

Essay of ASEAN's Macroeconomy

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Abstract

The purpose of this research is to find impact of export values, exchange rate, employment participation, unemployment, and inflation towards economic growth (GDP) of four ASEAN member countries: Indonesia, Philippines, Malaysia, and Thailand. The Panel method with two-way fixed effect was chosen as a tool to analyze the data. It is conducted from 1995 until 2014. The result shows that the first three variables has positive significantly impact towards GDP. Besides, inflation rate has significant negative impact. Meanwhile unemployment number unfortunately does not have significant effect at all.

Keywords : Economic Growth, Export, Employment.

Introduction

Starting ASEAN Economic Community (AEC) on 1st January 2016 was based on optimism about the power of economy in global context appearing among the ASEAN societies. It is recorded that ASEAN economic growth accounted at 6.2 per cent in 2012. Although in 2013 it decreased several points, but it is inasmuch as fast recovery and normalization of policies in developed countries. It is also reported that many capital flights come to developed countries, and declining of export demands, have triggered slowness of economic growth among the developing countries, including ASEAN members in 2013.

By considering huge population, economic growth of those countries actually must be able to involve mass productivity. The government should be able to spread welfare among the people effectively. Indeed, huge inhabitants sometimes can be seen as a problem for the development. The government to provide employments for them in various sectors, occasionally trapped between improving economic expansion and lowering unemployment.

Indeed, in the development study, there is Okun law—the idea originated from Robert Okun—which valuates a negative relationship between development economy and unemployment (Weber, 1995). It declares that the high economic growth rate will cause the unemployment rate low. However, in some context the thesis is invalid or even questionable.

For instance, we know that many developed countries has deficit surplus because they cannot exports commocities in exchange. Real wages in those countries have been falling due to corporations are hungry for cheaper labors, so that they import them from abroad. Even in some cases, off-shoring methods become familiar among the CEO to run business. It will generates critical mess, namely full employment sometimes runs against economic growth.

The stable economic growth is all our hope. ASEAN is region which has undertaken declining in unemployment rate since period 1990s. There are many economic activities, such as attracting foreign investment and improving export expansion, which succeeded in combating the latent dangerous problem. It is allegedly a breakthrough of developing

countries trying to come out from the backward, supported by ambitious acts.

The believe of export capacity in boosting economic performance, itself, has been started since classical thinkers such as Adam Smith, David Ricardo, James Mill, and John Stuart Mill. Those 19th century figures elaborated potency of resources to enlarge exports and suggested the government to keep imports as minimum as possible (Krugman, 2012). Products of exports include raw materials, such as farm products, mining products, or other fabricated goods are not being distinguished regarding the impact on economic growth. From this point we know that the legacy of export's power has been adaptable with modernism, although some revisions of that idea has been conducted in long history of economic lessons.

In case of ASEAN, since 1990s era, exports have increased. Free trade surely boosted economic activities. Some economists considered their power as the Asian Miracles. In fact, growth rate of several countries such as Indonesia, Thailand, Malaysia, Singapore, Philippines stood at the average rate of 6.9 per cent during the 1980-1990 decade, and at 7.7 per cent in the 1990 till 1995 period. Those countries were called as HPAE (High-Performance Asian Economies) (Salvatore, 2007). Some export commodities supported high rate for economic growth. One of them was revenue of crude oil trade. Indonesia for instance, in 1991 succeeded to exploring crude oil at amount 81 million ton (British Petroleum: 2013). This offcourse produced much benefit for economic development.

However, high economic growth suddenly stopped by the end 1990 period, especially due to monetary crisis which started from Thailand and then spread accross neighbor countries. This contagion effect plunked the economic capacities of those countries into the downward rate. This problem occurred because some ASEAN countries have almost the same economic and non-economic capabilities: huge market asset, rich natural resources, large young population, diversified cultures and religions, etc. Even trade-partners of those countries at the average consist of same ASEAN or Asia countries. Meanwhile, trade-partners out of that region share the small portion. Therefore when one member got into the problem, its impacts will spread widely to the others very quick and fast.

After many years left behind, the recovery processes run with good result.

Perspective of ASEAN economic growth gradually got better, and exports are still prominent components. By opening AEC (ASEAN Economic Community) in 2016 there is a regulation which enables working people across the countries being easier. Thus, empowering workers capacity is an urgent act, in order the people can sustain in hard global competition. Everything changing over time necessitates us to make a radical improvement upon human resources. We are not only relying on physical power, but also high skill which is relevant with modern competencies.

Literature Review

Although it is believed around the world that globalization through free trade across countries succeeded benefits such as fast economic growth, declining poverty rate, spreading sciences and technology, and improving welfare among the people (Pangestu, 2012), however, this consideration still being interesting to be discussed.

Dodaro (1993) in his research found that export can boost economic growth in several countries, such as Indonesia, Israel, Malta, and Papua New Guinea. However, in other side, there was also a doubt about impact of exports toward economic growth. Therefore Dodaro (1993) declared that the ability of exports in boosting economic growth depends on stage of economic development among the countries. Accordingly, increasing export is not wise policy for economic growth especially for the countries which economic development is still in the preliminary stage. This condition is the same as for the most developed countries; exports not always bring the positive impact. His research concluded that exports can make significant effect to economic growth only to the countries which economic development has been in the middle stage.

