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The Empirical Investigation on The Relationship of Foreign Trade, Institutions and Economic Performance of The ASEAN Nations

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Abstract

This short empirical paper attempts to study on the empirical investigation on the relationship of foreign trade and institutional stocks on economic growth of the ASEAN nations. The panel data which contains ten countries in ASEAN is employed to use in this paper and the econometric estimations such as Pooled OLS and Fixed-Effect estimations are adopted. In this paper, the conventional factors such as fixed capital formation and economically employed labor and domestic credit sizes are controlled. Finally, the empirical results from this paper suggest a strong positively significant relationship between total stocks of institutions, foreign trade and domestic credit development on economic growth of these nations. Moreover, when controlling conventional factors and domestic credit sizes, foreign trade and individual effect of government effectiveness, accountability, rule of law and political stability plays extremely roles in economic development of these nations. Additionally, foreign trade effect on economic growth of these nations has changed over time; increasing sharply, in particular after the ASEAN Free Trade Area was launched in 1992.

Keywords: Economic Cooperation, ASEAN, Institutions, Foreign Trade, Economic Performance, Pooled OLS and Fixed-Effect estimation

JEL Classifications: C13, C15, F14, F15, F63, O10

1. Introduction

1.1 Backgrounds in Economic Cooperation in ASEAN

Nowadays all countries all over the world seem to integrate together in order to facilitate their trade and improve their productivity or GDP. Recently there have been multiple free trade agreements and regional integration agreements. Additionally, word trade grew as fast as word output over the last two decades, thus deepening economic integration according to Celderon and Poggio (2010). Likewise, in the senses of globalization process and structural adjustment, regional economic integration seems to play important role to push national economic development and to reform the national economic policy. Consequently, as I stated earlier, the movement towards regional economic integration, the world economy has decided to form the regional free trade agreements which intend to push the trade volume and to promote the economic growth.

According to the process of ASEAN, it was historically formed on 08 August 1967 in Bangkok, Thailand by the first five founding countries, namely Indonesia, Thailand, Singapore, Philippine and Malaysia. These five countries agreed upon to sign the declaration, so-called the ASEAN Declaration or the Bangkok Declaration. Subsequently, a new member, Brunei, joined in 1984. Then we saw a big surprise when Vietnam, a communist country, decided to transform its economy to a market economy and joined ASEAN in 1995. The remaining countries in Southeast Asia, namely, Cambodia, Laos, and Myanmar (CLM) decided to join in 1999 and 1997, respectively (see Appendix1). Moreover, based on the Bangkok Declaration or ASEAN Declaration, the purposes in ASEAN's formation are to strengthen the foundation and prosperous and peacefully community by facilitating economic growth, social progress and cultural development through the spirit of equality and partnership. Not only to promote the economic growth, but also to promote peace and social stability in the region in the sense of paying respect to the rule of law in the relationship among countries in the region as well as the United Nation Charter (UNC). In addition to these collaborations, another purpose is to help each other in the sense of research facilities and training in the fields of administration, education, profession as well as technology. Another one of its important purpose I interest the most in this paper is to expand their trade with the study of the problems of commodity trade, the improvement of the transportation and communication facility and the raising of the living standard of the peoples in the region.

1.2 Research Hypotheses

ASEAN as a whole has been trying to create its communities, for instance, the ASEAN Economic Community (AEC) as well as the ASEAN Free Trade Area (AFTA) in order to boost its foreign trade. The purpose to do so is to boost its sustainable economic development and enhance income distributions among members. So, this would leave out the hypothesis in this thesis that:

H1: "The foreign trade of the ASEAN members will have positive effect and suggest a strong positive correlation on the ASEAN members' economic growth and development."

In terms of its AFTA and AEC as well as other sub-area agreements, ASEAN as a whole has

been trying to develop structural factors or trade complementary such as financial development and institutional quality to enhance the economic development for the individual member as well as the region in order to enhance its economy. Therefore, this would lead to a hypothesis that:

H2: "There will be strong positive effects between the structural factors such as financial development and stock of institutions and economic development among ASEAN members."

