

BAB V

PENUTUP

5.1 Kesimpulan

Berdasarkan analisis data pada Bab IV maka dapat ditarik kesimpulan sebagai berikut:

1. Hasil pengujian pada *return* indeks JKSE untuk 4 periode penelitian tahun 2002, 2006, 2010, dan 2014 ditemukan pengaruh *FIFA World Cup* pada *return* di Bursa Efek Indonesia pada periode tahun 2002 dan 2006, sehingga H1: terdapat pengaruh *FIFA World Cup* pada *return* pasar di Bursa Efek Indonesia diterima untuk periode tahun 2002 dan 2006.
2. Hasil pengujian pada *return* indeks KLSE untuk 4 periode penelitian tahun 2002, 2006, 2010, dan 2014 ditemukan pengaruh *FIFA World Cup* pada *return* di Bursa Efek Malaysia hanya pada periode tahun 2010, sehingga H2: terdapat pengaruh *FIFA World Cup* pada *return* pasar di Bursa Efek Malaysia diterima untuk periode tahun 2010.
3. Hasil pengujian pada *return* indeks SSE untuk 4 periode penelitian tahun 2002, 2006, 2010, dan 2014 ditemukan pengaruh *FIFA World Cup* pada *return* di Bursa Efek Tiongkok hanya pada periode tahun 2002, sehingga H3: terdapat pengaruh *FIFA World Cup* pada *return* pasar di Bursa Efek Tiongkok diterima untuk periode tahun 2002.

4. Hasil pengujian pada *return* indeks KOSPI untuk 4 periode penelitian tahun 2002, 2006, 2010, dan 2014 ditemukan pengaruh *FIFA World Cup* pada *return* di Bursa Efek Korea Selatan hanya pada periode tahun 2002, sehingga H4: terdapat pengaruh *FIFA World Cup* pada *return* pasar di Bursa Efek Korea Selatan diterima untuk periode tahun 2002.
5. Hasil pengujian pada *return* indeks Nikkei 225 untuk 4 periode penelitian tahun 2002, 2006, 2010, dan 2014 ditemukan pengaruh *FIFA World Cup* pada *return* di Bursa Efek Jepang pada periode tahun 2002 dan 2014, sehingga H5: terdapat pengaruh *FIFA World Cup* pada *return* pasar di Bursa Efek Jepang diterima untuk periode tahun 2002 dan 2014.
6. Berdasarkan pengujian pada *return* indeks JKSE, SSE, KOSPI dan Nikkei 225 periode tahun 2002 ditemukan pengaruh *FIFA World Cup*. Terjadinya volatilitas *return* hampir di semua indeks yang diteliti pada tahun tersebut kemungkinan dikarenakan peristiwa *FIFA World Cup* yang terjadi di tahun 2002 diselenggarakan di benua Asia, yang menjadi tuan rumah saat itu adalah Jepang dan Korea Selatan. Oleh karena itu, terjadi perubahan perilaku sebagian besar investor pasar modal yang tidak rasional dikarenakan menonton pertandingan menjadi hal lebih penting daripada memantau pergerakan pasar dan melakukan *trading* saham. Tindakan lain dari investor yang tidak rasional adalah adanya kemungkinan pengalihan dana dari investasi

saham menuju pasar taruhan atau judi. Hal tersebut dapat menyebabkan penurunan aktivitas perdagangan di pasar modal. Selain itu, periode yang lain pada tahun tersebut memang terjadi volatilitas *return* tetapi hal tersebut belum dapat dijelaskan yang mungkin disebabkan faktor lain diluar penelitian ini.

7. Hasil pengujian *mean* dengan variabel *dummy* pada indeks JKSE, KLSE, SSE, KOSPI, dan Nikkei 225 untuk 4 periode penelitian hanya ditemukan ada pengaruh *FIFA World Cup* pada indeks SSE periode tahun 2002.

5.2 Implikasi Manajerial

Penelitian tentang pengaruh *FIFA World Cup* pada *return* di beberapa bursa di Asia, antara lain Indonesia, Malaysia, Tiongkok, Korea Selatan, dan Jepang diharapkan dapat membantu pihak yang terkait dengan pasar modal seperti investor. Dengan berdasar hasil penelitian ini, diharapkan investor yang melakukan investasi pada indeks dapat menentukan investasi terbaik dengan melihat pergerakan atau *trend* indeks pasar yang terbentuk selama adanya peristiwa Piala Dunia. Pergerakan indeks dapat menggambarkan sedikit banyak kondisi pasar pada waktu tertentu, apakah pasar sedang lesu atau aktif.

Menurut hasil penelitian ini diharapkan investor lebih mewaspadai pergerakan pasar pada saat adanya Piala Dunia, ini dikarenakan beberapa hasil dari penelitian ini ditemukan adanya pengaruh Piala Dunia pada *return*

indeks. Investor indeks ataupun saham sebaiknya mempertimbangkan untuk melakukan penjualan saham sebelum dimulainya Piala Dunia agar tidak mendapat kerugian pada saham yang dimiliki, karena terindikasi bahwa indeks dan harga saham akan mengalami kenaikan dan penurunan yang sulit diprediksi. Setelah selesai Piala Dunia sebaiknya investor baru melakukan transaksi di pasar modal.

5.3 Keterbatasan Penelitian

Terdapat beberapa keterbatasan dalam melakukan penelitian terhadap pengaruh *FIFA World Cup* pada *return* pasar di Bursa Efek Indonesia, Malaysia, Tiongkok, Korea Selatan, dan Jepang. Berikut merupakan keterbatasan-keterbatasan dalam penelitian ini:

1. Penelitian ini hanya terbatas dalam 4 periode Piala Dunia terakhir yaitu pada periode tahun 2002, 2006, 2010, dan 2014 dan hanya pada 5 negara di benua Asia.
2. Penelitian ini terbatas pada data indeks pasar masing – masing negara yang diteliti.
3. Penelitian ini hanya melihat pengaruh Piala Dunia pada *return* selama *event* Piala Dunia terselenggara, dari hari pertama sampai terakhir.

5.4 Saran

Berdasar dari keterbatasan penelitian yang ada, maka penulis memberikan saran untuk penelitian selanjutnya, antara lain:

1. Penelitian selanjutnya lebih baik menambah periode Piala Dunia yang diteliti pada penelitian yang sejenis, agar dapat menganalisis pengaruh salah satu anomali pasar yaitu Piala Dunia dengan sebaik mungkin.
2. Penelitian selanjutnya juga disarankan menambah objek penelitian yaitu negara – negara di benua Asia yang mayoritas penduduknya menyukai sepak bola, seperti Thailand, India, Singapura, Hong Kong, dan masih banyak negara lain.
3. Sebaiknya penelitian yang akan datang tidak hanya menggunakan indeks pasar dari suatu negara tetapi juga harus melakukan penelitian pada setiap sektor – sektor saham, agar juga dapat mengetahui pengaruh Piala Dunia pada sektor saham yang berbeda – beda.
4. Penelitian selanjutnya diharapkan juga meneliti pengaruh Piala Dunia sebelum dan sesudah terjadinya *event*, serta meneliti hanya pada saat adanya pertandingan.
5. Penelitian ini disarankan hanya untuk investor yang memilih investasi pada indeks karena data dari penelitian ini hanya menggunakan data indeks masing – masing negara yang diteliti.

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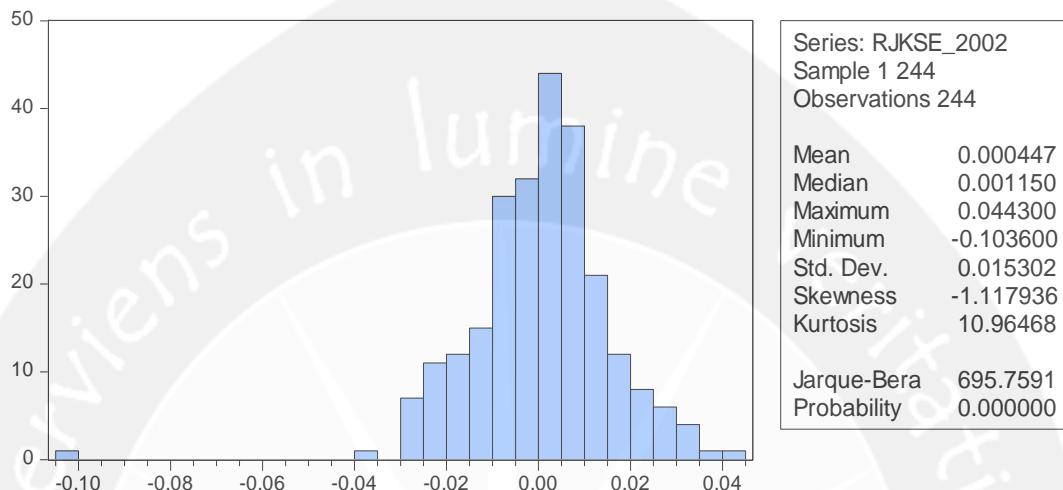
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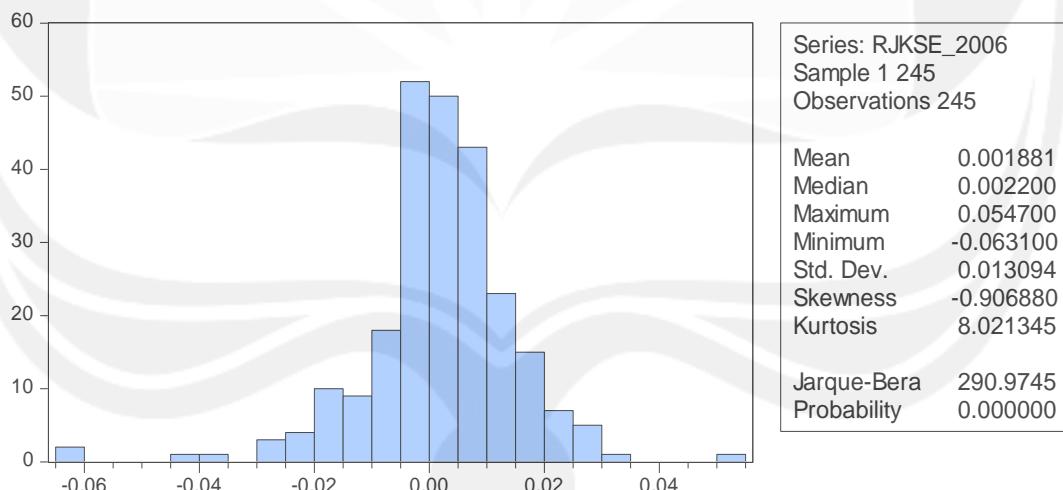
LAMPIRAN 1