Dodaro's finding (1993) is supported by Poon (1994). In his research, he stated that export-led growth hypothesis finds the relevance only to the countries which are still in the transition period from low into middle developing countries. Exports only have small impact toward the low or high income countries, so that its impact can be positive or even does not exist at all. The level of economic development is highly relying Poon (1994) suggested.

Meanwhile, Dutt and Ghosh (1996) found that export-led growth hypothesis is proven and holds for both developing countries, such as Pakistan, or even developed countries, like United States of Amerika. Exports can be important components for stabilize economic growth (Dutt and Ghosh, 1996). Their research did not differentiate characteristics of development stages among the countries. Besides, they also found the bi-directional relationship between exports and economic growth. Exports can fasten economic growth, and stable economic growth can increase export rate. According to them, the economists believe that relationship between exports and economic growth takes a long period. Nevertheless, it is convinced that the condition cannot be generalized around the world (Dutt and Ghosh, 1996).

Kaushik *et al.* (2008) concluded that in the long-run exports was able apparently to boost economic performance of India. India indeed is counted in developing countries, so that the export-led growth hypothesis has been proven in reality. But in the short-run period, the impact of exports was not significant. They suggested that exports impact in the short-run and long-run were different because the India's export commodities consisting of raw materials certainly not very competitive in the global market, urges us to face the different views.

Herzer *et al.*, (2006) in the research concluded that the ability of exports in boosting economic growth depended highly on the sort of the exports' products. They found that in case of Chile, from 1960 till 2001, only exports of manufacture products which have positive relation with economic growth in the long-run. Exports of raw materials, including agricultural and natural commodities without fabrication, rather have negative impact. This situation was fathomed concerning export instability which often happened in several developing countries.

It is supported by Rashid *et al.*, (2012) who concluded that export instability can decrease economic growth of countries associated with South Asian Association Regional Cooperation (SAARC): India, Pakistan, Sri-Lanka, Bangladesh, Nepal, Afghanistan, Bhutan, and Maladewa. This instability mirrored an unstable storage of exported supply and demand. Several countries sometimes faced such circumstance. Nevertheless, it only occurred in the short-run period (Kaushik *et al.*, 2008). In the long-run

export instability did not make any serious problems due to diversification of export products can be conducted, so that any exporters can minimize or even erase the negative impact of the instability.

Research by Noor-e-Saher (2011) concluded that revenues of export joint oil prices, human capital and physical capital have positive impacts toward economic growth of Pakistan. But interestingly, in the research, the impact cannot be found in the India's case. This finding stood for the policy of exports expansion, in order to get higher growth rate. However, the economists still need to consider characteristics of each country regarding development stages. Result of India is very interesting because there is a contradiction with other researchers, such as Tiwari's (2011) who addressed that exports does not impact toward economic growth of India, Rusia, China, and Pakistan.

It also contradicted with research conducted by Kaushik *et al.*, (2008), that research by Henriques and Sadorsky (1996) was the same as Noor-e-Saher's finding (2011). Henriques and Sadorsky (1996) concluded that export did not have impacts toward economic growth. Henriques and Sadorsky (1996) posted Canada as object of their research, and found exactly the positive impact from economic growth toward export performance. Their finding can be suggestion related with the export performance in accelerating Canada's economy, which is a developed country. Export products of this country are highly diversified and surely very different from poor countries, so that it was not very confusing when exports were also affected by economic growth.

Bekó (2003) found that impact of exports is large enough in boosting economic growth of Slovenia. Exports itself, according to the reserach, could improve the growth of real products, like manufactures. As a small country, Slovenia has depended relatively very much on the export capacity. From this point offcourse the government should act to choose what kind of the proper policy, as stimulus for winning competition in the global market. The monetary regime also plays a important role in international trade.

For some reasons of effectiveness, McCallum (2014) found that policy of Hong Kong's exchange rate to adjust inflation and output development is very attractive. The degree of openness notified with flexible exchange rate could stabilize inflation and

output, although it is not an absolute system which can be applied to all countries. As very open economy, according to McCallum (2014), Hong Kong has to adopt a policy which provides chances of international trade. A depreciation of exchange rate is believed to be able to improve the competitiveness of the country and has positive impact on economic activities.

In the contrary, Berument and Pasaogullari (2003) found that depreciation of exchange rate could cause the diminishing economic growth. But appreciation of exchange rate could have been otherwise. In this research, appreciation of lira *vis-à-vis* US dollar in line with Turkey's growing of output. They concluded that when exchange rate depreciates which is very needed in the process production, price of inputs becomes expensive. It indicates that need of import commodities is very crucial in increasing output growth.

Odusola and Akinlo (2001) found that in case of Nigeria there is negative relationship between exchange rate and economic growth in the short-run. The negative impact implied that maintaining policy of floating exchange rate is not enough to keep stability of economic growth in the short-run. It is urgent to apply a policy for targeting volatility of exchange rate.

