THE EFFECT OF LABOR AND INVESTMENT AGAINST INDONESIA'S ECONOMIC GROWTH

by Susilawati Sudirman
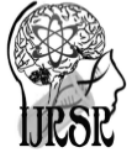
Research Article

THE EFFECT OF LABOR AND INVESTMENT AGAINST INDONESIA'S ECONOMIC GROWTH

Susilawati, Sudirman

Lecturer at the Faculty of Economics, University of Batanghari Jambi, Indonesia

DOI: http://dx.doi.org/10.24327/ijrsr.2017.0809.0822

ARTICLE INFO

ABSTRACT

Indonesia's economic growth with less accelerated economic growth, where the average annual growth is still below 5%, while the growth of developing country economy set by IMF is 5%. So we need an assessment to find out what factors affect the economic growth of Indonesia. Factors that are suspected to affect Indonesia's economic growth are labor, and investment. This study uses Indonesian economic growth data, labor and investment in Indonesia from 2002 to 2016. The data used are secondary data obtained from the Central Bureau of Statistics and the Investment Coordinating Board (*BadanKoordinasiPenanaman Modal*). The analysis technique used is Ordinary Least Square analysis. Based on the results of the analysis made it can be seen that investment and labor have a negative effect but this have positive direction on economic growth of Indonesia

INTRODUCTION

Boediono, 2008, Economic growth is closely related to the welfare of society. The higher the economic growth of a country, the higher the ability of a country to meet the needs of society, so that the higher the ability of a country to prosper the community. Indonesia's economic growth can be seen from the development of Gross Domestic Product. Growth data of Gross Domestic Product of Indonesia growth of Gross Domestic Product at constant price of year 2000, shows the growth of GDP every year. However, looking at the growth ratio, Indonesia experienced economic growth until 2007, then in 2008 during the economic crisis, decreased to 3.53%. And just experienced an increase again from the year 2009-2016. Indonesian economic growth.

The trend of Indonesia's economic growth from 2002 to 2016 tends to improve. In 2003-2007, the economic growth of Singapore and Malaysia was above Indonesia, but from 2009-2016 the economic growth of both countries experienced a slowdown while Indonesia's economic growth remained stable. There are several factors that affect gross domestic product (GDP), one of which is investment and labor. The growth of manpower in 2002 - 2012 experienced a trend which fluctuate in 2003 the development of labor 1.95% and in 2006 decreased by 0.50%, but in 2007 increased 3.34%, while in 2011 only By 0.72% and in 2012 by 0.58%. Labor is influential in the development of a country and can also affect economic growth with high investment.

Indonesia's Investment Growth in 2003 was 46.56% while in 2004 - 2006 -22.50%, -14.37%, -32.78. While in 2007 71.67% and in 2009 there was a decrease -13.68 so that in the year 2012 has increased 24,78% development of investment in Indonesia fluctuate

Problems

The problem in Indonesia's economic growth is the less accelerated growth rate, where the average annual growth is still below 5% while the growth of the developing country economy set by IMF is 5%. So we need an assessment to find out what factors affect this economic growth of Indonesia. What is the effect of investment, labor on Indonesia's economic growth?

LITERATURE REVIEW

Economic growth

Economic Growth is defined as an increase in GDP / GNP regardless of whether the increase is greater or less than the rate of population growth, or whether changes in economic structure occur or not (LincolinArsyad, 2004: 11). Economic growth is a process of increasing per capita output over the long term. There are three aspects to note: process, output per capita and long term. Economic growth is a process, not an economic picture at a time. Here we can see the dynamic aspect of an economy, ie see how the economy develops or changes over time (Boediono, 1985: 1). In the macroeconomic model for open economic systems, the indentity equation to describe

Corresponding author: **Susilawati, Sudirman**

Lecturer at the Faculty of Economics, University of Batanghari Jambi, Indonesia

the balance of foreign balance (internal balance), and the balance of external (balance) can be formulated as follows: Y = C + I + G + (X-M) Information:

Y = National Income (National Income)
C = Comsumtion (Household Consumption Expenditure)
I = Investement (Gross Private Capital Formation)
G = Government Expenditure
X = Export M = Import

Investment can create an aggregate production increase in the future in various ways. According to Keynes the rise in investment leads to an increase in national income, the result will be an increase in consumption which ultimately leads to subsequent increases in revenues. This process tends to be cumulative as a result of a certain increase in investment causing a doubling in income through the tendency to consume. The relationship of increased investment with this increase in national income by Keynes is called multiplier. This multiplier shows the relationship between investment, consumption and income against the tendency to consume. This means that if aggregate investment demand then the income will increase by (K) times the increase of investment (Soediyono, 2000: 120).

According to Adam Smith in Boediono, 1985: 7, there are two main aspects of economic growth:

Total Output Growth (GDP). B. Population growth

Awandari (2016) Economic growth, employment opportunities are often associated with investment as the main driver for creating a prosperous society. People's welfare and employment opportunities are linked, b opportunities illustrate the role of the community in achieving the development goals, namely the welfare of the community. This study Objects studied are investment, economic growth, employment opportunities and community welfare. This study uses secondary data, then analyzed using path analysis techniques. The analysis results show, investment and economic growth have a positive and significant effect on employment.

Labor

Labor is an essential element in economic activity and in an effort to increase production and develop the activities of the population plays an important role because it provides the entrepreneurs who are treated to carry out economic activities.

According to Todaro (2002), population growth is not a problem, but instead is an important element that will spur economic development. Larger populations are potential markets that are the source of demand for a wide range of goods and services that will then move various economic activities to create economics of scale of products that benefit all parties, reduce production costs, and create sources of supply Or cheap labor supply in sufficient quantities that in turn stimulate higher levels of output or aggregate production Population can be divided into two parts, namely the population classified as labor and non-resident population. Labor is divided into two groups: the labor force and not labor force.

According to Soeroto (1998), the labor force is a portion of the working-age population who have jobs and who do not have a job, but are actively or passively looking for a job, or in other words the workforce consists of working-age working people Or looking for a job. While the working age population outside the workforce is not called the labor force. This group consists of three classes, namely: 1). Groups still in school, ie those whose activities are only in school; 2). Groups that take care of the household, ie those who take care of households without getting wages; and 3). Group of income recipients divided into sections, namely:

1. Those who do not engage in economic activity but receive income or pension benefits, interest on savings (deposits), rent on property, and so forth.
2. Those whose lives depend on others, for example: elderly people, disabled people, people in custody and so forth.

According to Adam Smith with the theory of specialization and division of labor (conclusion), the high population growth will be able to produce output through the addition of labor and market expansion in both domestic and foreign markets. The classical economists argue that population growth accompanied by technological change will encourage savings as well as the use of economies of scale in production. According to Todaro (2002) population growth and labor force growth (AK) has traditionally been regarded as one of the positive factors that spur economic growth. Larger workforce means increasing production levels, while greater population growth means larger domestic market size. However, it is still questionable whether the true rate of rapid population growth will really have a positive or negative impact on economic development. Furthermore it is said that the positive or negative influence of population growth depends on the ability of the regional economic system to absorb and productively utilize the increase of labor. The capability is influenced by the level and type of capital accumulation and the availability of inputs and supporting factors such as managerial and administrative skills.

According to Nicholson W. (2000) that a function of production of a particular good or service (q) is $q = f(K, L)$ where k is capital and L is labor which shows the maximum amount of goods / services that can be produced using Alternative combinations between K and L then if one input plus one additional unit and the other input is considered to be fixed it will cause additional output that can be produced.

Simanjuntak (2005) mentions that the workforce is covering resident who are already or are working, looking for work and doing other activities, such as schooling and taking care of the household. According to BPS population aged 10 years and over is divided as Labor Force (AK) and not AK. The workforce is said to work if they do work with the intent of obtaining or helping to earn income or profits and the duration of working at least 1 (one) hour continuously over the past week. While the unemployed population who are looking for work are called unemployed (Budi Santosa, 2001) The number of working laborers is a description of the conditions of available employment. The greater the available employment, the more will increase the total production in an area.

