#### **CHAPTER V**

#### CONCLUSION

#### 5.1. Conclusion

Stock price volatility is not only determined by the company's internal factors, but also by its external factors. The company's external and internal factors are the fundamentals, which is often used as a basis by market participants to take their investment decisions. Macro fundamental factors include factors: (1) economic, (2) social, cultural, demographic and environment, (3) political power, government, and law, (4) technology, and (5) competition (David, 2003 in Sudiyatno and Nuswandhari, 2009).

The affecting economic factors such as global financial crisis due to the deteriorating condition of the American economy. The financial crisis that occurred in the United States began with the subprime crisis in the United States. financial crisis began (<a href="www.bappenas.go.id">www.bappenas.go.id</a>). This financial crisis impact on global capital markets activity. The development of stock market index in some world markets that were previously shown at outperform performance, corrected down to a level that is not expected.

The purpose of this study was to examine the intensity differences that happen before and after U.S. sub-prime crisis in emerging capital market index, to examine the intensity differences that happen before and after U.S. sub-prime crisis in developed capital market index and to examine the intensity differences

that happen before and after U.S. sub-prime crisis in emerging capital market index and developed capital market index.

This research use LQ 45, Bombay Stock Exchange SENSEX, and SET50 index as sample in emerging capital market Developed capital market represent by DJIA, FTSE 100 and Nikkei 225.

Data that be used in this study are LQ 45 index, Bombay Stock Exchange SENSEX index, Kuala Lumpur Composite Index (KLCI), Dow Jones index, FTSE index and Nikkey index during 2005 to 2011. Data in this study were obtained from Indonesian Stock Exchange.

Based on data analysis that has been done then the conclusions of this study are as follows:

- 1. There are no differences in intensity of emerging capital market index before and after the U.S. sub-prime crisis.
- 2. There are no differences in intensity of developed capital market index before and after the U.S. sub-prime crisis.
- 3. There are no differences in intensity of emerging capital markets and developed capital market index before and after the U.S. sub-prime crisis.

The analysis shows that there is no difference intensity of emerging capital market index before and after the U.S. sub-prime crisis, there is no difference in intensity differences of developed capital market index before and after the U.S. sub-prime crisis and there is no difference intensity of emerging capital markets index and developed capital market index before and after the

U.S. sub-prime crisis. The results of this study indicate that the events the U.S. sub-prime crisis has information content that cause investors to react to these events both investors in emerging capital markets as well as developed capital markets.

There was no difference in intensity of emerging capital markets and developed capital market index before and after the U.S. sub-prime crisis may be due to emerging market dominated by foreign capital due to the openness of foreign investment. Nowadays, foreign investors dominate the stocks ownership of developing countries. In Indonesian stock market, foreign investors dominate ownership of shares in the capital market by 58%. The condition is caused by government regulations that are very liberal. Besides, the investment in Indonesian market today considers as more benefits than in their domestic market. Moreover, it is because of the integrity increasing of the market so that the level of dependency of emerging capital markets are also higher. The results are consistent with the results of the study Ramlall (2010) and Lee (2012). Ramlall (2010) regarding the influence of the Subprime crisis on volatility clustering and leverage effects in major international stock markets. Lee (2012) examines whether the sub-prime mortgage financial crisis of 2007 influenced the stability of the correlation structure in international stock markets.

#### 5.2. Research Limitations and Suggestions fo Further Research

This study has a couple of limitations, namely:

- Emerging capital markets represent by LQ 45, Bombay Stock Exchange's SENSEX, and SET50. Developed capital markets represent by the DJIA, FTSE 100 and Nikkei 225. Future studies may add other state index in order to obtain better results.
- 2. The period of study was carried out in 3 years before the U.S. sub-prime crisis and 3 years after the U.S. sub-prime crisis. Future studies may add the study period.
- 3. This research can be implement only for the investor who has financial management background of studies.

