

**ANALYSIS DETERMINANTS OF DOMESTIC INVESTMENT (CASE
STUDY IN SUMATERA ISLAND 2006-2015)**

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ANALYSIS DETERMINANTS OF DOMESTIC INVESTMENT (CASE STUDY IN EAST JAVA 2006-2015)

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ABSTRACT

Investment is an effort to increase economic growth within a country or region. Investment can be interpreted as an investment an individual or company to a country or region. Also, it can be divided into two, namely domestic investment and foreign investment. Domestic investment is an investment made by individual or company originating from domestic, while foreign investment is an investment made by individual or companies coming from board to a country or a region. This study aims to analyse the determinants of domestic investment in Sumatera Island in 2006-2015.

This research uses regression method of panel data which is used to recognize determinants of domestic investment in Sumatera Island. The results obtained in this study using Random Effect Model (REM) in panel data, indicate that foreign investment (PMA) and Gross Domestic Regional product (GDRP) have a significant and positive effect on domestic investment. Labor has an insignificant result and positive effect on domestic investment, while inflation has significant result but has negative impact on domestic investment in Sumatera Island in 2006-2015

Keywords: Economic Growth, Domestic Investment, Foreign Investment, Gross Domestic Regional Product, Labor, Inflation, Panel Data

INTRODUCTION

Background of Study

With the enactment of the ASEAN Economic Community (MEA) by the end of 2015, Indonesia should accelerate its' economy to compete with other countries. Based on data released by the Central Bureau of Statistics, Indonesia's economic growth at the end of 2014 slowed by 5.02 percent compared to 2013 reaching 5.58 percent with Gross Domestic Product (GDP) on the basis of the price reached RP.

11,540.7 trillion And GDP per capita reached RP. 45.2 million (bps.go.id).

One of the efforts to increase economic growth within the country is to increase investment across all sectors needed. According to UU No. 25 Year 2007 on investment. Investment is any form of investment activity, either by domestic investors or foreign investors to do business in the territory of the Republic of Indonesia, with the aim of:

1. Increasing national economic growth.
2. Creating jobs.
3. Promoting sustainable economic development.
4. Improving national business competitiveness.
5. Increasing the capacity and capability of national technology.
6. Encouraging the development of people's economy.
7. Processing potential economy into economic power by using funds originating, both from domestic and abroad.
8. Improving people's welfare

In such efforts, the government fully grants local governments the right to organize and manage all economic activities intended for investments aimed at improving the economy and the interests of the people in accordance with applicable law.

Sumatera Island consists of 10 provinces, including Aceh Province, North Sumatra Province, West Sumatra Province, Riau Province, Riau Islands Province, Bangka Belitung Province, Jambi Province, Bengkulu Province, South Sumatra Province and Bandar Lampung Province. Sumatra Island itself has cultural diversity and some big tribes, among others, Aceh Tribe, Batak Tribe, Tribe Melayu, Tribe Minang, Tribe of Java and many other tribes.

Economically, Sumatra Island has a pretty brilliant achievement. Central Bureau of Statistics (BPS) released Sumatra Island became the second largest contributor after Java to the formation of Gross Domestic Product (GDP) in 2015 by 22.21%, while Java Island which is the center of the economy in Indonesia contributed a value of 58.29%. Still lags behind Java Island, Sumatra Island is can outperform the other islands in Indonesia.

Therefore, the researcher is interested to examine the factors that influence domestic investment (PMDN) in Sumatera Island using panel data regression analysis from 2006 to 2015. So hopefully the results of this study can provide empirical data in considering the development investment appropriately and effectively. This study is entitled with **ANALYSIS DETERMINANTS OF DOMESTIC INVESTMENT (PMDN) IN SUMATERA ISLAND.**

LITERATURE REVIEW

Economic Growth

According to Budiono (1998), economic growth is a process of long-term per capita output growth that occurs when there is a tendency (per capita output to rise) that comes from the internal process of the economy (the forces within the economy itself), not from outside and is while. Or in other words, self-generating, which means that the growth process itself produces a force or momentum for the continuation of that growth in subsequent periods.

Classical Economic Growth Theory

Adam Smith is a classic figure that deals a lot about economic theories, including economic growth. In his book *An Inquiry into the Nature and Causes Wealth of Nation* (1776), Adam Smith described his opinion on how to analyze economic growth through two factors, namely the total output factor and population growth factor.

