# Effect of Investment, Trade Openness and Labor Force on Economic Growth

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Keywords: Economic Growth, Foreign Investment, Domestic Investment, Export, Import, Labor Force, Trade Openness.

Abstract: Indonesia's economic growth is predicted to decline in 2019. This study uses independent variables namely PMA, PMD, Net Exports and Labor and with the dependent variable of economic growth. The sample used in this study uses 33 provinces in Indonesia. This study aims to determine the effect of investment both foreign and domestic investment, labor, net exports on economic growth. The method used is multiple linear regression analysis and simple. The results of this study indicate that the variable PMA, PMDN and labor or labor force have no significant effect on economic growth, while the variable net exports or trade openness has a significant effect on economic growth.

# **1 INTRODUCTION**

Economic growth is a process characterized by a long-term average income growth of the population (Boediyono, 2001). Sukirno (2010) also discusses the economic growth that exists in the process of development of goods and services produced by the community so that people's prosperity increases. Can also be made to develop the economy in a country characterized by an increase in the production of goods or services in a region within a certain period.

Estimates of the world economy will decline in 2019. The World Bank officially released on 9 January 2019, the global economic growth rate in 2018 will reach 3%. The World Bank also predicts that global economic growth will decline in 2019 to 2.9%. The weakening of the global economy occurred due to the weakening of world trade and manufacturing activities.

As a developing country, Indonesia is also one of the countries that has lost the global economy. The Central Statistics Agency (BPS) outlined data on Indonesia's economic growth in 2018 of 5.2%. The World Bank cites the name of Indonesia specifically, reduce the global economy causing Indonesia's economic growth to decline from 5.2% in 2018 to 5.1% in 2019. The Main Economist for the World Bank Indonesia said in overcoming this Indonesia must increase the value of exports and investation. Investment is one of the important things for economic growth. Investment can be used as a tool to restore the economy, create jobs, and reduce poverty. Ghosh (2013) also said that investment is needed to increase economic growth. Foreign investment (PMA) is needed as a support for development that cannot be fully financed by domestic investment (PMDN), especially those that produce raw materials, finished goods and semifinished goods, and capital goods to create business and employment opportunities (Sukirno, 2010).

Indonesia's economic growth is not only seen in terms of investment value but also in terms of foreign trade, namely export and import activities or trade openness. David Ricardo in Sukirno (2010) said that in increasing economic growth, a country needs international trade activities. One of the positive factors influencing economic growth is the growth of the labor force (Tadaro & Stephen, 2003). According to the Global CEO of the World Bank in maintaining economic growth to remain stable and increasing, each country must invest in human resources. The investment in question is by preparing competent human resources to be able to compete in the global era, the lower the unemployment rate, the higher the economic growth. If the number of people who work is high, the income of the community will increase and will affect people's purchasing power. Increased purchasing power will cause the wheels of demand to increase and economic growth will be maintained

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# 2 THEORETICAL BASIS

# 2.1 Theories of Economic Growth

Smith (1776) argues that there are two main factors that influence economic growth in a country, namely output growth (GDP) and Population Growth. Output growth has three main elements, namely available natural resources, population, and availability of capital goods. Smith argues that the most basic means of production activities in a community is the natural resource itself while the amount of natural resources is the maximum limit that can be used in the process of economic growth. Two other elements of production, namely the population and available capital stock. These two elements determine the amount of community output.

# 2.2 Economic Growth

Economic growth is characterized by developments in the economic process that will have an impact on the number of goods and services produced by the community increases. According to Rahardja (2004) a country's economy is considered to experience growth when the number of goods and services produced increases.

Economic growth is measured using the growth rate of Gross Domestic Product (GDP). GDP is the total income and total national expenditure on the output of goods and services for a certain period. GDP itself describes the economic performance, so if a country's GDP is high, the better the economic activity in the country.

# 2.3 Gross Regional Domestic Product (GRDP)

Economic growth is an increase in the average income of the community in the long run (Sukirno, 2010). According to BPS the GRDP is defined as the sum of all the values of final goods and services produced by all economic sectors in a region.