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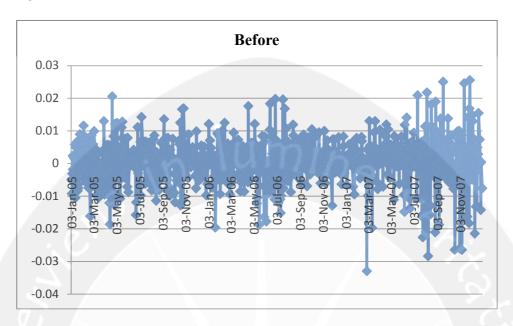
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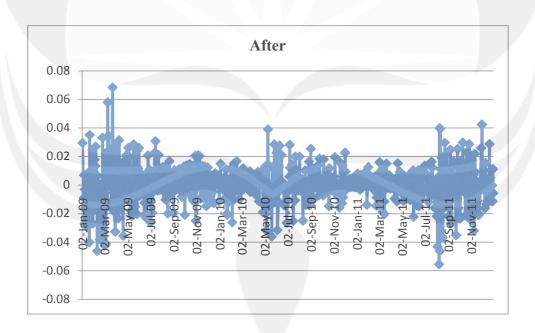
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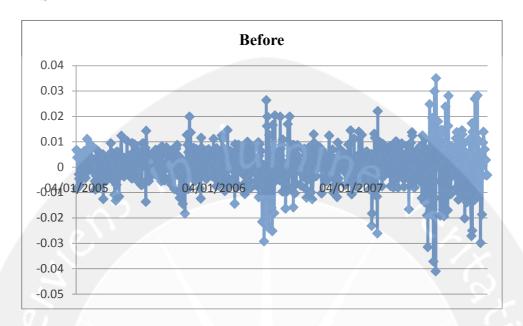
# **APPENDIX I**

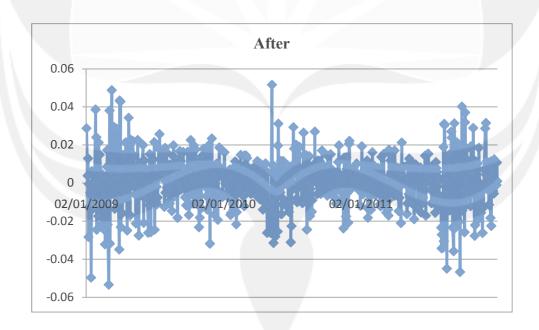
## DJA



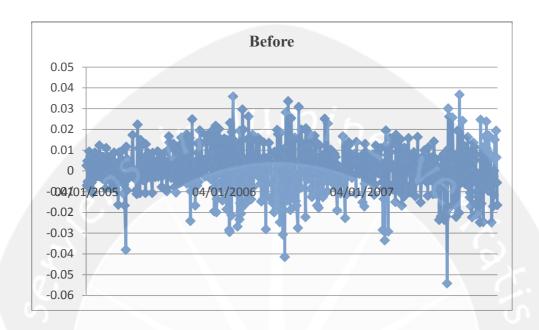


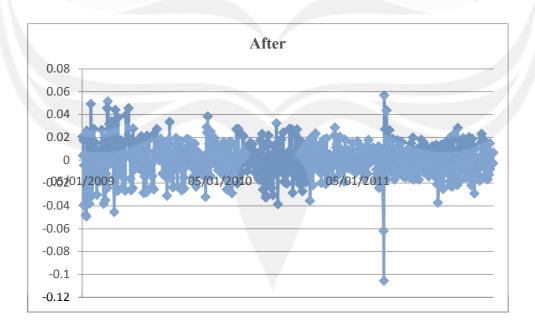
### FTSE



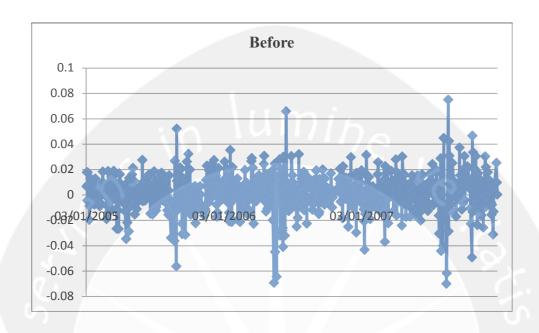


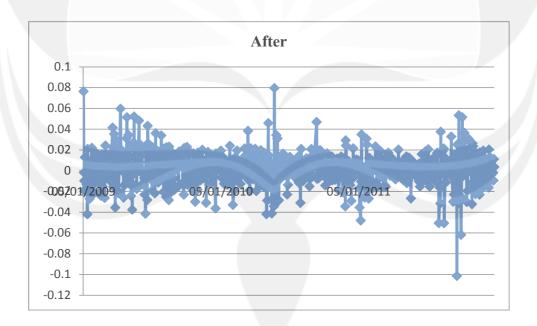
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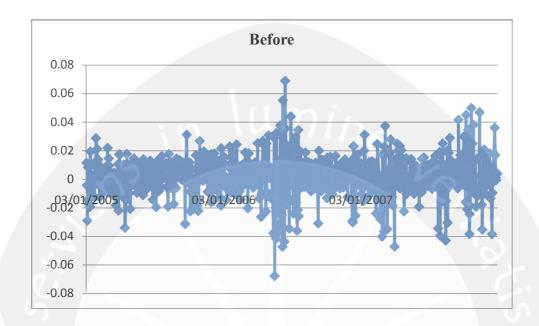


