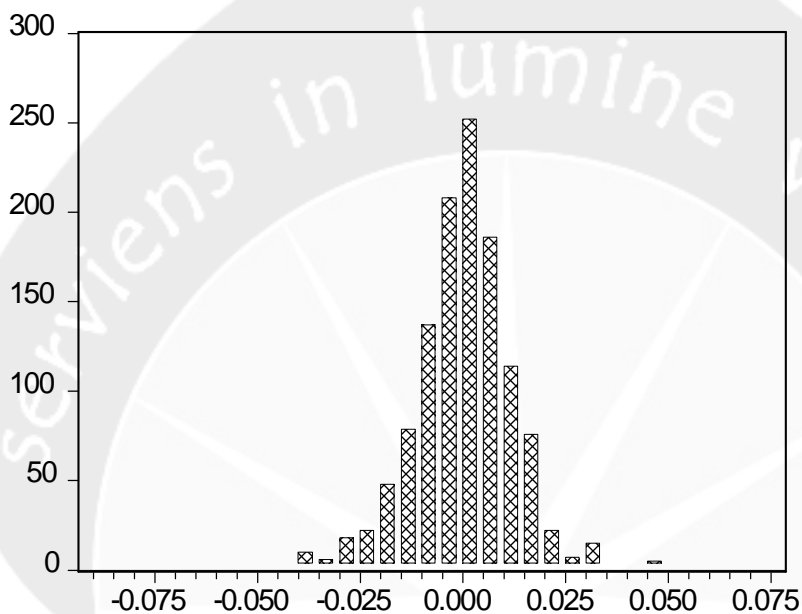




## LAMPIRAN 1

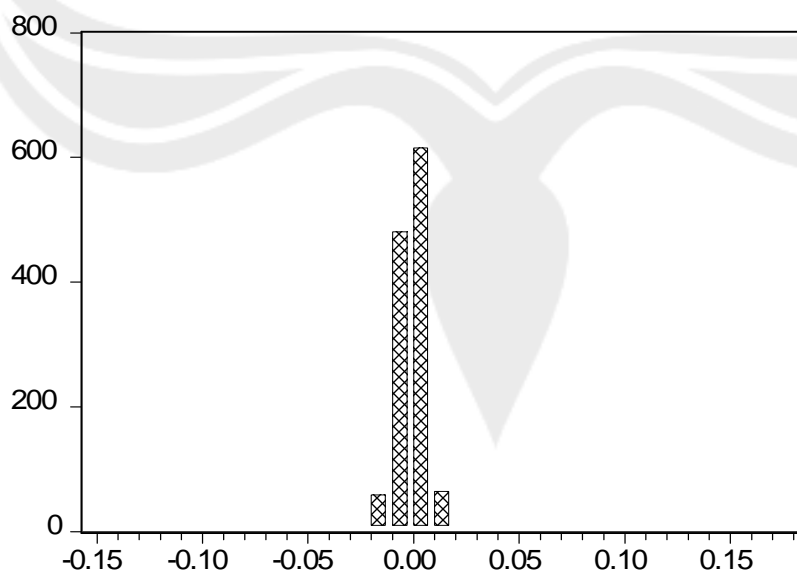
### DESKRIPSI STATISTIK

#### 1. JKSE



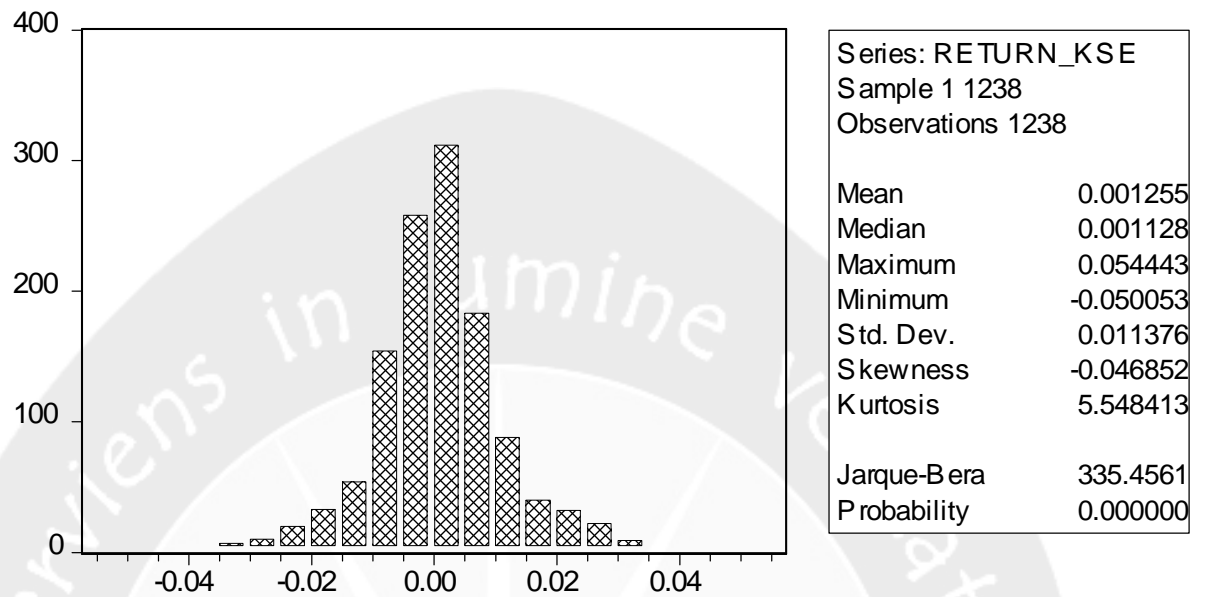
Series: RETURN_JKSE	
Sample 1 1219	
Observations 1219	
Mean	0.000981
Median	0.001388
Maximum	0.072654
Minimum	-0.088803
Std. Dev.	0.013173
Skewness	-0.259719
Kurtosis	6.949672
Jarque-Bera	806.0496
Probability	0.000000

#### 2. KLSE



Series: RETURN_KLSE	
Sample 1 1235	
Observations 1235	
Mean	0.000649
Median	0.000571
Maximum	0.173750
Minimum	-0.144169
Std. Dev.	0.010379
Skewness	2.063016
Kurtosis	133.6061
Jarque-Bera	878649.6
Probability	0.000000

### 3. KSE



	JKSE	KLSE	KSE 100
Mean	0.000981	0.000649	0.001255
Median	0.001388	0.000571	0.001128
Maximum	0.072654	0.173750	0.054443
Minimum	-0.088803	-0.144169	-0.050053
Std. Dev.	0.013173	0.010379	0.011376
Skewness	-0.259719	2.063016	-0.046852
Kurtosis	6.949672	133.6061	5.548413
Jarque – Bera	806.0496	878649.6	335.4561
Probability	0.000000	0.000000	0.000000
Obsevation	1219	1235	1238

**LAMPIRAN 2**  
**UJI AUGMENTED DICKEY FULLER**

**1. JKSE**

Null Hypothesis: RETURN\_JKSE has a unit root

Exogenous: Constant

Lag Length: 11 (Automatic - based on AIC, maxlag=22)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-9.157096	0.0000
Test critical values:		
1% level	-3.435554	
5% level	-2.863726	
10% level	-2.567984	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RETURN\_JKSE)