Relating to its history of economic overview and trend, the AFTA was actually launched in 1992, as I said in earlier, to boost foreign trade among its members. In term of this AFTA, a vast majority of trade barriers were eliminated and reduced and the economic environment has become better. That is the comparative advantage to attract more investment and enhance high productivity for local demand and foreign trade. They are doing so in the hope that the share of foreign trade could be enhanced larger and larger. In this context, a hypothesis would be leaved out, that is:

H3: "The foreign trade effect on economic growth among member countries would be different by time; increasing sharply especially after the time that AFTA was launched in 1992."

1.3 The Structures of This Paper

This short empirical paper aims at showing the empirical investigation on the relationship of institutions and financial development and foreign trade in economic development of the ASEAN nations. In this paper, I consider the data from the Governance Indicators from the World Bank and some data of other variable from the Asian Development Bank (ADB). In order to find the results as well as the truth of such roles in economic development, some econometric methods and models are taken into account in analyzing the data. The context of political stability in doing business to enhance productivity growth, the ability of government to formulate and implement policies and regulations as well as some other variables related to good governance will be taken into account in this paper. This short paper is structured as follows: the first section of the paper reveals the issues and perspectives of the emerging of economic cooperation, and overview of the economic cooperation in ASEAN; its purposes and economic trend. Section 2 conveys the stylized facts about the roles of institutions as wells as the roles of financial development, and the relationship of foreign trade and economic development from the previous literature review. Section 3 defines the data used in this paper as well as the natures of variables adopted. Section 4 will define the econometric methods and the specific models used in analyzing the data in order to find the results. Section 5 shows the empirical results while the last section conveys the conclusion and implications in this paper.

2. Literature Review

In this section, several stylized facts, including the facts from the roles of institutions as well as the impacts of financial development and those of foreign trade in economic development from the previous studies are shown.

2.1 A Review on Institutions and Economic Development

More recently, the issues and the contexts of institutional quality and economic performance has been debated and argued gradually. At the same time, there are several organizations are working on improving the quality of institutions in term of the quality of governance in giving public goods both in developed and developing countries, in particular the developing and least developed countries. Likewise, the issue of institutional development or the so called 'governance reform' has become more prominent according to the ADB Institute (2012). This article titled 'Institutions and Economic Development' of this organization argues that "If developing countries are poor because their current institutions provide a weak basis in terms of incentives that promote growth, this raised the question not only of what type of institutions they should acquire, but more importantly of how they could develop such institutions (p. 2)." According to this article, it clearly reveals the relationship between the roles of institutions and economic performance in a country. Institutions play extremely important roles in economic development such as in reducing uncertainty in the word, structuring human interaction, and allowing human to get on with everyday business and effectively problem solving (North, 2003). What I interest from North (2003) is the roles of institutions in structuring economic, political and social activities. Such idea does convey the roles of institutions as the net in connecting economy, politics and society to achieve a better social welfare. In resource usage, countries with better institutions not only invest more in physical and human capital, but they also use this factors more efficiently (Cavalcanti et al. 2008).

Some other researchers have argued on the roles of institutions in economic development, for instance, the ADB Institute (2012), Cavalcanti (2008), North (2003), Dollar and Kraay (2003), Dollar and Kraay (2002), Lin-hui et al. (n.d.), Jansen and Nordas (n.d.). These researchers have shown their results similarly and support to have better institutional quality in economic development. From the overview of North (2003), institutions help us to deal with uncertainty in society and in human interactions. Moreover, institutions play important roles in everyday business transactions by dealing with the imperfect competition, imperfect information, and transaction cost in the sense to make a better choice. Institutions indicator such 'rule of law' can facilitate tariffs to increase the ratio of trade to GDP if it is strongly considered (Jansen and Nordas, "n.d."). He also argues that the impact of trade liberalization on actual trade flows also depends on the quality of institutions. Lin-hui et al. (n.d.) argue that economic institutions play important roles on China's economic growth, that is, they are the causes of economic growth and they are endogenous. However, economic institutions are efficient or not depend on the ones who have right to control economy. This is as what North (2003) shows that economy depends on politics. Dollar and Kraay (2002, 2003) shows the joint roles of institutions and trade on economic growth. The argumentation is that countries with better quality of institutions and those that trade more grew faster, and countries with better institutions tend to trade more.