According to Bank Indonesia (BI), GRDP at Current Price (ADHB) shows the total number of goods and services calculated using current year prices. ADHB GRDP is used to determine the ability of a region's economic resources. GRDP at Constant Price (ADHK) shows the total value of goods and services calculated based on prices that apply to a certain year as a base year. ADHK GRDP is used to determine the real economic growth of a region from year to year.

### 2.4 Investment

Investment is an investor's activity in buying capital goods and equipment used in production activities with the aim of increasing the production capacity of goods and services available in economic activities (Sukirno, 2010). Investors make investments to make profits in the future. Mankiw (2006) says that the investment itself consists of goods that are purchased for future use.

## 2.5 Foreign Investment (FI)

Direct investment or foreign investment (FI) is a foreign investor who invests capital in Indonesia with the aim of either building, buying or acquiring a company. PMA has many advantages that are longterm, have an impact on technological growth, and open new jobs.

## 2.6 Dometic Investor (DI)

DI is a domestic investor who invests capital in Indonesia using capital obtained in Indonesia. W.W. Rostow believes that economic growth in a country depends on the ability of the country. Resources that can be used in obtaining capital are reducing the amount of consumption, increasing the amount of savings, establishing financial institutions, and so on (Sukirno, 2010).

LOGY PUBLICATIONS

# 2.7 Export

Exports are activities of one country in receiving goods from other countries' production. The deciding factor in export activities is the ability of this country to produce goods that are able to compete in foreign trade (Sukirno, 2010). Exports will increase compared to national income, but will increase national income.

## 2.8 Imports

Imports are activities carried out by one country in obtaining goods made in other countries.

Community income is the most important determinant of imports. High community income will have an impact on the import activities that they will do (Sukirno, 2010).

# 2.9 Labor Force

According to Simanjuntak (2007) the labor force is the number of people who work and look for work. surging labor force in job seekers will make the burden of development increase and will slow down the economic process in a country. The population itself has an important role for economic development in terms of the demand and supply side, viewed from the demand side of the population acting as consumers and from the supply side as the owner of factors of production or labor.

# 2.10 Hypothesis

### 2.10.1 Foreign Investment Influences Economic Growthection

The results of research conducted by Chaudhry, Mehmood, & Mehmood (2013) found that foreign direct investment (FDI) had a significant positive effect on economic growth. The more foreign direct investment into domestic companies, the more jobs will be available. This will reduce the number of unemployed and help improve the community's economy. This also helps in increasing economic growth. Based on the neo-classical theory of economic growth investment is a driving factor in economic growth, so the hypothesis proposed is:

H1: Foreign investment significantly influences economic growth in Indonesia.

### 2.10.2 Domestic Investment Has an Effect on Economic Growth

Onafowora & Owoye (2019) found that domestic investment has a significant positive effect on economic growth. PMDN is an investment that functions in building buildings and equipment used in production activities. This will increase a country's production capability and long-term economic growth will also increase. According to the neoclassical theory of economic growth investment becomes an important factor in economic growth, therefore the following hypotheses are proposed:

H2: Domestic investment has a significant effect on economic growth in Indonesia.

### 2.10.3 Trade Openness Affects Economic Growth

Ul Din, Regupathi, & Abu-Bakar (2017) and Doku, Akuma & Afriyi (2017) found that trade openness significantly positively affected economic growth. Import activities are useful in helping a country to obtain goods or services that cannot be produced by the country itself. Unlike the activity of imports, export activities help a country process its production so that it does not only revolve in the country but also revolves globally. It can be assumed that if the demand for goods from abroad increases, the amount of production will increase, this will affect labor demand. Based on the explanation that has been presented, the following hypothesis is proposed:

H3: Trade openness has a significant effect on economic growth in Indonesia.