Ngandu (2008) observed relationship between exchange rate of South Africa and job opportunities. The result concluded that appreciation of exchange rate could affect lowering chances of employments. However, the decreasing of the opportunities only occurred in some sectors, namely labor-intensive employments. But in other side, it is rather to trigger the increased employments for different sectors.

In general, productivity relied on labors. The quality of labor decided the capacity of production. Charpe *et al.* (2014) demonstrated their finding that inequality of labor income has negative effect on economic growth. In the case of Colombia and Panama the demand regime is labor income-led, which means a fall of labor share of income reduced aggregate demands. Meanwhile in case of Mexico and Venezuela the demand regime is a profit-led which indicates that a fall of labor share of income stimulate investment so that would increase aggregate demands. For some cases from the developing countries, labor share of income grew slowly than the GDP growth rate. Even in other cases, it decreased.

The failure of a just income distribution would hamper economic development, so that every government should tackle good regulation in monitoring it.

Ewers (2015) found that diversification of labor market and human capital in Gulf citizens, from oil-driven development into more sustainable forms of economic growth, was very difficult. Survey results conducted in UAE (United Arab Emirates) found that revenue streams of oil windfalls over past decades which are focused on effort to employment expansion, made only little progress in the local labor market offerings. It was not an easy task for the government planning proper policies supporting sustainable economic growth in the long-run, whereas the oil capacity has a limit someday.

Methodology of Research

This research is conducted from 1995 until 2014 by including 4 ASEAN member countries: Indonesia, Philippines, Malaysia, and Thailand. The regression model for this research is two-way Panel with Fixed Effect. Annual data from ADB (Asian Development Bank) including GDP (Gross Domestic Products), values of export, inflation rate, number of unemployment, number of employed people, and exchange rate are used for analysis. All data, except inflation rate, have been changed into natural logarithm in order to ease analysis.

Panel method is chosen because it is better in describing trend, both cross section and time series simultaneously (Baltagi, 2005). We can get broaden understanding by using it. The model for this analysis as follows:

$$\ln GDP_{it} = \beta_0 + \beta_1 \ln Xport_{it} + \beta_2 \ln Inf_{it} + \beta_3 \ln Unem_{it} + \beta_4 \ln Empl_{it} + \beta_5 \ln Xrate_{it} + e_{it} \quad (1)$$

Where:

$\ln GDP_{it}$ = natural logarithm for Gross Domestic Products, period t and unit i.
 $\ln Xport_{it}$ = natural logarithm for Value of Exports, period t and unit i.
 $\ln Inf_{it}$ = Inflation Rate, period t and unit i.
 $\ln Unem_{it}$ = natural logarithm for Unemployment Numbers, period t and unit i.

$\ln Empl_{it}$ = natural logarithm for Employed People, period t and unit i.

$\ln Xrate_{it}$ = natural logarithm for Exchange Rate, period t and unit i.

β_0 = constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Coefficient

e_{it} = error term, period t and unit i.

The hypothesis for this research as follows:

$$H_0 =$$

1. Export does not affect economic growth
2. Inflation does not affect economic growth
3. Unemployment number does not affect economic growth
4. Employed people does not affect economic growth
5. Exchange rate does not affect economic growth

$$H_a =$$

1. Export affects economic growth
2. Inflation affects economic growth
3. Unemployment number affects economic growth
4. Employed people affects economic growth
5. Exchange rate affects economic growth

Panel model with common effect does not show a different slope among the cross-section and time-series variables. Panel model with fixed effect describes special characteristics among them. Meanwhile panel method with random effect can distinguish the constant impact of special characteristics in the cross-section and time-series variables. In fixed effect or random effect, there are two ways to analyze, namely one-way effect and two-way effect. In the first one we only investigate characteristics of cross-section. In the second one we can show the condition of times-series and cross section altogether.

Previously we must select an appropriate analysis whether using common, fixed, or random effect. Firstly, we test with F-statistics or known as Chow-test (Baltagi, 2005) conducted to determine the best two regressions, whether using common or fixed effect. Simple calculation involving restricted residual sums of squares (RRSS) OLS at pool model, and the unrestricted residual sums of squares (URSS) LSDV (Least Squares Dummy Variables). The equation as follows:

$$F = \frac{\frac{RRSS-URSS}{N-1}}{\frac{URSS}{NT-N-K}} \sim F_{N-1, N(T-1)-K} \quad (2)$$

The hypothesis:

$$H_0; \mu_1 = \mu_2 = \dots = \mu_{N-1} = 0$$

or

(F calculation < F table)

$$H_a; \mu_1 \neq \mu_2 \neq \dots \neq \mu_{N-1} \neq 0$$

or

(F calculation > F table)

Based on the analysis, we find that value of F-statistics at 52.361763. It is bigger than F-table for denominator 52 and numerator 3, at degree 1 per cent and 5 per cent which are consecutively at 4.31 and 2.84. Therefore we can conclude that using fixed effect is more appropriate rather than common effect. Table of estimation can be seen in appendix 1.