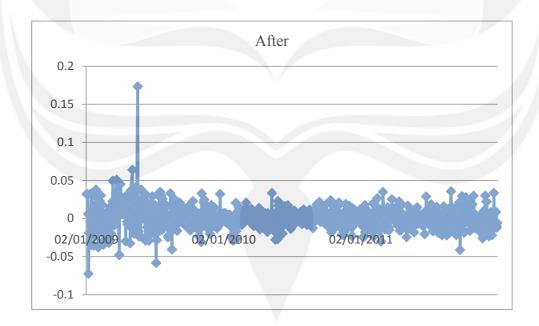
## LQ45



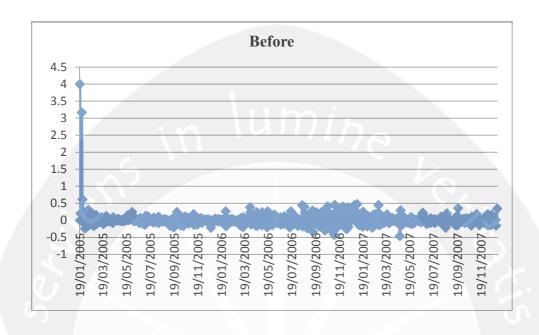


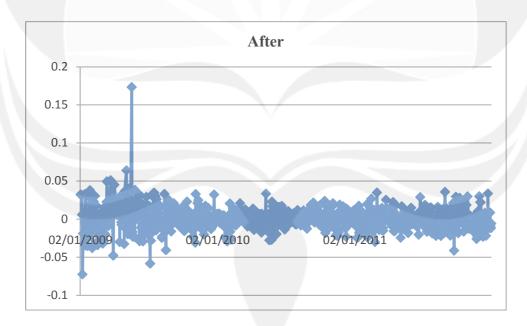
### **Bombay Stock Exchange Index**





### **SET 50**





Dependent Variable: BEFORE Method: ML - ARCH Date: 12/03/12 Time: 00:06

Sample: 1 2217

Included observations: 2217
Convergence not achieved after 100 iterations

	Coefficient	Std. Error	z-Statistic	Prob.
	Variance	Equation		
С	0.005496	0.001399	3.928436	0.0001
ARCH(1)	0.093023	0.034791	2.673760	0.0075
GARCH(1)	0.592806	0.102685	5.773031	0.0000
R-squared	-0.002180	Mean deper	ndent var	0.005876
Adjusted R-squared	-0.003085	S.D. depend	dent var	0.125879
S.E. of regression			-1.626229	
Sum squared resid	35.19028	Schwarz cri	-1.618511	
Log likelihood	1805.675_	Durbin-Wat	son stat	1.993657

Dependent Variable: AFTER Method: ML - ARCH Date: 12/07/12 Time: 20:18

Sample: 1 2225

Included observations: 2225
Convergence achieved after 6 iterations

	Coefficient Std. Error z-Statistic		z-Statistic	Prob.					
Variance Equation									
С	3.26E-06	8.18E-07	3.983943	0.0001					
ARCH(1)	0.116582	0.009871	11.81079	0.0000					
GARCH(1)	0.870994	0.870994 0.011373 76.58		0.0000					
R-squared	-0.000552	Mean deper	ndent var	0.000326					
Adjusted R-squared	-0.001452	S.D. depend	dent var	0.013863					
S.E. of regression	0.013873	Akaike info	Akaike info criterion						
Sum squared resid	0.427661	0.427661 Schwarz criterion							
Log likelihood	6582.126	Durbin-Wats	son stat	2.064520					