DESKRIPSI STATISTIK

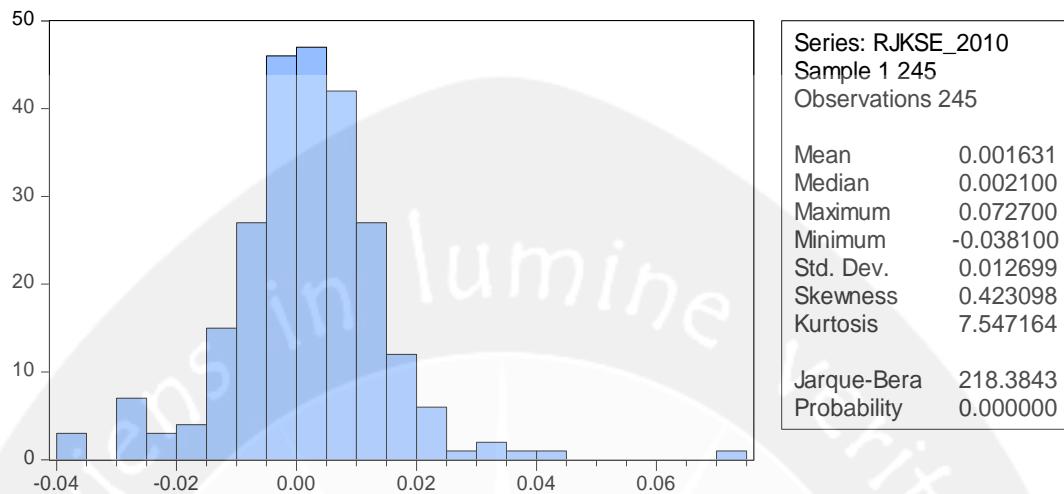
1. JKSE TAHUN 2002



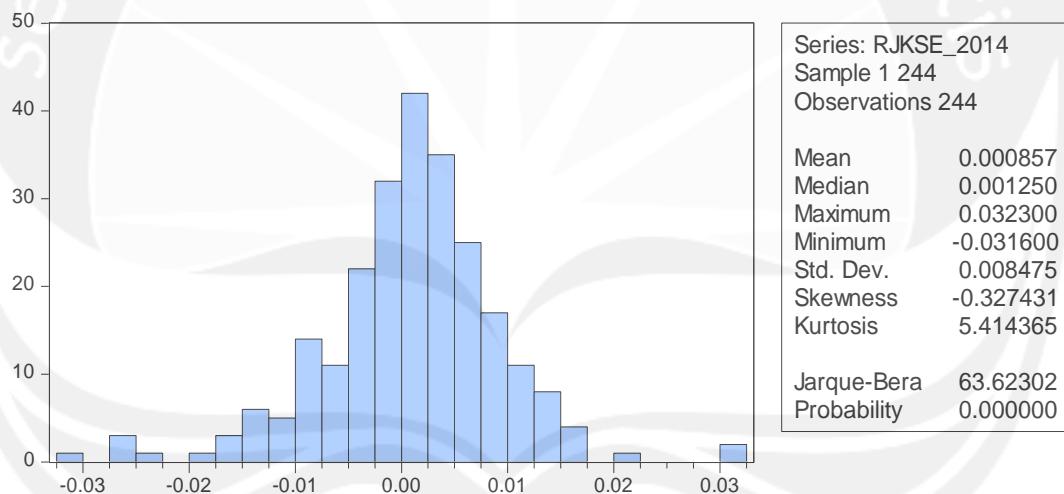
2. JKSE TAHUN 2006



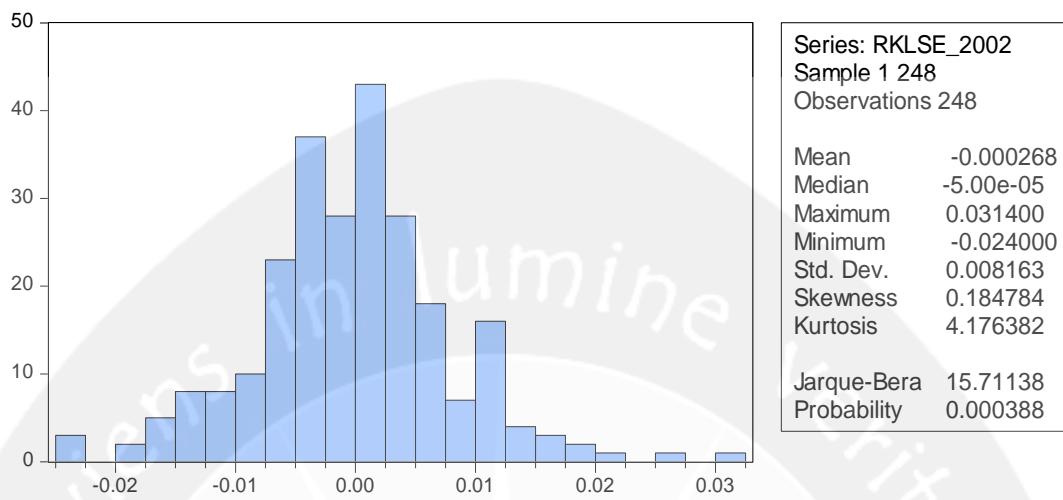
3. JKSE TAHUN 2010



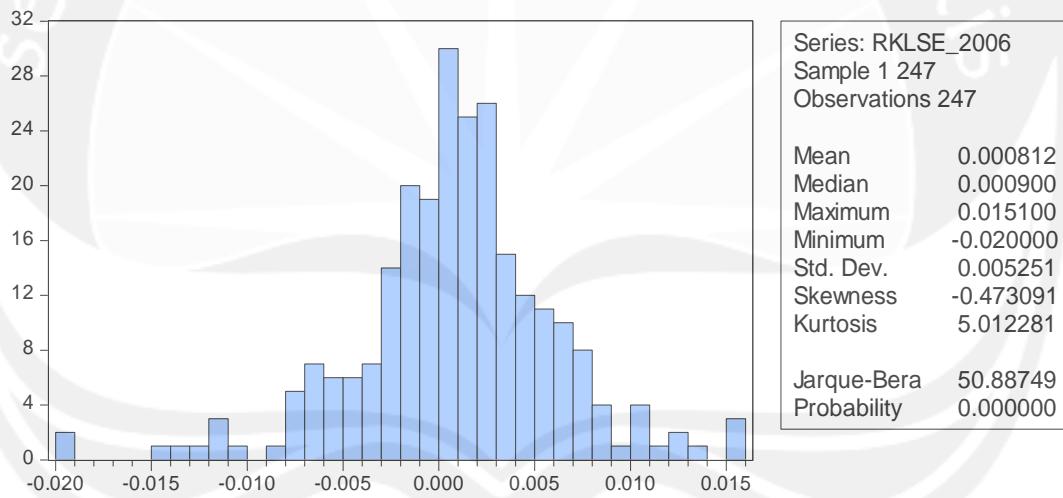
4. JKSE TAHUN 2014



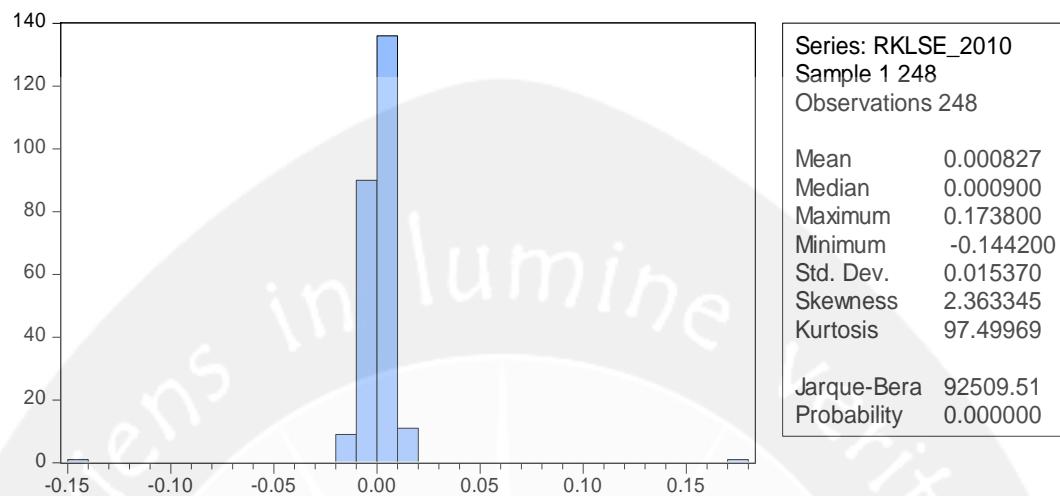
5. KLSE TAHUN 2002



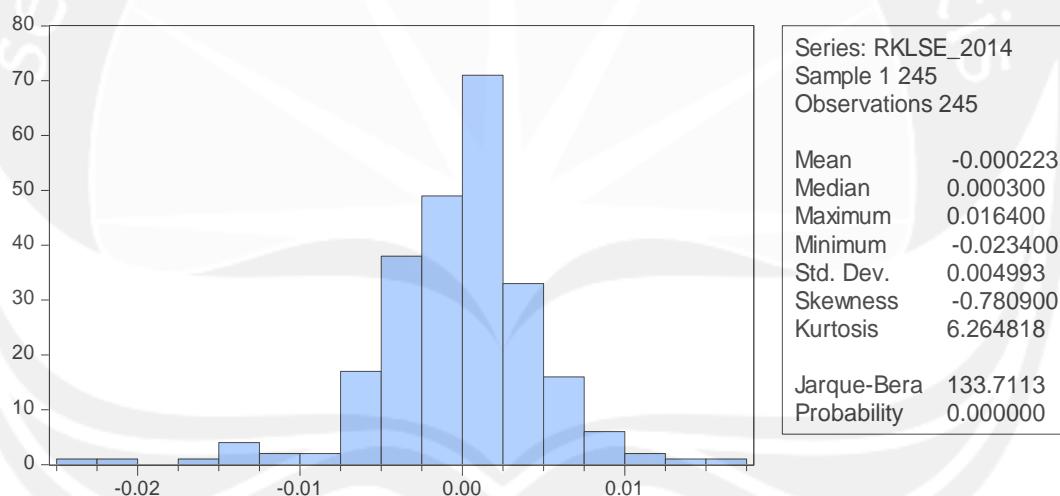
6. KLSE TAHUN 2006



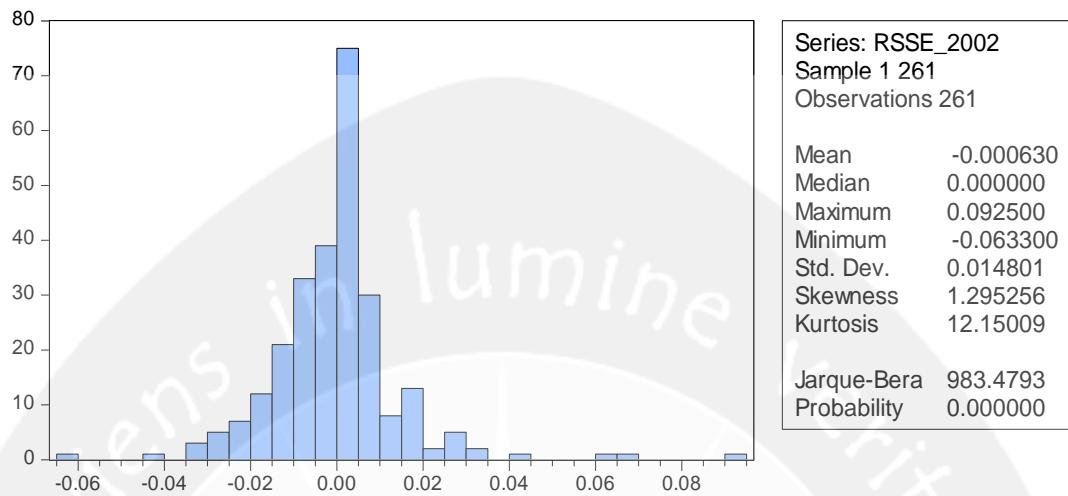
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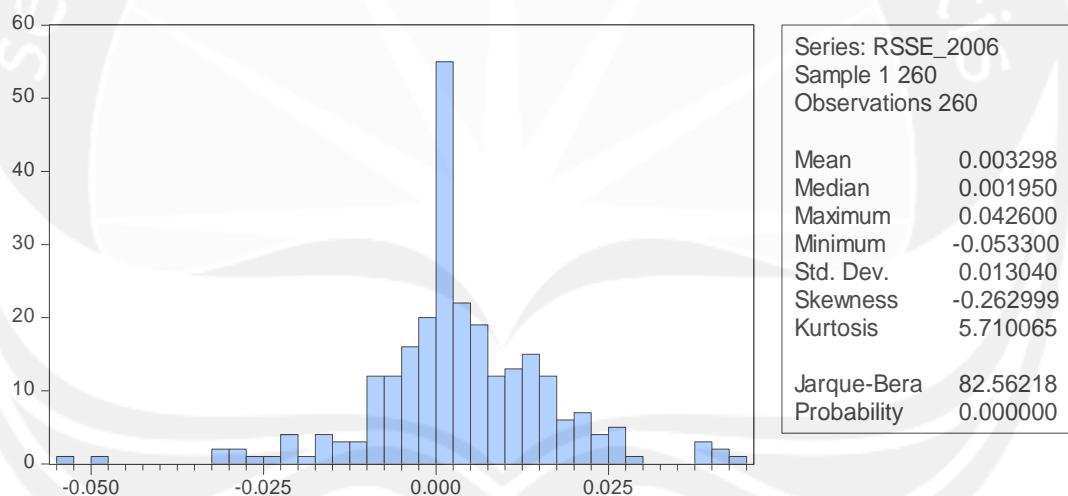
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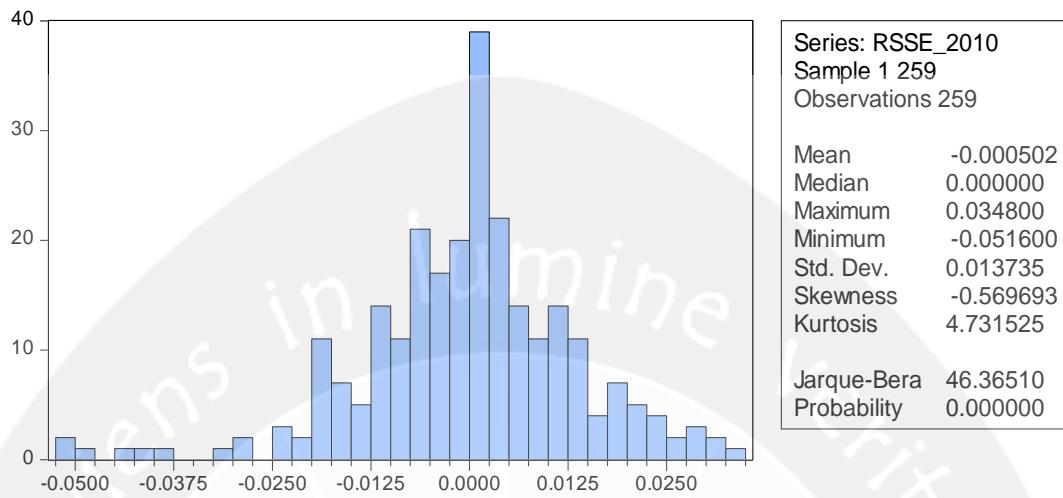
9. SSE TAHUN 2002



