

# The Role of International Trade to Economic Growth: The Case of Indonesia

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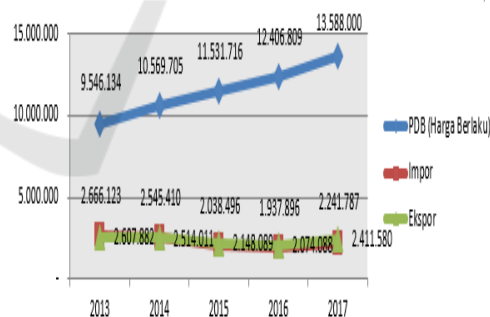
Abstract: This study is aimed to identify the effect of export and import toward economic growth in Indonesia. Using the monthly data from the year 1999 to 2017 and Vector Autoregression analysis, it is found that Gross Domestic Product (GDP) will response negatively in short term and positively stable in the long term in period of 15 due to the shocked of export. Furthermore, GDP will response positively in short term and positively stable in the long term in period of 20 due to the shocked of import. There is no significant effect export to GDP as well as import to GDP in the short term and long term. Therefore, there is no effect of international trade (export and import) to economic growth for Indonesia.

## 1 INTRODUCTION

In the earliest 2018, several government policies shocked Indonesian related to the food material import. This policy remain unrest to the society because Indonesia is popular with Agrarian and rich with natural resources country but in fact still importing for some food materials. Nowadays, Indonesia still suffers from the lack of rice stock; therefore the inflation rise due to the rice price increased. Despite of rice, the inflation also might happen to other food materials such as brown sugar, salt industry, etc. Indonesia is not only importing food materials, but also importing other products such as gas and oil. Plethora public news highlight that Indonesia also import labor from China. Supporting this latter assertion of BPS year 2017, China was dominated export and import activity in Indonesia. Notwithstanding, Indonesia balance of trade conditions were surplus at US\$ 1.76 billion, export were at US\$ 14.54 billion and import were at US\$ 12.78 billion. The supernumerary of trade balance is occurred due to the number of import were greatly decreased compared to the number of export.

Economic sector is the most important sector to measure the welfare of a country. We can consider that a country is in a prosperity condition through the number of its economic growth. Basically, if the economic growth experience positive direction, therefore we can say that the country is welfare, and

otherwise. There are many determinant factors affected to the level of country's prosperity measurement, for example, inflation, politic situation, etc. Be advised that papers in a technically unsuitable form will be returned for retyping. After returned the manuscript must be appropriately modified.



Graph 1: The GDP, Import, and Export Trend by the year 2013-2017 (IDR billion) Source: Statistic Center (2017)

The graph 1 depicts of Indonesia economic growth trend which is reflected by GDP (Gross Domestic Product), import and export value by the year 2013 - 2017. According to the number of economic growth which is represented by GDP, Indonesia experienced a good economic growth where GDP positively increased over time. However, the growth of product and services produced disproportionate with the movement of export and

import activity in Indonesia. As shown in graph 1, export and import activity from the year 2013 to 2017 were fluctuated and tend to decreased. Specifically, export and import experienced decreased from the year 2014 to 2016 and start to increase in 2017.

Trade reformation has an important role to determine the policy direction of a country. Every country, both advanced countries and developed countries have a very uniqueness natural resource and tend to differ among another. This means that every country has potency to create product with their own comparative advantage, such as raw material, labor, and other costs to produce the specific product (Adeleye, Adeteye & Adewuyi, 2015). Therefore, the existence of trading system is greatly important, not only rely on intern trading, but also expand to the international scale.

Import-export activity provides much benefit to the involved-country. Export is one of foreign exchange source that are greatly required by the open-country or region as well as Indonesia, because a wide export to various countries will increase the number of production and promote the economic growth, so it is expected to greatly contributing toward economic stability (Rivai, 2006). Meanwhile, through import, a country is able to fulfill their intern need that probably cannot be produced internally or use the comparative advantage pattern so the exceed cost of product and services will be cheaper.

