Table of Content

Contents		Page
Abstract		
Table of Content		i
Section I	Background	1
1	Formulation Problem	7
2	Objective and Benefits Research Thesis	7
3	Research Limitations	8
Section II	Literature Review	9
1	Correlation	9
2	Volatility	13
2.1	ARCH/GARCH Volatility Modelling Theory	14
2.2	Hypothesis Development	16
Section III	Research Methodology	17
1	Design and Research Approach	17
2	Econometric Model	17
2.1	Corrrelation	17
2.2	Volatility	19
2.2.1	Research Methods	21
2.2.1.1	Contemporaneous Research Spillover Model	21
2.2.1.2	Dynamic Research Spillover Model	22
3	Hypothesis Development	23
4	Analysis Unit	23
4.1	Data Used in Thesis Study	24
4.2	Research Flow	25
4.2.1	Modelling Flow Volatility Spillover	27
4.2.2	Modelling Flow Dynamic Volatility Spillover	29
Section IV	Data Analysis	32
4.1	Exploration Data	32
4.1.1	Index Correlation Pearson	32
4.1.2	Dow Jones	34
4.1.3	FTSE	35
4.14	Nikkei	37
4.2	Analysis of Variance and Covariance	39
4.2.1	Variance	39
4.2.2	Covariance	40
4.3	Analysis of Correlation Between Indexs	41
4.4	Stationary Test Augmented Dicky Fuller (ADF)	42
4.5	GARCH Variance Series	42
4.6	Result Analysis	45

4.6.1	Contemporaneonus Volatility Analysis	45
4.6.1.1	Contemporaneonus Volatility Analysis Index Nikkei and FTSE to Dow Jones	45
4.6.1.2	Contemporaneonus Volatility Analysis Index Nikkei and Dow Jones to FTSE	49
4.6.1.3	Contemporaneonus Volatility Analysis Index FTSE and Dow Jones to Nikkei	52
4.6.2.	Dynamic Volatility Analysis	55
4.6.2.1	Dynamic Volatility Analysis Index Nikkei and FTSE to Dow Jones	55
4.6.2.2	Dynamic Volatility Analysis Index Nikkei and Dow Jones to FTSE	58
4.6.2.3	Dynamic Volatility Analysis Index FTSE and Dow Jones to Nikkei	61
Section V	Conclusion	73
5.1	Correlation Pearson	73
5.2	Contemporaneonus Volatility and Dynamic Volatility	73
5.3	Suggestion	74
Appendix A		75
Appendix B		84
Appendix C		129
Appendix D		174
Referance		219
Fig 3.1	Flow Formation Coeffisien Correlation Pearson	18
Fig 3.2	Trading Time	24
Fig 3.3	Distribution Data Based on Business Cycle	25
Fig 3.4	Groove Formation Series GARCH Variance	26
Fig 3.5	Contemporaneonus Volatility Spillover The Other Country Regarding A Country	28
Fig 3.6	Contemporaneonus Volatility Spillover A Country Regarding The Other Country	29
Fig 3.7	Dynamic Volatility Spillover The Other Country Regarding A Country	30
Fig 3.8	Dynamic Volatility Spillover A Country Regarding The Other Country	31
Fig 4.1	Chart Coefisien Correlation Pearson	33
Fig 4.2	Chart of Dow Jones Return	35
Fig 4.3	Chart of FTSE Return	37
Fig 4.4	Chart of Nikkei Return	39
Fig 4.5	Chart of Variance Test Dow Jones, FTSE and Nikkei	40
Fig 4.6	Chart of Covariance Test Dow Jones, FTSE and Nikkei	41

Fig 4.7	Chart of Correlation Dow Jones, FTSE and Nikkei	42
Fig 4.8	Chart of the Dow Jones Volatility	43
Fig 4.9	Chart of the FTSE Volatility	44
Fig 4.10	Chart of the Nikkei Volatility	44
Table 4.1	Result Coefficient of Pearson	32
Table 4.2	Result of Processing Data Return Dow Jones	34
Table 4.3	Result of Processing Data Return FTSE	35
Table 4.4	Result of Processing Data Return Nikkei	37
Table 4.5	Varians Index Dow Jones, FTSE and Nikkei Period 2006-2010	39
Table 4.6	Covariance Dow Jones, FTSE and Nikkei	40
Table 4.7	Correlation of Dow Jones, FTSE and Nikkei	41
Table 4.8	ADF Test Result	42
Table 4.9	Significance of the Establishment Series GARCH Variance	43
Table 4.10	Contemporaneonus Volatility Spillover Indexs Nikkei and FTSE to Dow Jones	65
Table 4.11	Contemporaneonus Volatility Spillover Indexs Dow Jones and Nikkei to FTSE	66
Table 4.12	Contemporaneonus Volatility Spillover Indexs Dow Jones and FTSE to Nikkei	67
Table 4.13	Dynamic Volatility Spillover Indexs Nikkei and FTSE to Dow Jones	68
Table 4.14	Dynamic Volatility Spillover Indexs Dow Jones and Nikkei to FTSE	69
Table 4.15	Dynamic Volatility Spillover Indexs Dow Jones and FTSE to Nikkei	70
Table 4.16	Contemporaneonus Volatility Test Result	71
Table 4.17	Dynamic Volatility Test Result	72