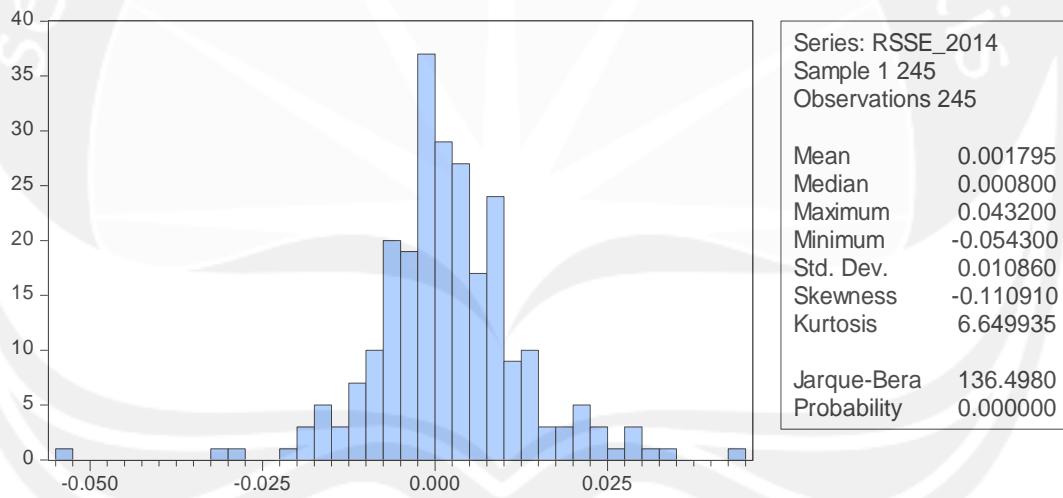
10. SSE TAHUN 2006



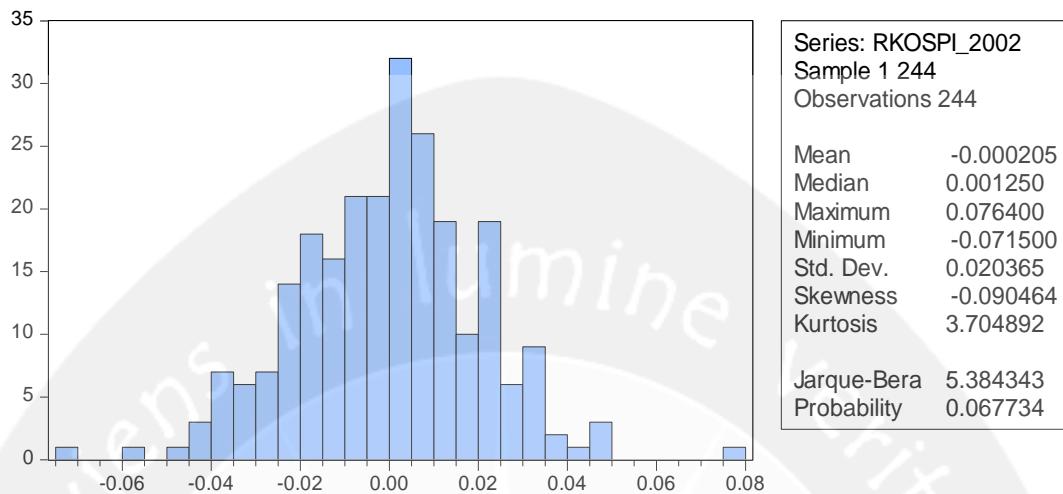
11. SSE TAHUN 2010



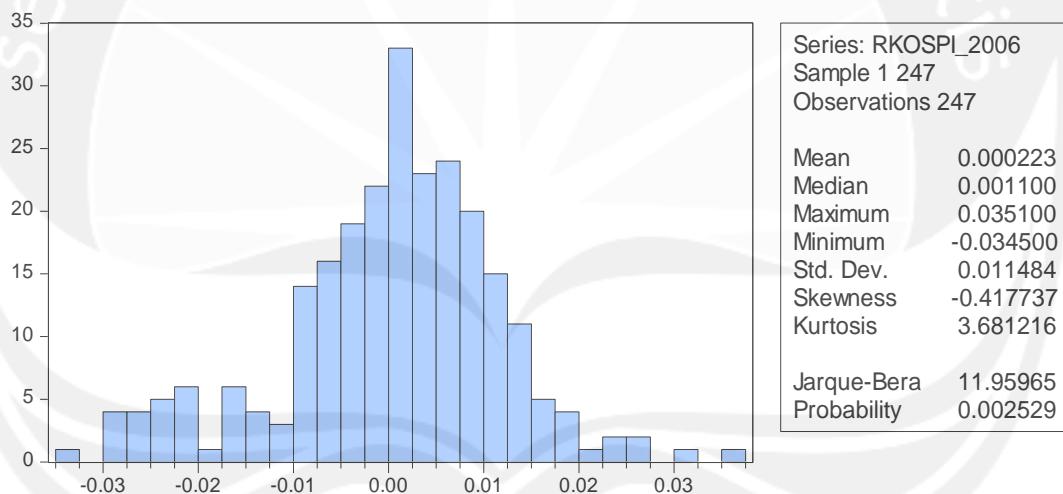
12. SSE TAHUN 2014



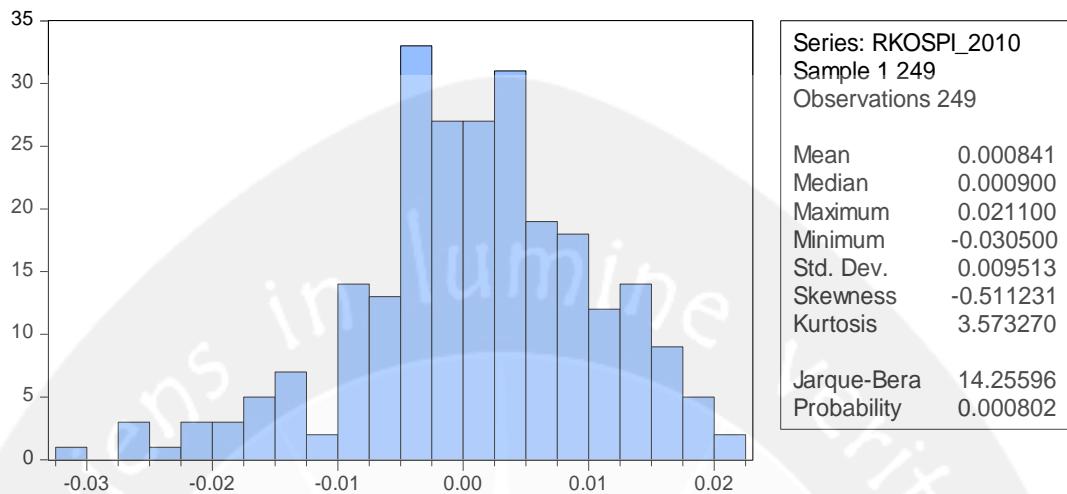
13. KOSPI TAHUN 2002



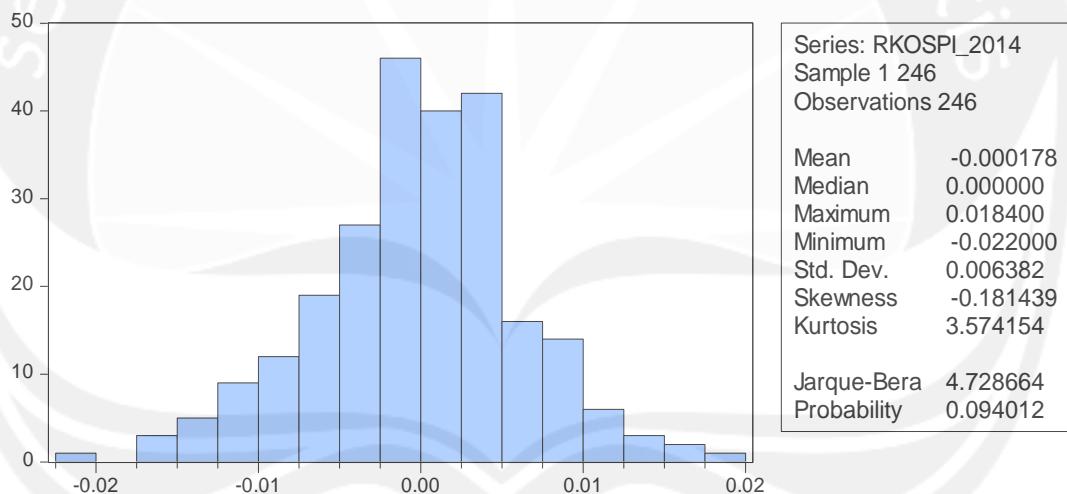
14. KOSPI TAHUN 2006



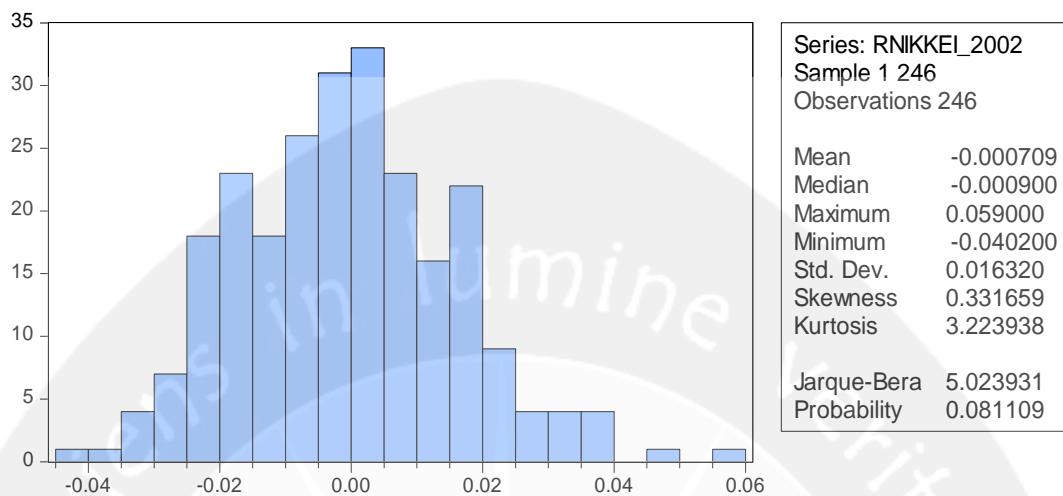
15. KOSPI TAHUN 2010



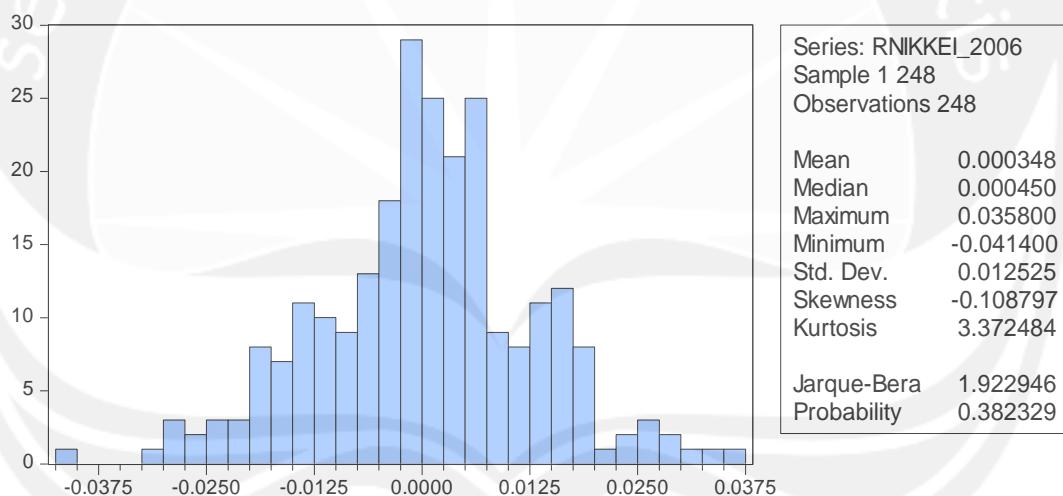
16. KOSPI TAHUN 2014



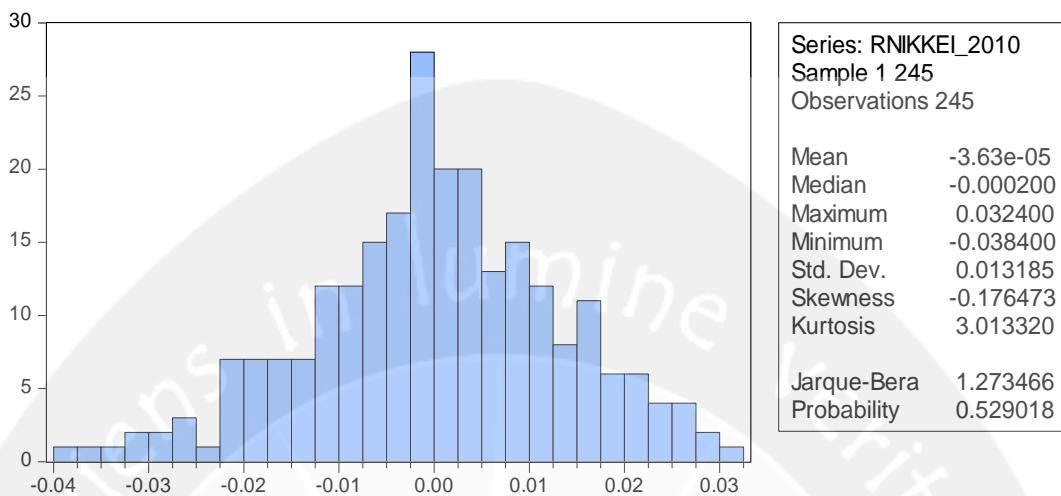
17. NIKKEI 225 TAHUN 2002



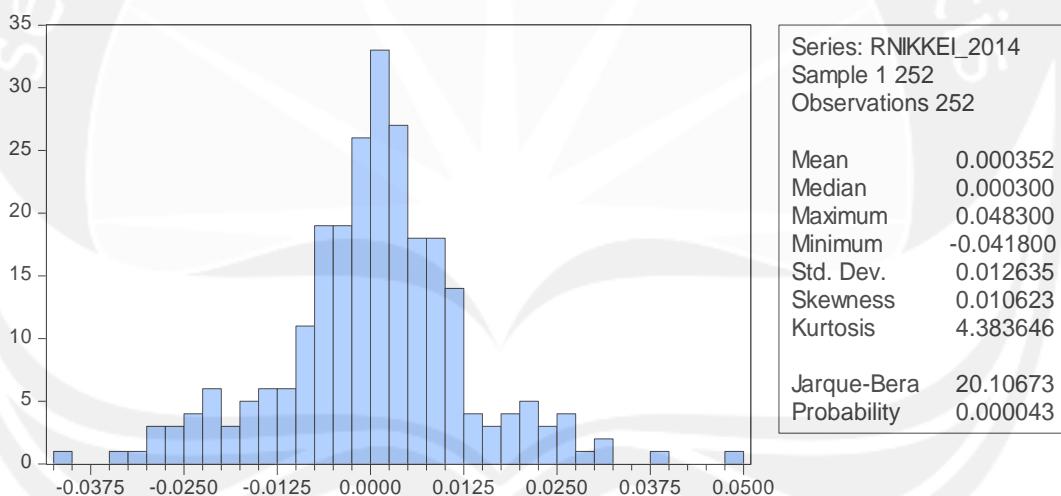
18. NIKKEI 225 TAHUN 2006



19. NIKKEI 225 TAHUN 2010



20. NIKKEI 225 TAHUN 2014



LAMPIRAN 2
UJI AUGMENTED DICKEY-FULLER

1. JKSE TAHUN 2002

Null Hypothesis: RJKSE_2002 has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=14)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.61960	0.0000
Test critical values:		
1% level	-3.457173	
5% level	-2.873240	
10% level	-2.573080	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RJKSE_2002)

Method: Least Squares

Date: 04/17/16 Time: 10:32

Sample (adjusted): 2 244

Included observations: 243 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RJKSE_2002(-1)	-0.865462	0.063545	-13.61960	0.0000
C	0.000478	0.000973	0.491189	0.6237
R-squared	0.434927	Mean dependent var		8.35E-05
Adjusted R-squared	0.432582	S.D. dependent var		0.020122
S.E. of regression	0.015157	Akaike info criterion		-5.532513
Sum squared resid	0.055366	Schwarz criterion		-5.503764
Log likelihood	674.2003	Hannan-Quinn criter.		-5.520933
F-statistic	185.4935	Durbin-Watson stat		2.000576
Prob(F-statistic)	0.000000			

2. JKSE TAHUN 2006

Null Hypothesis: RJKSE_2006 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-14.98140	0.0000
Test critical values:		
1% level	-3.457061	
5% level	-2.873190	
10% level	-2.573054	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RJKSE_2006)

Method: Least Squares

Date: 04/17/16 Time: 10:37

Sample (adjusted): 2 245

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RJKSE_2006(-1)	-0.961980	0.064212	-14.98140	0.0000
C	0.001785	0.000849	2.101548	0.0366
R-squared	0.481179	Mean dependent var		-3.20E-05
Adjusted R-squared	0.479035	S.D. dependent var		0.018195
S.E. of regression	0.013133	Akaike info criterion		-5.819246
Sum squared resid	0.041738	Schwarz criterion		-5.790580
Log likelihood	711.9480	Hannan-Quinn criter.		-5.807701
F-statistic	224.4422	Durbin-Watson stat		1.994400
Prob(F-statistic)	0.000000			

3. JKSE TAHUN 2010

Null Hypothesis: RJKSE_2010 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-16.07302	0.0000
Test critical values:		
1% level	-3.457061	
5% level	-2.873190	
10% level	-2.573054	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RJKSE_2010)

Method: Least Squares

Date: 04/17/16 Time: 10:40

Sample (adjusted): 2 245

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RJKSE_2010(-1)	-1.029949	0.064079	-16.07302	0.0000
C	0.001621	0.000820	1.975335	0.0494
R-squared	0.516331	Mean dependent var	-6.15E-05	
Adjusted R-squared	0.514332	S.D. dependent var	0.018239	
S.E. of regression	0.012711	Akaike info criterion	-5.884549	
Sum squared resid	0.039099	Schwarz criterion	-5.855884	
Log likelihood	719.9150	Hannan-Quinn criter.	-5.873005	
F-statistic	258.3420	Durbin-Watson stat	2.001192	
Prob(F-statistic)	0.000000			

4. JKSE TAHUN 2014

Null Hypothesis: RJKSE_2014 has a unit root
 Exogenous: Constant
 Lag Length: 1 (Automatic - based on SIC, maxlag=14)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.12408	0.0000
Test critical values:		
1% level	-3.457286	
5% level	-2.873289	
10% level	-2.573106	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RJKSE_2014)

