

The Effect of Indonesian Economic Openness on Poverty Levels in Indonesia

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Abstract: Globalization is often positioned as a cause of poverty problems in a country. This study seeks to provide empirical evidence for this view, especially for the Indonesian economy. Globalization is represented through the openness of trade in goods and services (external balance) and openness in the financial sector, including foreign direct investment and investment portfolios. It is suspected that trade openness and financial openness affect poverty levels in Indonesia. The model used to test the hypothesis is the error correction model (ECM), with time-series data from 1998 to 2017. The conclusion of this study is that it is true that trade openness affects poverty in Indonesia, but financial openness does not affect poverty in Indonesia.

1 INTRODUCTION

Most economists agree that trade liberalization and financial liberalization, or what is often referred to as openness in trade and financial openness, is one way to improve a country's economy. The openness policy on financial trade is expected to increase trade. World trade data from 1980 to 2002 have more than tripled. While in 2000, foreign direct investment worldwide reached 1.4 trillion dollars (Deliarnov, 2012).

The level of trade openness is measured using an index of the level of openness (ratio of exports and imports to GDP). According to Nowbutsing (2014), the level of openness can be classified into three categories namely less than 50% included in the category of low level of openness, more than 50% and less than 100% included in the category of medium level of openness and more than 100% included in the category of high level of openness. In the Asian region, Singapore has the highest level of openness, and Myanmar the lowest. Indonesia itself is ranked ninth on average, with a medium level of openness category.

Financial openness is marked by the magnitude of transactions in the financial market (*financial market*) starting from around the mid-1980s. The movement of capital flows is increasingly large in industrialized countries, especially countries in

Europe and America that have spread to various regions of the world, especially countries in Asia-Pacific. Chinn and Ito (2008) revealed that since 1970, based on the characteristics of the group of *less developed countries*, the financial disclosure index calculated from the ratio of capital accounts to foreign funding showed that the Asia-Pacific region had the greatest degree of openness when compared to other geographical regions. This indicates that the financial sector in the Asia-Pacific region is more open and has very low financial market constraints.

An economy with an increasingly free financial sector will contribute positively to macroeconomic conditions. Kalemli-Ozcan & Sørensen (2003) revealed that the increasingly integrated cross-country capital flows would keep macroeconomic variable fluctuations. This is because open financial flows will help the country in gaining a variety of access to capital, making variations in a country's production patterns increase, and in turn, will maintain fluctuations in macroeconomic variables.

Financial openness can be seen from the amount of foreign investment in the economy, both in the form of or *direct investment foreign direct investment* (FDI), as well as portfolio (*portfolio investment*). In the case of developing countries, FDI has a vital role in the development and economic growth of the country, as well as portfolio investment. This condition runs along with greater trade openness, which also triggers the growth of

direct investment and portfolio investment and has a positive impact on the economic growth of developing countries.

One of the problems faced by Indonesia as a developing country is a large number of people who are still living in poverty, both absolute and relative. In 1970 the number of people living on the poverty line (*poverty line*) numbered 70 million people, decreased to 42.30 million people in 1980, 38.74 million people in 2000, and decreased to 31.02 in 2010 and 2017 there were 26, 587 million people.

The discussion about economic openness, namely foreign factors in the Indonesian economy, has created a polemic in the public sphere. Specifically for foreign capital, there are pros and cons, sometimes the debate is less constructive for economic development. Based on the above background, this study was conducted to analyze:

- a. What is the effect of Indonesia's exports and imports on poverty levels in Indonesia?
- b. How does *foreign direct investment* in Indonesia affect poverty levels in Indonesia?
- c. How does the investment of Porto polio abroad in Indonesia affect poverty levels in Indonesia?

2 LITERATURE REVIEW

2.1 Economic Openness

The relevance of an economy to the global economy implies that the economy is integrated into the world market, both the goods market and the world capital market. Calderon (2005) states that integration in the global economy contributes to the potential benefits of economic growth and prosperity. Economic openness also means increasingly depleting economic activity barriers between the domestic market and foreign markets, both the goods market (trade openness) and financial markets (investment openness).

a. Trade Openness

Adam Smith explains the importance of trade openness, where trade without restrictions can create efficient use of resources and produce a country's production surplus (exports). The value of trade openness that is increasingly high is often interpreted as a hint of a more open economy. Measurements of trade openness can also be done with the openness index of import (*import openness*) and transparency index of export (*export openness*). The import openness index is none other

than the ratio of imports to GDP, while the export openness index measures the ratio of exports to GDP.

b. Investment Openness

Asongu (2012), in his research entitled "*Globalization and Africa: Implications for Human Development*," measures the level of financial openness based on the ratio of foreign investment to gross domestic product. Simorangkir (2006), in his study entitled "*The Openness and Its Impact to the Indonesian Economy: ASVAR Approach*," measures financial openness calculated from total foreign direct investment and portfolio investment inflows divided by GDP.

