson stat	1.977610
Prob(F-statistic)	0.173454		

2009

Heteroskedasticity Test: ARCH

F-statistic	0.324424	Prob. F(1,245)	0.5695
Obs*R-squared	0.326640	Prob. Chi-Square(1)	0.5676

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/02/11 Time: 18:04
Sample (adjusted): 2 248
Included observations: 247 after adjustments

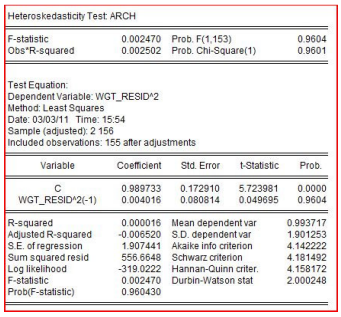
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.034903	0.117496	8.807984	0.0000
WGT_RESID^2(-1)	-0.036375	0.063862	-0.569583	0.5695

R-squared	0.001322	Mean dependent var	0.998338
Adjusted R-squared	-0.002754	S.D. dependent var	1.544484
S.E. of regression	1.546609	Akaike info criterion	3.719071
Sum squared resid	586.0398	Schwarz criterion	3.746487
Log likelihood	-457.1817	Hannan-Quinn criter.	3.729511
F-statistic	0.324424	Durbin-Watson stat	1.994284
Prob(F-statistic)	0.569483		

2010

APPENDIX 77

Yearly Data LM Test for ARCH For KLTEC



Heteroskedasticity Test: ARCH

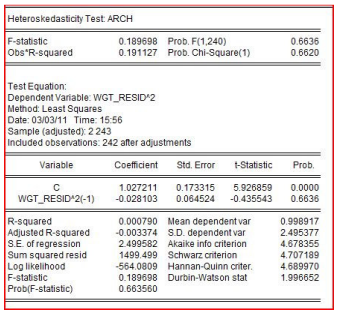
F-statistic	0.002470	Prob. F(1,153)	0.9604
Obs*R-squared	0.002502	Prob. Chi-Square(1)	0.9601

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 15:54
Sample (adjusted): 2 156
Included observations: 155 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.989733	0.172910	5.723981	0.0000
WGT_RESID^2(-1)	0.004016	0.080814	0.049695	0.9604

R-squared	0.000016	Mean dependent var	0.993717
Adjusted R-squared	-0.006520	S.D. dependent var	1.901253
S.E. of regression	1.907441	Akaike info criterion	4.142222
Sum squared resid	556.6648	Schwarz criterion	4.181492
Log likelihood	-319.0222	Hannan-Quinn criter.	4.158172
F-statistic	0.002470	Durbin-Watson stat	2.000248
Prob(F-statistic)	0.960430		

2000



Heteroskedasticity Test: ARCH

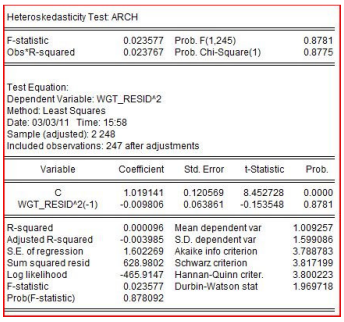
F-statistic	0.189698	Prob. F(1,240)	0.6636
Obs*R-squared	0.191127	Prob. Chi-Square(1)	0.6620

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 15:56
Sample (adjusted): 2 243
Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.027211	0.173315	5.926859	0.0000
WGT_RESID^2(-1)	-0.028103	0.064524	-0.435543	0.6636

R-squared	0.000790	Mean dependent var	0.998917
Adjusted R-squared	-0.003374	S.D. dependent var	2.495377
S.E. of regression	2.499582	Akaike info criterion	4.678355
Sum squared resid	1499.499	Schwarz criterion	4.707189
Log likelihood	-564.0809	Hannan-Quinn criter.	4.689970
F-statistic	0.189698	Durbin-Watson stat	1.996652
Prob(F-statistic)	0.663560		

2001



Heteroskedasticity Test: ARCH

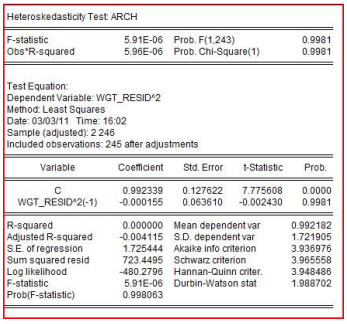
F-statistic	0.023577	Prob. F(1,245)	0.8781
Obs*R-squared	0.023767	Prob. Chi-Square(1)	0.8775

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 15:58
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.019141	0.120569	8.452728	0.0000
WGT_RESID^2(-1)	-0.009806	0.063861	-0.153548	0.8781