Export and import activity can support the economic growth of a country (Roshan, 2007; Velnampy & Achchuthan, 2013). Hye (2012) argues in his research in China that export will lead to economic growth of a country as well as economic growth will lead to export. Besides, import also will lead to economic growth as well as economic growth will lead to import (exports-led growth, growth-led exports, imports-led growth, and growth-led imports). Meanwhile, plethora empirical research revealed that despite of export, import also led to economic growth. Hasim & Masih (2014) also addresses the issue of import activity, where import has an important role to stimulate the overall economic performance of a country. The effect of import toward economic growth may be difference with the effect of export toward economic growth. "The transfer of technology from developed to developing countries through imports may serve as an important source of economic growth. Imports can be a channel for long run economic growth because it provides domestic firms access to foreign technology and knowledge." (Hasim & Masih, 2014).

Through import, country will have opportunities in technology and knowledge exchange among

countries, so it also will lead to the economic growth in the long term. Supporting this latter assertion of Mazumdar (2001) that import will led to economic growth (import-led-growth (ILG)). The source of western knowledge also has important role toward the growth of productivity of a country through their technology innovations such as computer, machine, and tools. So, it is fairly to conclude that import influences the economic growth through import competitiveness. "Imports can affect the productivity growth through its effect on domestic innovation through import competition. An increase in import penetration will exposes the domestic firms to foreign competition. Import are important to productivity growth because the domestic producers will respond to the technological competitive pressure from foreign competition." (Hasim & Masih, 2014).

As well-discussed in the previous paragraph, export and import activity is being an important factor which is contributing to the economic growth of a country. Gross Domestic Product (GDP) indicator represents the economic growth consist of 17 economic sector categories based on industry sector. GDP value is representing the growth of society's economic activity who work and also the total number of value added (product) which are produced from various number of job employment. According to the discussion above, the objectives of this study is aimed to identify the effect of export and import toward economic growth in Indonesia.

## 2 LITERATURE REVIEW

Boediono (1999) defines economic growth theory as an explanation of factors which are affecting the increasing of income per-capita in the long term. He also argues that economic growth as an explanation of enhancement factors among others, then the growth process occurred. Economic growth theory is divided into two groups: (1) classical theories, involve the growth theory of Adam Smith, David Richard, and Arthur Lewis. The difference between Lewis theory and other classical theories was found that Lewis emphasizes to the economic dualism aspect, where the existence of modern sector and traditional sector. Each sector has its own specific economic characteristic. (2) Specific theories, involve 4 (four) sub groups, namely:

- a. Growth theory of Neo Classic, initiated by Robert Solow and Trevor Swan theory
- b. Optimum growth theory. This theory is intended to seek the most optimum of

economic growth path involve Dalil Emas theory and Jalan Raya theory

- c. Growth theory escorted by money. This is a development theory of neo classical theory, but by the additional of money as the wealth property. The basic theory comes from James Tobin masterpiece.

Nowadays, the definition of economic growth has an extended discussion, another main issue explored in detain in Prof. Simon Kusnets, where Jhingan (2005) analyzes that economic growth is defined as the increasing of country’s capability to serve a large number of economic product variations to their society in the long-term. This growth of this potency is tailored to the technology development, organization adjustment, and the ideology requirement. This definition is divided into 3 (three) component; (1) economic growth of a country is seen from the persistently increasing of commodity stock; (2) advanced technology is being a factor of economic development where determine the growth level of ability to serve a large number of economic product variations to their society; (3) the using of technology widely and efficiently is required the adjustment of organization and ideology, so the innovations that are generated by knowledge can be utilized effectively.

Plethora academic research found that economic growth affects toward international trading activity and whereas the international trading (export and import activity) can led to the economic growth (Won, 2008; Shahbaz & Rahman, 2014). One of the economic groth indicator is GDP. In the several of academic reserach, GDP is widely used as proxy represents the economicy growth (Adeleye, Adeteye & Adewuyi, 2015; Akanni, 2007; Vohra, 2001). Gross Domestic Product (GDP) is the market value of overall product and service, which are produced by a country in a period of time (Kravis, Heston & Summers, 1982). GDP is also used to calculate the national income. GDP means the overall value of product and service which are produced by a country in the specific period (normally in a year).

International trading involve export adn import activity where the exchange of product and service among countries is occured. Export is an activity where a country sells their commodity (both product and service) outside the coutry by utilizing the approved-payment system between seller (exporter) and buyer (importer). Meanwhile, import is the purchasing activity of commodity from the outside countries to the domestic (Seyoum, 2009).