Maharani (2014) This study aims to explain economic growth. The variables affecting the rate of economic growth are private investment, government investment, government spending, labor and economic openness. The results show that in partial private investment, government investment, government

spending, labor has a positive and significant impact on economic growth

Eka (2015) This study aims to determine how much the influence of investment on employment in the industry sector. This research uses explanatory methods. Coefficient test results from multiple linear regression analysis, showed that, GRDP, and investment simultaneously and partially significant effect on the absorption of labor in a positive direction. Based on the test results, it can be concluded that the hypothesis states, "there is the influence of GRDP, and investment on employment. This matterindicates that if GRDP, and investment has a positive value, it will have an effect on increasing employment

Investation

Economic theory defines or defines investment as "expenditures to buy capital goods and production equipment for the purpose of replacing and especially adding to capital goods in the economy that will be used to produce goods and services in the future". According to Boediono (1985) investments are expenditures by the producer (private) sector for the purchase of goods and services to supplement the stock used or for plant expansion. Dornbusch & Fischer argue that investment is the demand for goods and services to create or increase production capacity or income in the future.

The general requirements of a country's economic development according to Todaro (2002) are:

1. Capital accumulation, including new accumulation in the form of land, physical equipment and human resources;
2. Population development coupled with the growth of manpower and expertise 3. Technological advances.

Capital accumulation will be successful if some part or proportion of existing income is saved and invested to enlarge the product (output) and income in the future. To build it should divert the sources of the consumption flows and then divert it for investment in the form of "capital formation" to achieve greater production levels.

Investment in the field of human resource development will improve the ability of human resources, thus becoming skilled experts who can facilitate productive activities. According to SadonoSukirno (2005) investment activities enable a society to continuously improve economic activities and employment opportunities, increase national income and improve.

Level of community prosperity. This role is derived from three important functions of investment activities, namely: 1. Investment is one component of aggregate spending, so an increase in investment will increase aggregate demand, national income and employment. 2. The increase of capital goods as a result of investment will increase production capacity 3. Investment is always followed by technological developments.

Suryana (2003) states that capital deficiencies in developing countries can be seen from several angles:

1. The small amount of absolute material capita;
2. Limited capacity and expertise of the population;
3. Low net investment.

This is in line with the vicious circle theory which argues that:

1. Inability to direct sufficient savings.
2. Lack of incentives to invest.
3. The level of education, knowledge and relatively low proficiency are the three main factors that hamper the creation of capital formation in the country Developing. Harrod-Domar's theory suggests that the economic growth model which is the development of Keynesian theory.

The theory focuses on the role of savings and industry is crucial in regional economic growth (Lincoln Arsyad, 2004). Some of the assumptions used in this theory are that:

1. The economy in full employment and the capital goods in the community are used in full.
2. In a two-sector economy (Household and Company) means the government and trade sector does not exist.
3. The amount of public savings is proportional to the amount of national income, meaning the function of saving starts from the original point (zero)
4. The tendency for saving (Marginal Propensity to Save = MPS) remains large, as well as the ratio of capital and output (Capital OutputRatio = COR) and the capital-output ratio (Incremental Capital Output Ratio)

This theory has a weakness that is the tendency to save and the ratio of capital-output increase in reality is always changing in the long run. Similarly, the proportion of labor usage and capital is not constant, prices are constantly changing and interest rates may change will affect investment. In the endogenous growth model it is said that investment returns will be higher when aggregate production in a country gets bigger. Assuming that private and public investments in human resources or capital can create an external economy (positive externalities) and spur productivity that is capable of offsetting the scientific tendency to decrease the yield scale. Although the technology remains recognized to play a very important role, But the endogenous growth model states that the technology does not need to be highlighted to explain the long-term economic growth process. An interesting implication of this theory is to explain the potential benefits of complementary investment in capital or human resources, infrastructure infrastructureor research activities. Considering that complementary investments will result in both personal and social benefits, the government has the opportunity to improve the efficiency of domestic resource allocation by providing various public goods (infrastructure facilities) or actively encouraging private investment in technology-intensive industries where human resources are accumulated. This model therefore suggests active participation of the government in the management of both direct and indirect investments.