R-squared	0.000096	Mean dependent var	1.009257
Adjusted R-squared	-0.003985	S.D. dependent var	1.599086
S.E. of regression	1.602269	Akaike info criterion	3.788783
Sum squared resid	628.9802	Schwarz criterion	3.817199
Log likelihood	-465.9147	Hannan-Quinn criter.	3.800223
F-statistic	0.023577	Durbin-Watson stat	1.969718
Prob(F-statistic)	0.878092		

2002



Heteroskedasticity Test: ARCH

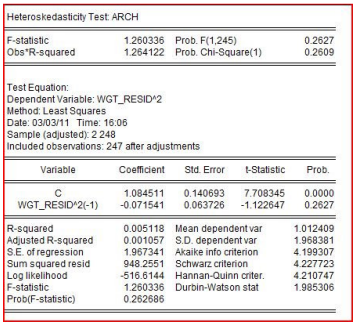
F-statistic	5.91E-06	Prob. F(1,243)	0.9981
Obs*R-squared	5.96E-06	Prob. Chi-Square(1)	0.9981

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 16:02
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.992339	0.127622	7.775608	0.0000
WGT_RESID^2(-1)	-0.000155	0.063610	-0.002430	0.9981

R-squared	0.000000	Mean dependent var	0.992182
Adjusted R-squared	-0.004115	S.D. dependent var	1.721905
S.E. of regression	1.725444	Akaike info criterion	3.936976
Sum squared resid	723.4495	Schwarz criterion	3.965558
Log likelihood	-480.2796	Hannan-Quinn criter.	3.948486
F-statistic	5.91E-06	Durbin-Watson stat	1.988702
Prob(F-statistic)	0.998063		

2003



Heteroskedasticity Test: ARCH

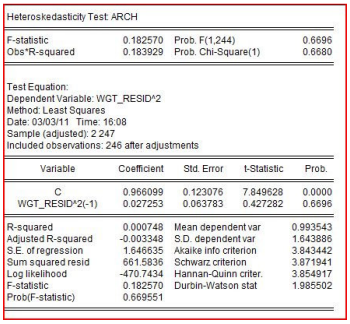
F-statistic	1.260336	Prob. F(1,245)	0.2627
Obs*R-squared	1.264122	Prob. Chi-Square(1)	0.2609

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 16:06
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.084511	0.140693	7.708345	0.0000
WGT_RESID^2(-1)	-0.071541	0.063726	-1.122647	0.2627

R-squared	0.005118	Mean dependent var	1.012409
Adjusted R-squared	0.001057	S.D. dependent var	1.968381
S.E. of regression	1.967341	Akaike info criterion	4.199307
Sum squared resid	948.2551	Schwarz criterion	4.227723
Log likelihood	-516.6144	Hannan-Quinn criter.	4.210747
F-statistic	1.260336	Durbin-Watson stat	1.985306
Prob(F-statistic)	0.262686		

2004



Heteroskedasticity Test: ARCH

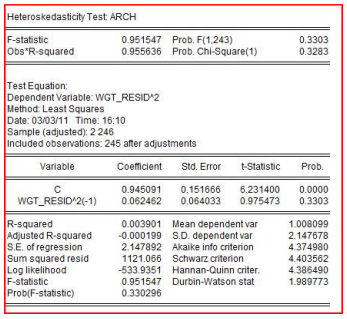
F-statistic	0.182570	Prob. F(1,244)	0.6696
Obs*R-squared	0.183929	Prob. Chi-Square(1)	0.6680

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 16:08
Sample (adjusted): 2 247
Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.966099	0.123076	7.849628	0.0000
WGT_RESID^2(-1)	0.027253	0.063783	0.427282	0.6696

R-squared	0.000748	Mean dependent var	0.993543
Adjusted R-squared	-0.003348	S.D. dependent var	1.643886
S.E. of regression	1.646635	Akaike info criterion	3.843442
Sum squared resid	661.5836	Schwarz criterion	3.871941
Log likelihood	-470.7434	Hannan-Quinn criter.	3.854917
F-statistic	0.182570	Durbin-Watson stat	1.985502
Prob(F-statistic)	0.669551		

2005



Heteroskedasticity Test: ARCH

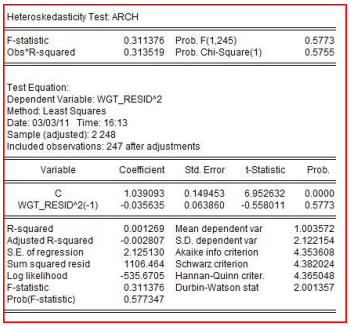
F-statistic	0.951547	Prob. F(1,243)	0.3303
Obs*R-squared	0.955636	Prob. Chi-Square(1)	0.3283

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 16:10
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.945091	0.151666	6.231400	0.0000
WGT_RESID^2(-1)	0.062462	0.064033	0.975473	0.3303