2.2 A Review on Foreign Trade and Economic Growth

In acknowledging to some of the Chinese authors who have done the empirical studies on the

relationship between foreign trade and the economic growth, most of them have adopted the casual relationship to be argued. Yuhong and Xiaoyin (2009) analyzes the panel causality of the relationship between foreign trade and GDP growth of Southwest Minority Region of China and suggested some results of existed long-time and short-time causality between those observed variables such as GDP and foreign trade as well as GDP and export. In other words, foreign trade is the long-time and short-time reason of GDP growth. Nevertheless, the study did not suggest the evidence that can approve the existed long-time stable causality between foreign trade and GDP in that region because of the lack of location advantage. In addition to this idea, Wang (2007) and Fengsheng et al. (2009) also support that the Chinese foreign trade has been playing a very important role to boost China's economic growth. The role of the Non-governmental enterprises (NGEs) is agued to be important and significant to the contribution of the development of China's foreign trade. So the essential implication is to provide a fair and equal system for the development of NGEs' foreign trade, to improve the financing system of NGEs' foreign trade and to establish sustainable concept of development and promote foreign trade by optimizing and integrating their internal resource. Therefore, developing foreign trade is good for promoting GDP growth, inversely; GDP growth is also good for promoting an opening up of economy through foreign or intentional trade. Also, while enhancing export, one should not ignore import since it is also the main factor to improve the economic growth. Such a concept is strongly supported by Yuhong and Zhanglin (2010) with their multivariate linear regression to test the causality. Some other variables of trade structures would be much more important to the related public polices such as financial environment, the quality of institution as well as export and import regulation and rule of law. This is also enhanced by Deng et al. (2009) and raised the ideology of Keynes of "export is for better import" (p. 4) to be argued with the meaning that export is to provide with better situation to support importing what we do not have or to get more efficient products. Similar to Wang (2007) and Fengsheng et al. (2009), we could not overlook the role of the intra-industry trade since it has positive relationship to economic growth both long-term and short-term (Faming et al. 2009). The intra-industry trade is perhaps strongly related to the manufacturing sector, which is also the main mile stone to push economic growth. Anyway, the economic growth reversely has positive effect on intra-industry trade. Therefore, there would exist the causality relationship, and the role of the economic development which could not be overlooked.

3. The Data

In this paper, the panel dataset is adopted since this is the panel analysis. The observations from 1980 till 2010 are observed. The major data sources in this paper are the Worldwide Governance Indicators and the World Development Indicator of the World Bank, the database of the Asian Development Bank (ADB).

3.1 Descriptive Statistics

Table 1. Descriptive Statistics of Selected Variables

Variables	Obs	Mean	Std. Dev.	Min	Max
Real GDP	302	55300000000	56600000000	735000000	274000000000
Domestic Credit Provided by Banking Sector	257	58.16	42.57	0.00	177.58
Domestic Credit Provided to Private Sector	256	50.26	42.32	0.00	165.72
Rule of Law	150	-0.21	0.88	-1.65	1.76
Trade	286	90100000000	134000000000	160000000	823000000000
Government Effectiveness	150	0.02	1.01	-1.67	2.37
Political Stability	150	-0.27	0.97	-2.13	1.36
Accountability	150	-0.73	0.73	-2.22	0.52
Capital Stock	277	136364.20	157585.10	217.02	740039.70
Labor Force	310	22300000	26400000	69203	119000000

The above table shows the descriptive statistics of selected variables in this paper. The raw data is drawn from the WDI of World Bank and some is from ADB. The calculation is based on STATA statistical software.

3.2 Definitions of the Selected Variables

Several variables related to institutional indicators, financial development and economic development are collected to use in this paper. Those variables and their definitions and sources of data are shown as follows:

- *Gross domestic product, in (log):* This variable is collected from the World Development Indicator of the World Bank. According the data source, it is defined as the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in 2000 U.S. dollars.

- *Capital, in (log):* In this paper, I adopt the *Gross Fixed Capital Formation* to be used here. The data is also collected from the World Development Indicator of the World Bank. It is comprised of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories. Fixed assets include land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. The data is measured in current U.S. dollars.

- *Economically employed labor, in (log)* is collected from the WDI and ADB statistics. The data is measured in number of people employed in agricultural, manufacturing, mining and other sectors in economy.