Private investment in Indonesia is guaranteed since the issuance of Law No.1 Year 1967 on Foreign Investment (PMA) and Law No.12 of 1970 on Domestic Investment (PMDN). Based on the source and ownership of capital, private investment is divided into domestic and foreign investment. With the increasing amount of investment, especially foreign capital in public goods, it is expected to encourage the growth of the private sector and households in allocating resources in an area. This will eventually lead to an increase in GRDP. Labor is an important factor in the production process compared to other means of production such as raw materials,

soil, water, and so forth, because man is the one who moves all these sources produce goods and services (Simanjuntak, 2005: 20). The use of labor in the production process is related to production costs and wage rates. Both in terms of production costs and wage levels, the use (demand) of labor associated with labor productivity and return received by factors of production. With the increase in the number of workers will increase labor productivity as a result of changes in the quantity and quality of labor itself so as to encourage economic growth.

Investment relations and economic growth are very closely linked, this is because investment is one factor that can encourage economic growth of a country. In order to experience rapid growth then every economy must save and invest as much as possible part of its GNP. If a country's economic growth increases then there will be an increase in employment, welfare, productivity and income distribution. In the classical theory with the Harrod-Domar growth model, to trigger economic growth requires new investment which is a net addition to reserves or stocks of capital.

The need for net exports to a country's economy. Since net exports represent the value of a country's exports minus its import value. Export is one source of foreign exchange. To be able to export, the country must produce goods and services in the international market. This competing ability is very Determined by various factors, including natural resources, human resources, technology, management and even social culture (Supriyanto, 1995). Net exports by a country will have a positive impact on economic growth if the value of exports is greater than the value of imports so that it will increase national income and stimulate economic growth.

Labor is an important factor in the production process compared to other means of production such as raw materials, soil, water, and so forth, because man is the one who moves all these sources produce goods and services (Simanjuntak, 2005: 20). The use of labor in the production process is related to production costs and wage rates. Both in terms of production costs and wage levels, the use (demand) of labor associated with labor productivity and return received by factors of production. With the increase in the number of workers will increase labor productivity as a result of changes in the quantity and quality of labor itself so as to encourage economic growth.

Sayekti (2009) investment, labor and government is an important component in the process of sustainable economic development. The purpose of this study is to analyze the influence of investment, labor, and government expenditure on economic growth in East Java Province. Hypothesis in this research is investment, labor expenditure and government expenditure have positive and significant influence to economic growth. Based on data analysis, the hypothesis is completely accepted. This research shows that investment variable, labor and government expenditure have positive and significant influence to economic growth.

Ineke (2014) This study aims to analyze domestic investment, FDI realization, manpower, to economic growth in the period 2007-2011. Data used in the form of panel data are analyzed by the least squares method (OLS) and programming aid eviews 6. The results showed that domestic investment, labor has a significant positive effect on economic growth.

RESEARCH METHODS

The data used in this research is secondary data. Secondary data is research data obtained indirectly through intermediate media (obtained and recorded by other party). In this study, secondary data sources were obtained from the Central Bureau of Statistics and the Investment Coordinating Board (*BadanKoordinasiPenanaman Modal*). Data collection method used in this research is: method of documentation. Documentation method is a method of collecting data conducted by reading books, literature, journals, references related to this research and previous research related to the research being conducted. Ordinary Least Square Analysis (OLS) Regression Equation Model Ordinary Least Square estimates the regression line by minimizing the sum of the squares of errors of each observation against the line (Ghozali, 2011).