2.2 Poverty in Indonesia

Economically, poverty can be defined as a lack of resources that can be used to meet the necessities of life and improve the welfare of a group of people. Resources in the economic context do not only involve the financial aspects but include all types of wealth that can improve the welfare of the community in a broad sense.

Suharto (2006) says that there are three categories of poverty which is the center of attention of social work, namely:

a. The poorest group (*destitute*) or often defined as poor. This group has income below the poverty line (generally has no source of income at all) and does not have access to various social services.

b. The poor (*poor*), a group who have incomes below the poverty line, but relative to have access to basic social services.

c. Vulnerable groups. This group can be categorized as free from poverty because it has a relatively better life than the destitute or poor group. But this group that is often "*near poor*" (still poor) is still vulnerable to various social changes around it. They often move from "*vulnerable*" to "*poor*" and even "*status destitute*" if there is an economic crisis and do not get social assistance.

The Central Statistics Agency (BPS) uses the poor limit of the amount of rupiah spent per month per capita to meet the minimum food and non-food needs. For the minimum food requirements, a standard of 2,100 calories per day is used, while non-food minimum expenditure expenditures include spending on housing, clothing, and various goods and services. Furthermore, to measure poverty, applied *basic needs approach* is used, and the *HeadCount Index* is. Measurement of poverty with the basic needs approaches sees poverty as the

inability to meet basic needs, whereas the approach *Head Count Index* is a measure used to measure the magnitude of absolute poverty.

The World Bank measures poverty using different measures. The poor are those whose income is measured by their purchasing power of less than the US \$ 1.90 per day (*purchasing power parity, 2011*). Of course, this measure causes poverty in Indonesia to differ from those calculated by BPS.

The number of poor people is the number of people below the threshold called the poverty line, which is the rupiah value of minimum food and non-food needs. Therefore, the poverty line consists of two components, namely the food poverty line (*food line*) and the non-food poverty line (*non-food line*).

2.3 Previous Research

Feriansyah's, Noer Azam Achsani, and Tony Irawan (2018) have examined the effect of Financial Liberalization on Macroeconomic Volatility in the Asia-Pacific region. The dynamic panel model was used in 19 countries in the Asia-Pacific region during the period 1976-2015. The results of the study prove that the benefits of financial liberalization in the Asia-Pacific Region are due to the low volatility of macroeconomic variable growth only in the group of *developed countries*, and not for the group of *developing countries*. This result proves that the existence of financial liberalization has not had a full beneficial effect in the Asia-Pacific Region.

Financial openness in the Asia-Pacific region to global financial markets has not had a positive effect on the group of developing countries. That is, an increase in financial openness in a group of developing countries will further increase macroeconomic volatility in that group. As for developed countries, the results of their interactions with financial openness show significant negative results for all estimation results.

Nowbutsing (2014), analyzes the effect of economic openness on economic growth in member countries *Indian Ocean RIM (IOR)*. The research method used was *the root unit panel* and *panel cointegration* for 15 countries (Australia, Bangladesh, India, Indonesia, Kenya, Madagascar, Malaysia, Mauritius, Mozambique, Seychelles, Singapore, South Africa, Sri Lanka, Tanzania, and Thailand) during the 1997 period until 2011. The dependent variable of economic growth is represented by the GDP of each country. While the independent variable is the degree of trade openness

measured by the ratio of exports plus imports to GDP, the level of openness of imports (imports as a percentage of GDP), the level of openness of exports (exports as a percentage of GDP), government spending, gross capital formation, inflation, and labor. The analysis shows that the three levels of trade openness, the level of import openness, and the level of export openness have a positive effect. The level of import openness has the most influence on economic growth. This is possible because most of the IOR member countries are large importers in the field of technology as well as raw materials and supporting materials for industry.

Eunyoung (2012) studied the impact of trade openness and *foreign direct investment* on income inequality in developing countries. They are using panel data from 1975 to 2005 from 59 developing countries. The results of his research suggest that trade openness and direct investment flows have a significant effect on expanding income inequality in developing countries.