Method: Least Squares

Date: 11/11/14 Time: 21:11

Sample (adjusted): 13 1219

Included observations: 1207 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RETURN_JKSE(-1)	-0.949942	0.103738	-9.157096	0.0000
D(RETURN_JKSE(-1))	-0.016531	0.099431	-0.166252	0.8680
D(RETURN_JKSE(-2))	-0.001414	0.095121	-0.014868	0.9881
D(RETURN_JKSE(-3))	-0.106793	0.090309	-1.182533	0.2372
D(RETURN_JKSE(-4))	-0.162367	0.084951	-1.911297	0.0562
D(RETURN_JKSE(-5))	-0.145246	0.079051	-1.837363	0.0664
D(RETURN_JKSE(-6))	-0.190599	0.072125	-2.642624	0.0083
D(RETURN_JKSE(-7))	-0.148195	0.065213	-2.272467	0.0232
D(RETURN_JKSE(-8))	-0.126824	0.057050	-2.223015	0.0264
D(RETURN_JKSE(-9))	-0.086250	0.048476	-1.779252	0.0755
D(RETURN_JKSE(-10))	-0.060262	0.040050	-1.504690	0.1327
D(RETURN_JKSE(-11))	-0.079491	0.028766	-2.763379	0.0058
C	0.001000	0.000390	2.568116	0.0103
R-squared	0.496806	Mean dependent var		1.60E-05
Adjusted R-squared	0.491749	S.D. dependent var		0.018299
S.E. of regression	0.013045	Akaike info criterion		-5.830042
Sum squared resid	0.203200	Schwarz criterion		-5.775156
Log likelihood	3531.430	Hannan-Quinn criter.		-5.809373
F-statistic	98.23683	Durbin-Watson stat		1.998826
Prob(F-statistic)	0.000000			

## 2. KLSE

Null Hypothesis: RETURN\_KLSE has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on AIC, maxlag=22)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-30.16826	0.0000
Test critical values:		
1% level	-3.435440	
5% level	-2.863676	
10% level	-2.567957	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RETURN\_KLSE)

Method: Least Squares

Date: 11/16/14 Time: 21:49

Sample (adjusted): 3 1235

Included observations: 1233 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RETURN_KLSE(-1)	-1.364582	0.045232	-30.16826	0.0000
D(RETURN_KLSE(-1))	0.071865	0.028348	2.535069	0.0114
C	0.000864	0.000285	3.036714	0.0024
R-squared	0.639963	Mean dependent var		-2.63E-05
Adjusted R-squared	0.639377	S.D. dependent var		0.016555
S.E. of regression	0.009942	Akaike info criterion		-6.381758
Sum squared resid	0.121566	Schwarz criterion		-6.369307
Log likelihood	3937.354	Hannan-Quinn criter.		-6.377074
F-statistic	1093.156	Durbin-Watson stat		2.008889
Prob(F-statistic)	0.000000			

### 3. KSE 100

Null Hypothesis: RETURN\_KSE has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on AIC, maxlag=22)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-31.94424	0.0000
Test critical values:		
1% level	-3.435423	
5% level	-2.863668	
10% level	-2.567953	

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

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RETURN\_KSE)

Method: Least Squares

Date: 11/16/14 Time: 21:58

Sample (adjusted): 2 1238

Included observations: 1237 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RETURN_KSE(-1)	-0.904877	0.028327	-31.94424	0.0000
C	0.001136	0.000324	3.504847	0.0005
R-squared	0.452434	Mean dependent var		-7.30E-07
Adjusted R-squared	0.451990	S.D. dependent var		0.015310
S.E. of regression	0.011333	Akaike info criterion		-6.120528
Sum squared resid	0.158628	Schwarz criterion		-6.112249
Log likelihood	3787.547	Hannan-Quinn criter.		-6.117414
F-statistic	1020.435	Durbin-Watson stat		2.003099
Prob(F-statistic)	0.000000			

**LAMPIRAN 3**  
**UJI GARCH - LM**

**1. JKSE**

Heteroskedasticity Test: ARCH

F-statistic	18.76973	Prob. F(1,1216)	0.0000
Obs*R-squared	18.51481	Prob. Chi-Square(1)	0.0000

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 12/16/14 Time: 16:21

Sample (adjusted): 2 1219

Included observations: 1218 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000152	1.30E-05	11.69384	0.0000
RESID^2(-1)	0.123284	0.028456	4.332404	0.0000
R-squared	0.015201	Mean dependent var		0.000174
Adjusted R-squared	0.014391	S.D. dependent var		0.000423
S.E. of regression	0.000420	Akaike info criterion		-12.71002
Sum squared resid	0.000215	Schwarz criterion		-12.70163
Log likelihood	7742.399	Hannan-Quinn criter.		-12.70686
F-statistic	18.76973	Durbin-Watson stat		2.023853
Prob(F-statistic)	0.000016			