Method: Least Squares

Date: 04/17/16 Time: 10:42

Sample (adjusted): 3 244

Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RJKSE_2014(-1)	-1.123197	0.085583	-13.12408	0.0000
D(RJKSE_2014(-1))	0.211874	0.062498	3.390084	0.0008
C	0.000982	0.000533	1.841217	0.0668
R-squared	0.491102	Mean dependent var		6.65E-05
Adjusted R-squared	0.486844	S.D. dependent var		0.011477
S.E. of regression	0.008222	Akaike info criterion		-6.751717
Sum squared resid	0.016156	Schwarz criterion		-6.708466
Log likelihood	819.9578	Hannan-Quinn criter.		-6.734294
F-statistic	115.3213	Durbin-Watson stat		2.034079
Prob(F-statistic)	0.000000			

5. KLSE TAHUN 2002

Null Hypothesis: RKLSE_2002 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-14.29558	0.0000
Test critical values:		
1% level	-3.456730	
5% level	-2.873045	
10% level	-2.572976	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RKLSE_2002)

Method: Least Squares

Date: 04/17/16 Time: 10:55

Sample (adjusted): 2 248

Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RKLSE_2002(-1)	-0.899018	0.062888	-14.29558	0.0000
C	-0.000166	0.000513	-0.324214	0.7461
R-squared	0.454785	Mean dependent var		6.36E-05
Adjusted R-squared	0.452559	S.D. dependent var		0.010901
S.E. of regression	0.008066	Akaike info criterion		-6.794349
Sum squared resid	0.015938	Schwarz criterion		-6.765932
Log likelihood	841.1020	Hannan-Quinn criter.		-6.782908
F-statistic	204.3636	Durbin-Watson stat		2.002029
Prob(F-statistic)	0.000000			

6. KLSE TAHUN 2006

Null Hypothesis: RKLSE_2006 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-14.19859	0.0000
Test critical values:		
1% level	-3.456840	
5% level	-2.873093	
10% level	-2.573002	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RKLSE_2006)

Method: Least Squares

Date: 04/17/16 Time: 10:57

Sample (adjusted): 2 247

Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RKLSE_2006(-1)	-0.902116	0.063536	-14.19859	0.0000
C	0.000769	0.000336	2.286429	0.0231
R-squared	0.452424	Mean dependent var	5.89E-05	
Adjusted R-squared	0.450179	S.D. dependent var	0.007038	
S.E. of regression	0.005218	Akaike info criterion	-7.665178	
Sum squared resid	0.006644	Schwarz criterion	-7.636680	
Log likelihood	944.8170	Hannan-Quinn criter.	-7.653703	
F-statistic	201.5998	Durbin-Watson stat	1.967411	
Prob(F-statistic)	0.000000			

7. KLSE TAHUN 2010

Null Hypothesis: RKLSE_2010 has a unit root
 Exogenous: Constant
 Lag Length: 1 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-16.13067	0.0000
Test critical values:		
1% level	-3.456840	
5% level	-2.873093	
10% level	-2.573002	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RKLSE_2010)

Method: Least Squares

Date: 04/17/16 Time: 11:00

Sample (adjusted): 3 248

Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RKLSE_2010(-1)	-1.698862	0.105319	-16.13067	0.0000
D(RKLSE_2010(-1))	0.205159	0.062735	3.270217	0.0012
C	0.001369	0.000886	1.545792	0.1235
R-squared	0.717565	Mean dependent var	-5.45E-05	
Adjusted R-squared	0.715240	S.D. dependent var	0.025903	
S.E. of regression	0.013823	Akaike info criterion	-5.712874	
Sum squared resid	0.046430	Schwarz criterion	-5.670126	
Log likelihood	705.6834	Hannan-Quinn criter.	-5.695661	
F-statistic	308.6874	Durbin-Watson stat	2.042675	
Prob(F-statistic)	0.000000			

8. KLSE TAHUN 2014

Null Hypothesis: RKLSE_2014 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-13.64980	0.0000
Test critical values:		
1% level	-3.457061	
5% level	-2.873190	
10% level	-2.573054	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RKLSE_2014)

Method: Least Squares

Date: 04/17/16 Time: 11:13

Sample (adjusted): 2 245

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RKLSE_2014(-1)	-0.866337	0.063469	-13.64980	0.0000
C	-0.000165	0.000317	-0.521270	0.6027
R-squared	0.434998	Mean dependent var		1.76E-05
Adjusted R-squared	0.432663	S.D. dependent var		0.006568
S.E. of regression	0.004947	Akaike info criterion		-7.771939
Sum squared resid	0.005922	Schwarz criterion		-7.743274
Log likelihood	950.1766	Hannan-Quinn criter.		-7.760394
F-statistic	186.3171	Durbin-Watson stat		2.015076
Prob(F-statistic)	0.000000			

9. SSE TAHUN 2002

Null Hypothesis: RSSE_2002 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-15.70678	0.0000
Test critical values:		
1% level	-3.455387	
5% level	-2.872455	
10% level	-2.572660	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RSSE_2002)

Method: Least Squares

Date: 04/17/16 Time: 11:26

Sample (adjusted): 2 261

Included observations: 260 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RSSE_2002(-1)	-0.977907	0.062260	-15.70678	0.0000
C	-0.000619	0.000922	-0.671610	0.5024
R-squared	0.488808	Mean dependent var	-2.46E-05	
Adjusted R-squared	0.486827	S.D. dependent var	0.020737	
S.E. of regression	0.014855	Akaike info criterion	-5.573290	
Sum squared resid	0.056934	Schwarz criterion	-5.545900	
Log likelihood	726.5277	Hannan-Quinn criter.	-5.562279	
F-statistic	246.7031	Durbin-Watson stat	2.002103	
Prob(F-statistic)	0.000000			

10. SSE TAHUN 2006

Null Hypothesis: RSSE_2006 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-15.12023	0.0000
Test critical values:		
1% level	-3.455486	
5% level	-2.872499	
10% level	-2.572684	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RSSE_2006)

Method: Least Squares

Date: 04/17/16 Time: 11:32

Sample (adjusted): 2 260

Included observations: 259 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RSSE_2006(-1)	-0.958793	0.063411	-15.12023	0.0000
C	0.003181	0.000837	3.800999	0.0002
R-squared	0.470781	Mean dependent var	0.000162	
Adjusted R-squared	0.468722	S.D. dependent var	0.017943	
S.E. of regression	0.013078	Akaike info criterion	-5.828041	
Sum squared resid	0.043957	Schwarz criterion	-5.800575	
Log likelihood	756.7313	Hannan-Quinn criter.	-5.816998	
F-statistic	228.6213	Durbin-Watson stat	1.964988	
Prob(F-statistic)	0.000000			

11. SSE TAHUN 2010

Null Hypothesis: RSSE_2010 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-16.03237	0.0000
Test critical values:		
1% level	-3.455585	
5% level	-2.872542	
10% level	-2.572707	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RSSE_2010)

Method: Least Squares

Date: 04/17/16 Time: 11:35

Sample (adjusted): 2 259

Included observations: 258 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RSSE_2010(-1)	-1.004441	0.062651	-16.03237	0.0000
C	-0.000467	0.000858	-0.543926	0.5870
R-squared	0.501010	Mean dependent var		0.000108
Adjusted R-squared	0.499061	S.D. dependent var		0.019463
S.E. of regression	0.013775	Akaike info criterion		-5.724172
Sum squared resid	0.048578	Schwarz criterion		-5.696630
Log likelihood	740.4182	Hannan-Quinn criter.		-5.713097
F-statistic	257.0368	Durbin-Watson stat		1.985706
Prob(F-statistic)	0.000000			

12. SSE TAHUN 2014

Null Hypothesis: RSSE_2014 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-14.89064	0.0000
Test critical values:		
1% level	-3.457061	
5% level	-2.873190	
10% level	-2.573054	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RSSE_2014)

Method: Least Squares

Date: 04/17/16 Time: 11:44

Sample (adjusted): 2 245

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RSSE_2014(-1)	-0.962904	0.064665	-14.89064	0.0000
C	0.001751	0.000706	2.480300	0.0138
R-squared	0.478146	Mean dependent var		0.000102
Adjusted R-squared	0.475990	S.D. dependent var		0.015047
S.E. of regression	0.010892	Akaike info criterion		-6.193350
Sum squared resid	0.028712	Schwarz criterion		-6.164685
Log likelihood	757.5887	Hannan-Quinn criter.		-6.181805
F-statistic	221.7312	Durbin-Watson stat		1.992161
Prob(F-statistic)	0.000000			

13. KOSPI TAHUN 2002

Null Hypothesis: RKOSPI_2002 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=14)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-15.35500	0.0000
Test critical values:		
1% level	-3.457173	
5% level	-2.873240	
10% level	-2.573080	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RKOSPI_2002)

Method: Least Squares

Date: 04/17/16 Time: 12:06

Sample (adjusted): 2 244

Included observations: 243 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RKOSPI_2002(-1)	-0.988720	0.064391	-15.35500	0.0000
C	-0.000391	0.001298	-0.300924	0.7637
R-squared	0.494522	Mean dependent var	-0.000369	
Adjusted R-squared	0.492424	S.D. dependent var	0.028408	
S.E. of regression	0.020239	Akaike info criterion	-4.954213	
Sum squared resid	0.098718	Schwarz criterion	-4.925463	
Log likelihood	603.9368	Hannan-Quinn criter.	-4.942633	
F-statistic	235.7762	Durbin-Watson stat	1.983099	
Prob(F-statistic)	0.000000			

14. KOSPI TAHUN 2006

Null Hypothesis: RKOSPI_2006 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-15.42099	0.0000
Test critical values:		
1% level	-3.456840	
5% level	-2.873093	
10% level	-2.573002	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RKOSPI_2006)

Method: Least Squares

Date: 04/17/16 Time: 12:08

Sample (adjusted): 2 247

Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RKOSPI_2006(-1)	-0.987022	0.064005	-15.42099	0.0000
C	0.000192	0.000735	0.261541	0.7939
R-squared	0.493573	Mean dependent var	-2.44E-06	
Adjusted R-squared	0.491498	S.D. dependent var	0.016157	
S.E. of regression	0.011522	Akaike info criterion	-6.081057	
Sum squared resid	0.032391	Schwarz criterion	-6.052558	
Log likelihood	749.9700	Hannan-Quinn criter.	-6.069582	
F-statistic	237.8070	Durbin-Watson stat	1.999011	
Prob(F-statistic)	0.000000			

15. KOSPI TAHUN 2010

Null Hypothesis: RKOSPI_2010 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-15.82950	0.0000
Test critical values:		
1% level	-3.456622	
5% level	-2.872998	
10% level	-2.572951	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RKOSPI_2010)

Method: Least Squares

Date: 04/17/16 Time: 12:10

Sample (adjusted): 2 249

Included observations: 248 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RKOSPI_2010(-1)	-1.008276	0.063696	-15.82950	0.0000
C	0.000819	0.000608	1.347323	0.1791
R-squared	0.504605	Mean dependent var	-1.69E-05	
Adjusted R-squared	0.502591	S.D. dependent var	0.013528	
S.E. of regression	0.009541	Akaike info criterion	-6.458440	
Sum squared resid	0.022393	Schwarz criterion	-6.430106	
Log likelihood	802.8466	Hannan-Quinn criter.	-6.447034	
F-statistic	250.5731	Durbin-Watson stat	1.997196	
Prob(F-statistic)	0.000000			

16. KOSPI TAHUN 2014

Null Hypothesis: RKOSPI_2014 has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-15.58828	0.0000
Test critical values:		
1% level	-3.456950	
5% level	-2.873142	
10% level	-2.573028	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RKOSPI_2014)

Method: Least Squares

Date: 04/17/16 Time: 12:16

Sample (adjusted): 2 246

Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RKOSPI_2014(-1)	-0.975428	0.062574	-15.58828	0.0000
C	-8.50E-05	0.000399	-0.212736	0.8317
R-squared	0.499994	Mean dependent var		8.98E-05
Adjusted R-squared	0.497937	S.D. dependent var		0.008821
S.E. of regression	0.006250	Akaike info criterion		-7.304195
Sum squared resid	0.009494	Schwarz criterion		-7.275614
Log likelihood	896.7639	Hannan-Quinn criter.		-7.292686
F-statistic	242.9946	Durbin-Watson stat		2.033446
Prob(F-statistic)	0.000000			

17. NIKKEI 225 TAHUN 2002

Null Hypothesis: RNIKKEI_2002 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-15.67228	0.0000
Test critical values:		
1% level	-3.456950	
5% level	-2.873142	
10% level	-2.573028	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RNIKKEI_2002)

Method: Least Squares

Date: 04/17/16 Time: 12:22

Sample (adjusted): 2 246

Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RNIKKEI_2002(-1)	-0.999153	0.063753	-15.67228	0.0000
C	-0.000838	0.001040	-0.806373	0.4208
R-squared	0.502681	Mean dependent var	-0.000191	
Adjusted R-squared	0.500635	S.D. dependent var	0.023007	
S.E. of regression	0.016258	Akaike info criterion	-5.392342	
Sum squared resid	0.064230	Schwarz criterion	-5.363761	
Log likelihood	662.5619	Hannan-Quinn criter.	-5.380833	
F-statistic	245.6202	Durbin-Watson stat	2.003060	
Prob(F-statistic)	0.000000			

18. NIKKEI 225 TAHUN 2006

Null Hypothesis: RNIKKEI_2006 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-16.55564	0.0000
Test critical values:		
1% level	-3.456730	
5% level	-2.873045	
10% level	-2.572976	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RNIKKEI_2006)

Method: Least Squares

Date: 04/17/16 Time: 12:24

Sample (adjusted): 2 248

Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RNIKKEI_2006(-1)	-1.053057	0.063607	-16.55564	0.0000
C	0.000306	0.000797	0.383428	0.7017
R-squared	0.528020	Mean dependent var	-6.23E-05	
Adjusted R-squared	0.526093	S.D. dependent var	0.018188	
S.E. of regression	0.012521	Akaike info criterion	-5.914826	
Sum squared resid	0.038407	Schwarz criterion	-5.886410	
Log likelihood	732.4810	Hannan-Quinn criter.	-5.903385	
F-statistic	274.0893	Durbin-Watson stat	2.005926	
Prob(F-statistic)	0.000000			

19. NIKKEI 225 TAHUN 2010

Null Hypothesis: RNIKKEI_2010 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-15.70343	0.0000
Test critical values:		
1% level	-3.457061	
5% level	-2.873190	
10% level	-2.573054	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RNIKKEI_2010)

Method: Least Squares

Date: 04/17/16 Time: 12:26

Sample (adjusted): 2 245

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RNIKKEI_2010(-1)	-1.009621	0.064293	-15.70343	0.0000
C	-7.86E-05	0.000846	-0.092859	0.9261
R-squared	0.504705	Mean dependent var		-8.81E-05
Adjusted R-squared	0.502658	S.D. dependent var		0.018748
S.E. of regression	0.013222	Akaike info criterion		-5.805780
Sum squared resid	0.042304	Schwarz criterion		-5.777114
Log likelihood	710.3051	Hannan-Quinn criter.		-5.794235
F-statistic	246.5976	Durbin-Watson stat		2.000459
Prob(F-statistic)	0.000000			