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### 3 RESEARCH METHOD

This study is conducting timeseries secondary data which is obtained from Statistic centre (BPS/Badan Pusat Statistik) and published in their official website (www.bps.go.id). Data is obtained from the monthly data from the year 1999 to 2017.

Table 1: Operational Variable Explanations

NO	Variable	Operational Explanations	Source of Data
1	GDP (Gross Domestic Product)	Current price will be used as proxy of GDP due to more representattive of the real price	Statistic Centre
2	Export	Monthly export value	Statistic Centre
3	Import	Monthly import value	Statistic Centre

To have better understanding of the data usability in this research, following explanation will be discussed:

1. GDP (Gross Domestic Product): current price is used as proxy of GDP due to more representative of the real price (real time). Current price is selected rather than nominal price due to diminissing of inflation effect, therefore, the value of economic growth will represent the real condition. Monthly GDP data is obtained using interpolation method (quadratic match sum method) over quartile GDP with Eviews 9.
2. Export and Import: the data which is used to represent the value of import and export is the total number of monthly export and import by the year 1999-2017 and can be obtained from the official website of statistic centre (www.bps.go.id)

The equation model that is constructed in this model to identify the export and import contribution toward economic growth as follows:

$$\text{LnGDP}_t = \alpha + \beta_j \sum_{j=1} \text{LnEkspt}_{t-j} + \gamma_j \sum_{j=1} \text{LnImp}_{t-j} + \mu_1 t \dots (3.1)$$

Where:

LnExp : Natural Logarithm transformation of export  
 LnImp : Natural Logarithm transformation of import  
 LnGDP : Natural Logarithm transformation of GDP

The research problem of this study will be analyzed by employing Vector Auto-regression econometric technique. VAR simply describes the causality relationship among variables in a system, by adding intercept. Ascarya (2009) argues that this method was developed by Sims in the year 1980 respectively. Sims (1980) assumed that all variables are endogenous (determined in the model), therefore this method is named by e-theoretic model (without theoretical based). If the used data is stationer in the first difference, then VAR model will be combined by the correction model so we called as Vector Error Correction Model (VECM). Impulse response function analysis will be conducted to identify the response of endogenous variables toward the shock of other variables in the model. Variance decomposition analysis also will be conducted to explain the variability of endogenous variables (Tanjung & Devi, 2013). The entire data of this study is transformed to the natural logarithm form (LN form). The software employs in this study is Microsoft Excel and Eviews 9.

VAR method provides the convenience to use and also minimizes the lack to determine the endogenous and exogenous variables. There are several benefit provided by VAR (Gujarati, 2003):

1. Easy to estimate, Ordinary Least Square (OLS) method can be applied to each different equation separately.
2. Better estimation of forecasting rather than complexity simultaneous equation model.
3. Impulse Response Function (IRF) provides the response from dependent variable in the VAR system toward shock of error term.
4. Variance Decomposition provides information regarding to the importance of each error term to influence all variables in VAR.

The step of research using VAR analysis will be explained as follows

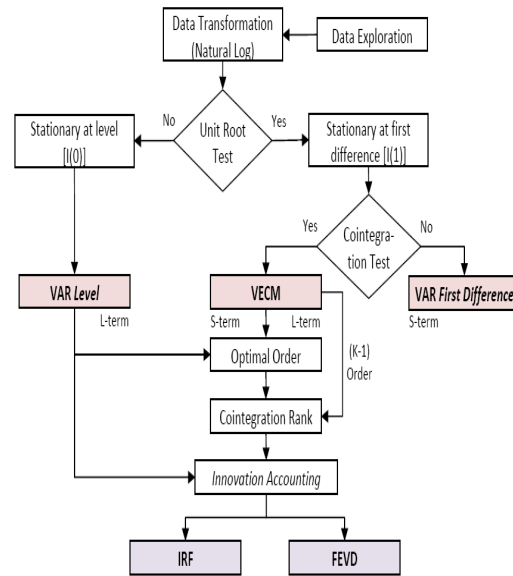


Figure 1: VAR Step of Research  
 Source: Ascarya, et al. (2008)

Figure 1 describes the steps of research where provides different information comply with the characteristic of result. If data is stationer in VAR level, this means that the data contains long-term information. While, if data is non-stationer in VAR level, unit-root test has to be conducted in first difference level. In this step, data contains information specific only for short-term. However, in order to obtain the result which is containing long-term information, co-integration test must be conducted. Supposing that co-integration is occurred, therefore, it can be proceed to the next step, so called as Vector Error Correction Model (VECM). In this level, information produced trough VECM consist of short term and long term.