#### 2.10.4 Labor Influences Economic Growth

Doku, Akuma & Afriyi (2017) found that labor force significantly positively affected economic growth. According to the classical economic growth theory labor force is one of the important factors that influence economic growth. Labor has a relationship with production costs and wages. Labor is related to labor productivity, if the number of workers increases, it will increase the productivity of labor. This causes changes in the quantity and quality of the workforce itself so as to encourage growth so that the following hypothesis is proposed:

H4: Labor force significantly influences economic growth in Indonesia.

### 2.10.5 Investment, Trade Openness, and Labor Force Influence Economic Growth

Ul Din, Regupathi, & Abu-Bakar (2017) and Doku, Akuma & Afriyi (2017) found that investment, trade options, and labor force had a significant positive effect on economic growth. Investment, trade opennes and labor force have a relationship between one another. Investment increased due to investors investing in Indonesia. This indicates that Indonesia has its own charm in the eyes of investors.

The investment itself will directly carry out the system of import and export of raw materials, both raw and raw materials. Import activities are carried out if the country cannot meet the demand for raw materials. Export activities will occur if the country has good quality goods and helps a country to process the production of goods so that it does not revolve in the country. Export activities will help in increasing a country's foreign exchange. If the value of exports increases, so will the amount of production of goods which will affect the demand for labor.

The relationship between the three variables is very strong on economic growth in a country. According to the classical economic growth theory explained by Adam Smith that investment, trade openness and labor force are driving factors in a country's economic growth. Based on the above explanation, the hypothesis proposed is:

H5: investment, trade options, and labor force together have a significant effect on economic growth in Indonesia.

# **3 RESEARCH METHODS**

## 3.1 Data Types and Sources

This study uses secondary data, where data is obtained from collecting institutions (Kuncoro, 2007). The type of data in this study is ratio data. Sources of data in this study are BPS official website www.bps.go.id and BKPM official website www.bkpm.go.id.

# 3.2 Location and Research Object

This research was conducted in Indonesia. The object of this study is the provinces in Indonesia with a population of 34 provinces. The research period is from 2016-2018 with secondary data types obtained from the official BPS and BKPM official websites.

# 3.3 Sampling Technique

The sampling technique used in this study is the purposive sampling technique. Purposive sampling is a technique for determining research samples with certain considerations so that the data obtained are more representative (Sugiyono, 2010). The criteria used in sampling are provinces that have data of all variables in the 2016-2018 period. Based on these criteria, the sample used in this study was 33 provinces in Indonesia.

# 3.4 Data Collection Technique

This study uses data collection techniques using data archives in the database using the official BPS website, www.bps.go.id and the official BKPM website, www.bkpm.go.id.

# 3.5 Data Processing Techniques

Data processing techniques that will be carried out by the author in this study is to use a computerized calculation technique using the SPSS 22 program. The procedure carried out in this study is the researcher summarizes the data to be tested into Microsoft Excel. Calculate the rate of economic growth and the value of trade openness in Microsoft Excel. After the data is processed and ready to be tested, the researchers enter the data into the data processing application for data testing.

# 3.6 Data Analysis Technique

The data analysis technique of this study uses statistical analysis techniques that are simple and multiple linear regression using the SPSS 22 program. This simple linear regression analysis is used to determine the effect of the independent variable with the dependent variable, while multiple regression is used to determine the effect of the independent variables together on the dependent variable.

# 3.7 Descriptive Statistics

Descriptive statistics are statistics that describe the characteristics of a data to be examined. Descriptive statistics also have frequency, dispersion, center tendency measurements, and shape measurements. A frequency that indicates the number of times a phenomenon occurs. Measurement of central tendency is used to measure the central value of a data distribution in the form of: mean, median, mode (Hartono, 2014). no problem related to the heterokedastity test. Conversely, if the significance value is less than 0.05 then there are problems related to heterokedastity (Ghozali, 2016).