20. NIKKEI 225 TAHUN 2014

Null Hypothesis: RNIKKEI_2014 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=15)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-16.14546	0.0000
Test critical values:		
1% level	-3.456302	
5% level	-2.872857	
10% level	-2.572875	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RNIKKEI_2014)

Method: Least Squares

Date: 04/17/16 Time: 12:28

Sample (adjusted): 2 252

Included observations: 251 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RNIKKEI_2014(-1)	-1.015732	0.062911	-16.14546	0.0000
C	0.000453	0.000795	0.569147	0.5698
R-squared	0.511454	Mean dependent var	9.36E-05	
Adjusted R-squared	0.509492	S.D. dependent var	0.017981	
S.E. of regression	0.012593	Akaike info criterion	-5.903412	
Sum squared resid	0.039487	Schwarz criterion	-5.875320	
Log likelihood	742.8781	Hannan-Quinn criter.	-5.892107	
F-statistic	260.6760	Durbin-Watson stat	2.004351	
Prob(F-statistic)	0.000000			

LAMPIRAN 3

UJI ARCH-LM

1. JKSE TAHUN 2002

Heteroskedasticity Test: ARCH

F-statistic	2.968487	Prob. F(2,239)	0.0533
Obs*R-squared	5.865785	Prob. Chi-Square(2)	0.0532

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 00:41

Sample (adjusted): 3 244

Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000193	5.18E-05	3.719755	0.0002
RESID^2(-1)	0.015285	0.063908	0.239171	0.8112
RESID^2(-2)	0.154669	0.063903	2.420374	0.0163
R-squared	0.024239	Mean dependent var		0.000233
Adjusted R-squared	0.016073	S.D. dependent var		0.000743
S.E. of regression	0.000737	Akaike info criterion		-11.57596
Sum squared resid	0.000130	Schwarz criterion		-11.53271
Log likelihood	1403.692	Hannan-Quinn criter.		-11.55854
F-statistic	2.968487	Durbin-Watson stat		2.002937
Prob(F-statistic)	0.053279			

2. JKSE TAHUN 2006

Heteroskedasticity Test: ARCH

F-statistic	5.915335	Prob. F(3,238)	0.0007
Obs*R-squared	16.79218	Prob. Chi-Square(3)	0.0008

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 01:58

Sample (adjusted): 4 245

Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000107	3.29E-05	3.267254	0.0012
RESID^2(-1)	0.005646	0.063301	0.089193	0.9290
RESID^2(-2)	0.145808	0.062618	2.328531	0.0207
RESID^2(-3)	0.211944	0.063309	3.347787	0.0009
R-squared	0.069389	Mean dependent var	0.000170	
Adjusted R-squared	0.057659	S.D. dependent var	0.000448	
S.E. of regression	0.000435	Akaike info criterion	-12.62492	
Sum squared resid	4.51E-05	Schwarz criterion	-12.56725	
Log likelihood	1531.615	Hannan-Quinn criter.	-12.60169	
F-statistic	5.915335	Durbin-Watson stat	1.998359	
Prob(F-statistic)	0.000658			

3. JKSE TAHUN 2010

Heteroskedasticity Test: ARCH

F-statistic	6.377947	Prob. F(1,242)	0.0122
Obs*R-squared	6.265528	Prob. Chi-Square(1)	0.0123

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/20/16 Time: 04:10

Sample (adjusted): 2 245

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000134	2.81E-05	4.780907	0.0000
RESID^2(-1)	0.160289	0.063469	2.525460	0.0122
R-squared	0.025678	Mean dependent var		0.000160
Adjusted R-squared	0.021652	S.D. dependent var		0.000414
S.E. of regression	0.000409	Akaike info criterion		-12.75742
Sum squared resid	4.05E-05	Schwarz criterion		-12.72875
Log likelihood	1558.405	Hannan-Quinn criter.		-12.74587
F-statistic	6.377947	Durbin-Watson stat		2.042614
Prob(F-statistic)	0.012194			

4. JKSE TAHUN 2014

Heteroskedasticity Test: ARCH

F-statistic	2.123434	Prob. F(14,215)	0.0118
Obs*R-squared	27.93899	Prob. Chi-Square(14)	0.0145

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 03:09

Sample (adjusted): 15 244

Included observations: 230 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.55E-05	1.73E-05	2.635658	0.0090
RESID^2(-1)	0.021192	0.066892	0.316814	0.7517
RESID^2(-2)	0.071217	0.066507	1.070821	0.2855
RESID^2(-3)	-0.049068	0.066464	-0.738265	0.4612
RESID^2(-4)	0.136054	0.065842	2.066353	0.0400
RESID^2(-5)	-0.110835	0.066259	-1.672745	0.0958
RESID^2(-6)	-0.003374	0.066381	-0.050825	0.9595
RESID^2(-7)	0.080289	0.060858	1.319294	0.1885
RESID^2(-8)	-0.039290	0.061001	-0.644092	0.5202
RESID^2(-9)	0.094882	0.060931	1.557209	0.1209
RESID^2(-10)	-0.070363	0.061344	-1.147033	0.2526
RESID^2(-11)	0.133917	0.061060	2.193200	0.0294
RESID^2(-12)	-0.036380	0.061369	-0.592804	0.5539
RESID^2(-13)	-0.103934	0.061069	-1.701918	0.0902
RESID^2(-14)	0.182468	0.061389	2.972319	0.0033
R-squared	0.121474	Mean dependent var	6.71E-05	
Adjusted R-squared	0.064268	S.D. dependent var	0.000142	
S.E. of regression	0.000137	Akaike info criterion	-14.88294	
Sum squared resid	4.06E-06	Schwarz criterion	-14.65871	
Log likelihood	1726.538	Hannan-Quinn criter.	-14.79249	
F-statistic	2.123434	Durbin-Watson stat	1.984033	
Prob(F-statistic)	0.011800			

5. KLSE TAHUN 2002

Heteroskedasticity Test: ARCH

F-statistic	4.475009	Prob. F(2,243)	0.0123
Obs*R-squared	8.738656	Prob. Chi-Square(2)	0.0127

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 03:25

Sample (adjusted): 3 248

Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.01E-05	9.21E-06	5.435811	0.0000
RESID^2(-1)	0.051337	0.063080	0.813838	0.4165
RESID^2(-2)	0.176392	0.062305	2.831117	0.0050
R-squared	0.035523	Mean dependent var	6.51E-05	
Adjusted R-squared	0.027585	S.D. dependent var	0.000115	
S.E. of regression	0.000114	Akaike info criterion	-15.31325	
Sum squared resid	3.14E-06	Schwarz criterion	-15.27050	
Log likelihood	1886.530	Hannan-Quinn criter.	-15.29604	
F-statistic	4.475009	Durbin-Watson stat	1.987972	
Prob(F-statistic)	0.012344			

6. KLSE TAHUN 2006

Heteroskedasticity Test: ARCH

F-statistic	7.778830	Prob. F(1,244)	0.0057
Obs*R-squared	7.600290	Prob. Chi-Square(1)	0.0058

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 03:34

Sample (adjusted): 2 247

Included observations: 246 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.24E-05	3.86E-06	5.810930	0.0000
RESID^2(-1)	0.175531	0.062936	2.789055	0.0057
R-squared	0.030895	Mean dependent var	2.73E-05	
Adjusted R-squared	0.026924	S.D. dependent var	5.50E-05	
S.E. of regression	5.42E-05	Akaike info criterion	-16.79934	
Sum squared resid	7.17E-07	Schwarz criterion	-16.77084	
Log likelihood	2068.319	Hannan-Quinn criter.	-16.78786	
F-statistic	7.778830	Durbin-Watson stat	2.057306	
Prob(F-statistic)	0.005703			

7. KLSE TAHUN 2010

Heteroskedasticity Test: ARCH

F-statistic	67.53644	Prob. F(1,245)	0.0000
Obs*R-squared	53.37458	Prob. Chi-Square(1)	0.0000

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/20/16 Time: 04:21

Sample (adjusted): 2 248

Included observations: 247 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000126	0.000132	0.960079	0.3380
RESID^2(-1)	0.464855	0.056565	8.218055	0.0000
R-squared	0.216091	Mean dependent var		0.000236
Adjusted R-squared	0.212892	S.D. dependent var		0.002321
S.E. of regression	0.002059	Akaike info criterion		-9.525085
Sum squared resid	0.001039	Schwarz criterion		-9.496668
Log likelihood	1178.348	Hannan-Quinn criter.		-9.513644
F-statistic	67.53644	Durbin-Watson stat		1.732073
Prob(F-statistic)	0.000000			

8. KLSE TAHUN 2014

Heteroskedasticity Test: ARCH

F-statistic	7.283849	Prob. F(1,242)	0.0074
Obs*R-squared	7.129460	Prob. Chi-Square(1)	0.0076

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 03:51

Sample (adjusted): 2 245

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.05E-05	3.94E-06	5.195918	0.0000
RESID^2(-1)	0.170881	0.063316	2.698861	0.0074
R-squared	0.029219	Mean dependent var	2.47E-05	
Adjusted R-squared	0.025208	S.D. dependent var	5.71E-05	
S.E. of regression	5.64E-05	Akaike info criterion	-16.72173	
Sum squared resid	7.68E-07	Schwarz criterion	-16.69306	
Log likelihood	2042.051	Hannan-Quinn criter.	-16.71019	
F-statistic	7.283849	Durbin-Watson stat	2.061752	
Prob(F-statistic)	0.007448			

9. SSE TAHUN 2002

Heteroskedasticity Test: ARCH

F-statistic	7.644451	Prob. F(3,254)	0.0001
Obs*R-squared	21.36545	Prob. Chi-Square(3)	0.0001

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 03:59

Sample (adjusted): 4 261

Included observations: 258 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000145	4.62E-05	3.150048	0.0018
RESID^2(-1)	0.001432	0.060167	0.023806	0.9810
RESID^2(-2)	0.043800	0.060095	0.728848	0.4668
RESID^2(-3)	0.283571	0.060158	4.713777	0.0000
R-squared	0.082812	Mean dependent var	0.000216	
Adjusted R-squared	0.071979	S.D. dependent var	0.000678	
S.E. of regression	0.000653	Akaike info criterion	-11.81553	
Sum squared resid	0.000108	Schwarz criterion	-11.76045	
Log likelihood	1528.204	Hannan-Quinn criter.	-11.79338	
F-statistic	7.644451	Durbin-Watson stat	2.026658	
Prob(F-statistic)	0.000065			

10. SSE TAHUN 2006

Heteroskedasticity Test: ARCH

F-statistic	2.979482	Prob. F(4,251)	0.0198
Obs*R-squared	11.60434	Prob. Chi-Square(4)	0.0205

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 04:16

Sample (adjusted): 5 260

Included observations: 256 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000129	3.01E-05	4.289445	0.0000
RESID^2(-1)	0.070613	0.063677	1.108914	0.2685
RESID^2(-2)	0.064695	0.063699	1.015628	0.3108
RESID^2(-3)	-0.070036	0.063725	-1.099037	0.2728
RESID^2(-4)	0.189049	0.063690	2.968290	0.0033
R-squared	0.045329	Mean dependent var		0.000171
Adjusted R-squared	0.030116	S.D. dependent var		0.000371
S.E. of regression	0.000365	Akaike info criterion		-12.97308
Sum squared resid	3.35E-05	Schwarz criterion		-12.90384
Log likelihood	1665.554	Hannan-Quinn criter.		-12.94523
F-statistic	2.979482	Durbin-Watson stat		2.004925
Prob(F-statistic)	0.019814			

11. SSE TAHUN 2010

Heteroskedasticity Test: ARCH

F-statistic	0.703974	Prob. F(1,256)	0.4022
Obs*R-squared	0.707528	Prob. Chi-Square(1)	0.4003

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 04:26

Sample (adjusted): 2 259

Included observations: 258 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000198	2.55E-05	7.752743	0.0000
RESID^2(-1)	-0.052375	0.062424	-0.839032	0.4022
R-squared	0.002742	Mean dependent var		0.000188
Adjusted R-squared	-0.001153	S.D. dependent var		0.000364
S.E. of regression	0.000365	Akaike info criterion		-12.98745
Sum squared resid	3.40E-05	Schwarz criterion		-12.95991
Log likelihood	1677.381	Hannan-Quinn criter.		-12.97637
F-statistic	0.703974	Durbin-Watson stat		1.994219
Prob(F-statistic)	0.402234			

12. SSE TAHUN 2014

Heteroskedasticity Test: ARCH

F-statistic	14.54119	Prob. F(1,242)	0.0002
Obs*R-squared	13.83034	Prob. Chi-Square(1)	0.0002

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 04:30

Sample (adjusted): 2 245

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.98E-05	1.89E-05	4.749714	0.0000
RESID^2(-1)	0.238504	0.062545	3.813292	0.0002
R-squared	0.056682	Mean dependent var		0.000117
Adjusted R-squared	0.052784	S.D. dependent var		0.000280
S.E. of regression	0.000273	Akaike info criterion		-13.56808
Sum squared resid	1.80E-05	Schwarz criterion		-13.53941
Log likelihood	1657.306	Hannan-Quinn criter.		-13.55653
F-statistic	14.54119	Durbin-Watson stat		2.050159
Prob(F-statistic)	0.000174			

13. KOSPI TAHUN 2002

Heteroskedasticity Test: ARCH

F-statistic	2.437427	Prob. F(2,239)	0.0896
Obs*R-squared	4.837378	Prob. Chi-Square(2)	0.0890

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 04:51

Sample (adjusted): 3 244

Included observations: 242 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000381	5.68E-05	6.698040	0.0000
RESID^2(-1)	-0.060536	0.064984	-0.931553	0.3525
RESID^2(-2)	0.123502	0.064184	1.924177	0.0555
R-squared	0.019989	Mean dependent var		0.000406
Adjusted R-squared	0.011788	S.D. dependent var		0.000661
S.E. of regression	0.000657	Akaike info criterion		-11.80624
Sum squared resid	0.000103	Schwarz criterion		-11.76299
Log likelihood	1431.555	Hannan-Quinn criter.		-11.78882
F-statistic	2.437427	Durbin-Watson stat		1.964389
Prob(F-statistic)	0.089555			

14. KOSPI TAHUN 2006

Heteroskedasticity Test: ARCH

F-statistic	6.516529	Prob. F(3,240)	0.0003
Obs*R-squared	18.37837	Prob. Chi-Square(3)	0.0004

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 04:57

Sample (adjusted): 4 247

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.30E-05	1.87E-05	4.442538	0.0000
RESID^2(-1)	0.035470	0.062574	0.566854	0.5713
RESID^2(-2)	0.092249	0.062320	1.480250	0.1401
RESID^2(-3)	0.244994	0.062585	3.914591	0.0001
R-squared	0.075321	Mean dependent var		0.000132
Adjusted R-squared	0.063763	S.D. dependent var		0.000214
S.E. of regression	0.000207	Akaike info criterion	-14.11017	
Sum squared resid	1.03E-05	Schwarz criterion	-14.05284	
Log likelihood	1725.441	Hannan-Quinn criter.	-14.08708	
F-statistic	6.516529	Durbin-Watson stat	2.052759	
Prob(F-statistic)	0.000296			