On the assumption that the data has been obtained trough previously determined sources, stationary test is implied toward the data. Stationary test is intended to identify whether the variables used stationer or non-stationer. This means that the employed time series data will be stationer only if the data is not containing unit root where mean, variance, and covariance are constantly over the time. Contrarily, time series data will be non-stationer if containing unit root, where mean, variance, and covariance are variables over the time. The implementation of unit root test is the most popular test to identify the stasionerity of the entire data. In order to make easier, author will determine the kind of test that utilizd to test unit root, namely Augmented Dickey-Fuller (ADF) which has been developed by Dickey Fuller.

Gujarati (2003) argues that after conducting ADF test toward, lag determination should be done for the next step of reseach. insufficient lag will induce to the inability of regression residual to perform white noise processes, so the model has no ability to estimate the actual error properly. In consequence,  $\gamma$  and error standard is not estimated properly and if the inserted lag is too much, so it will affect to the reduction of ability to reject H0, because the extravagant of additional parameter will reduce degrees of freedom. Optimum lag might be determined by setting lag value that can be obtained from LR (sqquential modified LR test statistict), FPE (Final Prediction Error), AIC (Akaike Information Criterian), SC (Schwarz Information Criterion), and HQ (Hannan-Quinn Information Criterion).

Assuming that stationerity phenomenon were at first difference or I (1) level, so the test must be undertaken to seek the existence of co-integration. In essence, co-integration concept is intended to seek long-term equilibrium among observed variables. In several cases, we might find where the data is non-stationer, but in other cases they will have a linier connection, therefore the data will become stationer. This condition is called as co-integrated data. Besides, co-integration tests also conducted by following Johansen procedure. Johansen test focus on trace statistic and max eigen statistic value to determine the co-integration. Trace statistic and max eigen statistic value which are exceed of its critical value indicates the existence of co-integration in the model used.

VECM is a form of restricted Vector Autoregression. This additional restriction must be applied due to the existence of non-stationer form of data but has co-integration. Formerly, VECM utilize co-integration restriction information in its specification. Therefore, VECM is often called as VAR design for series nonstasioner but has co-integration relationship. In the analysis, VAR has a specific instrument that has a special function to explain the interaction among variables in the model. The referred instruments involve Impulse Response Function (IRF) and Forecast Error Variance Decompsitions (FEVD), or generally called as Variance Decompsition (VD). IRF is an application of vector moving average has the aim to identify the length of shock from one variable toward another variables. Meanwhile, VD in VAR has a function to analyze to what extend the shock from one variable affect to other variables.

## 4 RESULT AND DISCUSSION

In order to obtain the valid data, we need to analyze several pre-tests before conducting VAR/VECM analysis. The pre-test that is conducting in this study involve root test analysis, stability test, lag optimum test, and co-integration test. If the overall data has fulfilled the series-test as required, then the model can be analyzed. Following discussion provide the result information of GDP model.

### 4.1 Unit Root Test

Unit root test were used to identify the stationary of variables by using Augmented Dickey Fuller (ADF) with 5% significant level. If t-ADF value is smaller than McKinnon critical test value, we can conclude that the data is stasioner or not consisting unit root any longer. In this test, all varibles in equation will be tested. The result of export, import, and GDP variables stationary test will be described trough following table:

Table 2: Augmented Dickey Fuller Test Summary

Variables	ADF Value		McKinnon Critical Value (5%)	
	Level	1 <sup>st</sup> Difference	Level	1 <sup>st</sup> Difference
Export	0.995051	-8.673327	3.490662	-3.490662
Import	0.182068	-9.782675	3.490662	-3.490662
Economic Growth	2.738126	-10.12496	3.487845	-2.489228

Table 2 depicts that three mentioned variables, namely export, import, and economic growth are not stationary in level, but all variables are stationary in first difference (1<sup>st</sup> difference) for both ADF value and McKinnon critical value. According to this situation, the variables can be analyzed to the next level.

### 4.2 Stability Test and Optimum Lag

Stability test results show that GDP model is stable up to 9 (nine) maximum lag.