# 3.8 Regression Model

Data analysis was used to answer the hypotheses raised in this study. This study uses simple regression analysis and multiple regression. Simple regression is an approach method used for modeling the effect between dependent variables and independent variables. The independent variable explains the dependent variable. In Suyono (2018) the structure of the recession equation model is:

$$Y = \alpha + \beta x \tag{1}$$

Information:

Y : Dependent variable

 $\alpha$  : Constants

βx : Variable Coefficient x

Whereas multiple regression is a model used to test one or more independent variables together. In general, the structure of the model is described as follows:

$$Y = \alpha + \beta_1 + \beta_2 + \dots + \beta_n + \epsilon \tag{2}$$

The structure of the multiple regression equation model in this study can be described as follows:

$$PE = \alpha + \beta_1 FDI + \beta_2 DI + \beta_3 TO + \beta_4 LF + \varepsilon$$
(3)

Information:

 $\alpha$  : Constants

PE : GRDP value in the provinces in Indonesia FDI : Realization of foreign investment in the provinces in Indonesia

DI : The value of domestic investment realization in the provinces in Indonesia

TO : Ratio of total exports and imports divided by GRDP in provinces which are in Indonesia

LF : Number of workers in the provinces in Indonesia

### 3.9 Hypothesis test

#### 3.9.1 T-Statistics Test

The t-statistic test in this study is used to test whether there is a relationship between each independent variable on the dependent variable partially. At a confidence level of 5% or 0.05, the statistical t-test criteria is if sig <0.05 then H0 is accepted, and vice versa if sig> 0.05 then H0 is rejected or H1 is accepted. H0 in this t test is the independent variable significantly influencing the dependent variable and H1 that is the independent variable does not significantly influence the dependent variable (Santoso, 2009).

#### 3.9.2 F-Statistics Test

The F-Statistics test is used to see whether the dependent variable simultaneously has a significant effect on the independent variables in the model.

The criteria to determine the results of the F test are, first is to compare the calculated F value and the F table if the calculated F value> F table and sig <0.05 then H0 is accepted and rejected H1, conversely if F counts <F table or sig> 0, 05 then H0 is rejected and H1 is accepted. H0 in the F test is an independent variable that simultaneously influences the dependent variable and H1 which is an independent variable simultaneously does not affect the dependent variable (Santoso, 2009).

# 4 RESEARCH RESULTS AND DISCUSSION

## 4.1 Results of Processing Data Collected

The sample used in this study was 33 provinces in Indonesia. Samples were taken by province which has variable data used in this study in the 2016-2018 time span. Province which does not have the required variable data is West Sulawesi Province. West Sulawesi does not have export and import data for 2016 and 2017 so that West Sulawesi Province cannot be sampled in this study.

Table 1: Data characteristics.

Description	Frequency	Percentage
Number of Provinces	34	100%
Province without data	1	3%
Number of Samples used	33	97%

### 4.2 Descriptive Statistics

Descriptive statistics are statistics that describe the characteristics of the data to be examined. Descriptive statistics also have frequency, dispersion, measurement of central tendencies, and measurement of shapes. A frequency that indicates the number of times a phenomenon occurs. Measurement of central tendency is used to measure the central value of data distribution in the form of: average, median, mode (Hartono, 2014). The purpose of this analysis is to determine the state of the variables used during the study period. The results of the descriptive statistical analysis can be seen as follows:

Table 2: Descriptive statistics.

	Ν	Min	Max	Mean	Std. Dev
Y	99	-4,56	9,938	5,25	1,79
X1	99	7.962	5.573.518	913.687	1.239.012
X2	99	8.772	49.097.423	8.114.119	11.559.764
X3	99	-24.713	55.927	7.265	15.319
X4	99	273.423	20.779.888	3.652.533	5.108.125

Source: The data is processed using the spss software

Based on the descriptive statistical test results in table 2, N shows the amount of data that is 99 data obtained secondary and then processed. Minimum shows the lowest value of each variable data. On the Y variable, namely economic growth, the minimum value of -4,561, this figure is the economic growth of NTB Province in 2018. On variable X1, foreign investment shows a value of USD 7,962 which is the value of foreign investment in Maluku Province in 2018, while in the investment variable X2 shows the minimum value of IDR 8,772 is the value of domestic investment in North Maluku in 2016. In X3 variable the trade openness variable shows the minimum value of -24,713 is the value of Banten trade openness. Province in 2018 and in variable X4 the labor force variable showed a value of 273,423 people, namely the number of workers in 2016 in North Kalimantan Province.