15. KOSPI TAHUN 2010

Heteroskedasticity Test: ARCH

F-statistic	4.647513	Prob. F(5,238)	0.0005
Obs*R-squared	21.70425	Prob. Chi-Square(5)	0.0006

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 05:04

Sample (adjusted): 6 249

Included observations: 244 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.86E-05	1.49E-05	3.937180	0.0001
RESID^2(-1)	0.000323	0.062497	0.005165	0.9959
RESID^2(-2)	0.105382	0.062368	1.689676	0.0924
RESID^2(-3)	0.025872	0.062739	0.412378	0.6804
RESID^2(-4)	-0.049951	0.062398	-0.800525	0.4242
RESID^2(-5)	0.266661	0.062493	4.267035	0.0000
R-squared	0.088952	Mean dependent var	9.04E-05	
Adjusted R-squared	0.069812	S.D. dependent var	0.000145	
S.E. of regression	0.000140	Akaike info criterion	-14.88529	
Sum squared resid	4.67E-06	Schwarz criterion	-14.79929	
Log likelihood	1822.005	Hannan-Quinn criter.	-14.85065	
F-statistic	4.647513	Durbin-Watson stat	2.051777	
Prob(F-statistic)	0.000457			

16. KOSPI TAHUN 2014

Heteroskedasticity Test: ARCH

F-statistic	0.013374	Prob. F(1,243)	0.9080
Obs*R-squared	0.013484	Prob. Chi-Square(1)	0.9076

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/20/16 Time: 04:56

Sample (adjusted): 2 246

Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.85E-05	4.46E-06	8.636538	0.0000
RESID^2(-1)	0.006706	0.057986	0.115647	0.9080
R-squared	0.000055	Mean dependent var		3.88E-05
Adjusted R-squared	-0.004060	S.D. dependent var		5.90E-05
S.E. of regression	5.92E-05	Akaike info criterion		-16.62448
Sum squared resid	8.51E-07	Schwarz criterion		-16.59590
Log likelihood	2038.499	Hannan-Quinn criter.		-16.61297
F-statistic	0.013374	Durbin-Watson stat		2.065301
Prob(F-statistic)	0.908028			

17. NIKKEI 225 TAHUN 2002

Heteroskedasticity Test: ARCH

F-statistic	2.441937	Prob. F(7,231)	0.0197
Obs*R-squared	16.46701	Prob. Chi-Square(7)	0.0212

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 05:15

Sample (adjusted): 8 246

Included observations: 239 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000167	4.95E-05	3.365892	0.0009
RESID^2(-1)	-0.106522	0.064411	-1.653770	0.0995
RESID^2(-2)	-0.017850	0.064596	-0.276333	0.7825
RESID^2(-3)	0.096180	0.064542	1.490193	0.1375
RESID^2(-4)	0.053779	0.064697	0.831253	0.4067
RESID^2(-5)	0.064412	0.064512	0.998445	0.3191
RESID^2(-6)	0.070025	0.064713	1.082077	0.2803
RESID^2(-7)	0.200246	0.064020	3.127849	0.0020
R-squared	0.068900	Mean dependent var		0.000262
Adjusted R-squared	0.040684	S.D. dependent var		0.000393
S.E. of regression	0.000385	Akaike info criterion		-12.85503
Sum squared resid	3.42E-05	Schwarz criterion		-12.73866
Log likelihood	1544.176	Hannan-Quinn criter.		-12.80814
F-statistic	2.441937	Durbin-Watson stat		1.997309
Prob(F-statistic)	0.019671			

18. NIKKEI 225 TAHUN 2006

Heteroskedasticity Test: ARCH

F-statistic	2.453910	Prob. F(3,241)	0.0639
Obs*R-squared	7.262085	Prob. Chi-Square(3)	0.0640

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 05:25

Sample (adjusted): 4 248

Included observations: 245 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000128	2.32E-05	5.513034	0.0000
RESID^2(-1)	-0.031984	0.063537	-0.503393	0.6151
RESID^2(-2)	0.050962	0.063506	0.802474	0.4231
RESID^2(-3)	0.164045	0.063577	2.580250	0.0105
R-squared	0.029641	Mean dependent var	0.000157	
Adjusted R-squared	0.017562	S.D. dependent var	0.000244	
S.E. of regression	0.000241	Akaike info criterion	-13.80349	
Sum squared resid	1.41E-05	Schwarz criterion	-13.74632	
Log likelihood	1694.927	Hannan-Quinn criter.	-13.78047	
F-statistic	2.453910	Durbin-Watson stat	2.042077	
Prob(F-statistic)	0.063871			

19. NIKKEI 225 TAHUN 2010

Heteroskedasticity Test: ARCH

F-statistic	2.661823	Prob. F(2,240)	0.0719
Obs*R-squared	5.273222	Prob. Chi-Square(2)	0.0716

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 05:33

Sample (adjusted): 3 245

Included observations: 243 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000159	2.25E-05	7.040663	0.0000
RESID^2(-1)	-0.047494	0.063886	-0.743419	0.4580
RESID^2(-2)	0.136815	0.063924	2.140265	0.0333
R-squared	0.021701	Mean dependent var		0.000174
Adjusted R-squared	0.013548	S.D. dependent var		0.000247
S.E. of regression	0.000245	Akaike info criterion		-13.77922
Sum squared resid	1.44E-05	Schwarz criterion		-13.73610
Log likelihood	1677.175	Hannan-Quinn criter.		-13.76185
F-statistic	2.661823	Durbin-Watson stat		2.000194
Prob(F-statistic)	0.071882			

20. NIKKEI 225 TAHUN 2014

Heteroskedasticity Test: ARCH

F-statistic	3.336279	Prob. F(1,249)	0.0690
Obs*R-squared	3.318612	Prob. Chi-Square(1)	0.0685

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/27/16 Time: 05:37

Sample (adjusted): 2 252

Included observations: 251 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000139	2.09E-05	6.645110	0.0000
RESID^2(-1)	0.114601	0.062742	1.826548	0.0690
R-squared	0.013222	Mean dependent var		0.000157
Adjusted R-squared	0.009259	S.D. dependent var		0.000292
S.E. of regression	0.000291	Akaike info criterion		-13.43761
Sum squared resid	2.11E-05	Schwarz criterion		-13.40952
Log likelihood	1688.420	Hannan-Quinn criter.		-13.42630
F-statistic	3.336279	Durbin-Watson stat		2.005743
Prob(F-statistic)	0.068965			

LAMPIRAN 4
UJI MEAN DENGAN VARIABEL DUMMY

1. JKSE TAHUN 2002

Dependent Variable: RJKSE_2002

Method: Least Squares

Date: 04/17/16 Time: 17:07

Sample: 1 244

Included observations: 244

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000635	0.001026	0.618463	0.5369
DUMMY	-0.002177	0.003497	-0.622604	0.5341
R-squared	0.001599	Mean dependent var	0.000447	
Adjusted R-squared	-0.002526	S.D. dependent var	0.015302	
S.E. of regression	0.015321	Akaike info criterion	-5.511007	
Sum squared resid	0.056806	Schwarz criterion	-5.482341	
Log likelihood	674.3428	Hannan-Quinn criter.	-5.499462	
F-statistic	0.387636	Durbin-Watson stat	1.727595	
Prob(F-statistic)	0.534131			

2. JKSE TAHUN 2006

Dependent Variable: RJKSE_2006

Method: Least Squares

Date: 04/17/16 Time: 17:11

Sample: 1 245

Included observations: 245

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001677	0.000876	1.915184	0.0566
DUMMY	0.002385	0.002990	0.797572	0.4259
R-squared	0.002611	Mean dependent var	0.001881	
Adjusted R-squared	-0.001494	S.D. dependent var	0.013094	
S.E. of regression	0.013104	Akaike info criterion	-5.823728	
Sum squared resid	0.041724	Schwarz criterion	-5.795146	
Log likelihood	715.4067	Hannan-Quinn criter.	-5.812218	
F-statistic	0.636120	Durbin-Watson stat	1.919847	
Prob(F-statistic)	0.425898			

3. JKSE TAHUN 2010

Dependent Variable: RJKSE_2010

Method: Least Squares

Date: 04/17/16 Time: 17:15

Sample: 1 245

Included observations: 245

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001510	0.000850	1.776669	0.0769
DUMMY	0.001419	0.002903	0.488780	0.6254
R-squared	0.000982	Mean dependent var	0.001631	
Adjusted R-squared	-0.003129	S.D. dependent var	0.012699	
S.E. of regression	0.012719	Akaike info criterion	-5.883356	
Sum squared resid	0.039309	Schwarz criterion	-5.854774	
Log likelihood	722.7111	Hannan-Quinn criter.	-5.871846	
F-statistic	0.238906	Durbin-Watson stat	2.055099	
Prob(F-statistic)	0.625438			

4. JKSE TAHUN 2014

Dependent Variable: RJKSE_2014

Method: Least Squares

Date: 04/17/16 Time: 17:17

Sample: 1 244

Included observations: 244

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000880	0.000569	1.547225	0.1231
DUMMY	-0.000270	0.001938	-0.139449	0.8892
R-squared	0.000080	Mean dependent var	0.000857	
Adjusted R-squared	-0.004052	S.D. dependent var	0.008475	
S.E. of regression	0.008492	Akaike info criterion	-6.691300	
Sum squared resid	0.017450	Schwarz criterion	-6.662634	
Log likelihood	818.3386	Hannan-Quinn criter.	-6.679755	
F-statistic	0.019446	Durbin-Watson stat	1.865211	
Prob(F-statistic)	0.889211			

5. KLSE TAHUN 2002

Dependent Variable: RKLSE_2002

Method: Least Squares

Date: 04/17/16 Time: 17:32

Sample: 1 248

Included observations: 248

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.74E-05	0.000542	-0.179758	0.8575
DUMMY	-0.002017	0.001861	-1.083668	0.2796
R-squared	0.004751	Mean dependent var	-0.000268	
Adjusted R-squared	0.000705	S.D. dependent var	0.008163	
S.E. of regression	0.008160	Akaike info criterion	-6.771109	
Sum squared resid	0.016380	Schwarz criterion	-6.742775	
Log likelihood	841.6175	Hannan-Quinn criter.	-6.759703	
F-statistic	1.174337	Durbin-Watson stat	1.785836	
Prob(F-statistic)	0.279573			

6. KLSE TAHUN 2006

Dependent Variable: RKLSE_2006

Method: Least Squares

Date: 04/17/16 Time: 17:35

Sample: 1 247

Included observations: 247

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000846	0.000350	2.417941	0.0163
DUMMY	-0.000403	0.001200	-0.335974	0.7372
R-squared	0.000461	Mean dependent var	0.000812	
Adjusted R-squared	-0.003619	S.D. dependent var	0.005251	
S.E. of regression	0.005260	Akaike info criterion	-7.649297	
Sum squared resid	0.006779	Schwarz criterion	-7.620881	
Log likelihood	946.6882	Hannan-Quinn criter.	-7.637856	
F-statistic	0.112878	Durbin-Watson stat	1.791613	
Prob(F-statistic)	0.737178			

7. KLSE TAHUN 2010

Dependent Variable: RKLSE_2010

Method: Least Squares

Date: 04/17/16 Time: 17:37

Sample: 1 248

Included observations: 248

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000788	0.001020	0.772764	0.4404
DUMMY	0.000482	0.003592	0.134161	0.8934
R-squared	0.000073	Mean dependent var	0.000827	
Adjusted R-squared	-0.003992	S.D. dependent var	0.015370	
S.E. of regression	0.015400	Akaike info criterion	-5.500807	
Sum squared resid	0.058345	Schwarz criterion	-5.472473	
Log likelihood	684.1001	Hannan-Quinn criter.	-5.489401	
F-statistic	0.017999	Durbin-Watson stat	2.818474	
Prob(F-statistic)	0.893385			

8. KLSE TAHUN 2014

Dependent Variable: RKLSE_2014

Method: Least Squares

Date: 04/17/16 Time: 17:40

Sample: 1 245

Included observations: 245

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000257	0.000335	-0.767032	0.4438
DUMMY	0.000375	0.001118	0.335565	0.7375
R-squared	0.000463	Mean dependent var	-0.000223	
Adjusted R-squared	-0.003650	S.D. dependent var	0.004993	
S.E. of regression	0.005003	Akaike info criterion	-7.749621	
Sum squared resid	0.006081	Schwarz criterion	-7.721039	
Log likelihood	951.3286	Hannan-Quinn criter.	-7.738111	
F-statistic	0.112604	Durbin-Watson stat	1.724856	
Prob(F-statistic)	0.737488			

9. SSE TAHUN 2002

Dependent Variable: RSSE_2002

Method: Least Squares

Date: 04/17/16 Time: 21:40

Sample: 1 261

Included observations: 261

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001247	0.000948	-1.315462	0.1895
DUMMY	0.007661	0.003341	2.292978	0.0227
R-squared	0.019896	Mean dependent var		-0.000630
Adjusted R-squared	0.016112	S.D. dependent var		0.014801
S.E. of regression	0.014682	Akaike info criterion		-5.596790
Sum squared resid	0.055828	Schwarz criterion		-5.569476
Log likelihood	732.3811	Hannan-Quinn criter.		-5.585810
F-statistic	5.257750	Durbin-Watson stat		1.993749
Prob(F-statistic)	0.022651			

10. SSE TAHUN 2006

Dependent Variable: RSSE_2006

Method: Least Squares

Date: 04/17/16 Time: 21:41

Sample: 1 260

Included observations: 260

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.003232	0.000845	3.825124	0.0002
DUMMY	0.000811	0.002973	0.272644	0.7853
R-squared	0.000288	Mean dependent var		0.003298
Adjusted R-squared	-0.003587	S.D. dependent var		0.013040
S.E. of regression	0.013063	Akaike info criterion		-5.830352
Sum squared resid	0.044028	Schwarz criterion		-5.802962
Log likelihood	759.9458	Hannan-Quinn criter.		-5.819341
F-statistic	0.074335	Durbin-Watson stat		1.888038
Prob(F-statistic)	0.785345			

11. SSE TAHUN 2010

Dependent Variable: RSSE_2010

Method: Least Squares

Date: 04/17/16 Time: 21:48

Sample: 1 259

Included observations: 259

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000402	0.000892	-0.450896	0.6524
DUMMY	-0.001231	0.003132	-0.393135	0.6945
R-squared	0.000601	Mean dependent var	-0.000502	
Adjusted R-squared	-0.003288	S.D. dependent var	0.013735	
S.E. of regression	0.013758	Akaike info criterion	-5.726740	
Sum squared resid	0.048644	Schwarz criterion	-5.699275	
Log likelihood	743.6129	Hannan-Quinn criter.	-5.715698	
F-statistic	0.154555	Durbin-Watson stat	2.002776	
Prob(F-statistic)	0.694546			