That Daumal, Marie (2008) also conducted a similar study conducted by Eunyoung, for the case of India and Brazil. Based on the data *time series* from 1980-2004 for the Indian case and 1985-2004 for the Brazilian case. The conclusion of his analysis says that economic openness significantly decreases inequality of income in the State of Brazil, but in the case of the State of India quite the opposite, economic openness increases inequality in India.

Murbarani, Nova (2014) has conducted a study of the effect of economic openness on inequality between provinces in Indonesia using panel data from 26 provinces in Indonesia in 1994-2012. The results of his research provide the conclusion that economic openness has a significant influence on income inequality in Indonesia. His research also proves that the Kuznets Hypothesis, the relationship between growth and inequality, which is described as an inverted U curve, applies in Indonesia.

Tito Brian Adiputra (2017) conducted a study to determine the effect of economic openness consisting of trade openness and financial openness on the index of human development through economic growth in Indonesia. By using time series data (*time series*) from 2000 until 2015. The research shows that that only financial openness that has a significant influence improves the human development index through economic growth in Indonesia, while no effect of trade openness.

Delis, Arman, et al. (2015) conducted a study of the effect of *Foreign Direct Investment (FDI)* on Unemployment and Poverty in Indonesia, the period 1993 to 2013. His research concludes that

FDI has a negative and significant effect on the number of poor people, and FDI has a negative effect but not significant to the number of unemployed.

3 RESEARCH METHODS

Data used are secondary *time series data*, from 1998 to 2017, namely data on Indonesia's poverty rate, Export and Import Ratio to GDP, FDI to GDP Ratio, portfolio investment to GDP ratio. The data is sourced from the World Bank. The relationship between the variables of Indonesia's economic openness to poverty in Indonesia is formulated as follows:

$$Y = f(X_1, X_2, X_3, \dots) \dots \dots \dots (1)$$

Where: Y = Poverty rate in Indonesia (%)

X₁ = Export and Import Ratio to Indonesian GDP (%)

X₂ =Ratio *Foreign Direct Investment* to Indonesian GDP (%)

X₃ =ratio *Portfolio investment* to GDP of Indonesia (%)

The model will be used to examine and analyze the relationship between the dependent and independent variable error correction model(*error correction Model* - ECM). While the error correction model (ECM) is the right model if the data *time series* used is not stationary (Widarjono. 2013). The error correction model (ECM) is formulated as follows:

$$Y = \beta_0 + \beta_1 DX_{1t} + \beta_2 DX_{2t} + \beta_3 DX_3 + \beta_4 DX_4 + \beta_5 ECT + e \dots \dots \dots (2)$$

Where; β_0 = intercept

$\beta_1, \beta_2, \beta_3,$ = regression coefficient

D = first level difference (*frist difference*)

ECT = error of imbalance

The econometric statistical steps required concerning data *time series* in this study are the unit root test (*unit root test*) to see the stationarity of data. After the unit root test is then performed cointegration test to determine the possibility of a long-term balance or stability between the dependent variable (growth of Indonesian foreign exchange reserves) with the independent variables in the model (X₁, X₂, X₃).

a. **(Unit root test unit root tests were)**

Performed with the test *Augmented Dickey-Fuller* (ADF). If the absolute value of the ADF statistic is greater than the critical value, the observed data indicates stationary. Otherwise, the data is not stationary if the absolute value of the ADF statistical value is smaller than the critical value.

b. **Cointegration Test Cointegration**

The test is done by Johansen's cointegration test, where Johansen suggests a maximum estimator *likelihood* for Q and R and a statistical test to determine the cointegration variable r. The presence or absence of cointegration is based on the test *likelihood ratio* (LR). If the calculated LR value is smaller (<) than the critical value of LR, then there is no cointegration, and vice versa, if the calculated LR value is greater (>) than the critical value of LR, then it is co-integrated.

4 RESULTS

Test results stasionaritasagainst variables analyzed produced simpilan that all the variables stationary at *frist* difference. Cointegration test results provide an indication of the long-term cointegration of the data. Therefore the error correction model reflected in equation (2) can be estimated. The estimation results of the equation are presented in Table 1.