- *Domestic Credit to Private Sector* is generally defined by the WDI as the financial resources provided to the private sector, such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment. This variable is valued in % to GDP.

- *Domestic Credit provided by Banking Sector* includes all credit to various sectors on a gross basis, with the exception of credit to the central government, which is net. The data is in % of GDP.

- *Trade*, in *(log)* is the sum of total export and import of a country in a year. The data is measured in current US dollar.

The Worldwide Governance Indicators (WGI), The ADB Institute (2012) and Jansen and Nordas (n.d.) have defined the governance indicators which I use in this paper as follows:

- *Rule of Law* takes the number from -2.5 to 2.5. It is defined as the extent to which agents have confidence in and abide by the rules o society, and in particular the quality of contrast enforcement, the police, and the courts, as well as the likelihood of crime and violence.

- *Government Effectiveness* is stated as the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. It also takes the value from -2.5 to 2.5.

- *Political Stability and absence of violence* is defined by the data sources as the perceptions of the likelihood that government will be destabilized or overthrown by unconstitutional or violent means, including political violence and terrorism. It takes the value from -2.5 to 2.5.

- *Accountability and Voice* is here defined as the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and fee media. It takes the value from -2.5 to 2.5.

4. The Model

4.1 Econometric Methods

In this paper, I have adopted some methods applicable to the panel data analysis. The methods are suggested by Wooldridge (2009) and Dougherty (2006). Therefore, some methods in panel data analysis such as *pooled OLS* and *Fixed-Effect* estimations are employed in this paper.

4.1.1 Pooled OLS Estimation

The pooled OLS estimation in this paper is used to estimate the baseline regression model to find the overall effect of the observed variables on economic performance of the countries in this sample. The model specification from Dougherty (2006:411) can be written as follows:

$$y_{it} = \beta_0 + \sum \beta_j x_{itj} + \sum y_k z_{ikt} + u_{it} \quad (1)$$

In equation (1), *y* can be supported for member *i* at time *t* by *j* number of observable variables *x* and *k* number of unobservable variables *z* and an idiosyncratic error term u_{it}. . If z is supposed to be fixed over time, then the unobservable effect will capture z.

$$\alpha_{it} = \sum y_k z_{ik} \quad (2)$$

by combining equation (1) and (2) together, it follows that:

$$y_{it} = \beta_0 + \sum \beta_j x_{itj} + \alpha_i + u_{it} \quad (3)$$

in equation (3), the unobserved effect and the idiosyncratic error term are often combined together to have a so-called the composite error, v_{it},suggested by Wooldridge (2009:457). So a pooled OLS estimator will be reliable as long as the observed variables capture the relevant characteristics of the individual, or $\alpha_i = 0$ and can be ignored.

4.1.2 Fixed-Effect Estimation

The second estimation method adopted here is the fixed-effect model since I attempt to find the truth whether the effect of foreign trade on economic growth has changed over time. If the unobserved effect α_i is supposed to be correlated with one of the independent variable the term $Cov(x_{it}, \alpha_i) = 0$ is violated, and the fixed-effect estimation should be employed; $Cov(x_{itj}, \alpha_i) \neq 0$. Following Wooldridge (2009:482), the model follows that:

$$y_{it} - \bar{y} = \sum (\beta_k (x_{ijt} - \bar{x}_{ik})) + u_{it} - \bar{u} \quad (4)$$

If we subtract the time average in equation (4), the time invariant α_i is naturally dropped from the equation as $\alpha_i - \bar{\alpha}$. In this paper, Hausman Test is also used to test the model suitability before the final model is decided.

4.2 The Model Specification

1/ The Baseline Regression Model in this paper will look like follows:

$$\begin{aligned} \log(GDP) &= \beta_0 + \beta_1 \log(labor) + \beta_2 \log(capital) + \beta_3 \log(trade) \\ &+ \beta_4 Institutionalstocks + \beta_5 totaldomesticcredit + u_{it} \end{aligned} \quad (5)$$

where: *Institutional Stocks* here includes the total stock of Rule of Law, Government

Effectiveness, Accountability and Political Stability

Total Domestic Credit includes Domestic Credit Provided by Banking Sector plus Domestic Credit to Private Sector in economy.