12. SSE TAHUN 2014

Dependent Variable: RSSE_2014

Method: Least Squares

Date: 04/17/16 Time: 21:51

Sample: 1 245

Included observations: 245

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001987	0.000728	2.730484	0.0068
DUMMY	-0.002137	0.002428	-0.879998	0.3797
R-squared	0.003177	Mean dependent var	0.001795	
Adjusted R-squared	-0.000925	S.D. dependent var	0.010860	
S.E. of regression	0.010865	Akaike info criterion	-6.198494	
Sum squared resid	0.028683	Schwarz criterion	-6.169912	
Log likelihood	761.3155	Hannan-Quinn criter.	-6.186984	
F-statistic	0.774396	Durbin-Watson stat	1.917321	
Prob(F-statistic)	0.379730			

13. KOSPI TAHUN 2002

Dependent Variable: RKOSPI_2002

Method: Least Squares

Date: 04/17/16 Time: 22:00

Sample: 1 244

Included observations: 244

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000168	0.001358	0.123732	0.9016
DUMMY	-0.004789	0.004866	-0.984251	0.3260
R-squared	0.003987	Mean dependent var		-0.000205
Adjusted R-squared	-0.000129	S.D. dependent var		0.020365
S.E. of regression	0.020367	Akaike info criterion		-4.941685
Sum squared resid	0.100381	Schwarz criterion		-4.913020
Log likelihood	604.8855	Hannan-Quinn criter.		-4.930140
F-statistic	0.968749	Durbin-Watson stat		1.950218
Prob(F-statistic)	0.325975			

14. KOSPI TAHUN 2006

Dependent Variable: RKOSPI_2006

Method: Least Squares

Date: 04/17/16 Time: 22:04

Sample: 1 247

Included observations: 247

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.31E-05	0.000765	0.069446	0.9447
DUMMY	0.001999	0.002622	0.762445	0.4465
R-squared	0.002367	Mean dependent var		0.000223
Adjusted R-squared	-0.001705	S.D. dependent var		0.011484
S.E. of regression	0.011494	Akaike info criterion		-6.085874
Sum squared resid	0.032369	Schwarz criterion		-6.057458
Log likelihood	753.6054	Hannan-Quinn criter.		-6.074433
F-statistic	0.581323	Durbin-Watson stat		1.972197
Prob(F-statistic)	0.446528			

15. KOSPI TAHUN 2010

Dependent Variable: RKOSPI_2010

Method: Least Squares

Date: 04/17/16 Time: 22:06

Sample: 1 249

Included observations: 249

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000727	0.000629	1.154494	0.2494
DUMMY	0.001423	0.002221	0.640921	0.5222
R-squared	0.001660	Mean dependent var	0.000841	
Adjusted R-squared	-0.002382	S.D. dependent var	0.009513	
S.E. of regression	0.009525	Akaike info criterion	-6.461891	
Sum squared resid	0.022407	Schwarz criterion	-6.433638	
Log likelihood	806.5054	Hannan-Quinn criter.	-6.450519	
F-statistic	0.410780	Durbin-Watson stat	2.015008	
Prob(F-statistic)	0.522168			

16. KOSPI TAHUN 2014

Dependent Variable: RKOSPI_2014

Method: Least Squares

Date: 04/17/16 Time: 22:08

Sample: 1 246

Included observations: 246

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000140	0.000427	-0.328144	0.7431
DUMMY	-0.000428	0.001428	-0.299622	0.7647
R-squared	0.000368	Mean dependent var	-0.000178	
Adjusted R-squared	-0.003729	S.D. dependent var	0.006382	
S.E. of regression	0.006394	Akaike info criterion	-7.258963	
Sum squared resid	0.009974	Schwarz criterion	-7.230465	
Log likelihood	894.8525	Hannan-Quinn criter.	-7.247488	
F-statistic	0.089774	Durbin-Watson stat	1.902795	
Prob(F-statistic)	0.764720			

17. NIKKEI 225 TAHUN 2002

Dependent Variable: RNIKKEI_2002

Method: Least Squares

Date: 04/17/16 Time: 22:40

Sample: 1 246

Included observations: 246

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000336	0.001087	-0.308657	0.7578
DUMMY	-0.004369	0.003721	-1.174240	0.2414
R-squared	0.005619	Mean dependent var		-0.000709
Adjusted R-squared	0.001544	S.D. dependent var		0.016320
S.E. of regression	0.016307	Akaike info criterion		-5.386325
Sum squared resid	0.064886	Schwarz criterion		-5.357827
Log likelihood	664.5180	Hannan-Quinn criter.		-5.374850
F-statistic	1.378840	Durbin-Watson stat		1.997128
Prob(F-statistic)	0.241444			

18. NIKKEI 225 TAHUN 2006

Dependent Variable: RNIKKEI_2006

Method: Least Squares

Date: 04/17/16 Time: 22:41

Sample: 1 248

Included observations: 248

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000169	0.000832	0.202778	0.8395
DUMMY	0.002122	0.002859	0.742039	0.4588
R-squared	0.002233	Mean dependent var		0.000348
Adjusted R-squared	-0.001823	S.D. dependent var		0.012525
S.E. of regression	0.012536	Akaike info criterion		-5.912365
Sum squared resid	0.038660	Schwarz criterion		-5.884030
Log likelihood	735.1332	Hannan-Quinn criter.		-5.900958
F-statistic	0.550622	Durbin-Watson stat		2.102718
Prob(F-statistic)	0.458772			

19. NIKKEI 225 TAHUN 2010

Dependent Variable: RNIKKEI_2010

Method: Least Squares

Date: 04/17/16 Time: 22:45

Sample: 1 245

Included observations: 245

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.96E-05	0.000883	-0.078897	0.9372
DUMMY	0.000389	0.003015	0.128918	0.8975
R-squared	0.000068	Mean dependent var	-3.63E-05	
Adjusted R-squared	-0.004047	S.D. dependent var	0.013185	
S.E. of regression	0.013211	Akaike info criterion	-5.807380	
Sum squared resid	0.042412	Schwarz criterion	-5.778798	
Log likelihood	713.4040	Hannan-Quinn criter.	-5.795870	
F-statistic	0.016620	Durbin-Watson stat	2.013618	
Prob(F-statistic)	0.897529			

20. NIKKEI 225 TAHUN 2014

Dependent Variable: RNIKKEI_2014

Method: Least Squares

Date: 04/17/16 Time: 22:46

Sample: 1 252

Included observations: 252

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000356	0.000835	0.426047	0.6704
DUMMY	-4.20E-05	0.002825	-0.014872	0.9881
R-squared	0.000001	Mean dependent var	0.000352	
Adjusted R-squared	-0.003999	S.D. dependent var	0.012635	
S.E. of regression	0.012660	Akaike info criterion	-5.892843	
Sum squared resid	0.040069	Schwarz criterion	-5.864832	
Log likelihood	744.4982	Hannan-Quinn criter.	-5.881572	
F-statistic	0.000221	Durbin-Watson stat	2.017214	
Prob(F-statistic)	0.988147			

LAMPIRAN 5
MODEL PENGUJIAN GARCH (p,q) dan OLS

1. JKSE TAHUN 2002

GARCH (1,2)

Dependent Variable: RJKSE_2002
Method: ML - ARCH (Marquardt) - Normal distribution
Date: 04/27/16 Time: 01:00
Sample: 1 244
Included observations: 244
Convergence achieved after 35 iterations
Presample variance: backcast (parameter = 0.7)
GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*GARCH(-2) +
C(7)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.001512	0.001126	1.342396	0.1795
WORLDCUP	-0.006889	0.002871	-2.399559	0.0164
Variance Equation				
C	0.000121	1.69E-05	7.159769	0.0000
RESID(-1)^2	0.259354	0.057925	4.477387	0.0000
GARCH(-1)	0.567743	0.064964	8.739348	0.0000
GARCH(-2)	-0.278805	0.039577	-7.044635	0.0000
WORLDCUP	-5.72E-05	2.99E-05	-1.916597	0.0553
R-squared	-0.006843	Mean dependent var	0.000447	
Adjusted R-squared	-0.011004	S.D. dependent var	0.015302	
S.E. of regression	0.015386	Akaike info criterion	-5.546172	
Sum squared resid	0.057287	Schwarz criterion	-5.445843	
Log likelihood	683.6330	Hannan-Quinn criter.	-5.505765	
Durbin-Watson stat	1.720143			

2. JKSE TAHUN 2006

GARCH (1,3)

Dependent Variable: RJKSE_2006
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/27/16 Time: 02:07
 Sample: 1 245
 Included observations: 245
 Convergence achieved after 22 iterations
 Presample variance: backcast (parameter = 0.7)

$$\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{GARCH}(-2) + C(7)*\text{GARCH}(-3) + C(8)*\text{WORLDCUP}$$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.002538	0.000615	4.127173	0.0000
WORLDCUP	0.002430	0.004016	0.605002	0.5452
Variance Equation				
C	3.32E-06	3.18E-06	1.042674	0.2971
RESID(-1)^2	0.239165	0.046775	5.113102	0.0000
GARCH(-1)	0.127215	0.043578	2.919223	0.0035
GARCH(-2)	0.033185	0.076320	0.434817	0.6637
GARCH(-3)	0.621500	0.073966	8.402543	0.0000
WORLDCUP	-6.54E-05	1.28E-07	-511.2280	0.0000
R-squared	-0.001777	Mean dependent var	0.001881	
Adjusted R-squared	-0.005900	S.D. dependent var	0.013094	
S.E. of regression	0.013132	Akaike info criterion	-6.008420	
Sum squared resid	0.041908	Schwarz criterion	-5.894093	
Log likelihood	744.0314	Hannan-Quinn criter.	-5.962381	
Durbin-Watson stat	1.911290			

3. JKSE TAHUN 2010

GARCH (1,1)

Dependent Variable: RJKSE_2010
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/20/16 Time: 02:10
 Sample: 1 245
 Included observations: 245
 Convergence achieved after 28 iterations
 Presample variance: backcast (parameter = 0.7)
 $\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{WORLDCUP}$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.001955	0.000817	2.392832	0.0167
WORLDCUP	0.000125	0.002988	0.041831	0.9666
Variance Equation				
C	2.03E-05	1.07E-05	1.905819	0.0567
RESID(-1)^2	0.129791	0.050521	2.569055	0.0102
GARCH(-1)	0.739724	0.110078	6.720026	0.0000
WORLDCUP	-9.57E-06	7.89E-06	-1.212750	0.2252
R-squared	-0.000532	Mean dependent var	0.001631	
Adjusted R-squared	-0.004650	S.D. dependent var	0.012699	
S.E. of regression	0.012728	Akaike info criterion	-6.009899	
Sum squared resid	0.039369	Schwarz criterion	-5.924154	
Log likelihood	742.2127	Hannan-Quinn criter.	-5.975370	
Durbin-Watson stat	2.053274			

4. JKSE TAHUN 2014

GARCH (1,1)

Dependent Variable: RJKSE_2014

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/20/16 Time: 02:18

Sample: 1 244

Included observations: 244

Convergence achieved after 20 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000544	0.000575	0.947119	0.3436
WORLDCUP	-0.000133	0.001634	-0.081580	0.9350
Variance Equation				
C	1.08E-06	4.16E-07	2.604017	0.0092
RESID(-1)^2	-0.037064	0.011470	-3.231499	0.0012
GARCH(-1)	1.015397	0.009830	103.2968	0.0000
WORLDCUP	1.74E-07	1.01E-06	0.171995	0.8634
R-squared	-0.001407	Mean dependent var		0.000857
Adjusted R-squared	-0.005545	S.D. dependent var		0.008475
S.E. of regression	0.008498	Akaike info criterion		-6.783995
Sum squared resid	0.017476	Schwarz criterion		-6.697999
Log likelihood	833.6474	Hannan-Quinn criter.		-6.749360
Durbin-Watson stat	1.862800			

5. KLSE TAHUN 2002

GARCH (1,1)

Dependent Variable: RKLSE_2002

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/27/16 Time: 03:27

Sample: 1 248

Included observations: 248

Convergence achieved after 39 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.000119	0.000501	-0.238269	0.8117
WORLDCUP	-0.002998	0.003003	-0.998189	0.3182
Variance Equation				
C	1.54E-05	6.61E-06	2.332163	0.0197
RESID(-1)^2	0.315507	0.130254	2.422249	0.0154
GARCH(-1)	0.453448	0.161085	2.814972	0.0049
WORLDCUP	2.33E-05	2.26E-05	1.033318	0.3015
R-squared	0.003462	Mean dependent var		-0.000268
Adjusted R-squared	-0.000589	S.D. dependent var		0.008163
S.E. of regression	0.008165	Akaike info criterion		-6.820653
Sum squared resid	0.016401	Schwarz criterion		-6.735651
Log likelihood	851.7610	Hannan-Quinn criter.		-6.786434
Durbin-Watson stat	1.784423			

6. KLSE TAHUN 2006

GARCH (1,1)

Dependent Variable: RKLSE_2006

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/20/16 Time: 04:19

Sample: 1 247

Included observations: 247

Convergence achieved after 31 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000852	0.000335	2.541109	0.0111
WORLDCUP	0.000153	0.002038	0.075194	0.9401
Variance Equation				
C	4.05E-06	1.96E-06	2.069371	0.0385
RESID(-1)^2	0.191973	0.057789	3.321997	0.0009
GARCH(-1)	0.657883	0.108657	6.054688	0.0000
WORLDCUP	2.84E-06	4.66E-06	0.610216	0.5417
R-squared	-0.000520	Mean dependent var	0.000812	
Adjusted R-squared	-0.004604	S.D. dependent var	0.005251	
S.E. of regression	0.005263	Akaike info criterion	-7.728482	
Sum squared resid	0.006785	Schwarz criterion	-7.643234	
Log likelihood	960.4676	Hannan-Quinn criter.	-7.694161	
Durbin-Watson stat	1.787914			

7. KLSE TAHUN 2010

GARCH (1,2)

Dependent Variable: RKLSE_2010

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/27/16 Time: 03:43

Sample: 1 248

Included observations: 248

Convergence achieved after 28 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*GARCH(-2) +
C(7)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.000662	0.002730	-0.242584	0.8083
WORLDCUP	0.002182	0.002978	0.732617	0.4638
Variance Equation				
C	0.000199	1.63E-05	12.25965	0.0000
RESID(-1)^2	0.229752	0.079274	2.898188	0.0038
GARCH(-1)	0.293882	0.031346	9.375321	0.0000
GARCH(-2)	-0.097174	0.020524	-4.734677	0.0000
WORLDCUP	-0.000191	1.56E-05	-12.22637	0.0000
R-squared	-0.008169	Mean dependent var	0.000827	
Adjusted R-squared	-0.012267	S.D. dependent var	0.015370	
S.E. of regression	0.015464	Akaike info criterion	-6.000844	
Sum squared resid	0.058826	Schwarz criterion	-5.901675	
Log likelihood	751.1047	Hannan-Quinn criter.	-5.960922	
Durbin-Watson stat	2.795234			

8. KLSE TAHUN 2014

GARCH (1,1)