Maximum shows the highest value of each variable data. In variable Y, the maximum economic growth value is 9,938, which is the economic growth rate of Central Sulawesi Province in 2016. In variable X1, foreign investment shows a maximum value of USD 5,573,518, which is the value of foreign investment in West Java in 2018, while on the domestic investment variable, X2 shows the maximum value of Rp.49,097,423 is the value of DKI Jakarta's domestic investment in 2018. On the X3 variable namely the trade openness variable shows a maximum value of 55,927.61 is the value owned by South Kalimantan in 2018 and in variable X4 workforce variable shows the value of 20,779. 888 people are values owned by West Java in 2018.

Means showing the average value of each data variable. In the Y variable, namely economic growth, the average value is 5.254. On the X1 variable, foreign investment showed an average value of USD 913,687, while on the X2 domestic investment variable showed an average value of Rp8,114,119. In the X3 variable, the trade openness variable shows an average value of 7,265.01 and on the X4 variable, the labor force variable shows a value of 3,652,533 people.

Standard deviations indicate the heterogeneity contained in the tested data or the average amount of variability of the data examined. In the Y variable, namely economic growth, the standard deviation is 1.799. On variable X1, foreign investment shows a standard deviation of USD 1,239,012, while on the domestic investment variable X2 shows a standard deviation of Rp11,559,764. In the X3 variable the trade openness variable shows the standard deviation of 15,319.07 and in the X4 variable the labor force variable shows the value of 5,108,125 people.

# 4.3 Classical Assumption Testing Results

The results of testing the classic assumptions of the regression model are usually referred to as good models if they meet the test requirements, the results of the tests that have been carried out consist of: heteroscedasticity test and multicollinearity test.

#### 4.3.1 Heterokedasticity Test

Heteroscedasticity occurs if the model has a residual value that does not have a constant variant. The step in measuring heterokedastity is the Glejser test. If the significance value is more than 0.05, there are no problems associated with the heterokedastity test. Conversely, if the significance value is less than 0.05 then there are problems associated with heterokedastity (Ghozali, 2016). The test results can be seen as follows:

Variable	Т	Sig.
Foreign investme	,802	,424
Domestic Investment	-,212	,823
Trade	1,620	,109
Labor Force	-958	,340

Table 3: Heterokedasticity Test.

Source: The data is processed using the spss software

### 4.3.2 Multicolieniertas Test

Multicolieniertas test is the existence of a definite liner relationship between the free changes. To find out if there is a problem with data related to multicollinearity test can be seen from the value of VIF (Value Infaltion Factor). If the VIF value is less than 10 then the variable has no problems related to the multicollinearity test with other independent variables (Priyatno, 2009). The multicollinearity test results are as follows:

Table 4: Multicolieniertas test.

Variable	Tolerance	VIF
Foreign	,408	2,451
investment		
Domestic	,269	3,174
Investment		
Trade Openness	,865	1,156
Labor Force	,365	2,743

source: the data is processed using the spss software

## 4.4 Hypothesis Testing Results

#### 4.4.1 Simple Linear Regression Analysis

Simple linear regression analysis is used to determine the direction of the relationship between the independent variable and the dependent variable. The results of simple linear regression calculations performed by the author are:

Table 5: Simple linear regression test.

Variable	В	Т	Sig.
Foreign	1,467	1,000	,320
investment			
Domestic	-2,423	-,153	,878
Investment			
Trade	-2,890	-2,500	,014
Openness			
Labor Force	9,965	,279	,781

source: the data is processed using the spss software

Based on table 4.6 above, simple linear regression test equations can be written as follows:

$$Y = a + bX$$
(4)  
Variable foreign investment on economic growth:

$$Y = 5,120 + 1,467X$$
(5)

Then it can be concluded that the regression coefficient of foreign investment of 1.467 means that if foreign investment increases by 1% there will be an increase in economic growth of 1.467%.