2/ The time fixed effect model would look like follows:

$$\log(GDP) = \beta_0 + \beta_1 \log(labor) + \beta_2 \log(capital) + \beta_3 \log(trade) + \delta_1 d1981_t + ... + \delta_{29} d2010_t + \alpha_i + u_{it} \quad (6)$$

In this equation (6), d1981, d1982,…. and d2010 are time-dummy variables. When *t = 1981, d1981 = 1 and d1982=… =d2010 = 0*, so the effect of foreign trade on GDP in 1981 is $\beta_3 + \delta_1$.

3/ To define the roles of Institutions in economic performance, the interaction terms of the Pooled OLS are presented. Suggested by Jansen and Nordas (n.d.), the roles of institutional indicators should be defined separately in the regression. So, I decide to run an individual regression for each institutional indicator. Four institutional indicators are covered in this paper, namely, *Rule of Law, Government Effectiveness, Accountability and Political Stability.*

** The Role of Rule of Law in Economic Development while controlling other variables.*

$$\begin{aligned}\log(GDP) &= \beta_0 + \beta_1 \log(labor) + \beta_2 \log(capital) + \beta_3 \log(trade) \\ &+ \beta_4 totaldomesticcredit + \beta_5 ruleof law + \beta_6 \text{int} eractionterm + u_{it}\end{aligned} \quad (7)$$

** The Role of Government Effectiveness*

$$\begin{aligned}\log(GDP) &= \beta_0 + \beta_1 \log(labor) + \beta_2 \log(capital) + \beta_3 \log(trade) \\ &+ \beta_4 totaldomesticcredit + \beta_5 governmenteffectiveness + \beta_6 \text{int} eractionterm + u_{it}\end{aligned} \quad (8)$$

** The Role of Accountability and Voice*

$$\begin{aligned}\log(GDP) &= \beta_0 + \beta_1 \log(labor) + \beta_2 \log(capital) + \beta_3 \log(trade) \\ &+ \beta_4 totaldomesticcredit + \beta_5 accountability + \beta_6 \text{int} eractionterm + u_{it}\end{aligned} \quad (9)$$

**The Role of Political Stability*

$$\begin{aligned}\log(GDP) &= \beta_0 + \beta_1 \log(labor) + \beta_2 \log(capital) + \beta_3 \log(trade) \\ &+ \beta_4 totaldomesticcredit + \beta_5 politicalstability + \beta_6 \text{int} eractionterm + u_{it}\end{aligned} \quad (10)$$

5. Empirical results

The empirical result from the baseline regression equation (5) is presented in the following table.

Table 2. Baseline Regression Result, Pooled OLS,

Dependent Variable: log (GDP)

Variables	Coefficient	P-value
Log(Labor)	0.0917848*	0.0280
	(0.0414533)	
Log(Capital)	0.1794131***	0.0000
	(0.0424101)	
Log(Trade)	0.671417***	0.0000
	(0.0270214)	
Institutional Stocks	0.0324513**	0.0040
	(0.0110358)	
Domestic Credit	0.0007899*	0.0330
	(0.0003671)	
Constant	4.373783***	0.0000
	(0.6599635)	
Legend: *p<0.05; ** p<0.01; *** p <0.001		
N = 146 F(5, 140) = 1208.17, Prob > F= 0.0000 R^2 = 0.9680		

Based on the result in Table 2, it appears that while controlling gross fixed capital formation and economically employed labor in economy, foreign trade effect as a whole does play extremely roles in economic development of the ASEAN nations. It is about 96% that all of these factors play roles on the economic growth. The coefficient of foreign trade is positively significant at about 1% confident interval, holding other variables fixed. It also seems that foreign trade has contributed so much more than the other variables in the model; basically based on its coefficient of 0.67, which is larger than those of other variables. This strongly suggest that if foreign trade of the ASEAN nations increases about 1% change, the economy of these nations will grow about 0.67%, holding other variables constant. This baseline regression also shows that institutional quality really plays roles in economic development of these nations. Actually, its coefficient is positively significant; suggesting the result that countries with better institutions will grow faster those of least-developed institutions. It is clear that if these countries can strengthen their institutional stocks, just one unit measurement, their economy will grow about (100(0.032)) or 3.2 %. This is really true, but it is also hard to achieve 1 unit increase in quality of institutional stocks. Domestic credit also plays positively significant roles in economic growth of these countries at less than 5% confident interval. It strongly shows that if these countries can strengthen their domestic credit size 1% point change, the economy will grow about (100*0.0007899) or about 0.08 %.