Dependent Variable: RKLSE_2014

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/27/16 Time: 03:53

Sample: 1 245

Included observations: 245

Convergence achieved after 31 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.000101	0.000306	-0.331708	0.7401
WORLDCUP	0.000149	0.000708	0.211032	0.8329
Variance Equation				
C	1.51E-06	7.08E-07	2.126060	0.0335
RESID(-1)^2	0.146160	0.054567	2.678536	0.0074
GARCH(-1)	0.799598	0.066241	12.07112	0.0000
WORLDCUP	-9.41E-07	7.56E-07	-1.244064	0.2135
R-squared	-0.000441	Mean dependent var		-0.000223
Adjusted R-squared	-0.004558	S.D. dependent var		0.004993
S.E. of regression	0.005005	Akaike info criterion		-7.926483
Sum squared resid	0.006087	Schwarz criterion		-7.840738
Log likelihood	976.9942	Hannan-Quinn criter.		-7.891954
Durbin-Watson stat	1.722575			

9. SSE TAHUN 2002

GARCH (1,1)

Dependent Variable: RSSE_2002
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/27/16 Time: 04:06
 Sample: 1 261
 Included observations: 261
 Convergence achieved after 58 iterations
 Presample variance: backcast (parameter = 0.7)
 $\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{WORLDCUP}$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.001544	0.000658	-2.344100	0.0191
WORLDCUP	0.003913	0.006139	0.637354	0.5239
Variance Equation				
C	1.94E-05	5.69E-06	3.417372	0.0006
RESID(-1)^2	0.330591	0.099318	3.328617	0.0009
GARCH(-1)	0.581510	0.083882	6.932463	0.0000
WORLDCUP	0.000126	4.85E-05	2.604239	0.0092
R-squared	0.013492	Mean dependent var		-0.000630
Adjusted R-squared	0.009683	S.D. dependent var		0.014801
S.E. of regression	0.014730	Akaike info criterion		-5.910351
Sum squared resid	0.056193	Schwarz criterion		-5.828408
Log likelihood	777.3009	Hannan-Quinn criter.		-5.877413
Durbin-Watson stat	1.980863			

10. SSE TAHUN 2006

GARCH (1,1)

Dependent Variable: RSSE_2006

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/27/16 Time: 04:19

Sample: 1 260

Included observations: 260

Convergence achieved after 30 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.002824	0.000772	3.656974	0.0003
WORLDCUP	0.001411	0.005423	0.260127	0.7948
Variance Equation				
C	4.84E-06	3.25E-06	1.489543	0.1363
RESID(-1)^2	0.067665	0.025732	2.629658	0.0085
GARCH(-1)	0.910000	0.037963	23.97094	0.0000
WORLDCUP	4.35E-06	8.25E-06	0.527684	0.5977
R-squared	-0.000635	Mean dependent var	0.003298	
Adjusted R-squared	-0.004514	S.D. dependent var	0.013040	
S.E. of regression	0.013069	Akaike info criterion	-5.893141	
Sum squared resid	0.044069	Schwarz criterion	-5.810971	
Log likelihood	772.1083	Hannan-Quinn criter.	-5.860108	
Durbin-Watson stat	1.887318			

11. SSE TAHUN 2010

OLS

Dependent Variable: RSSE_2010

Method: Least Squares

Date: 04/27/16 Time: 04:25

Sample: 1 259

Included observations: 259

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000402	0.000892	-0.450896	0.6524
WORLDCUP	-0.001231	0.003132	-0.393135	0.6945
R-squared	0.000601	Mean dependent var		-0.000502
Adjusted R-squared	-0.003288	S.D. dependent var		0.013735
S.E. of regression	0.013758	Akaike info criterion		-5.726740
Sum squared resid	0.048644	Schwarz criterion		-5.699275
Log likelihood	743.6129	Hannan-Quinn criter.		-5.715698
F-statistic	0.154555	Durbin-Watson stat		2.002776
Prob(F-statistic)	0.694546			

12. SSE TAHUN 2014

GARCH (1,1)

Dependent Variable: RSSE_2014

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/27/16 Time: 04:46

Sample: 1 245

Included observations: 245

Convergence achieved after 20 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.001322	0.000656	2.014644	0.0439
WORLDCUP	-0.001819	0.002104	-0.864383	0.3874
Variance Equation				
C	5.16E-06	4.06E-06	1.270734	0.2038
RESID(-1)^2	0.089887	0.027593	3.257669	0.0011
GARCH(-1)	0.871835	0.053597	16.26652	0.0000
WORLDCUP	-4.19E-06	3.57E-06	-1.174424	0.2402
R-squared	-0.000343	Mean dependent var	0.001795	
Adjusted R-squared	-0.004459	S.D. dependent var	0.010860	
S.E. of regression	0.010884	Akaike info criterion	-6.363985	
Sum squared resid	0.028785	Schwarz criterion	-6.278240	
Log likelihood	785.5882	Hannan-Quinn criter.	-6.329456	
Durbin-Watson stat	1.910669			

13. KOSPI TAHUN 2002

GARCH (1,4)

Dependent Variable: RKOSPI_2002
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/27/16 Time: 04:53
 Sample: 1 244
 Included observations: 244
 Convergence achieved after 29 iterations
 Presample variance: backcast (parameter = 0.7)

$$\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{GARCH}(-2) + C(7)*\text{GARCH}(-3) + C(8)*\text{GARCH}(-4) + C(9)*\text{WORLDCUP}$$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	7.10E-05	0.001281	0.055427	0.9558
WORLDCUP	-0.004594	0.006781	-0.677502	0.4981
Variance Equation				
C	8.93E-05	5.16E-05	1.729418	0.0837
RESID(-1)^2	-0.061733	0.024413	-2.528642	0.0115
GARCH(-1)	-0.651036	0.072881	-8.932855	0.0000
GARCH(-2)	-0.086821	0.038918	-2.230881	0.0257
GARCH(-3)	0.640406	0.045221	14.16169	0.0000
GARCH(-4)	0.906455	0.063480	14.27931	0.0000
WORLDCUP	0.000127	6.90E-05	1.846186	0.0649
R-squared	0.003964	Mean dependent var	-0.000205	
Adjusted R-squared	-0.000152	S.D. dependent var	0.020365	
S.E. of regression	0.020367	Akaike info criterion	-4.953259	
Sum squared resid	0.100383	Schwarz criterion	-4.824265	
Log likelihood	613.2976	Hannan-Quinn criter.	-4.901307	
Durbin-Watson stat	1.949979			

14. KOSPI TAHUN 2006

GARCH (1,3)

Dependent Variable: RKOSPI_2006
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/27/16 Time: 05:00
 Sample: 1 247
 Included observations: 247
 Convergence achieved after 20 iterations
 Presample variance: backcast (parameter = 0.7)

$$\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{GARCH}(-2) + C(7)*\text{GARCH}(-3) + C(8)*\text{WORLDCUP}$$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000971	0.000603	1.610016	0.1074
WORLDCUP	0.002613	0.003708	0.704713	0.4810
Variance Equation				
C	6.28E-06	3.74E-06	1.679806	0.0930
RESID(-1)^2	0.098449	0.028432	3.462596	0.0005
GARCH(-1)	1.697602	0.082460	20.58688	0.0000
GARCH(-2)	-1.577385	0.127618	-12.36025	0.0000
GARCH(-3)	0.733736	0.073574	9.972752	0.0000
WORLDCUP	6.54E-06	1.65E-05	0.397557	0.6910
R-squared	-0.005028	Mean dependent var	0.000223	
Adjusted R-squared	-0.009130	S.D. dependent var	0.011484	
S.E. of regression	0.011537	Akaike info criterion	-6.155579	
Sum squared resid	0.032609	Schwarz criterion	-6.041914	
Log likelihood	768.2140	Hannan-Quinn criter.	-6.109817	
Durbin-Watson stat	1.956628			

15. KOSPI TAHUN 2010

GARCH (1,2)

Dependent Variable: RKOSPI_2010
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/27/16 Time: 05:07
 Sample: 1 249
 Included observations: 249
 Convergence achieved after 49 iterations
 Presample variance: backcast (parameter = 0.7)
 $\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{GARCH}(-2) + C(7)*\text{WORLDCUP}$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.001232	0.000613	2.009914	0.0444
WORLDCUP	0.000713	0.002066	0.345140	0.7300
Variance Equation				
C	2.35E-06	5.10E-07	4.620671	0.0000
RESID(-1)^2	0.018849	0.009487	1.986935	0.0469
GARCH(-1)	1.870196	0.053789	34.76923	0.0000
GARCH(-2)	-0.916282	0.048833	-18.76351	0.0000
WORLDCUP	1.23E-06	1.20E-06	1.023260	0.3062
R-squared	-0.000981	Mean dependent var	0.000841	
Adjusted R-squared	-0.005033	S.D. dependent var	0.009513	
S.E. of regression	0.009537	Akaike info criterion	-6.492347	
Sum squared resid	0.022466	Schwarz criterion	-6.393463	
Log likelihood	815.2973	Hannan-Quinn criter.	-6.452545	
Durbin-Watson stat	2.010789			

16. KOSPI TAHUN 2014

OLS

Dependent Variable: RKOSPI_2014

Method: Least Squares

Date: 04/27/16 Time: 05:09

Sample: 1 246

Included observations: 246

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000140	0.000427	-0.328144	0.7431
WORLDCUP	-0.000428	0.001428	-0.299622	0.7647
R-squared	0.000368	Mean dependent var	-0.000178	
Adjusted R-squared	-0.003729	S.D. dependent var	0.006382	
S.E. of regression	0.006394	Akaike info criterion	-7.258963	
Sum squared resid	0.009974	Schwarz criterion	-7.230465	
Log likelihood	894.8525	Hannan-Quinn criter.	-7.247488	
F-statistic	0.089774	Durbin-Watson stat	1.902795	
Prob(F-statistic)	0.764720			

17. NIKKEI 225 TAHUN 2002

GARCH (1,2)

Dependent Variable: RNIKKEI_2002
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/27/16 Time: 05:17
 Sample: 1 246
 Included observations: 246
 Convergence achieved after 12 iterations
 Presample variance: backcast (parameter = 0.7)
 $\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{GARCH}(-2) + C(7)*\text{WORLDCUP}$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.000328	0.000886	-0.370489	0.7110
WORLDCUP	-0.004296	0.003304	-1.300056	0.1936
Variance Equation				
C	-7.13E-06	3.69E-07	-19.32919	0.0000
RESID(-1)^2	-0.004394	0.015723	-0.279460	0.7799
GARCH(-1)	0.844396	0.014021	60.22500	0.0000
GARCH(-2)	0.170194	0.000605	281.1096	0.0000
WORLDCUP	2.78E-05	3.65E-06	7.631594	0.0000
R-squared	0.005617	Mean dependent var	-0.000709	
Adjusted R-squared	0.001542	S.D. dependent var	0.016320	
S.E. of regression	0.016307	Akaike info criterion	-5.404149	
Sum squared resid	0.064886	Schwarz criterion	-5.304404	
Log likelihood	671.7104	Hannan-Quinn criter.	-5.363987	
Durbin-Watson stat	1.997004			

18. NIKKEI 225 TAHUN 2006

GARCH (1,1)

Dependent Variable: RNIKKEI_2006
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/27/16 Time: 05:28
 Sample: 1 248
 Included observations: 248
 Convergence achieved after 40 iterations
 Presample variance: backcast (parameter = 0.7)
 $\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{WORLDCUP}$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000635	0.000725	0.876555	0.3807
WORLDCUP	0.001149	0.002993	0.383799	0.7011
Variance Equation				
C	-3.67E-07	1.77E-06	-0.207552	0.8356
RESID(-1)^2	0.051573	0.022832	2.258813	0.0239
GARCH(-1)	0.948633	0.025285	37.51714	0.0000
WORLDCUP	-2.66E-06	8.39E-06	-0.316786	0.7514
R-squared	0.000819	Mean dependent var	0.000348	
Adjusted R-squared	-0.003242	S.D. dependent var	0.012525	
S.E. of regression	0.012545	Akaike info criterion	-5.959812	
Sum squared resid	0.038715	Schwarz criterion	-5.874809	
Log likelihood	745.0167	Hannan-Quinn criter.	-5.925593	
Durbin-Watson stat	2.100679			

19. NIKKEI 225 TAHUN 2010

GARCH (1,1)

Dependent Variable: RNIKKEI_2010

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 04/27/16 Time: 05:34

Sample: 1 245

Included observations: 245

Convergence achieved after 21 iterations

Presample variance: backcast (parameter = 0.7)

GARCH = C(3) + C(4)*RESID(-1)^2 + C(5)*GARCH(-1) + C(6)*WORLDCUP

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000490	0.000828	0.592316	0.5536
WORLDCUP	4.14E-06	0.003806	0.001088	0.9991
Variance Equation				
C	9.02E-06	8.94E-06	1.008878	0.3130
RESID(-1)^2	0.072286	0.050021	1.445108	0.1484
GARCH(-1)	0.875553	0.081954	10.68343	0.0000
WORLDCUP	5.94E-06	1.62E-05	0.366950	0.7137
R-squared	-0.001603	Mean dependent var		-3.63E-05
Adjusted R-squared	-0.005725	S.D. dependent var		0.013185
S.E. of regression	0.013222	Akaike info criterion		-5.804926
Sum squared resid	0.042483	Schwarz criterion		-5.719181
Log likelihood	717.1034	Hannan-Quinn criter.		-5.770397
Durbin-Watson stat	2.010524			

20. NIKKEI 225 TAHUN 2014

GARCH (1,3)

Dependent Variable: RNIKKEI_2014
 Method: ML - ARCH (Marquardt) - Normal distribution
 Date: 04/27/16 Time: 05:38
 Sample: 1 252
 Included observations: 252
 Convergence achieved after 28 iterations
 Presample variance: backcast (parameter = 0.7)

$$\text{GARCH} = C(3) + C(4)*\text{RESID}(-1)^2 + C(5)*\text{GARCH}(-1) + C(6)*\text{GARCH}(-2) + C(7)*\text{GARCH}(-3) + C(8)*\text{WORLDCUP}$$

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.001077	0.000726	1.483181	0.1380
WORLDCUP	-0.002662	0.001431	-1.860500	0.0628
Variance Equation				
C	6.02E-06	2.85E-06	2.113318	0.0346
RESID(-1)^2	0.059555	0.019123	3.114297	0.0018
GARCH(-1)	1.826499	0.059621	30.63501	0.0000
GARCH(-2)	-1.758355	0.089082	-19.73853	0.0000
GARCH(-3)	0.834042	0.054780	15.22541	0.0000
WORLDCUP	-6.75E-06	3.37E-06	-2.004377	0.0450
R-squared	-0.004967	Mean dependent var	0.000352	
Adjusted R-squared	-0.008987	S.D. dependent var	0.012635	
S.E. of regression	0.012691	Akaike info criterion	-6.013620	
Sum squared resid	0.040268	Schwarz criterion	-5.901575	
Log likelihood	765.7162	Hannan-Quinn criter.	-5.968536	
Durbin-Watson stat	2.004523			