## 2. KLSE

### Heteroskedasticity Test: ARCH

F-statistic	350.6211	Prob. F(1,1232)	0.0000
Obs*R-squared	273.3860	Prob. Chi-Square(1)	0.0000

### Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 12/15/14 Time: 15:11

Sample (adjusted): 2 1235

Included observations: 1234 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.70E-05	3.13E-05	1.822642	0.0686
RESID^2(-1)	0.470685	0.025137	18.72488	0.0000
R-squared	0.221545	Mean dependent var		0.000108
Adjusted R-squared	0.220913	S.D. dependent var		0.001241
S.E. of regression	0.001095	Akaike info criterion		-10.79446
Sum squared resid	0.001477	Schwarz criterion		-10.78616
Log likelihood	6662.179	Hannan-Quinn criter.		-10.79134
F-statistic	350.6211	Durbin-Watson stat		1.725267
Prob(F-statistic)	0.000000			



### 3. KSE 100

Heteroskedasticity Test: ARCH

F-statistic	59.30626	Prob. F(1,1235)	0.0000
Obs*R-squared	56.68044	Prob. Chi-Square(1)	0.0000

Test Equation:

Dependent Variable: RESID<sup>2</sup>

Method: Least Squares

Date: 12/15/14 Time: 15:48

Sample (adjusted): 2 1238

Included observations: 1237 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000102	8.47E-06	12.00882	0.0000
RESID <sup>2</sup> (-1)	0.214057	0.027796	7.701056	0.0000

R-squared	0.045821	Mean dependent var	0.000129
Adjusted R-squared	0.045048	S.D. dependent var	0.000276
S.E. of regression	0.000270	Akaike info criterion	-13.59708
Sum squared resid	8.98E-05	Schwarz criterion	-13.58880
Log likelihood	8411.791	Hannan-Quinn criter.	-13.59396
F-statistic	59.30626	Durbin-Watson stat	2.086129
Prob(F-statistic)	0.000000		

## LAMPIRAN 4

### UJI MEAN DENGAN VARIABEL DUMMY

#### 1. JKSE

Dependent Variable: RETURN\_JKSE

Method: Least Squares

Date: 11/23/14 Time: 13:57

Sample: 1 1219

Included observations: 1219

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000972	0.000393	2.473788	0.0135
DUMMY	0.000114	0.001408	0.080656	0.9357
R-squared	0.000005	Mean dependent var		0.000981
Adjusted R-squared	-0.000816	S.D. dependent var		0.013173
S.E. of regression	0.013179	Akaike info criterion		-5.818786
Sum squared resid	0.211367	Schwarz criterion		-5.810409
Log likelihood	3548.550	Hannan-Quinn criter.		-5.815633
F-statistic	0.006505	Durbin-Watson stat		1.930533
Prob(F-statistic)	0.935729			

#### 2. KLSE

Dependent Variable: RETURN\_KLSE

Method: Least Squares

Date: 11/23/14 Time: 14:10

Sample: 1 1235

Included observations: 1235

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000665	0.000309	2.153199	0.0315
DUMMY	-0.000182	0.001064	-0.171024	0.8642
R-squared	0.000024	Mean dependent var		0.000649
Adjusted R-squared	-0.000787	S.D. dependent var		0.010379
S.E. of regression	0.010384	Akaike info criterion		-6.295567
Sum squared resid	0.132940	Schwarz criterion		-6.287277
Log likelihood	3889.513	Hannan-Quinn criter.		-6.292449
F-statistic	0.029249	Durbin-Watson stat		2.546666
Prob(F-statistic)	0.864233			