Dependent Variable: BEFORE Method: ML - ARCH Date: 12/07/12 Time: 20:22

Sample: 1 3258

Included observations: 3258
Convergence achieved after 11 iterations

	Coefficient	Std. Error	z-Statistic	Prob.
	Variance	Equation		
С	1.56E-06	2.31E-07	6.768032	0.0000
ARCH(1)	0.102776	0.008400	12.23466	0.0000
GARCH(1)	0.885769	0.009211	96.16366	0.0000
R-squared	-0.000586	Mean deper	ndent var	0.000287
Adjusted R-squared	-0.001200	S.D. depend	dent var	0.011855
S.E. of regression	0.011862	Akaike info criterion		-6.492507
Sum squared resid	0.457988	terion	-6.486900	
Log likelihood	10579.29	Durbin-Wats	son stat	2.193666

Dependent Variable: AFTER Method: ML - ARCH Date: 12/07/12 Time: 20:24

Sample: 1 2245

Included observations: 2245
Convergence achieved after 6 iterations

	Coefficient	Std. Error	z-Statistic	Prob.				
Variance Equation								
С	3.28E-06	8.18E-07	4.005426	0.0001				
ARCH(1)	0.116477	0.009846	11.82968	0.0000				
GARCH(1)	0.870651	0.011379	76.51484	0.0000				
R-squared	-0.000549	Mean deper	ndent var	0.000324				
Adjusted R-squared	-0.001442	S.D. depend	dent var	0.013839				
S.E. of regression	0.013849	Akaike info criterion		-5.916246				
Sum squared resid	0.430021	terion	-5.908607					
Log likelihood	6643.986	Durbin-Wats	son stat	2.067866				

Dependent Variable: BEFORE Method: ML - ARCH Date: 12/06/12 Time: 17:57

Sample: 1 5475

Included observations: 5475
Convergence not achieved after 100 iterations

	Coefficient	Std. Error	z-Statistic	Prob.
	Variance	Equation		
С	0.001628	0.000242	6.737593	0.0000
ARCH(1)	0.106984	0.018828	5.682079	0.0000
GARCH(1)	0.767888	0.034112	22.51053	0.0000
R-squared	-0.001000	Mean deper	ndent var	0.002550
Adjusted R-squared	-0.001365	S.D. depend	dent var	0.080658
S.E. of regression	0.080713	Akaike info criterion		-2.491504
Sum squared resid	35.64827	Schwarz cri	terion	-2.487883
Log likelihood	6823.491	Durbin-Wats	son stat	1.996242

Dependent Variable: AFTER
Method: ML - ARCH
Date: 12/06/12 Time: 17:58
Sample(adjusted): 1 4470
Included observations: 4470 after adjusting endpoints
Convergence achieved after 85 iterations

	Coefficient	Std. Error	z-Statistic	Prob.				
Variance Equation								
С	1.08E-07	1.48E-07	0.731768	0.4643				
ARCH(1)	0.063012	0.001747	36.06145	0.0000				
GARCH(1)	0.945963	0.000752	1258.335	0.0000				
R-squared	-0.001319	Mean deper	ndent var	0.002450				
Adjusted R-squared	-0.001767	S.D. depend	dent var	0.067475				
S.E. of regression	0.067535	Akaike info	Akaike info criterion					
Sum squared resid	20.37362	Schwarz crit	terion	-4.882898				
Log likelihood	10925.89	Durbin-Wats	son stat	2.417760				

# APPENDIX II

# T-Test: Emerging

### **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair	Before	.0004	2243	.00906	.00019
1	After	.0003	2243	.01384	.00029

### **Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	Before & After	2243	005	.816

### **Paired Samples Test**

	1//	Paired Differences							
	\			Std. Error	95% Confidence Interval			//	
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Before - After	.00006	.01658	.00035	00062	.00075	.177	2242	.859

# **T-Test: Developed**

### **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair	Before	.0059	2210	.12608	.00268
1	After	.0046	2210	.09476	.00202

### **Paired Samples Correlations**

		Ν	Correlation	Sig.
Pair 1	Before & After	2210	.034	.112

### **Paired Samples Test**

	1//	Paired Differences							
				Std. Error	95% Confidence Interval				
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Before - After	.00124	.15513	.00330	00523	.00772	.377	2209	.706

# T-Test: Emerging and Developed

### **Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair	Before	.0031	4453	.08908	.00133
1	After	.0025	4453	.06750	.00101

### **Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	Before & After	4453	.034	.022

### **Paired Samples Test**

	1//	Paired Differences							
				Std. Error	95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Before - After	.00065	.10991	.00165	00258	.00388	.394	4452	.694