The total output calculation is done with three variables, covering natural resources, human resources, and capital or capital stock. As for the second factor, namely population growth, is used to determine the market area and the rate of economic growth.

Neo-Classical Economic Growth Theory

According to Harrod-Domar, every economy can set aside a certain proportion of its national income if only to replace damaged capital goods. However, to grow the economy, new investments are needed in addition to the stock of capital. The relationship has been known by the term capital-output ratio (COR).

Investment Theory

According to Irawan and Suparmoko (1992), there are several theories that can explain how much the level of investment that should be generated to accelerate the economic growth of a country, namely

Foreign Investment (PMA)

Based on the Act of the Republic of Indonesia Number 25 Year 2007 in Article 1 Paragraph 9 concerning Capital Investment, foreign investment is an activity of investing to conduct business in the territory of the Republic of Indonesia by foreign investors, whether using fully foreign capital or a joint with domestic investors.

According to Salim and Budi (2008), foreign investment represents real or tangible capital transfers from one country to another or capital transfer. The purpose of this capital transfer is used in that country to generate profits under the supervision of the owners of capital, either total or partial.

Gross Domestic Regional Product (GDRP)

Gross domestic regional product (GRDP), according to BPS, is defined as the amount of added value generated by all business units within a region, or is the sum of

all final goods and services produced by all economic units in a region within a period (Hadi Hasana, 2016).

Acosta and Andres (2005) argued that GRDP can be used as a proxy of aggregate demand variables that are the determinants of private investment. The relationship between gross regional domestic product (GRDP) to domestic investment is positive.

Labor

In Indonesia, which belongs to the labor force is the minimum age limit of 10 years without the maximum age limit. Thus, the labor force in Indonesia is intended as a population of 10 years or older. The election of 10 years as a minimum age limit is based on the fact that in this age many young Indonesians are already working or looking for work. But Indonesia does not adhere to the maximum age limit because Indonesia does not have national social security (payaman J. Siamanjuntak, 2001).

According to Anshar Husnainy cited in Hastuti (2013), the relationship between labor and investment is when an increase in the number of workers will increase production capacity. Increased production capacity will also increase investment. So, the relationship of labor to investment is positive

Inflation

Inflation is a tendency to increase prices in general and continuous or declining currency values. An increase in the price of one or two items alone cannot be called inflation, unless the increase extends to most of the other goods.

The relationship between inflation and investment is negative. High inflation in a country or region, causing money supply to increase, followed by high interest rates, with interest rates tend to be high then investment will decrease. High inflation also causes the purchasing power of the people to decline which then leads to reduced returns or investment gains, thus lowering investors' interest to invest.

RESEARCH METHODOLOGY

The Type of Research

This type of research using quantitative data.

The Scope of Research

To focus on the research on the object to be studied, the author gives the scope of the research that conducted in Java. This type of research is used to see the factors that affect the domestic investment (PMDN) on Sumatera Island

Dependent Variable

The dependent variable is a variable that affected by independent variable. The dependent variable in this research is Domestic Investment (Y).

Independent Variable

- Foreign Investment (X1)
- Gross Domestic Regional Product (GDRP) (X2)
- Labor (X4)
- Inflation (X4)

Type and Source of the Data

In this research type of data used is secondary data. The secondary data source that can be in this research is the publication and the report of regional economic performance (KER), Central Bureau of Statistics (BPS). As well the sources such as journals and other research that still relate to this research.

Documentation method is to find data about the variables in the form of notes, archives, newspapers, magazines and so on (Moleong, 2000). The required documents are domestic investment reports (PMDN), gross regional domestic product (GRDP), labor and inflation from a national stratospheric bureau.

Method of Data Analysis Regression Analysis

Here is the estimation of equation model in this study:

$$Y = a + b_1 \log X_1 + b_2 \log X_2 + b_3 \log X_3 + b_4 X_4 + e$$

Where:

Y	: Domestic Investment
A	: Constanta
b1,b2,b3,b4	: Determination Coefficient
LogX1	: Foreign Domestic (PMA)
logX2	: Gross Domestic Regional Product (GDRP)
logX3	: Labor Number
X4	: Inflation
E	: Error

Panel Data Regression Method

In using panel data, there are 3 regression methods that will be generated, among others:

1. Common Effect Model (CEM)

Common Effect Model (CEM) is a regression method that estimates panel data by Ordinary Least Square (OLS) method. This method does not take into account individual and time dimensions so it is assumed that interindividual behavior is the same in various periods. This model combines only time series and cross section data in pool form, estimating it using the least squares approximation (pooled least square)

2. Fixed Effect Model (FEM)

Fixed Effect Model (FEM) is a regression method that estimates panel data by adding dummy variables. This model assumes that there are different effects between individuals. This difference can be accommodated through differences in the intercept. Therefore, in the fixed effect model, each individual is an unknown parameter and will be estimated using the dummy variable technique

3. Random Effect Model (REM)

Random Effect Model (REM) is a regression method that estimates panel data by calculating error from regression models with Generalized Least Square (GLS) method. Unlike the fixed effect model, the specification effect of each individual is treated as part of a random error component and is not correlated with the observed explanatory variable. This model is often called the Error Component Model (ECM).

Selection of Regression Methods Panel Data

In the selection of panel data there are several tests that must be passed include Chow test and Hausman test:

1. Chow Test

Harahap (2008) cited in Supriyanto (2013) suggested that this test is aimed to find out whether the panel data regression technique with fixed effect is better than the panel data regression model without dummy or OLS variables. In performing the test Chow, data must be regressed using the model of common effect and fixed effect first then made the hypothesis as follows:

- a. H_0 : Common Effect
- b. H_1 : Fixed Effect

The guidelines used in Chow test decision making are as follows:

- a. If the value of F statistics > 0.05 means that H_0 is accepted, then the model to be used is the common effect model
- b. If the value of F statistics < 0.05 means that H_1 is accepted, then the model to be used is the fixed effect model.

2. Hausman Test

Winarno (2009) stated that Hausman test is used to choose between fixed effect and random effect approach. Hausman test is obtained through the command Eviews contained in the panel directory. The Hausman test statistic follows the Chi Square statistical distribution with a degree of freedom (k), where k is the number of independent variables. If probability value is $< 0.05\%$ then the right model is fixed effect model. While vice versa if the probability value is $> 0.05\%$ then the right model is a random effect model. The basis of decision making using Hausman test (Random Effect vs Fixed Effect), are:

- a. H_0 : Random Effect
- b. H_1 : Fixed Effect

Analysis coefficient of determination (R²)

This analysis is conducted to know the amount contribution of independent variable, namely foreign investment (PMA), gross domestic product (PDRB), Labor and Inflation to dependent variable that is domestic investment (PMDN). If R² increases, the stronger the influence of the independent variable to the dependent variable.

T Test (Partial Test)

This test is used to determine whether each independent variable individual has a significant influence on the dependent variable. In other words, to know whether each independent variable can explain the changes that occur in the dependent variable significantly. This test is used to find out whether the independent variable individually affects the dependent variable with the assumption of other independent variables constant.

F Test (Simultaneous Test)

This test is used to determine the effect of independent variables significantly to the dependent variable. Where the significance F is smaller than 5% then the independent variables together have an influence on the dependent variable. In other words, if the value of significance F is more than 5% then the independent variables together do not affect the dependent variable, the level of significance used is 5%.

Classical Assumption Test

Excess research using panel data is data used to be more informative, greater variability, lower collinearity between variables and many degrees of freedom (degree of freedom) and more efficient (Hariyanto, 2005). Data panels can detect and measure impact better where this cannot be done with cross section or time series method.

With the advantages of panel data regression, the implication should not be the classical assumption testing in the panel data model (Wibisono, 2005; Aulia; 2004)

RESULT AND DISCUSSION**Regression of Panel Data Random Fixed Effect (REM)**

In the regression analysis, it will develop an estimating equation in the shape of formula to find the value of dependent and independent variables. The data related to this research has been processed by a software namely Eviews 7.0. The data processed are consisting of dependent and independent variable, such as Foreign investment (X_1), Gross Domestic Regional Bruto (GDRP) (X_2), Labor (X_3), and Inflation (X_4) The regression estimation result can be seen as follows:

Table 1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-12.11796	6.257047	-1.936690	0.0562
LOGPMA	0.268890	0.134642	1.997076	0.0491
LOGPDRB	0.499245	0.243100	2.053662	0.0432
LOGTK	0.828284	0.464395	1.783577	0.0782
INF	-0.098910	0.041906	-2.360260	0.0206
R-squared	0.373338			
Adjusted R-squared	0.342769			
F-statistic	12.21300			
Prob(F-statistic)	0.000000			