Next we proceed with Hausmann test to identify a proper analysis between fixed and random effect. The equation as follows:

$$y_{it} = \beta x_{it} + \gamma z_{it} + \mu_i + v_{it} \quad (3)$$

From the equation (3), we divide x and z to become: x_1, z_1 and x_2, z_2 . The first group consists of exogenous variables related not with v_{it} and μ_i —something not in the observation but has impact on each individual data. Second group are endogenous variables related with μ_i , but not v_{it} . Then we transform to delete μ_i , erasing bias and variable z_i at the equation (3).

Simply, Hausman test is used to distinguish whether model more appropriate when using fixed effect, or random effect. Basic assumption which is stressed in Hausman test is no error terms which relate with one of the independent variables. If we get that—no error terms which relate with independent variable—the proper model is random effect (Baltagi, 2005). This test involves statistic distribution with value of chi-square.

H_0 : random effect approved;

H_a : fixed effect approved.

From the test of Hausman we get value of chi-square 22.422425. It is bigger than value of chi-square table at the degree 1 and 5 per cent which are consecutively at 15.09 and 11.07. Therefore hypothesis no error terms which relate not with independent variables cannot be received. We conclude that the best model for the analysis is fixed

effect. Result of calculation can be seen in appendix 2.

Total pool (balanced) observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-41.51535	12.61513	-3.290916	0.0018
LNEXPORT?	1.006818	0.258145	3.900207	0.0003
INF?	-0.020963	0.005709	-3.671979	0.0006
LNUNEM?	0.162018	0.140658	1.151861	0.2546
LNEMPL?	3.211225	1.125869	2.852220	0.0062
LNXRATE?	1.282190	0.197782	6.482843	0.0000

R-squared	0.990617
Adjusted R-squared	0.985746

Result and Analysis

The analysis of panel regression with fixed effect by using Eviews6 as described in table 1.

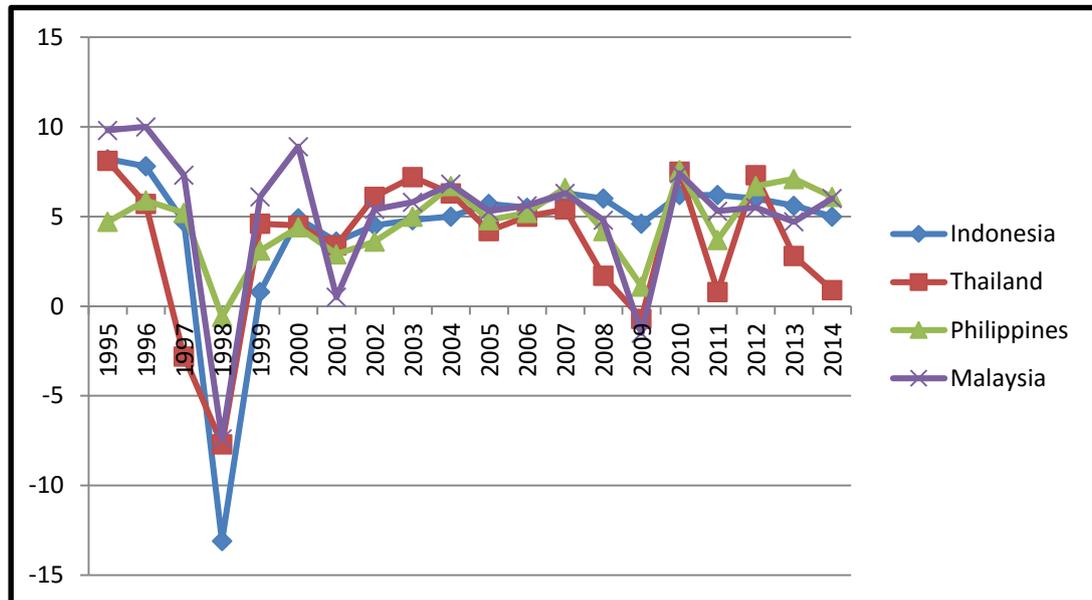
Full table of regression can be seen in the appendix 3. Based on the analysis above, we get conclusion that economic growth of four ASEAN member countries (Indonesia, Philippines, Malaysia and Thailand) could be affected by several independent variables with determination coefficient 0.990617.

It means that 99 per cent of variations' dependent variable can be explained by those independent variables. Meanwhile the rest explained by something out of the model.

Although GDP cannot be full reflection of overall economic activities, it is still approved as a proxy for social welfare around the the world.

The graph of economic growth from 1995 to 2014 depicted in the graph 1.