Domestic investment variable on economic growth:

$$Y = 5,274 + 2,423X \tag{6}$$

It can be concluded that the domestic investment regression coefficient of -2.423 means that if domestic investment increases 1% there will be a decrease in economic growth of 2.423%.

Variable trade openness on economic growth:

$$Y = 5,564 + 2,890X$$
(7)

It can be concluded that the trade openness regression coefficient of -2.890 means that if trade openness increases by 1% there will be a decrease in economic growth of 2.890%.

Labor force variables on economic growth:

$$Y = 5,217 + 9,965X$$
(8)

Then it can be concluded that the labor force regression coefficient of 9.965 means that if the labor force increases by 1% there will be an increase in economic growth of 9.965%.

#### 4.4.2 Multiple Linear Regression Analysis

Multiple linear regression analysis is used to determine the direction of the relationship between the independent variable with the fully dependent variable. The results of multiple linear regression calculations performed by the author are:

Variable	В	Т	Sig.
Foreign	2,632	1,173	,244
investment			
Domestic	-4,137	-1,398	,166
Investment			
Trade	-2,891	-2,319	,023
Openness			
Labor Force	1,764	,306	,760

Table 6: Multple linear regression test.

Source: The data is processed using the spss software

$$PE = \alpha + \beta_1 FDI + \beta_2 DI + \beta_3 TO + \beta_4 LF + \epsilon$$
 (8)

Variable foreign investment, domestic investment, trade openness and labor force on economic growth

$$PE = 5,495 + 2,632FDI + 4,137DI + 2,891TO +$$
$$1,764LF + \varepsilon$$
(9)

#### 4.5 Data Analysis

software

Based on statistical tests conducted by the author on 5 hypotheses, it is known that:

The variable of foreign investment as H1 has a value of sig> 0.025 so that it has no significant effect on the variable of economic growth in Indonesia and the hypothesis is declared unsupported.

Table 7: The foreign investment hypothesis.

Hypothesis	T-Calculate	Sig.	Result	
H1	1,000	,320	Unsupported	
source: the data is processed using the spss				

The domestic investment variable as H2 has a value of sig> 0.025 so that H2 has no influence and is not significant to the variable of economic growth in Indonesia and the hypothesis is declared unsupported.

Table 8: The domestic in	vestment hypothesis.
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Hypothesis	T-Calculate	Sig.	Result	
H2	-,153	,878	Unsupported	
source: the data is processed using the				
spss software				

The trade openness variable as H3 has a significant negative effect because it has a value of sig < 0.025 so it has a significant effect on economic growth variables in Indonesia and the hypothesis is declared supported.

Γ	Hypothesis	T-Calculate	Sig.	Result
Γ	H3	-2,500	,014	Supported
s	source: the data is processed using the spss software			

The labor force variable as H4 has an insignificant influence on the variable of economic growth in Indonesia because it has a sig value> 0.025 and the hypothesis is declared unsupported.

Table 10: The labor force hypothesis.

Hypothesis	T-Calculate	Sig.	Result	
H4	,279	,781	Unsupporte	
source: the data is processed using the spss software				

The variables of foreign investment, domestic investment, trade openness and labor force as H5 do not have an influence on economic growth variables in Indonesia because they have a value of sig> 0.025 and the hypothesis is declared unsupported.

Table	11:	Test F	statistics.
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Hypothesis	T-Calculate	Sig.	Result		
H5	2,167	,079	Unsupporte		
source: the data is processed using the spss software					

### 4.5.1 Effects of Foreign Investment on Economic Growth

Based on the results of the statistical tests described above, these results indicate that H1 is not supported, so it can be concluded that there is no significant effect between foreign investment on economic growth in Indonesia. The results of this hypothesis study are in line with previous research conducted by Shevalova & Plaskon (2017). The study examined the relationship of foreign investment to economic growth in Ukraine, the study found that there was no significant effect between foreign investment on economic growth in Ukraine. The insignificance of foreign investment with economic growth in Indonesia can be seen in 2017. The realization of investment in 2017 increased by USD 3.2 billion or 10% compared to last year and economic growth of 5.07% or an increase of 0.04%.