This research model uses Neo Classical Growth Model, with standard aggregate production function (Gujarati, 2003): Econometric model:

$Y = f(I, TK)$ $Y = a + \beta_1 I + \beta_2 TK + e$
Y = Economic growth
a = Constanta
B_1, β_2 = coefficient
I = Investment
TK = Labor
e = Standard error
Hypothesis testing

Partial Effect Significance Test (t test)

The t test is used to test the significance of the relationship between the variables X and Y, whether the independent variable actually affects the dependent variable separately or partially (Ghozali, 2011).

Model Accuracy Test (Test Statistic F)

In this research, F test is used to know the level of significance of the influence of independent variables simultaneously (Simultaneous) to the dependent variable (Ghozali, 2011).

Coefficient of Determination Analysis (R^2) The coefficient of determination (R^2) essentially measures how far the model's ability to explain variations of dependent variables (Ghozali, 2011). The coefficient of determination is between zero and one. The small value of R^2 means that the ability of the independent variables to explain the dependent variable variation is very limited. And vice versa, a value close to one means the free variables provide almost all the information needed to predict the variables variable bound.

RESULT AND DISCUSSION

Based on the results of data processing using SPSS, 20.0 Investment, Labor and Economic Growth Indonesia. Multiple regression equation from result of print-out SPSS hence obtained by regression equation as follows:

$\text{Log } Y = 0.537 + 0.080 \text{ Log } X1 - 0.018 \text{ Log } X2$
T-count = (2,167) R2 = 0.0 F-count = 0.300 F-table = 2.97
R = 0.227 t-table = 1,812. Based on the results of regression analysis above in obtaining the value of constant regression coefficient of 0.357 means if Investment, Labor is constant then economic growth of 3.57%.

The value of investment coefficient (X1) of 0.080 means that if investment (X1) increases by 1% then economic growth increases by 0.80% this is so high dependence sector of the economy to investment The value of labor coefficient (X2) is -0.018 means that if labor increases by 1% then economic growth decreased by -0.18% this reflects the low quality of labor. The results of partial calculation in obtaining the value of t-count for investment of 0.774. A. The value of t-count for X1 (investment) is 0.774 while the value of t table at significant level (a) is 0,05 with degree of freedom (df) = 15 - 2-1 = 12 that is equal to 1,812. Because t arithmetic 0,774 <t-table 1,812 hence hypothesis (Ho) accepted hence hypothesis (Ha) rejected. Thus the hypothesis that the investment has a negative influence but has a positive direction on economic growth of Indonesia.

B. The value of t - arithmetic X 2 (Labor) is -0.173 while the value of t - table at a significant level (a) of 0.05 with the degree of freedom (df) = 15 - 2 - 1 is equal to 1.812. Because t-count -0.173 <t - table 1,812 then hypothesis (Ho) accepted and alternative hypothesis (Ha) rejected. Thus, the hypothesis that there is a significant influence / link between labor variables (X2) on the economic growth of Indonesia.

Significance test is done by using F-test (together) with 95% confidence level or significance level (α = 0,05) hence the value of F-table equal to 2,97 whereas F arithmetic equal to 0,300 thereby test criterion F statistic It is stated that F-count (0,300) <from F-table (2,97), which means rejecting Ha and Ho is accepted at 95% confidence level. This shows that together the independent variables have no significant effect on the economic growth of Indonesia.

CONCLUSSIN AND RECOMMENDATION

Based on the results of research and discussion conducted to analyze Investment, Labor and Economic Growth in Indonesia it can be concluded that: Based on the result of hypothesis testing of the influence of investment, labor, there is no significant relationship to the economic growth of Indonesia, this is due to the low quality of labor and the low value of investment in Indonesia. The need for high labor quality and high investment value as well as other sectors in order to increase economic growth in Indonesia.