From the estimation results, it is known that the coefficient value of ECT, shows a statistical significance, then the model specifications used are valid. The classical assumption test results also show that this model is free from heteroscedasticity and autocorrelation problems. From the estimation results, it is known that only the variable degree of openness in the field of trade (X₁), which has a significant influence on poverty in Indonesia. The degree of financial openness, both variable X₂ (FDI) and X₃ (portfolio investment), both have no significant effect on poverty in Indonesia.

The openness of the Indonesian economy in the field of trade (X₁), measured by the ratio of exports and imports to GDP. This variable is nothing but the external balance of goods and services (*External balance on goods and services*). Based on data from 1990-2017, fluctuations in Indonesia's exports and imports tend to be in line, and inline (Figure 1). The positive relationship of external balance with poverty in Indonesia can be interpreted that if the ratio of the surplus of goods and services balance to GDP is higher, then poverty in Indonesia will

increase. This tendency must, of course, be addressed wisely, bearing in mind that Indonesia has entered into bilateral agreements to open up its economy widely, such as the MEA, APEC, and WTO agreements, which aim to expand market access.

Table 1: Result of Estimated Error Correction Model-ECM

Dependent Variable: D (Y)
Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.906986 2.287462	-		-2.074696
D (X1)	0.0382	0.616793	2.616155	0.0203
D (X2)	1.613625	0.891387	-0.476839	0.6408
D (X3)	-0.425048	1.031233	-0.919178	0.3736
ECT	-0.947886			
0.136744	-5.530957		(-1)	0.0001
R-squared	0.727404	Mean dependent var		-3.210526
Adjusted R-squared	0.649519	SD dependent var		6.332622
SE of regression	3.749003	Akaike info criterion		5.701791
Sum squared resid	196.7704	Schwarz criterion		5.950328
Log-likelihood	-49.16702	Hannan-Quinn criterion		5.743854
F-statistic	9.339498	Durbin-Watson stat		0.991198
Prob (F-statistic)	0.000681			

Source: Data processed, 2019

Technically so that the impact of openness on trade in goods and services does not increase poverty, what needs to be maintained is the ratio of external equilibrium to GDP maintained at zero range (or low) or not in the range that is not too extreme. This can be achieved by:

- Spurring economic growth beyond export and import growth
- Keeping the external balance surplus at a low range.
- Maintaining a balance in goods and services transactions,

Policies that encourage the growth of goods exports can be used to create a trade balance surplus and eliminate the service account deficit that has been occurring so far. Government policies can be fully directed towards increasing productivity and reducing inefficiency and increasing competitiveness. In the long run, government policy is more directed at fulfilling domestic services by building a domestic service industry that is robust, developed and developing, and capable of

contributing to the achievement of a trade surplus in services.

Openness in financial markets, both *foreign direct investment* (FDI) and *portfolio investment*, does not have a significant effect on Indonesian poverty. Further investigation shows that there is no causality between FDI and poverty in Indonesia. FDI does not cause poverty in Indonesia. Likewise, with portfolio investment, there is no causal relationship between portfolio investment and poverty. Portfolio investment does not cause poverty in Indonesia.

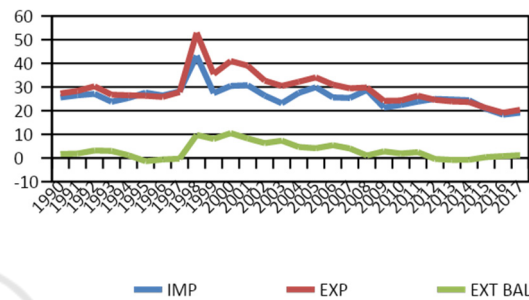


Figure 1: Indonesia's Exports, Imports, and External Equilibrium (% of GDP), 1990 -2017

The facts found in this model are that trade openness (goods and services) to the foreign economy influences poverty levels in Indonesia. This tendency more or less provides reinforcement to the conclusions of the study conducted by providing support for the results of this study Eunyong (2012), Dat Daumal, Marie (2008), and Murbarani, Nova (2014). Economic openness in the field of trade is a necessity, but it must still be sought so that the social impact, especially on poverty levels, must still be reduced.

5 CONCLUSIONS

The hypothesis that openness in the Indonesian economy, especially openness in trade, can increase poverty levels in Indonesia is indeed proven. However, economic openness in the financial sector does not contribute to increasing/decreasing poverty in Indonesia. To reduce the impact of trade openness on poverty in Indonesia, it is necessary to pay attention to Indonesia's economic growth rate, which must be greater than the growth of Indonesia's goods and services balance.

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