

**FINANCIAL DEVELOPMENT AND ECONOMIC  
VOLATILITY: DO OPENNESS AND INSTITUTIONAL  
QUALITY MATTER IN THE ASEAN-5 COUNTRIES?**

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# Abstract

This thesis examines the impact of greater openness and institutional quality on financial sector development and its further implications for economic volatility in the long run in case of ASEAN-5 countries namely Indonesia, Malaysia, Philippines, Singapore and Thailand. As revealed in the literature, sustainable long-run economic growth is largely determined by the level of financial sector development and has been well documented (Beck and Levine, 2002; 2004; Bekaert et. al., 2005; Ang and McKibbin, 2007; Ayadi et. al., 2013). Therefore, a study through which channel financial sectors are likely to be developed is an important issue. This is where the issue is still vibrant and subjected to less discussion. In this present study, it is highlighted that openness and institutional quality should be critical for financial development as has been reported in Klein and Olivei (1999), Beck et al. (2000), Do and Levchenko (2004), Demetriades and Rousseau (2011) that such linkages exists. There has been a gap in these literatures in relation to less-developed economies who shared a meaningful economic arrangement such as the ASEAN-5 which this thesis fills.

It is also further believed that all of these variables might have an additional effect on the level of economic volatility. As past experience has shown, economic volatility has become more persistent in recent decades, especially after economic opening and financial and institutional reform (Hnatkovska and Loayza, 2003). This had led to a questioning of the openness policy, the role of institutions, and financial sector development, and has added fuel to the debate. Very few empirical investigations have been done to address these issues. This is another gap in the literature filled by this thesis.

By utilizing a time series analysis based on Autoregressive Distributed Lag (ARDL) and the bound test approach as proposed by Pesaran et al. (2001) and Narayan and Smyth (2006) with data ranging from 1970 until 2011 at an individual country level, these gaps in the literature are filled.

Based on the findings, it is stressed that the long run relationship between openness and institutional quality on financial sector development and its further implications on economic volatility exists. This means that openness and institutional quality matter for financial development in less developed economies of ASEAN-5, and all of the variables are responsible in explaining the variations in economic volatility in the long run. In particular, the finding suggests that financial openness may not harm financial development in the long run. There is also no evidence greater financial openness may trigger economic volatility. However, in the short run, the reverse is true, which indicates that the

magnifying effect on economic volatility due to greater financial openness is merely a short run phenomenon.

The concept becomes complicated in terms of trade openness in the long run, where the findings offer a mixed effect on banking sector development. Meanwhile, trade openness ultimately enhanced stock market sector development. In the short run, only weak evidence exists, whereby trade openness dampens both financial sector developments. This also shows that greater trade openness may favour the stock market sector more than the banking sector development in the long run. However, the economies have to compensate with higher level of economic volatility as a result of greater trade openness (weak evidence is found in both the long and short run).

On the other hand, there is no evidence that strengthening institutional quality dampens banking sector development in the long run, while no significant impact is observed in the short run. This is in contrast with its implications on stock market development, where strengthening institutional quality tends to offer mixed conclusion in longer term. Other than that, it seems that strengthening institutional quality may worsen stock market development in the short run. In terms of the implications for economic volatility, mainly there is no direct effect observed in both the long and short run. This shows that the effects of institutional quality are rather absorbed by both financial development variables, hence explaining the lack of evidence on the effect of institutional quality on economic volatility (Acemoglu et. al., (2003).

The effect of financial development on economic volatility also seems to offer mixed conclusion in both the long and short run, hence is best explained accordingly to each specific country. This suggests that a certain unique characteristic and the manner each financial policy is being designed, and the diversity of economic background and the unique experience they have had at each country level is important in explaining the diversity in the findings. With this information at hand, it may provide useful information particularly at policy making level in designing pre-emptive strategy in promoting financial sector development and sustaining prominent economic stability.

