

# The Effect of The Asean Economic Community on Household Income in Indonesia

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## ABSTRACT

This study aims to analyze the impact of government investment in the trade sector carried out in preparation for the Asean Economy Community on the distribution of household income. "Simulation for Social Indicators and Poverty: IO and SAM Analysis" (SimSIP SAM). The first analytical tool used is to analyze export imports that occur in ASEAN countries against Indonesia using OLS Regression. This is done to see how the trade sector is happening in ASEAN countries as an impact of investment in the trade sector. After it is known that investment in the trade sector is known, then the analysis used is the Simulation for Social Indicators and Poverty: IO and SAM Analysis" (SimSIP SAM) to determine the multiplier impact that has occurred in Indonesia. The results of the analysis show that government investment of IDR 27 trillion in the trade sector has an impact on: (1) total household income reaching IDR 74 trillion or an increase of 1.94 percent;

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## 1. INTRODUCTION

Trade liberalization has now become a world phenomenon. In almost all countries, some members of the international community are included in free trade blocs or establish bilateral relations to carry out free trade agreements. Free trade blocks (free trade areas – FTAs) are trade liberalization agreements formed by several countries.

It is generally known, trade liberalization is a concept of cross-border trade in goods and services without barriers. As a result, theoretically, trade liberalization can guarantee that the countries involved in this agreement will benefit from the results of trade creation and trade diversion.

Viner (1950) measured the impact of trade liberalization from a cooperation agreement between countries by comparing the positive and negative effects of trade liberalization. That is by comparing what effect is more dominant in a country after having an FTA agreement. The positive effect is when trade liberalization gives rise to trade creation, in which there is a shift in consumption from high-cost domestic products to low-cost imported products (produced by partner countries). Meanwhile, the negative effect is if what happens is trade diversion, namely the shift in consumption from imported products that are low-cost (produced by non-member countries) to imported products that are high-cost (produced by cooperation partner countries in the FTA).

Negative effects can occur because there are different tariffs applied to partners and non-partners, changing the direction of trade tendencies which leads to a decrease in trading activity with

non-partner countries (Vinerian, 1950). This negative effect will have an impact on decreasing welfare due to changes in the consumption of cheaper products to relatively more expensive products which are imported products from partner countries.

Some of the FTAs that have been running are the North American Free Trade Area (NAFTA), the African Free Trade Zone (AFTZ) and the South Asia Free Trade Agreement (SAFTA). The European Union is one example of the evolution from PTA to FTA and then economic integration happened.

The existence of free trade is expected to lead to efficiency and increase welfare through the elimination of these barriers, both tariffs and non-tariffs. With trade liberalization both international and regional, trade barriers can be reduced and even eliminated. Reducing and even eliminating tariffs and non-tariff barriers will accelerate regional economic integration along with the smooth flow of goods, services, capital and labor..

Current economic conditions show a global trend. Relations between countries or nations in the world in the economic field began to recognize no geographical boundaries of the country. Kenichi Ohmae (1995) states that the present is the end of the nation-state and the beginning of the emergence of territory-states. This regional state is formed from several countries or nations in a region that make agreements to carry out free trade. An example is the region that includes the countries of Western Europe, ASEAN, and the United States.

The increase in trade with several countries also occurred in countries in East Asia which were growing rapidly. Several studies suggest that a rapid increase in trade will lead to a rapid increase in income growth. An important implication of increasing trade is that in countries where trade is integrated, their macroeconomic performance will improve more than in countries that are not yet integrated. The important influence of trading partner countries is an important factor in the domestic economy (Shin and Wang, 2005). The integration that occurs will also lead to an increase in the economy (Fiess, 2005). For example, if trade occurs as in Hecker-Ohkin or Ricardo theory, greater specialization results in reduced trade alignment (Frankel and Rose, 1998), Rana (2007), Shin and Wang (2004) and Teng and Way (2005). Theoretically, trade integration will be able to have an effect on increasing trade, increasing economic efficiency, and high competitiveness which in turn will increase welfare.

When viewed from the growth in the ratio of exports to GDP, the development of world trade as a whole has even shown quite spectacular growth. If in 1965 the ratio of world exports to world GDP was 3.3%, this figure then increased to 10.2% (1975), then 14% (1985), and 17% in 1995. Recent data shows that the ratio of world exports to GDP has reached 23.9 percent in 2007 (World Bank, in Haryadi 2008).

One country that has shown rapid growth in the context of openness to the economy is Indonesia. Indonesia's ratio of exports to GDP is greater than the ratio of world exports to world GDP. Based on data, the ratio of exports to GDP in Indonesia in 2007 reached 31%, while the ratio of imports to GDP was 27%. This means that this number can be used as an indication that Indonesia is a country that is open to foreign countries.