This shows that the increase that occurred in the PMA did not have a significant influence on economic growth. The use of foreign capital for development is often not well targeted, investments are not prioritized in creating employment for workers maximally which will have an impact on economic growth in. The following statistical test results with neo-classical economic theory put forward by Harrod (1948) and Domar (1957) which states that investment is an important factor in economic growth in a country, in Indonesia is not a major factor.

#### 4.5.2 Effect of Domestic Investment on Economic Growth

Based on the results of the statistical tests described above, these results indicate that H2 is not supported, so it can be concluded that there is no significant influence between domestic investment on economic growth in Indonesia. The results of this hypothesis study are in line with previous studies conducted by Ali & Mna (2019). Ali & Mna's research (2019) examined the relationship of domestic investment to economic growth in three countries namely Tunisia, Morocco and Algeria, the study found that there was no influence between domestic investment on economic growth in Morocco. Domestic investment is not significant negative effect because investment can reduce the amount of savings created in the future if Indonesian people increase the level of consumption, this will increase the amount of availability of consumer goods and not reinvest profits. This is also due to the uneven distribution of investment value across all provinces in Indonesia and this domestic investment does not touch the layers of society, which means that domestic investment is done more in the form of capitalintensive, not much use of human labor.

It can also be seen that domestic investment with economic growth in Indonesia can be seen in 2017. Investment realization in 2017 increased by Rp 46 trillion or increased by 4% compared to last year and economic growth of 5.07% only increased by 0.04% compared to last year. This shows that the high growth of domestic investment does not affect economic growth.

The statistical test results are also not in line with neo-classical economic theory put forward by Harrod (1948) and Domar (1957) which states that investment is an important factor in economic growth in a country. Based on the results of the statistical tests described above, these results indicate that H1 is not supported, so it can be concluded that there is no significant effect between foreign investment on economic growth in Indonesia. The results of this hypothesis study are in line with previous research conducted by Shevalova & Plaskon (2017).

## 4.5.3 Effect of Trade Openness on Economic Change

Based on the results of the statistical tests described above, these results indicate that H3 is supported, so it can be concluded that there is a significant negative effect between trade openness on economic growth in Indonesia. The coefficient value for the trade openness variable is -2,891 which indicates that if export growth increases, economic growth decreases by 2.891%. These results are in line with research conducted by Asbiantari, Hutagaol & Asmara (2016). This is because Indonesia needs import activities to meet exports. Meanwhile, on the import side it is not well managed resulting in a deficit in the trade balance and this will make Indonesia flood of imported goods without producing products that can be re-exported. The trade war between America and China has also become one of the causes of the weakening of exports. The trade war had an impact, which was a slowdown in the global economy that caused prices and demand for commodities that were the mainstays of exports for Indonesia to slow down. This can be seen in 2018 which experienced a deficit in the trade balance of USD 8 billion, which indicates that Indonesia is not good enough in managing import activities in order to increase export activities, but economic growth in 2018 experienced an increase of 5.17% or 0.1%.

## 4.5.4 Effect of Labor Force on Economic Growth

Based on the results of the statistical tests described above, these results indicate that H4 is not supported, so it can be concluded that the labor force has no significant effect on economic growth in Indonesia. The results of this hypothesis study are in line with previous studies conducted by Doku, Akuma & Afriyi (2017) who found that labor influences economic growth in African countries. This can be seen from the development of the number of workers from 2017. In 2017 the number of labor force employed increased by 2.6 million workers with economic growth increasing by 0.04%. The increase in the number of workers does not have a significant effect due to the lack of labor productivity, causing a decrease in the number of GRDP in 2017, amounting to Rp 5.6 trillion.