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# Table of Contents

<i>List of Figures</i> .....	<i>xi</i>
<i>List of Tables</i> .....	<i>xiii</i>
<i>Appendices</i> .....	<i>xvii</i>
<i>Abbreviations</i> .....	<i>xix</i>
<i>Form B</i> .....	<i>xxi</i>
<i>Key Terms</i> .....	<i>xxiii</i>

## ***Chapter 1 Introduction* .....*****1***

1.1	Financial development and economic volatility in an open economy and the role of institutional quality: A broad perspective .....	1
1.2	Statement of the problem .....	9
1.3	Research objectives .....	15
1.3.1	Main objectives .....	15
1.3.2	Specific objectives .....	15
1.4	Research questions .....	15
1.5	Motivation for study.....	19
1.6	Conclusions .....	22

## ***Chapter 2 ASEAN-5 economic background and facts*.....*****25***

2.1	Introduction: Why ASEAN-5 as a study area .....	25
2.2	ASEAN future prospect and challenges.....	27
2.3	ASEAN-5 economic background.....	35
2.3.1	The first 10 years since the establishment of ASEAN.....	39

2.3.2	Economics experiences during the 80's.....	42
2.3.3	The era of economic miracle and major crisis .....	45
2.3.4	Life after the major economic crisis .....	50
2.3.5	The phases of ASEAN-5 financial and trade liberalization.....	53
2.3.6	Economic background and the topic of study.....	59
2.4	Economic volatility, financial development, openness and institutional quality in ASEAN-5 countries – Time series comparison.....	61
2.4.1	Overall data trend.....	74
2.5	Conclusions .....	75
<b><i>Chapter 3 Literature review .....</i></b>		<b>79</b>
3.1	Introduction .....	79
3.2	The crucial role of financial development.....	80
3.3	Theoretical framework .....	81
3.3.1	Theoretical linkages between openness and institutional quality on financial development.....	81
3.3.2	Theoretical implications on economic volatility.....	86
3.4	Early studies on the issues surrounding financial development.....	93
3.5	The link between financial development and the degree of openness with the crucial role of institutional quality .....	99
3.6	Growth vs. Volatility.....	117
3.7	The implications towards economic volatility .....	121
3.8	Conclusion: Literature discussion and arguments.....	134
<b><i>Chapter 4 The Model and Data .....</i></b>		<b>139</b>
4.1	Introduction .....	139
4.2	Equation modelling .....	139

4.2.1	Endogeneity and other related problems in equation modelling. ....	143
4.2.2	Regression technique .....	146
4.3	The data .....	147
4.3.1	The indicator of financial development: Banking and stock market .....	148
4.3.2	The indicator of economic volatility.....	149
4.3.3	Exogenous variables: Financial openness.....	149
4.3.4	Exogenous variables: Trade openness .....	150
4.3.5	Exogenous variables: Institutional quality.....	151
4.3.6	Exogenous variables: Control variables.....	152
4.3.7	Data and proxy summary table .....	154
4.4	Conclusion.....	156

***Chapter 5 Banking Sector Development.....159***

5.1	Introduction: Banking sector development and its determinants .....	159
5.2	The existent of long-run relationships analysis.....	162
5.3	Long-run elasticities and short-run causality: The interaction between openness and institutional quality on banking sector development .....	164
5.3.1	The effect of financial openness on banking sector development .....	168
5.3.2	The effect of trade openness on banking sector development .....	173
5.3.3	The effect of institutional quality on banking sector development.....	178
5.3.4	The control variables and banking sector development.....	183
5.3.5	Common relationship: The impact of openness and institutional quality for banking sector development .....	186
5.4	Granger-causality testing.....	187
5.4.1	Overall Granger-causation: Banking development and its determinants .....	190
5.5	Summary table.....	191

5.6	Conclusions .....	198
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***Chapter 6 Stock Market Sector Development.....203***

6.1	Introduction: Stock market development and its determinants .....	203
6.2	The long-run relationship testing .....	207
6.3	Long-run elasticities and short-run causality: The interaction between openness and institutions quality on stock market development .....	210
6.3.1	The effect of financial openness on stock market development .....	214
6.3.2	The effect of trade openness on stock market development .....	221
6.3.3	The effect of institutional quality on stock market development .....	227
6.3.4	The control variables and stock market development.....	232
6.3.5	Common relationship: The impact of openness and institutional quality for stock market sector development .....	235
6.4	Stock market, openness and institutional quality causality estimations.....	238
6.4.1	Overall Granger-causation: Stock market development and its determinants.....	243
6.5	Summary table.....	244
6.6	Conclusions .....	251