In this section, the results whether foreign trade effect on economic growth of these nations has changed over times are presented from the result of the regression (6).

Table 3. Time Fixed-Effect Regression Result

Dependent Variable: Log(GDP)			
	Coefficients	Standard Error	P-value
Log(Capital)	0.0257325	0.0224684	0.055
Log(Labor)	0.0744356	0.1508287	0.052
Log(Trade)	0.2409508***	0.0286448	0.000
Time Dummies			
1981	.0390853	0.0746652	0.601
1982	.0813141	0.0753406	0.282
1983	.1305875	0.0761693	0.088
1984	.18536473*	0.0743604	0.013
1985	.17458368*	0.0754342	0.022
1986	.23459641**	0.077715	0.003
1987	.25037264**	0.0780643	0.002
1988	.27415679***	0.0810166	0.001
1989	.38074812***	0.0793142	0.000
1990	.39888269***	0.0825508	0.000
1991	.40818565***	0.0859388	0.000
1992	.42174306***	0.0883077	0.000
1993	.42055279***	0.0918162	0.000
1994	.43672603***	0.0957448	0.000
1995	.44921443***	0.1005505	0.000
1996	.47956632***	0.1050234	0.000
1997	.51022429***	0.1082985	0.000
1998	.52262363***	0.1098798	0.000
1999	.55466122***	0.1138275	0.000
2000	.5706314***	0.1183606	0.000
2001	.58897614***	0.1214753	0.000
2002	.62127162***	0.1244166	0.000
2003	.64946962***	0.1272866	0.000
2004	.6707457***	0.1315729	0.000
2005	.69592993***	0.1354411	0.000
2006	.71387679***	0.1398929	0.000
2007	.74501586***	0.1440645	0.000
2008	.74977165***	0.1488526	0.000
2009	.78859057***	0.1501382	0.000
2010	.80296794***	0.1527895	0.000
Constant	16.332549***	2.446149	0.000
$N = 269$, $R^2 = 0.95$			
$F(33,226) = 112.32$	Prob > = 0.0000		
Huasman Test: chi2 = 439.55 Prob>chi2 = 0.0000			
Legend: * p<0.05; ** p<0.01; *** p<0.001			

The empirical evidence from Table 3 shows that while controlling gross-fixed capital formation and economically employed labor, foreign trade still plays important roles in economic development of the ASEAN nations. The Huasman Test supports that this fixed-effect model is very applicable to this regression model and goodness-of-fit, R^2 shows that 95% that the all the explanatory variables jointly explain the economic development. We can see from the table that at the beginning of the eighteen century, foreign trade did not play significant role on economic development of these countries even though it still has positive

relationship on these countries' economy. However, it has started to play significant roles since 1984. Moreover, this effect has changed larger and larger, in particular after the time when AFTA was launched in 1992. The ASEAN crisis in 1997 made foreign trade to grow slowly, unlike the years before and after. This actual trade effect with time dummies is depicted in the appendix 2.

Table 4. Government Effectiveness, Foreign trade, and Economic Growth

Dependent Variable: Log (GDP), Method: Pooled OLS			
	Coefficient	Std. Error	P-value
Log(Labor)	0.2101037***	0.047857	0.000
Log(Capital)	0.0618753	0.035591	0.084
log(Trade)	0.6653656***	0.026138	0.000
Domestic Credit	0.0010482**	0.000342	0.003
Government Effectiveness	2.732238***	0.409354	0.000
Interaction Term	-0.1056849***	0.014174	0.000
Constant	4.082585***	0.456828	0.000
N = 146, F(6,139) = 1555.11, P-value = 0.0000 R^2 = 0.97			
Legend: * p<0.05; ** p<0.01; *** p<0.001			

The result of individual institutional indicator is presented in this section. The role of government effectiveness in economic development is presented in the above table 4. It appears from this table that the quality of public services, the quality of civil services and the degree of independence from political pressures play important roles in economic development since the coefficient of Government Effectiveness is positively significant. Moreover, the joint roles between foreign trade and government effectiveness are also beneficial to economy of these nations based on the coefficients of foreign trade, while government effectiveness and their interaction term are all positively significant. It reveals that about 97% that all of the explanatory variables explain economic growth of these nations.