Graph 1. GDP



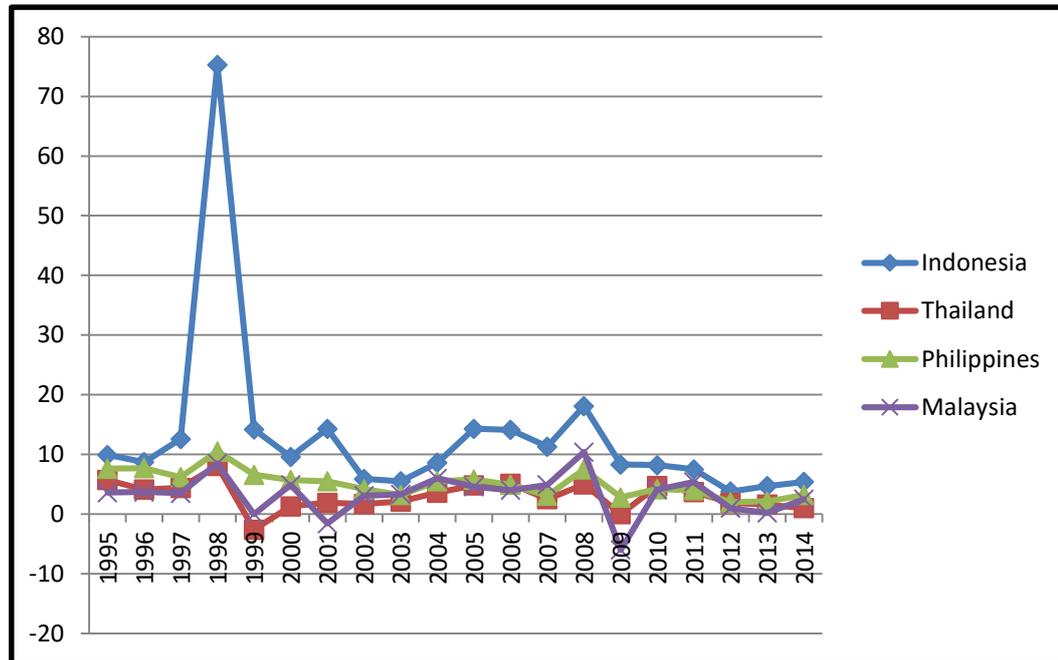
Source: ADB

From the graph 1 we know that economic growth of four ASEAN member countries has been fluctuating year on year. The most striking negative economic growth can be seen as a result of monetary crisis in 1997, which started from Thailand and induced to its neighbor countries. Indonesia got the worst impact. The declining of economic growth reached more than 10 per cent in 1998, followed by Thailand and Malaysia. Meanwhile Philippines stood in the moderate position. It is reported that Indonesia's capacity cannot compete with the neighbours. It is also faced with the burden to pay national debt which conducted by Presiden Soeharto as funds to stimulate economic growth. Meanwhile the recovery packages from IMF arrangements cannot suit to cure crisis, even make it worse. Malaysia, a nation which refuses the packages, in fact can be more productive than Indonesia.

From this point we can conclude that Indonesia was trapped with double obstacles: monetary crisis and burden of debts. However, the decreasing of economic growth has been paid by increased rate in next year. Thailand was reported as the top position among those countries. The post-crisis recovery works fast, so that the condition became better quickly.

The graph 1 also shows the insightful review that in 2008 when crisis of subprime mortgage happened in US, the economic growth of those ASEAN countries collapsed. Malaysia and Thailand were in the flunked situation. Indonesia and Philippines reached little better. The two last countries were reported to be able to maintain positive pace of economic growth. Declining of economic growth coincided with rising of commodity prices. Inflation could not be kept in low rate, and even moved back and forth at high rate. The following graph depicts the inflation rate from 1995 till 2014.

Graph 2. Inflation



Source: ADB

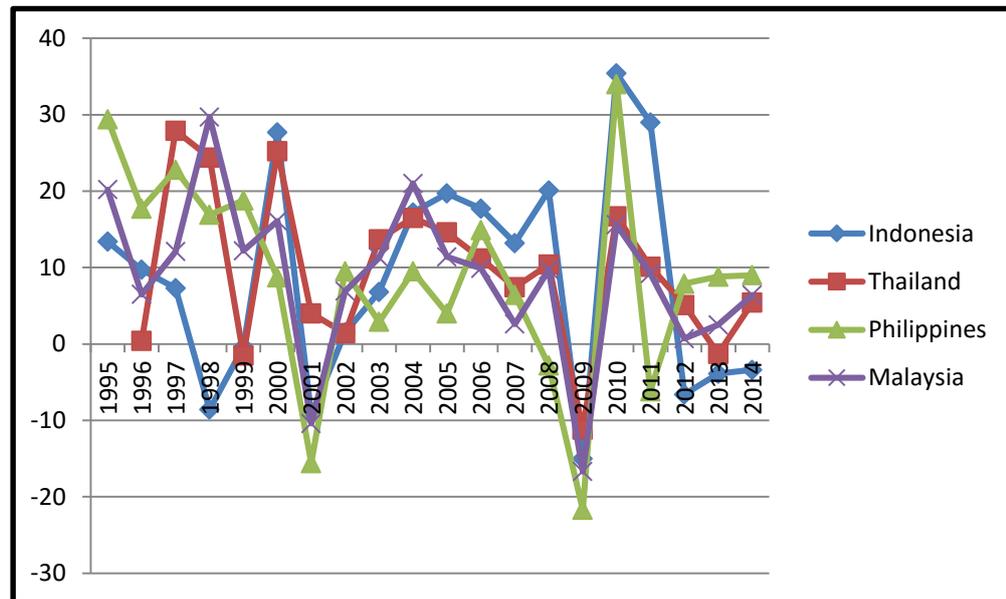
The graph 2 demonstrated that Indonesia got in the worst condition when the monetary crisis 1997 occurred. In line with downward economic growth which decreased sharply till minus 10 per cent, inflation rose very high and got peak at 78 per cent. The worst situation was actually not only affecting negatively on purchasing power of society, but also in one extreme could deteriorate people's trust to the government. Fortunately it not very long existed. In next period, inflation could be pressed until a tolerated limit.