***Chapter 7 The Implications for Economic Volatility .....255***

7.1	Economic volatility and its determinants: Theory and issues surrounding the topic.....	255
7.2	Are there any long-run relationships? .....	259
7.3	Long-run elasticities and short-run causality: The impact of interaction between openness, institutions and financial development on economic volatility .....	261
7.3.1	The effect of banking sector development on volatility .....	266
7.3.2	The effect of stock market sector development on volatility.....	275
7.3.3	The effect of financial openness on volatility.....	281
7.3.4	The effect of trade openness on volatility.....	286



7.3.5	The effect of institutional quality on volatility .....	291
7.3.6	Control variables and economic volatility .....	295
7.3.7	Common relationship: The impact of openness, institutional quality and financial development for economic volatility .....	297
7.4	The causality estimations .....	299
7.4.1	Overall Granger-causation: Economic volatility and its determinants .....	304
7.5	Summary table.....	305
7.6	Conclusions .....	317
<b><i>Chapter 8 Conclusions and Discussions .....</i></b>		<b><i>321</i></b>
8.1	Introduction .....	321
8.2	The analysis and research aims .....	321
8.3	The link between Economic volatility and financial development with openness and institutional quality .....	325
8.3.1	The relationship between openness and institutional quality on banking sector development in case of ASEAN-5.....	325
8.3.2	The relationship between openness and institutional quality on stock market sector development in the case of ASEAN-5.....	328
8.3.3	The relationship between openness and institutional quality on economic volatility in the case of the ASEAN-5.....	331
8.4	General conclusions .....	335
8.5	Policy and theory implications.....	338
8.6	Strengths and limitations.....	346
8.7	Recommendation for future studies .....	349
<b><i>References.....</i></b>		<b><i>353</i></b>
<b><i>Appendices.....</i></b>		<b><i>375</i></b>

## ***List of Figures***

Figure 1: GDP of ASEAN-5 1970 to 2010. Data from World Bank database. ....	37
Figure 2: ASEAN-5 economic growth 1970 to 2010. Data from World Bank database.....	37
Figure 3: ASEAN-5 economic volatility from 1970 – 2011. Data from World Bank database.....	62
Figure 4: ASEAN-5 banking sector development 1970 – 2011. Data from World Bank database. ....	65
Figure 5: ASEAN-5 market sector development 1970 – 2011. Data from World Bank database. ....	67
Figure 6: ASEAN-5 degree of financial openness measured by <i>de facto</i> 1970 – 2011. Data provided by Lane and Milesi (2006).....	69
Figure 7: ASEAN-5 degree of trade openness 1970 – 2011. Data from World Bank database. ....	71
Figure 8: ASEAN-5 level of institutional quality 1980 – 2011. Data from World Bank database. ....	73
Figure 9: FDI flows of ASEAN-5.....	383
Figure 10: ASEAN-5 degree of financial openness measured by <i>de Jure</i> 1970 – 2011 .....	383
Figure 11: Domestic credit to private sector of ASEAN-5.....	387
Figure 12: M2 of ASEAN-5 .....	387
Figure 13: Bank total assets of ASEAN-5 .....	387
Figure 14: Total value of ASEAN-5 stock traded compared to selected developed economies .....	388
Figure 15: Stock turnover ratio of ASEAN-5 compared to selected developed economies.....	388
Figure 16: Stock market capitalization of ASEAN-5 compared to selected developed economies....	388
Figure 17: CUSUM and CUSUM square test based on equation (19) .....	467
Figure 18: CUSUM and CUSUM square test based on equation (20) .....	468
Figure 19: CUSUM and CUSUM square test based on equation (21) .....	469

## ***List of Tables***

Table 1: Data summary .....	154
Table 2: Bound testing based on Wald $F$ -Test.....	162
Table 3: Long run elasticities and short run causality .....	164
Table 4: Granger-causality test based on T-Y method .....	187
Table 5: The effect of financial openness on banking sector development .....	192
Table 6: The effect of trade openness on banking sector development .....	194
Table 7: The effect of institutional quality on banking sector development .....	196
Table 8: Bound testing based on Wald $F$ -Test.....	208
Table 9: Long run elasticities and short run causality .....	214
Table 10: Granger-causality test based on T-Y method for stock market development .....	239
Table 11: The effect of financial openness on stock market development.....	245
Table 12: The effect of trade openness on stock market development.....	247
Table 13: The effect of institutional quality on stock market development .....	249
Table 14: Bound testing based on Wald $F$ -Test.....	259
Table 15: Long run elasticities and short run causality of economic volatility and its determinants..	262
Table 16: T-Y Granger-causality test for economic volatility and its determinants.....	301
Table 17: The effect of banking sector development on economic volatility.....	307
Table 18: The effect of stock market development on economic volatility .....	309
Table 19: The effect of financial openness on economic volatility .....	311
Table 20: The effect of trade openness on economic volatility .....	313
Table 21: The effect of institutional quality on economic volatility .....	315
Table 22: Date of trade and financial liberalization of ASEAN-5.....	377