Table 3: Stability Test Lag Specification

Roots of Characteristic Polynomial  
 Endogenous variables: D(PDB) D(IMP) D(EKS)  
 Exogenous variables: C  
 Lag specification: 1 9  
 Date: 07/26/18 Time: 19:42

Root	Modulus
-0.975034 + 0.152991i	0.986964
-0.975034 - 0.152991i	0.986964
-0.820279 - 0.542757i	0.983586
-0.820279 + 0.542757i	0.983586
-0.898787 + 0.379590i	0.975657
-0.898787 - 0.379590i	0.975657
-0.529881 + 0.807612i	0.965925
-0.529881 - 0.807612i	0.965925
0.207891 + 0.942804i	0.965452
0.207891 - 0.942804i	0.965452
0.458873 - 0.842485i	0.959346
0.458873 + 0.842485i	0.959346
-0.023307 - 0.957276i	0.957560
-0.023307 + 0.957276i	0.957560
-0.404443 - 0.858555i	0.949047
-0.404443 + 0.858555i	0.949047
0.919279 + 0.146570i	0.930890
0.919279 - 0.146570i	0.930890
0.640292 - 0.635954i	0.902448
0.640292 + 0.635954i	0.902448
0.748442 + 0.324116i	0.815608
0.748442 - 0.324116i	0.815608
-0.256055 - 0.713403i	0.757963
-0.256055 + 0.713403i	0.757963
0.422358 + 0.341532i	0.543167
0.422358 - 0.341532i	0.543167
-0.258676	0.258676

No root lies outside the unit circle.  
 VAR satisfies the stability condition.

According to the stability test, we can conclude that VAR estimation that is used to analyze IRF and VD is stable. Stability test results show that GDP model is stable up to 9 (nine) maximum lag due to the number of modulus value <1 or closer to 1, accounted for 0.986964. Therefore, the conclusion is that the data condition to all variables are stable

Table 4: Optimum Lag Criterion

VAR Lag Order Selection Criteria  
 Endogenous variables: D(PDB) D(IMP) D(EKS)  
 Exogenous variables: C  
 Date: 07/26/18 Time: 19:45  
 Sample: 2013M01 2017M12  
 Included observations: 55

Lag	LogL	LR	FPE	AIC	SC	HQ
0	341.2489	NA	9.14e-10	-12.29996	-12.19047	-12.25762
1	368.6392	47.08745*	5.04e-10*	-12.89597*	-12.45801*	-12.72861*
2	374.4296	13.69777	5.28e-10	-12.85198	-12.08656	-12.65690
3	376.8005	3.879898	6.79e-10	-12.81093	-11.51802	-12.18752
4	384.8911	12.35664	7.11e-10	-12.67788	-11.15448	-12.02743

\* indicates lag order selected by the criterion  
 LR: sequential modified LR test statistic (each test at 5% level)  
 FPE: Final prediction error  
 AIC: Akaike information criterion  
 SC: Schwarz information criterion  
 HQ: Hannan-Quinn information criterion

Optimum lag test is important to remove auto-correlation in VAR system. Therefore, by using optimum lag, it will prevent the reappeared of autocorrelation problem. Lag optimum determination employs in this study referred to the shortest lag by

using Akaike Information Criterion (AIC). Pursuant to GDP model, the lag optimum was at lag 1, so the model can be analyzed to the next level. Similarly, referred to other criteria such as LR FPE and HQ, optimum lag was at lag 1. So, the final conclusion is GDP model can be analyzed to the next step.

### 4.3 Granger Causality Test

Granger causality test is used to identify whether two variables have causality relationship or parallel relationship. Similarly, whether one variable significantly has causality relationship to other variables, this due to every single variable has an opportunity to be endogenous variables or exogenous variables. Bivariate causality test in this model employs VAR pair-wise Granger causality test with 5% significant level. The Granger causality test result is shown through the following table.

Table 5: Optimum Lag Criterion

Pairwise Granger Causality Tests  
 Date: 07/26/18 Time: 19:54  
 Sample: 2013M01 2017M12  
 Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
IMP does not Granger Cause PDB	58	2.33515	0.1067
PDB does not Granger Cause IMP		1.34526	0.2692
EKS does not Granger Cause PDB	58	2.02093	0.1426
PDB does not Granger Cause EKS		1.36924	0.2631
EKS does not Granger Cause IMP	58	1.33607	0.2716
IMP does not Granger Cause EKS		0.16731	0.8464

Granger causality test concludes that export variables statistically insignificant affect to the GDP (0.1426 > 0.05 this means that hypothesis 0 is accepted, where there is no influence), similarly, GDP also statistically insignificant affect to the export (0.2631 > 0.05 this means that hypothesis 0 is accepted, where there is no influence). Therefore, we can conclude that there is no any causality to both variables export and GDP.