Table 5. Rule of Law, Foreign Trade and Economic Growth

Dependent Variable: Log (GDP), Method: Pooled OLS			
	Coefficients	Std. Err.	P-value
Log(Labor)	0.2173049***	0.038131	0.00000
Log(Capital)	0.0534987	0.039273	0.17500
log(Trade)	0.6445999***	0.026225	0.00000
Domestic Credit	0.001092**	0.000369	0.00400
Rule of Law	3.097657***	0.438653	0.00000
Interaction	-0.1194219***	0.015575	0.00000
Constant	4.59992***	0.479828	0.00000
N = 146, R^2 = 0.97, F(6, 139) = 1545.33 P-value = 0.0000			
Legend: * p<0.05; ** p<0.01; *** p<0.001			

The result in table 5 reveals that the model is very applicable with its F test and P-value, and it is about 97% that all explanatory variables put into the model explain to the economic growth. The results suggest that the better quality of institution and the larger foreign trade push the economy to grow faster; basically because the coefficients of foreign trade, those of rule of law and interaction term are statistically significant.

Table 6. Political Stability, Foreign trade, Economic growth

Dependent Variable: Log (GDP) Method: Pooled OLS			
	Coefficient	Std. Err.	P-value
Log(Labor)	0.115363***	0.021961	0.000
Log(Capital)	0.079753**	0.028356	0.006
Log(Trade)	0.691355***	0.025776	0.000
Domestic Credit	0.000182	0.00038	0.633
Political Stability	1.902625***	0.34577	0.000
Interaction	-0.08312***	0.014098	0.000
Constant	4.535754***	0.475305	0.000
R^2 = 0.97, F(6,139) = 1236, Prob>F = 0.000			
Legend: * p<0.05; ** p<0.01; *** p<0.001			

The result in table 6 is somewhat similar to those in the previous tables. Political stability really plays importantly and positively significant roles in economic growth. A more stability of politics pushes countries to trade more and enhance high growth too. Actually it is clear that the marginal impact of a reduction of political instability on economic growth is larger the larger foreign trade. It is statistically shows that about 97% of these explanatory variables support economic growth of these nations.

Table 7. Accountability, Foreign Trade and Economic Growth

Dependent Variable: Log (GDP), Method: Pooled OLS			
	Coefficient	Std. Err.	P-value
Log(Labor)	0.199458***	0.020489	0.0000
Log(Capital)	0.05651	0.041078	0.1710
log(Trade)	0.652181***	0.043454	0.0000
Domestic Credit	0.001009*	0.000397	0.0120
Accountability	1.151768	0.77653	0.1400
Interaction	-0.0414	0.031215	0.1870
Constant	4.644276***	0.937017	0.0000
N = 146, R^2 = 0.96, F(6, 139) = 708.9, Prob>F = 0.000			
Legend: * p<0.05; ** p<0.01; *** p<0.001			

Table 7 reveals the results which is somewhat a little different from the previous ones. It shows that accountability is not statistically significant at 5% confident interval, but more than 10%. Even so, foreign trade and other factors still play important roles in economic development of these nations. The interaction term between foreign trade and accountability is till negative but not statistically significant. It still suggests that better accountability and foreign trade push economy to grow. In the sense of statistics, it is clear that about 96% that all explanatory variables support economic growth; basically based on the F-test and P-value of the model.

5. Conclusion and Implications

In this short empirical paper, the perspectives of economic cooperation and free trade agreements are described, in particular the ASEAN. The purpose of this association is not only to promote peace in the region but also to promote economic growth and social welfare. Another purpose is to enhance foreign trade in order to boost productivity growth. Therefore, some factors that may affect foreign trade such as institutional quality and financial development are reformed and improved.