The European Union's success in creating a single, mutually integrated region has inspired ASEAN member countries to do the same in order to be able to compete with other regions in facing globalization and world trade liberalization. With the success of the European Union, ASEAN also wants to follow in the footsteps of success by realizing the Asean Economic Community (AEC) in 2015.

The unification of ASEAN into the ASEAN Community will certainly have an enormous impact, not only in terms of the economy but also in all other aspects of life. From an economic standpoint, for example, this unification can create a market covering an area of 4.5 million km<sup>2</sup> with a population of around 500 million people (a number equivalent to the current EU), a total trade of more than 720 billion dollars per year and a gross domestic product (GDP) more than 737 billion dollars. As an illustration, the ASEAN free trade agreement was able to increase intra-ASEAN trade from 43.26 billion dollars in 1993 to 80 billion dollars in 1996, or with an average growth of 28.3 percent per year. The share of intra-ASEAN trade in total trade also increased from 20 to 25 percent. The unification of ASEAN into a single market is believed to have a huge impact (Achsani, 2008).

According to Salvatore (2007: 34) international trade can be used as an engine for economic growth in a country (trade as wind of growth). With the existence of international trade activities, it is expected to encourage the acceleration of economic development in the country. This shows that international trade plays an important role in economic development in a country, especially for developing countries such as Japan, America, Korea. Japan is a developing country after the United States. Indonesia as a developing country, since the 1980s has used export policies to boost its economic growth. When international trade activities occur, namely in the form of export and import activities, it is very likely that there will also be a transfer of factors of production from the exporting country to the importing country due to differences in costs in the international trade process.

## 2. RESEARCH METHODS

### 2.1 Method Study

This study uses secondary data types taken from the Un Comtrade SITC digit 3 statistical report, data from the Asian Development Bank (ADB), Organization for Economic Co-operation and Development (OECD) and SNSE

### 2.2 Method of Analysis

In this study, the analytical tool used for the first time was simple regression, to calculate exports and imports to find the impact of trade which would later become a shock in the SimSip SAM analysis tool to see the impact on the Indonesian economy. Simple regression analysis is the process of estimating (estimating) a relationship function between the dependent variable (Y) and the independent variable (X). In a regression equation, the value of a variable depends on the value of the other variables. For independent variables, variables whose values do not depend on the values of other variables.

The simple linear regression equation Y to X is:

a) The simple linear regression population model is expressed in the equation:

$$Y_t = \alpha + \beta X_t + \varepsilon_j$$

b) The sample model (estimator) for linear regression is simply:  $\hat{Y}_t = a + bX_t$

Where:  $X_t$  = independent variable

$Y_t$  = dependen variable

a = estimator for the intercept ( $\alpha$ )

b = estimator for the regression coefficient ( $\beta$ )

i = 1,2,3

The values of  $\alpha$  and  $\beta$  are parameters whose values are unknown so they are estimated using sample statistics. The error component ( $\varepsilon_j$  = error) shows

- The influence of various variables that are not included in the regression equation due to various considerations
- Determination of imperfect equations
- Measurement errors in data collection and processing.

The value of a indicates the intercept (constant) of the equation, meaning that if the value of the variable  $X = 0$  then the magnitude of  $Y = a$ . Parameter b shows the magnitude of the coefficient (slope) of the equation. This value indicates the magnitude of the change in Y if the value of X changes by one unit. By using the least squares method the values of a and b can be calculated using the following formula:

$$a = \frac{\sum Y}{n} - b \frac{\sum X}{n} \qquad b = \frac{n(\sum XY) - (\sum X)(\sum Y)}{n(\sum X^2) - (\sum X)^2}$$

### 3. RESULTS AND DISCUSSIONS

#### 3.1 Simple Linear Regression Analysis

This regression analysis is used to estimate the value of the dependent variable (Y) at a certain value of the independent variable (X), so that it can be seen how much influence a variable has on other variables. Any changes in the independent variable (X) will be offset by changes in the dependent variable (Y). The simple linear regression line equation is as follows:

$$Y = a + bx + e$$

Where:

a= *Intercept* (konstanta)

b= Coefficient of the direction of the linear line indicating one unit of X to the change in Y

Y= Export or Import variables

X= Economic growth (GDP)

e= *Error term*

**Tabel 1.** Total Export Bilateral Relations between Indonesia and ASEAN

No	Country	constanta	GDP
1	Brunai Darussalam	2.097.212	8.374.248
2	Filipina	-5,71	7,99
3	Kamboja	-30.704.510	50.794.036
4	Laos	-3565734	3582605
5	Malaysia	-2,13	2,64
6	Myanmar	-2,22	2,06
7	Singapura	-3,53	4,47
8	Thailand	-1,23	1,51
9	Vietnam	2,90	-1,17
	Total	1,06	1,09

Source: Un Comtrade

Table 1 shows the effect of GDP on exports in each ASEAN country. The table shows that each country has its own influence on Indonesia. This table is used to calculate the total exports made to ASEAN countries. The aim is to see the overall trade carried out by Indonesia and see the impact on the Indonesian economy. This is of course inseparable from the import activities carried out by Indonesia as shown in table 2.