It can be concluded that only the number of workers has increased but from the level of productivity has not changed, even the opposite has happened with the number of GRDP having decreased. This shows that the increase in high employment does not affect economic growth if it is not accompanied by an increase in the amount of productivity, although an increase does not have a significant effect on economic growth

The statistical test results are also not in line with the classical economic theory put forward by Smith (1776) who said that the main factor in economic growth is the amount of human resources available. The theory will be in line if the increasing number of workers is accompanied by an increase in labor productivity.

## 4.5.5 Effects of Foreign Investment, Domestic Investment, Trade Openness and Labor Force on Economic Growth

Based on the results of the statistical tests described above, these results indicate that H5 is not supported, so it can be concluded that there is no significant effect between foreign investment, domestic investment, trade openness and labor force on economic growth in Indonesia. The test results found there are various directions. On the variable foreign investment has a significant positive effect on economic growth, while the variable on domestic investment has no influence and has a negative direction on economic growth. The trade openness variable has a significant influence on economic growth and has a negative direction, the labor force variable has an insignificant effect and has a positive direction on economic growth.

The statistical test results are not entirely in line with classical economic theory put forward by Smith (1776) and neo-classical economic theory put forward by Harrod (1948) and Domar (1957) who say that the main factors in economic growth are investment, trade openness and the amount available human resources. However, in Indonesia only foreign investment, labor which has an influence but not a significant influence whereas exports have a significant effect but in a negative direction on economic growth in 2016-2018.

Trade openness has the result of having a significant negative effect on Indonesia's economic growth. This indicates that if there is an increase in

trade openness, economic growth in Indonesia will decline. This is because Indonesia needs import activities to meet exports. Meanwhile, on the import side it is not well managed resulting in a deficit in the trade balance and this will make Indonesia flood of imported goods without producing products that can be re-exported.

Labor force in Indonesia has an insignificant effect on Indonesia's economic growth. This is due to the lack of labor productivity in producing GDP, causing a decrease in the number of GRDP in 2017 amounting to Rp 5.6 trillion.

# 5 CLOSING

### 5.1 Conclusion

Based on the previous results and discussion, several conclusions can be made, as follows:

Foreign investment has a significant effect on Indonesia's economic growth. This is because the use of foreign capital for development is often not well targeted, investments that are not prioritized on creating employment opportunities for the maximum workforce that will have an impact on economic growth in Indonesia.

Domestic investment has no significant effect and has a negative direction on economic growth. This is because investment can reduce the amount of savings created in the future and not reinvest the profits. This is also due to the uneven distribution of investment value across all provinces in Indonesia and domestic investment which does not touch the layers of society, which means that domestic investment is done more in the form of capitalintensive, not much use of human labor.

# 5.2 Limitation

In this study, researchers found several limitations including:

The sample of this study is limited to 33 provinces in Indonesia and tested in 2016-2018 which will find different results if carried out in other countries and at different times.

### 5.3 Implications and Suggestions

#### 5.3.1 Implications

This study aims to examine the effect of foreign investment, domestic investment, trade openness and labor force on economic growth in Indonesia. Based on this research, foreign investment has an insignificant influence on economic growth in Indonesia, this indicates that Indonesia must be able to manage investment properly so that the right target and investment can drive Indonesia's economic growth. Domestic investment has a negative and insignificant effect on economic growth, this indicates domestic investors should be able to control the invested capital and profits so that the amount of savings in the future does not decline.

Trade openness has a significant effect on economic growth, this indicates that Indonesia must increase the value of exports to avoid a deficit in the trade balance by means of Indonesia must be able to improve the quality of exported commodities so that they can increase the value of exports. Labor force has a significant and not significant effect on Indonesia's economic growth, this indicates that Indonesia must be able to employ workers according to their expertise so that the increase in the number of workers is in line with the increase in labor productivity. this research is expected to be able to add readers' insights and help the government in determining the driving factors in economic growth in Indonesia.

### 5.3.2 Suggestion

Suggestions for further research is to add the variable amount of government expenditure as an independent variable. This is consistent with the economic growth equation:

$$Y = Consumption + Government+$$
  
Investment+ Export - Import (10)

where Government means government expenditure. Future studies can also use GDP based on expenditure in order to describe the value of consumption.

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