Import variables statistically insignificant affect to the GDP (0.1067 > 0.05 this means that hypothesis 0 is accepted, where there is no influence), similarly, GDP also statistically insignificant affect to the import (0.2692 > 0.05 this means that hypothesis 0 is accepted, where there is no influence). Therefore, we can conclude that there is no any causality to both variables import and GDP.

Import variables statistically insignificant affect to the export ( $0.8464 > 0.05$  this means that hypothesis 0 is accepted, where there is no influence), similarly, export also statistically insignificant affect to the import ( $0.2716 > 0.05$  this means that hypothesis 0 is accepted, where there is no influence). Therefore, we can conclude that there is no any causality to both variables import and export.

#### 4.4 Co-integration Test

Non-stationer data phenomenon at level can produce the relationship of long-term balancing or generally called as co-integration. Co-integration test using Johansen co-integration test is aimed to identify the co-integration relationship among variables. The result of this test will determine the analysis method that will be used whether VAR first difference or VECM (Vector Error Correction Model)

Table 6: Johansen Co-integration Test

Date: 07/26/18 Time: 19:58  
 Sample (adjusted): 2013M04 2017M12  
 Included observations: 57 after adjustments  
 Trend assumption: Linear deterministic trend  
 Series: PDB IMP EKS  
 Lags interval (in first differences): 1 to 2

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.266968	31.63824	29.79707	0.0303
At most 1	0.214944	13.93595	15.49471	0.0847
At most 2	0.002487	0.141932	3.841466	0.7064

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level  
 \* denotes rejection of the hypothesis at the 0.05 level  
 \*\*MacKinnon-Haug-Michelis (1999) p-values

Table 6 identifies that trace statistic value and eigenvalue maximum at  $r=0$  are greater than critical value at 5% significant level. This means that co-integration test indicates that among the movement of export, import, and GDP have the stability relationship and the similarity of long-term movement. In another word, every single short term period, all variables tend to adjust to reach long-term equilibrium.

#### 4.5 VECM Estimation Model

VECM estimation result shows the short term and long term relationship among variables (import,

export, and GDP). In this estimation, GDP is being dependent variables while independent variables are import and export. VECM estimation result used to analyze short term and long term effect of independent variable toward dependent variables. according to the table 7, it is clearly showed that there is no significant effect export to GDP as well as import to GDP in the short term.

Table 7: VECM Summary Result in Short Term

Variables	Coefficient	T-statistic
CointEq1	0.00092	[ 2.72704]
D(PDB(-1))	-0.45721	[-3.21668]
D(PDB(-2))	-0.29329	[-2.01217]
D(IMP(-1))	0.00754	[ 0.77692]
D(IMP(-2))	0.00297	[ 0.32424]
D(EKS (-1))	-0.01244	[-1.11248]
D(EKS (-2))	0.00348	[ 0.31076]
C	0.01352	[ 7.01490]

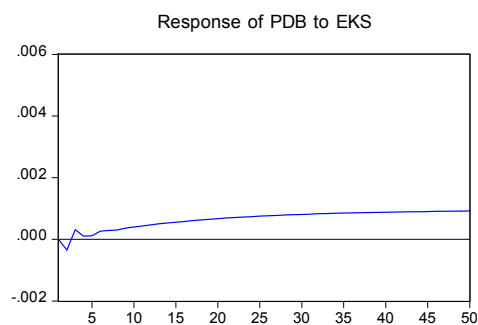
Meanwhile, table 8 provides longterm information the influence of import and export toward GDP. The result show that none of them has significant influence in the long term.

Table 8: VECM Summary Result in Long Term

Variables	Coefficient	T-statistic
IMP (-1)	-1.965642	-4.41480
EKS (-1)	2.767045	5.08545

#### 4.6 Impulse Response Function

Impulse response function describes the evolution of the variable of GDP along a specified time horizon after a shock in a given moment.