Based on estimation, we get the result that increasing inflation at 1 per cent will make economic growth decreasing at -0.020 per cent. Value of t-calculation at -3.671979 stated significance at degree 1 and 5 per cent. Value of t-table at degree 1 and 5 per cent are

consecutively at 2.000 and 2.660. It means that alternative hypotheses approved. Inflation was convinced to have negative impact toward economic growth.

In this research we also find that rising 1 per cent of export commodities, will raise Gross Domestic Product (GDP) at 1.006 per cent with assumption other variables not alter (*ceteris paribus*). The value of t-calculation at 3.900207 is bigger than t-table at degree 5 and even at 1 per cent, which are consecutively at 2.000 and 2.660. Exports have a parallel relationship with economic growth. By exporting, storage of foreign exchange of those countries will be bigger. Huge amount of foreign exchange can be used to purchase imported commodities for consumption, investment, or other government expenditures. The graph 3 depicts export growth from 1995 until 2014.

Graph 3. Export



Source: ADB

From graph 3 we know that export growth of 4 ASEAN members tends to fluctuate following the global economic imbalances. Only Malaysia which could sustain export growth at high rate while monetary crisis occurred in 1997. Three other nations, especially Indonesia, decreased sharply until minus some points. In 2001, and 2009 exports of those countries together declined because of obstacles in global markets. Just as those countries trying to recover, those made improvement in the next year and reached better point.

Result in this research shows that export-led growth hypothesis occurred in Indonesia, Philippines, Malaysia, and Thailand.

Therefore we can say that increasing export capacity will enhance economic activities, because trade has prominent role in boosting economic growth. All those countries have no chance of winning the market global competition, except they play radical changes on how to undermine barriers of development.

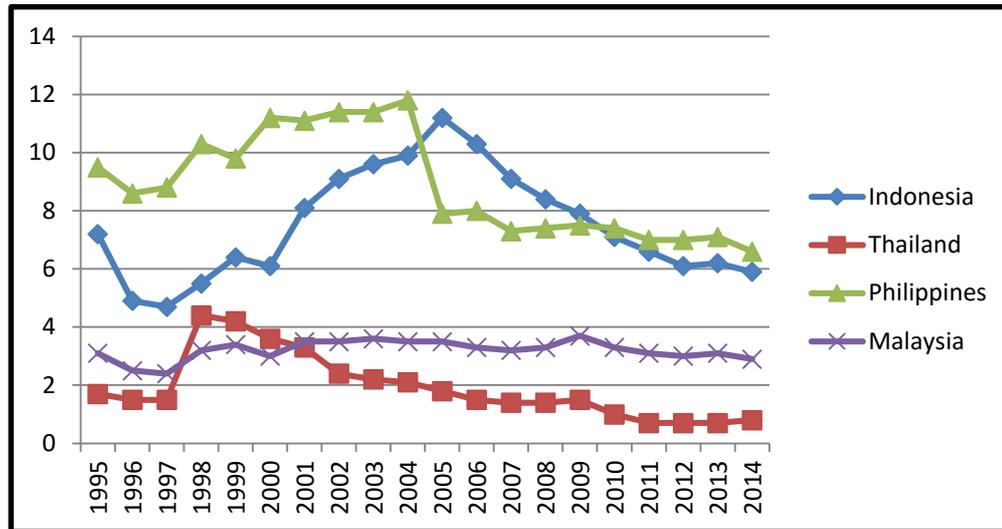
Nowadays trade across countries or regions has become necessity. None of country in the world alienates from global activities. Even the mysterious communist nations such as North Korea and Cuba, have

agreement and cooperation with the others, for example with China or Russia. World trade activity is believed as a key to open shackles of people welfare. By trading each other, people's needs could be fulfilled. There is no one country in the world which can provide everything by itself.

Concept of GVCs (Global Value Chains) has been known in the level of international trade as a medium for production process in global market. In this domain, each country concentrated to produce specific components, and not an intact product. For instance, Japan and other developed countries like USA, and Germany open factories for their manufacture industries in some ASEAN countries.

They sometimes only produce some components of machines or products, and let the other countries support the rest for the completion. This economical strategy has a goal to expand the market shares and ease production process by involving many countries to work together. It also has succeeded in providing jobs for many local inhabitants. The most important thing is also that developing countries have surplus of workers with low salary, which is very crucial reason for making profits.

Graph 4. Unemployment



Source: ADB

For some reasons, all these ASEAN countries actually are in the developing stage of economic growth. All these are neither developed nor poor countries. So that we are supported by Poon's (1994) that export has significant positive impact toward economic growth.

But in these countries we also can say that not only exports having positive impact, but also import produces a stimulus to many manufacture industries in ASEAN region for strengthening the development.

To trigger positive pace of economic growth we need collaborative policies especially in improving labor skills. Without good regulations, burdens of unemployment still would become big problem of development. The graph 4 depicts the growth of unemployment in four ASEAN countries.