R-squared	0.003901	Mean dependent var	1.008099
Adjusted R-squared	-0.000199	S.D. dependent var	2.147678
S.E. of regression	2.147892	Akaike info criterion	4.374980
Sum squared resid	1121.066	Schwarz criterion	4.403562
Log likelihood	-533.9351	Hannan-Quinn criter.	4.386490
F-statistic	0.951547	Durbin-Watson stat	1.989773
Prob(F-statistic)	0.330296		

2006



Heteroskedasticity Test: ARCH

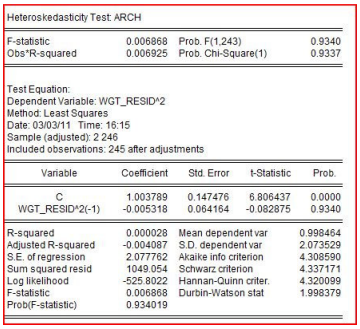
F-statistic	0.311376	Prob. F(1,245)	0.5773
Obs*R-squared	0.313519	Prob. Chi-Square(1)	0.5755

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 16:13
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.039093	0.149453	6.952632	0.0000
WGT_RESID^2(-1)	-0.035635	0.063860	-0.558011	0.5773

R-squared	0.001269	Mean dependent var	1.003572
Adjusted R-squared	-0.002807	S.D. dependent var	2.122154
S.E. of regression	2.125130	Akaike info criterion	4.353608
Sum squared resid	1106.464	Schwarz criterion	4.382024
Log likelihood	-535.6705	Hannan-Quinn criter.	4.365048
F-statistic	0.311376	Durbin-Watson stat	2.001357
Prob(F-statistic)	0.577347		

2007



Heteroskedasticity Test: ARCH

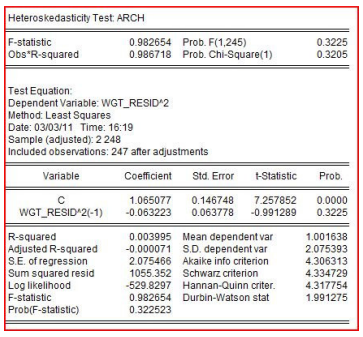
F-statistic	0.006868	Prob. F(1,243)	0.9340
Obs*R-squared	0.006925	Prob. Chi-Square(1)	0.9337

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 16:15
Sample (adjusted): 2 246
Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.003789	0.147476	6.806437	0.0000
WGT_RESID^2(-1)	-0.005318	0.064164	-0.082875	0.9340

R-squared	0.000028	Mean dependent var	0.998464
Adjusted R-squared	-0.004087	S.D. dependent var	2.073529
S.E. of regression	2.077762	Akaike info criterion	4.308590
Sum squared resid	1049.054	Schwarz criterion	4.337171
Log likelihood	-525.8022	Hannan-Quinn criter.	4.320099
F-statistic	0.006868	Durbin-Watson stat	1.998379
Prob(F-statistic)	0.934019		

2008



Heteroskedasticity Test: ARCH

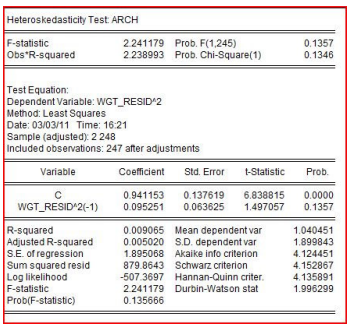
F-statistic	0.982654	Prob. F(1,245)	0.3225
Obs*R-squared	0.986718	Prob. Chi-Square(1)	0.3205

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 16:19
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.065077	0.146748	7.257852	0.0000
WGT_RESID^2(-1)	-0.063223	0.063778	-0.991289	0.3225

R-squared	0.003995	Mean dependent var	1.001638
Adjusted R-squared	-0.000071	S.D. dependent var	2.075393
S.E. of regression	2.075466	Akaike info criterion	4.306313
Sum squared resid	1055.352	Schwarz criterion	4.334729
Log likelihood	-529.8297	Hannan-Quinn criter.	4.317754
F-statistic	0.982654	Durbin-Watson stat	1.991275
Prob(F-statistic)	0.322523		

2009



Heteroskedasticity Test: ARCH

F-statistic	2.241179	Prob. F(1,245)	0.1357
Obs*R-squared	2.238993	Prob. Chi-Square(1)	0.1346

Test Equation:
Dependent Variable: WGT_RESID^2
Method: Least Squares
Date: 03/03/11 Time: 16:21
Sample (adjusted): 2 248
Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.941153	0.137619	6.838815	0.0000
WGT_RESID^2(-1)	0.095251	0.063625	1.497057	0.1357

R-squared	0.009065	Mean dependent var	1.040451
Adjusted R-squared	0.005020	S.D. dependent var	1.899843
S.E. of regression	1.895068	Akaike info criterion	4.124451
Sum squared resid	879.8643	Schwarz criterion	4.152867
Log likelihood	-507.3697	Hannan-Quinn criter.	4.135891
F-statistic	2.241179	Durbin-Watson stat	1.996299
Prob(F-statistic)	0.135666		

2010