References

1. ArsyadLincolin, 2004 "Development Economics, Publishing Section. STIE - YKPN, Yogyakarta. 2.
2. Awandari (2016) "E Journal Ep Unund" 5 (12): 1435-1462 ISSN: 2303-0178
3. Boediono. (2008). ASEAN Economic Community 2015. PT.Gramedia. Jakarta
4. Eka (2015), "Scientific Articles
5. Ghozali, 2011 "Application of Multivariate Analysis With SPSS Program. Fourth Print. ... SPSS Exercise Book Parametric Statistics. Jakarta: PT Flex.
6. Ineke, Phany (2014), "Journal Imprint" Imprint 7 (2) 2014: 100-202, Doi: 10,15294 / trail, V7in.3596
7. Soeroto (1998), Strategy for Development and Design of Manpower ", GadjahMada
8. Susenas, (2003). CPM. Jambi
9. Soediyono, 2000, "Sociological pieces of the countryside"
10. Sukirno (2005), MAcro Economic Theory of Introduction, Third Edition, King. GrafindoPersada, Jakarta.
11. Simanjuntak.J. Payaman. (1995). Introduction to Human Resource Economics. FE-UI. Jakarta.
12. Supriyanto, 1995. "Interdisciplinary Qualitative Research Methods: The Social Sector. Culture, Philosophy ElexmediaKomputin
13. Sayekti, Sindyah (2009), "*Journal of Equity*" No.110 / DIKTI / kep / 2009. ISSN: 1411-0393
14. Todaro (2002), Economic Development (Volume 1) by Michael P. Todaro
15. Maharani, Kurnia (2014) "Business and Economy Journal" JEB, March 2014, Page 62-72 ISSN: 1412-3126
16. Cholson W. (2000), Macro Economic
17. Law No.1 Year 1967 on Foreign Investment (PMA) and Law No.12 Year 1970 on Domestic Investment (PMDN)

****

THE EFFECT OF LABOR AND INVESTMENT AGAINST INDONESIA'S ECONOMIC GROWTH

Internet Source

1%

10   recentscientific.com
      Internet Source

1%

11   Kalies Sirieh Puspitowati, Deden Dinar
      Iskandar. "Determinants of Structural
      Transformation in ASEAN", Media Ekonomi dan
      Manajemen, 2020
      Publication

1%

12   Submitted to Universitas Islam Indonesia
      Student Paper

1%

13   jurnal.unsyiah.ac.id
      Internet Source

1%

14   journal2.um.ac.id
      Internet Source

1%

15   Submitted to Ardhi University of Tanzania
      Student Paper

1%

16   gatrenterprise.com
      Internet Source

1%

17   Submitted to KYUNG HEE UNIVERSITY
      Student Paper

1%

18   Suradiyanto. "The Strategy to Increase
      Investment in Indonesia and Obstacles of
      Perfection of Investment Law", International

1%

29 e-journal.uajy.ac.id
Internet Source
<1%

30 Devi Valeriani, Desy Yuliana Dalimunthe, Ayu Wulandari, M. Fikri Ashar. "VECTOR AUTO REGRESSION ANALYSIS BETWEEN EXPORT, ECONOMIC GROWTH, AND JOB OPPORTUNITY IN BANGKA BELITUNG ISLANDS PROVINCE", Humanities & Social Sciences Reviews, 2019
Publication
<1%

31 www.academia.edu
Internet Source
<1%

32 sijdeb.unsri.ac.id
Internet Source
<1%

33 eprints.unm.ac.id
Internet Source
<1%

34 dassaad_z.staff.gunadarma.ac.id
Internet Source
<1%

35 Mei-Se Chien, Neng-Huei Lee, Chih-Yang Cheng. "Housing markets' linkage between China and Taiwan", International Journal of Housing Markets and Analysis, 2019
Publication
<1%

36 www.ukessays.com
Internet Source
<1%

37	www.recentscientific.com Internet Source	<1%
38	www.iiste.org Internet Source	<1%
39	garuda.ristekdikti.go.id Internet Source	<1%
40	garuda.ristekbrin.go.id Internet Source	<1%
41	"The Effect of Some Economic Variables on Economic Growth in Indonesia Period 2010-2017", International Journal of Engineering and Advanced Technology, 2019 Publication	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		