Table 23: Real interest rate in selected years .....	379
Table 24: Lending interest rate in selected years .....	379
Table 25: Selected economic indicators of ASEAN-5 .....	379
Table 26: Structural break tests with one possible break date .....	382
Table 27: Optimum lag length based on Aikake’s Information Criteria (AIC).....	385
Table 28: Correlation between domestic credit to private sector, M2 and domestic bank asset .....	389
Table 29: Unit root test for banking sector indicator at level .....	389
Table 30: Unit root test for banking sector indicator at 1 <sup>st</sup> difference .....	389
Table 31: Correlation between stock market capitalization, total value stock traded and stock market turnover .....	390
Table 32: Unit root test for market sector indicator at level .....	390
Table 33: Unit root test for market sector indicator at 1 <sup>st</sup> difference.....	390
Table 34: Correlation between consumption volatility, GDP volatility, terms of trade volatility and government consumption volatility .....	391
Table 35: Unit root test for economic volatility indicator at level.....	391
Table 36: Unit root test for economic volatility indicator at 1 <sup>st</sup> difference .....	391
Table 37: Equality test Indonesia.....	441
Table 38: Equality test Malaysia.....	442
Table 39: Equality test Philippines .....	442
Table 40: Equality test Singapore .....	443
Table 41: Equality test Thailand .....	443
Table 42: The determinants of economic volatility rank correlations (Indonesia).....	445
Table 43: The determinants of economic volatility rank correlations (Malaysia).....	445
Table 44: The determinants of economic volatility rank correlations (Philippines) .....	446
Table 45: The determinants of economic volatility rank correlations (Singapore) .....	446

Table 46: The determinants of economic volatility rank correlations (Thailand) .....	446
Table 47: Unit root test at level $I(0)$ .....	448
Table 48: Unit root test at 1 <sup>st</sup> difference $I(1)$ .....	450
Table 49: Critical values (Unrestricted intercept and no trend).....	455
Table 50: The Unrestricted Error Correction Model (UECM) estimations .....	458
Table 51: The fitting test.....	461
Table 52: Stability measurements .....	464

# Appendices

Appendix A1 .....	377
Appendix B1 .....	379
Appendix B2 .....	383
Appendix C1 .....	385
Appendix C2 .....	387
Appendix C3 .....	393
1.1    Correlation and equality test .....	393
1.2    Preliminary test of unit root testing: Stationarity test and order of integration. ....	395
1.2.1    The Augmented Dickey Fuller (ADF) tests .....	398
1.2.2    Philips and Perron (PP) tests .....	399
1.3    Co-integration test – the Dynamic ARDL estimations .....	400
1.4    Diagnostic checking .....	416
1.4.1    Normality distribution .....	416
1.4.2    Serial correlation .....	418
1.4.3    Heteroscedasticities .....	420
1.4.4    Model linearity .....	421
1.4.5    CUSUM test .....	422
1.5    Causality test: Toda Yamamoto procedure .....	423
Appendix C4 .....	427
1.1    Financial development indicator based on Beck et al (2000) .....	427
1.1.1    Banking sector development indicators .....	427
1.1.2    Stock market development indicator .....	431

1.2	The economic volatility indicator .....	434
1.3	The measurements of financial openness .....	436
1.4	Institutional quality measurements .....	438
Appendix D1 .....		441
1.1	Univariate analysis: Time series properties of economic volatility, financial development, openness and institutional quality .....	441
1.1.1	The equality test .....	441
1.1.2	The rank correlations test .....	444
1.1.3	Data stationarity level .....	448
Appendix D2 .....		455
Appendix D3 .....		457
1.1	The ARDL estimation analysis: The UECM procedure, goodness of fit and model stability measurements .....	457
1.1.1	Long run co-integration based on the Unrestricted Error Correction Model (UECM) .....	457
1.1.2	Goodness of fit measurements .....	460
1.1.3	The stability test .....	463
Appendix D4 .....		467