**Tabel 2.** Total Import Bilateral Relations between Indonesia and ASEAN

No	Country	Constanta	GDP
1	Brunai Darussalam	-2,51	3,70
2	Filipina	-1,60	2,04
3	Kamboja	-2.559.784	2.422.265
4	Laos	-12.029,34	12.848,93
5	Malaysia	-3,69	3,70
6	Myanmar	-16.538.045	17.960.867
7	Singapura	-5,27	6,44
8	Thailand	-2,98	3,10
9	Vietnam	-8,43	7,79
	Total	-1,32	1,46

Source : Un Comtrade

Table 2 shows the effect of GDP on imports in each ASEAN country. The table shows that each country has its own influence on Indonesia. This table is used to calculate the total imports made to ASEAN countries. The aim is to see the overall trade carried out by Indonesia and see the impact on the Indonesian economy.

#### 3.2. The Impact of the ASEAN Economic Community on Household Income

The increased remuneration for factors of production (labor and capital) will ultimately have an impact on household income which will also increase. Therefore, labor and owners of capital are members of the household. The impact of investment in the trade sector on the value of total household income increased by more than IDR 74 trillion or an increase of around 1.94 percent.

Upper class non-agricultural households living in urban areas received the highest income, which was more than IDR 18 trillion, an increase of around 2.23 percent.

**Table 3.** The Impact of AEC 2015 on Trade Sector Investment on Household Income

No	Household Classification	Initial	Final	Change	
		Conditions	Condition	value	%
		(Billion)	(Billion)	(Billion)	
1	Labor Farm	176.756,68	179.826,52	3.069,83	1,74
2	Businessman Farm	731.562,84	744.200,62	12.637,78	1,73
3	Not Low Grade Rural Farms	494.234,22	504.138,24	9.904,02	2,00
4	Not Rural Farms Not Labor Force	173.151,87	176.061,15	2.909,28	1,68
5	Not Upper Class Rural Farms	468.454,52	477.493,66	9.039,14	1,93
6	Not Low Grade Urban Farming	710.495,47	723.644,92	13.149,45	1,85
7	Not Urban Farming Not the Labor Force	243.905,49	248.784,80	4.879,31	2,00
8	Not Upper Class Urban Farming	827.883,49	846.380,83	18.497,34	2,23
Total		3.826.444,57	3.900.530,73	74.086,16	1,94

Source: SNSE analysis results

If seen based on the classification of agricultural households, rural households and urban households, urban households receive around 6.09 percent of the total value of the increase in income, while rural households receive more than 5.61 percent. Meanwhile agricultural households only received 3.46 percent. If households are classified based on lower middle class households, upper middle class households, and non-labor force households, then upper middle class households receive 5.89 percent of the total increase in income. Lower middle class households only receive 5.59 percent and non-labor force households receive only 3.68 percent. This shows that government investment in the trade sector is mostly received by households in urban areas and upper middle class households, while rural households and lower middle class households only receive a small portion of the maximum benefits of government investment. This reinforces previous allegations that trade flows are carried out by creative households in business in urban areas or where growth centers are higher in urban areas than in rural areas (hinterland). So it can be concluded that there is still a gap between growth in urban and rural areas.

The increase in household income has implications for the greater spending ability (purchasing power) of the household concerned. This increase in spending ability will of course increase the demand for goods and services (commodities) that are normally consumed by households.

#### 4. CONCLUSION

Based on the results of the multiplier analysis and structural path analysis (SPA) regarding the impact of government investment in the trade sector of IDR 27 trillion on household income, it can be concluded that the distribution of household income shows that an increase in household income is more for middle to upper class households and households urban stairs. This shows that the impact of investment in the trade sector has not touched the lower middle class and rural communities so much that it has not been able to narrow the gap between the upper middle class and the lower middle class as well as the gap between urban and rural areas. Meanwhile, the results of the analysis of the structural path show that the income of the middle and upper class households all comes from the domestic commodity channel including real estate, banks and insurance as well as land transportation, while the factor of production pathway is production labor, operators, manuals receiving wages and salaries ( formal) urban; and the factors of production of production labor, operators, manual wage earners and rural (formal) salaries radiate to lower middle class households. This shows that the owners of capital (owners of trading companies) are more affected by government investment in the trade sector than field workers in the trade sector.

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