### 3. KSE 100

Dependent Variable: RETURN\_KSE

Method: Least Squares

Date: 11/23/14 Time: 14:17

Sample: 1 1238

Included observations: 1238

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001268	0.000338	3.755629	0.0002
DUMMY	-0.000162	0.001176	-0.137460	0.8907
R-squared	0.000015	Mean dependent var		0.001255
Adjusted R-squared	-0.000794	S.D. dependent var		0.011376
S.E. of regression	0.011380	Akaike info criterion		-6.112255
Sum squared resid	0.160075	Schwarz criterion		-6.103981
Log likelihood	3785.486	Hannan-Quinn criter.		-6.109143
F-statistic	0.018895	Durbin-Watson stat		1.809735
Prob(F-statistic)	0.890690			

**LAMPIRAN 5**  
**MODEL GARCH (1,1)**

**1. JKSE**

Dependent Variable: RETURN\_JKSE

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 11/25/14 Time: 15:45

Sample: 1 1219

Included observations: 1219

Convergence achieved after 14 iterations

Presample variance: backcast (parameter = 0.7)

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

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000981	0.000320	3.069569	0.0021
RAMADHAN	0.000125	0.001667	0.074691	0.9405
Variance Equation				
C	3.55E-06	1.03E-06	3.430381	0.0006
RESID(-1)^2	0.124594	0.019262	6.468545	0.0000
GARCH(-1)	0.858163	0.019593	43.79883	0.0000
RAMADHAN	7.52E-06	2.78E-06	2.704118	0.0068
R-squared	0.000005	Mean dependent var		0.000981
Adjusted R-squared	-0.000817	S.D. dependent var		0.013173
S.E. of regression	0.013179	Akaike info criterion		-6.034857
Sum squared resid	0.211367	Schwarz criterion		-6.009726
Log likelihood	3684.245	Hannan-Quinn criter.		-6.025398
Durbin-Watson stat	1.930530			

## 2. KLSE

Dependent Variable: RETURN\_KLSE

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 11/25/14 Time: 15:50

Sample: 1 1235

Included observations: 1235

Convergence achieved after 304 iterations

Presample variance: backcast (parameter = 0.7)

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

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.000630	0.000186	3.379311	0.0007
RAMADHAN	-0.003411	0.001743	-1.957488	0.0503
Variance Equation				
C	1.72E-06	3.12E-07	5.488818	0.0000
RESID(-1)^2	0.284676	0.026462	10.75811	0.0000
GARCH(-1)	0.789828	0.016382	48.21246	0.0000
RAMADHAN	2.31E-05	7.49E-06	3.079429	0.0021
R-squared	-0.008323	Mean dependent var		0.000649
Adjusted R-squared	-0.009141	S.D. dependent var		0.010379
S.E. of regression	0.010427	Akaike info criterion		-6.856528
Sum squared resid	0.134050	Schwarz criterion		-6.831659
Log likelihood	4239.906	Hannan-Quinn criter.		-6.847174
Durbin-Watson stat	2.531629			

### 3. KSE 100

Dependent Variable: RETURN\_KSE100

Method: ML - ARCH (Marquardt) - Normal distribution

Date: 11/25/14 Time: 15:54

Sample: 1 1238

Included observations: 1238

Convergence achieved after 15 iterations

Presample variance: backcast (parameter = 0.7)

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

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.001494	0.000292	5.120262	0.0000
RAMADHAN	5.24E-05	0.000925	0.056705	0.9548
Variance Equation				
C	2.49E-06	4.77E-07	5.226034	0.0000
RESID(-1)^2	0.085622	0.012723	6.729488	0.0000
GARCH(-1)	0.892591	0.013957	63.95523	0.0000
RAMADHAN	-6.49E-07	1.52E-06	-0.427286	0.6692
R-squared	-0.000471	Mean dependent var		0.001255
Adjusted R-squared	-0.001280	S.D. dependent var		0.011376
S.E. of regression	0.011383	Akaike info criterion		-6.354159
Sum squared resid	0.160153	Schwarz criterion		-6.329339
Log likelihood	3939.225	Hannan-Quinn criter.		-6.344824
Durbin-Watson stat	1.808874			