The graph 4 shows us that the percentage of unemployment rate inclined to fluctuate. It has been volatile years, but the graph are close to record downward rate. From the four countries, Thailand has the lowest rate of unemployment. Even in 2014, that "the white elephant country" could press the rate until 0.2 per cent. Meanwhile the others are still at higher level. First sequences which always compete are Indonesia and Philippines. These two countries seem to have difficulties in combating unemployment

due to large population and obstacles for social engineering. If we hurry not to solve the problem, large young population of ASEAN will be in vein.

Based on the estimation, we find that variable of unemployment does not show the significant effect toward dependent variable. We do not need to interpret as the sign is not significantly different from zero. We cannot get more understanding about negative relation between economic growth and unemployment rate.

It is curious that unemployment in several ASEAN countries did not show any effect towards economic growth. It might be understood that Okun's law is strictly not compatible with developing countries. In those ASEAN countries struggle of life adapts communalism. For instance in Indonesia, many people hold strongly local or cultural norms that they should support each others' life. So that it will generate understanding that even if someone did work, he or she can fulfill their basic needs because many people will provide it as charity.

Actually by this finding we are not sure that it is contradict with Okun's Law. We must test some considerations regarding this anomaly. But it is interesting enough, because we include econometric model by involving number of employed people which apparently has positive significantly impact on economic

growth. The rising of employed persons at 1 per cent, will increase economic growth at 3.211 per cent. The analysis was supported by value of t-calculation at 2.852 which is bigger than t-table at 5 and 1 per cent which are successively at 2.000 and 2.660. This is in accordance with theory of Solow growth model which declared that economic growth is basically supported by capital (K) and labor (L).

In this research we found that change of currency has positive relationship with economic growth. Rising of exchange rate at 1 per cent would be followed by an increase of economic growth at 1.282 per cent, with assumption that other variables do not alter (*ceteris paribus*). The value of t-calculation at 6.482 which is bigger than t-table at 5 and 1 per cent which are successively at 2.000 and 2.660 shows significance of that impact. It has been taken for granted that strong economy often joined strong exchange rate. We can look at the experience when crisis occurred in 1997, all of the four countries' exchange rate weakened, and situation got into economic disturbances.

Conclusion

This research has proved that hypothesis export-led growth occurred in some ASEAN members: Indonesia, Malaysia, Thailand, and Philippines. In these countries, exports are supporting components of economic growth. In one side, this research contradicted with beliefs which addressed that exports of developing countries tend to get into instability, so that the impact will be negative or even absurd. Nevertheless other researchers' finding affirmed this research, due to those countries are in the middle of development pace.

It is also plausible record that inflation rate has been proved to have negative impact on economic growth. The high inflation could trigger negative outcomes rate. Meanwhile employment has positive significant influence, although unemployment rate in this research notifies not any impact at all.

In particular, this research supports that the floating regime of exchange rate appearing to be in line with positive economic growth. The government can spend foreign exchange rate to finance other instruments for

smoothing of international trade, rather keeping local currencies steady state.

And finally, ASEAN is actually a strategic region, such as a gateway into other places in the world. Stable economic growth of this region can be very important definitely due to huge market asset, large young population, rich natural resources, diversified cultures and religions. It is vital for policy-makers and other development stakeholders to work together in improving its capacity, in order to actualize ASEAN miracle in near future.

References

- Asian Development Bank (ADB).
Baltagi, Badi H. (2005), *Econometric Analysis of Panel Data*. West Sussex: John Wiley & Sons, Ltd.
Bekó, Jani (2003), "Causality Analysis of Exports and Economic Growth: Aggregate and Sectoral Results for Slovenia", *Eastern European Economics*, Vol. 1, No. 6: 70-92.
Berument, Hakan, and Mehmet Pasaogullari (2003), "Effets of the Real Exchange Rate on Output and Inflation: Evidence from Turkey", *The Developing Economies*, XLI-4: 401-435.
BP. (2013). *Statistical Review*. British Petroleum.
Charpe, Matthieu, Sangheon Lee, Daniela Arias and Slim Bridji (2014), "Does Income Distribution Matter for Development? Trends in Labour Share of Income and Their Economic Impacts in Developing Countries", *World of Work Report*: 149-180.
Dodaro (1993), "Export and Growth: A Reconsideration of Causality", *The Journal of Developing Areas*, 27: 227-244.
Dutt, S. D., and Ghosh, D. (1996), "The Export Growth-Economic Growth Nexus: A Causality Analysis", *The Journal of Developing Area* 30: 167-182.
Ewers, Michael C. (2015), "Oil, Human Capital, and Diversification: The Challenge of Transition in the UAE and the Arab Gulf States", *The Geographical Journal*, 1-15.