## ***Abbreviations***

AANZFTA = ASEAN Australia New Zealand Free Trade Area

ACFTA = ASEAN-China Free Trade Area

ACIA = ASEAN Comprehensive Investment Agreement

ACIF = ASEAN community in figures

ADB = Asian Development Bank

ADBI = Asian Development Bank Institute

ADF = Augmented Dickey Fuller

AEC = ASEAN Economic Community

AFTA = ASEAN Free Trade Area

AIC = Aikake's Information Criteria

AMRO = ASEAN+3 Macroeconomic Research Office

AR = Autoregressive

ARCH = Autoregressive Conditional Heteroscedasticity

ARDL = Autoregressive Distributed Lag

AREAER = Annual Report on Exchange Arrangements and Exchange Restrictions

ASEAN = Association of South East Asia Nations

ASEAN+3 countries = ASEAN, China, Japan and South Korea

ASEAN-5 countries = Indonesia, Malaysia, the Philippines, Singapore, and Thailand

BERI = Business Environment Risk Intelligence

B-G LM = Breusch-Godfrey Lagrange multiplier

BLUE = Best Linear Unbiased Estimator

BSM = Bursa Saham Malaysia

BSP = Bangko Sentral Pilipinas

CEPT = Common Effective Preferential Tariff

CIM = Contract Intensive Money

CMDC = Capital Markets Development Commission

CPI = Consumer Price Indexes

CUSUM = Cumulative sum

D-8 countries = Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan and Turkey

DF = Dickey Fuller

ECT = Error Correction Terms

EPR = Effective Protection Rate

EU = European Union

FDI = Foreign Direct Investments

FIA = Foreign Investment Act

FIDF = Financial Institution Development Fund

FTA = Free Trade Area

G-7 countries = Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States

GATS = General Agreement on Trade in Services

GDP = Gross Domestic Products



GLS = Generalised Least Square

GMM = Generalised Method of Moments

ICRG = International Country Risk Guide

IFS = International Financial Statistic

IMF = International Monetary Fund

IPR = International Property Rights

JB = Jarque-Bera

JJ = Johansen Juselius

KAOPEN = Chinn-Ito capital account openness index

M&A = Memorandum and Articles of Association

M2 = Liquid money

MAS = Monetary Authorities of Singapore

MENA = Middle Eastern and North African

MFN = Most favoured nation

NDP = National Development Policy

NEP = New Economic Policy

NIC = Newly Industrialized Country

NPLs = Non-Performing Loans

NYSE = New York Stock Exchange

OECD = Organisation for Economic Co-operation and Development

OPEC = Organisation of the Petroleum Exporting Countries

OLS = Ordinary Least Square

PDIC = Philippines Deposit Insurance Corporation

PIA = Promotion of Investment Act

PLCs = Public Listed Companies

PMG = Pooled Mean Group

PP = Phillips and Perron

PSE = Philippines Stock Exchange

RESET = Regression Equation Specification Error Test

RIAs = Regulatory Impact Assessments

SBC = Schwarz Bayesian Criteria

SDRs = Special drawing rights

SEMCs = South and Eastern Mediterranean Countries

SES = Singapore Stock Exchange

TDB = Trade Development Board

TFP = Total Factor Productivity

T-Y = Toda-Yamamoto

UECM = Unrestricted Error Correction Model

US = United States

USD = United States Dollar

VAR = Vector Auto-Regressive

VECM = Vector Error Correction Model

WDI = World Development Bank

WTO = World Trade Organisation

## ***Key Terms***

Economic Volatility	The variation of economic growth over time. It is merely a reflection of real economic movement variation with average growth.
Financial Development	An aspect of economics that concerns the growth of the financial sector, focusing on finance and investment management, and which involves banking institutions and stock markets.
Financial Openness	The integration of a country's local financial system with international financial markets and institutions (Schmukler, 2004a).
Trade Openness	A country's outflow and inflow orientation in term of goods and services.
Institutional Quality	Human constraints that structure political, economic and social interaction, and which encompasses formal and informal rules, such as the constitution and rule of law for the former, and taboos, traditions and codes of conduct for the latter (North, 1991).
ASEAN-5	The original counterparts of ASEAN at its establishment, namely Indonesia, Malaysia, the Philippines, Singapore and Thailand.