Considering the panel dataset and econometric estimations such as Pooled OLS and Fixed-Effect estimations, this paper finds the results of the empirical investigation of the observed variables that foreign trade really play significantly important role to boost economic development. Not only foreign trade, but also financial development and the total stocks of institutions contribute positively significant effects on economic growth of the ASEAN nations. It is clear from the individual regression of each institutional indicator that by allowing each institutional indicator to interact with foreign trade, the effect of foreign trade and each indicator of institution are still positively significant in statistics.

Following the idea of the previous authors such North (2003) and the empirical results in this paper, the implications are to strengthen the economic institutions such as rule of law and political stability as well as government effectiveness in formulate policies and rule to facilitate and push foreign trade in order to enhance economic growth of these nations. Secondly, as the total credit size play extremely important role, it is true that the

strengthening of the domestic credit size such domestic credit to private sector will jointly play role in enhancing economic development of these nations. The suggestion for further research is to conduct the empirical study whether institutions enhance foreign trade.

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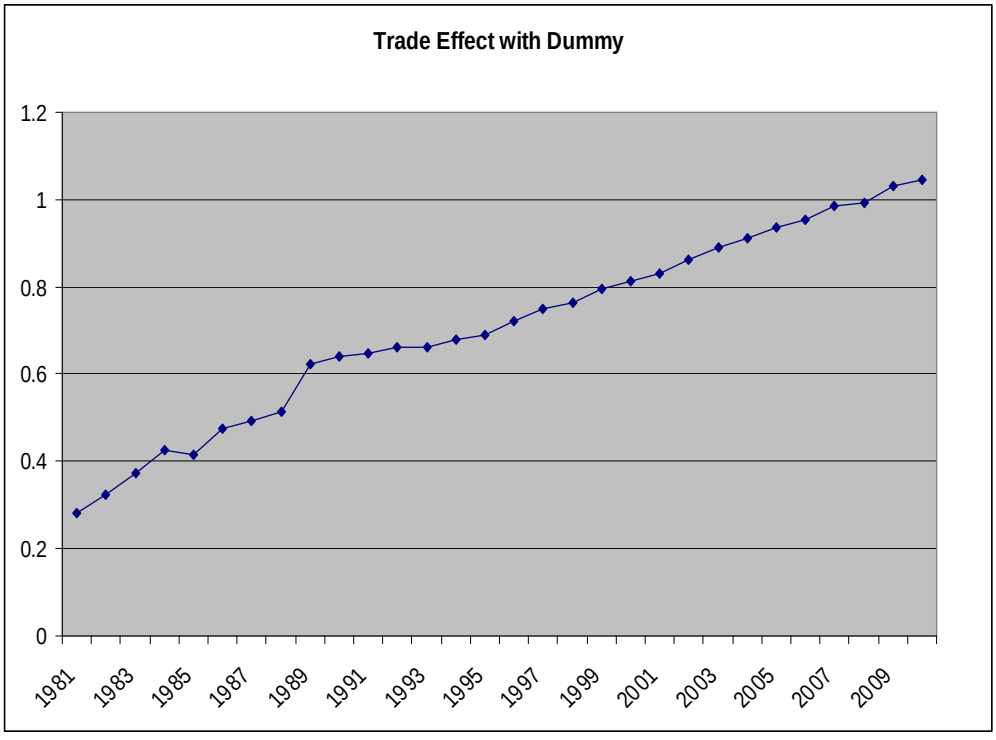
Appendix

Appendix 1. The details of date of each individual member to join ASEAN

Country	Date to join
The first five founding countries: *Indonesia, Thailand, Singapore, Philippine and Malaysia.*	*08 August 1967*
Brunei Darussalam	*7 January 1984*
Vietnam	*28 July 1995*
Lao PDR and Myanmar	*23 July 1997*
Cambodia	*30 April 1999*

Source: Author's Compilation

Appendix2. Effect of Trade on Economic Growth of the ASEAN Countries differed by Time



** Effect of Trade for a year here equals to effect of trade for that year plus effect of time dummy of that year.
Example: Trade effect in 2010 equals to trade effect itself in 2010 plus effect of year 2010.

** Trade effect on economic growth of the ASEAN countries increases sharply, especially after the AFTA was launched in 1992.

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