- Henriques, I., and Sadorsky, P. (1996), "Export-Led Growth or Growth-Driven Export? The Canadian Case", *The Canadian Journal of Economics*, 39 (3): 540-555.
- Herzer, D., Nowak-Lehman D. F., and Siliverstovs, B. (2006), "Export-Led Growth in Chile: Assessing the Role of Export Composition in Productivity Growth", *The Developing Economies*, September, XLIV-3: 306-328.
- Kaushik, Krishan K., Lawrence Nii Arbenser, and K.K. Klein (2008), "Export Growth, Export Instability, Investment and Economic Growth in India: a Time Series Analysis", *Journal of Developing Areas*, 41 (2): 155-170.
- Krugman, P. R., Obstfeld, M. and Melitz, M. J. (2012). *International Economics: Theory and Policy*. London: Pearson.
- McCallum, Bennett T. (2014), "Monetary Policy in A Very Open Economy: Some Major Analytical Issues", *Pacific Economic Review*, 19 (1): 27-60.
- Ngandu, Stewart (2008), "Exchange Rate and Employment", *South African Journal of Economics*, 76: S2: S205-S221.
- Noor-e-Saher (2011), "Impact of Oil Prices on Economic Growth and Exports Earning: in the Case of Pakistan and India", *The Romanian Economic Journal*, XIV-40: 117 – 130.
- Odusola, A.F., and A.E. Akinlo (2001), "Output, Inflation, and Exchange Rate in Developing Countries: An Application to Nigeria", *The Developing Economies*, XXXIX-2: 199-222.
- Pangestu, M. (2012), "Globalisation and Its Discontents: an Indonesian Perspective", *Asian-Pacific Economic Literature*: 1-17.
- Poon, J. (1994). Export Growth, Economic Growth, and Development Levels: An Empirical Analysis. *Geographical Analysis*, Vol. 26, No. 1, 37-52.
- Rashid, F., Ullah, S., and Bedi-uz-Zaman (2012), "Effects of Exports Instability on Economic Growth in SAARC Region Countries". *Pak. J. Commer. Soc. Sci.*, 6 (1): 97-120.
- Romer, David (2012), *Advanced Macroeconomics*, New York: McGraw-Hill.
- Salvatore, D. (2007). *International Economics*. New Jersey: John Wiley & Sons, Inc.
- Tiwari, A. K. (2011), "Tourism, Export and FDI as a Means of Growth: Evidence from four Asian Countries", *The Romanian Economic Journal*, XIV (40): 131-151.
- Weber, C. E. (1995). Cyclical Output, Cyclical Unemployment, and Okun's Coefficient: A New Approach. *Journal of Applied Econometrics*, 10(4): 433-445.

Appendixes

Appendix 1
Test for Appropriation of Model between Common and Fixed Effect

Redundant Fixed Effects Tests			
Pool: ANALYSIS			
Test cross-section and period fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	52.361763	(3,52)	0.0000
Cross-section Chi-square	111.319883	3	0.0000
Period F	1.665442	(19,52)	0.0746
Period Chi-square	38.025511	19	0.0059
Cross-Section/Period F	18.602130	(22,52)	0.0000
Cross-Section/Period Chi-square	174.615175	22	0.0000

Appendix 2
Test of Hausman: To Identify the proper model between Fixed and Random Effect

Correlated Random Effects - Hausman Test			
Pool: ANALYSIS			
Test period random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	22.422425	5	0.0004
** WARNING: estimated period random effects variance is zero.			

Appendix 3
Result of Two-Way Fixed Effect Panel Regression

Dependent Variable: LNGDP?				
Method: Pooled Least Squares				
Date: 03/29/16 Time: 11:49				
Sample: 1995 2014				
Included observations: 20				
Cross-sections included: 4				
Total pool (balanced) observations: 80				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-41.51535	12.61513	-3.290916	0.0018
LNEXPORT?	1.006818	0.258145	3.900207	0.0003
INF?	-0.020963	0.005709	-3.671979	0.0006
LNUNEM?	0.162018	0.140658	1.151861	0.2546
LNEMPL?	3.211225	1.125869	2.852220	0.0062
LNXRATE?	1.282190	0.197782	6.482843	0.0000
Fixed Effects (Cross)				
_INO--C	-12.04576			
_THA--C	2.923494			
_PHI--C	-0.219926			
_MLY--C	9.342193			
Fixed Effects (Period)				
1995--C	1.154988			
1996--C	1.018312			
1997--C	0.223777			
1998--C	0.594702			
1999--C	0.008049			
2000--C	0.132333			
2001--C	0.089440			
2002--C	0.042673			
2003--C	-0.033039			
2004--C	-0.168046			
2005--C	-0.191916			
2006--C	-0.195462			
2007--C	-0.239023			
2008--C	-0.363120			
2009--C	-0.370862			
2010--C	-0.131130			
2011--C	-0.267580			
2012--C	-0.313499			
2013--C	-0.470199			
2014--C	-0.520398			
Effects Specification				
Cross-section fixed (dummy variables)				
Period fixed (dummy variables)				
R-squared	0.990617	Mean dependent var	9.362627	
Adjusted R-squared	0.985746	S.D. dependent var	2.279796	
S.E. of regression	0.272187	Akaike info criterion	0.504564	
Sum squared resid	3.852465	Schwarz criterion	1.338273	
Log likelihood	7.817457	Hannan-Quinn criter.	0.838821	
F-statistic	203.3415	Durbin-Watson stat	1.130156	
Prob(F-statistic)	0.000000			