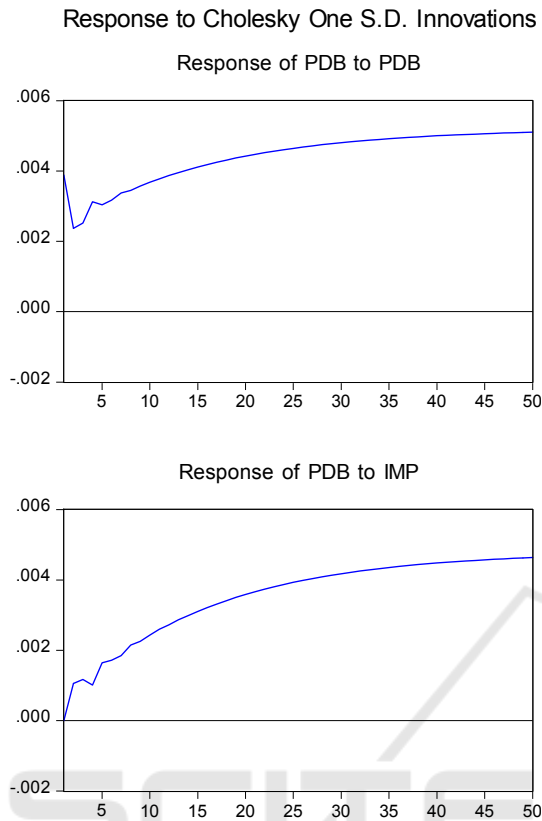


Figure 2: Impulse Response Function of Variables

Second graph of graph 2 shows the response of GDP if it is shocked by import variable. GDP will response the shock positively (+) strat from the first period and fluctutaitve to the period 12 and remain stable positively after period 14. The third graph shows the response of GDP after shocked by export. GDP respons negatively (-) strat from the second period and start increasing to the positive trend after period 3 and remain stable positive in the 10th period.

#### 4.7 Variance Decomposition

Variance decomposition uses to determined a number of contribution independent variables effect toward dependent variable. Graph 3 describes the fulcutaion of GDP difference, in the first period, GDP is greatly affected by GDP itself. Import remain in second priority after GDP start from the first period to period of 50. From this graph, we can conclude that import made the highest contribution toward GDP

respectively. In contrast, export was the least significant part of GDP.

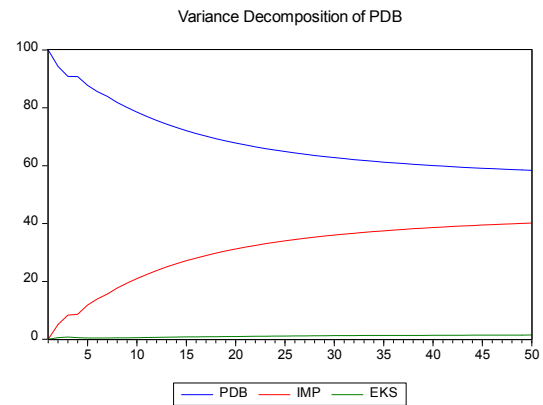


Figure 3: Variance Decomposition of GDP

## 4 CONCLUSIONS

From the previous briefly discussion regarding to the export and import contribution toward economic growth with VAR method, the conclusions of this study is described as follow:

1. According to the impulse response function analysis of the GDP model, it shows that GDP will response negatively in short term and positively stable in the long term in period of 15 due to the shocked of export.
2. According to the impulse response function analysis of the GDP model, it shows that GDP will response positively in short term and positively stable in the long term in period of 20 due to the shocked of import.

There are various areas that can be improved from current study for stakeholders and also further future studies, which could include:

1. Overall, the largest contribution of GDP is highly dependent on the government policy. If the changes of economic conditions is not appropriate to the previous forecasting, therefore the government policy also must be changed so the relationship as appeared as well as the existing theory.
2. In consonance with plethora theories that there are some macro economic variables affected to the economic growth. This study is specifically using export and import variables to determine its effect toward economic growth, both short term and long term. The author suggest for further study to insert more variables such as inflation, exchange rate, etc as intended to previous empirical studies. Another main variable from Islamic financial



variables may be inserted such as asset and financing of Islamic bank.

- For further research is suggested to separate research period into two main periods, before crisis and after crisis (pre crisis and post crisis). It is expected to have a briefly described of real economic condition and throw over of good or bad economic condition..

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