Source: Primary Data, 2018. Processed

Regression equation from result of estimation of data panel Random Fixed Effect (REM) is:

$$Y = C + \beta_1 \text{Log}X_1 + \beta_2 \text{Log}X_2 + \beta_3 \text{Log}X_3 + \beta_4 X_4 + \varepsilon$$

$$Y = -12.11796. + 0.268 \text{Log}X_1 + 0.499 \text{Log}X_2 + 0.828 \text{Log}X_3 - 0.098X_4 + \varepsilon$$

This equation shows the following matters:

1. The constant is 12.117 indicating that if the variables of foreign investment (PMA), gross domestic regional product (GDRP), labor, and inflation are ceteris paribus (does not change) then the magnitude of change of the variable of domestic investment (PMDN) as much as 12.117.
2. The coefficient of foreign investment (PMA) is 0.49, indicating that foreign investment variable (PMA) has a positive influence on domestic investment variable (PMDN). This means that an increase of foreign investment (PMA) of 1 percent will increase domestic investment (PMDN) by 0.49 percent significantly.
3. The coefficient of domestic gross domestic regional product (GRDP) is 0.49, indicating that domestic gross domestic regional product (GDRP) has a positive effect on domestic investment variable (PMDN). This means that a 1 percent increase in GRDP will significantly increase domestic investment (PMDN) by 0.49 percent
4. The coefficient of labor is 0.82, indicating that the variable of labor has a positive influence on domestic investment variable (PMDN). This means that an increase of Labor by 1 percent will increase domestic investment (PMDN) of 0.82 percent is not significant.
5. The coefficient of Inflation is -0.09, indicating that the Inflation variable has a positive influence on domestic investment variables (PMDN). This means an increase of 1 percent inflation will increase domestic investment (PMDN) by - 0.09 percent significantly.

Research Implications The Effect of Foreign Investment (X1) on Domestic Investment

Based on the result of regression on panel random effect model (REM) results, it can be seen that the influence of foreign investment (PMA) on domestic investment (PMDN) in Sumatera Island shows a significant positive influence. This means that foreign investment (PMA) in 2006 - 2015 directly influence the increase of domestic investment (PMDN) in Sumatera Island. Increasing the amount of foreign investment (PMA) will increase the value of domestic investment (PMDN) in Sumatera Island

The results of this research are similar to previous researches. According to İsmet Göçer, et al (2014), foreign investment (PMA) has a positive influence on domestic investment (PMDN) in developing Asian and Latin American countries, For example, it is a fact that Asian countries, including China, have been providing tax advantages, easing administrative procedures for foreign investors and establishing free trade zones in order to accelerate economic development improve the capital and technology capacity and attract more FDI. Owing to such policies, foreign investments have been attracted and domestic firms have been protected. The study stated that the role of government protection against domestic investment (PMDN) is necessary, so that domestic investment (PMDN) is able to absorb foreign investment (FDI) both technologically and in others

Subsequently, James B. Ang (2009) also stated that foreign investment (PMA) has a crowding in effect on domestic investment (PMDN) in Malaysia. In the study, the researcher said that foreign investment (PMA) and domestic investment (PMDN) have a relationship of interdependence rather than competing. So that both will stimulate each other in growth.

The Effect of Gross Domestic Regional Investment (X2) on Domestic Investment

In accordance with the result of regression data from random effects model (REM) data, it can be seen that the effect of gross regional domestic product (PDRB) on domestic investment (PMDN) on the island of Sumatra is significant positive influence. This means that gross domestic regional product (GRDP) in 2006 - 2015 directly influence domestic investment (PMDN). In this case, it is known that the gross domestic regional product (GRDP) in Sumatra Island has a conducive climate for domestic investment (PMDN). The success of the Government throughout the Province of North Sumatra in increasing the gross domestic regional product (GDRP) attracts investors to invest in Sumatra Island.

Acosta and Andres (2005) argued that GRDP can be used as a proxy of aggregate demand variables that are the determinants of private investment. This study has similar results to previous studies of Sutawijaya and Zulfahmi (2013), who argue that if GRDP rises, local revenues will increase, high levels of local income will increase community incomes, and subsequently high incomes will increase demand goods and services, the company's profits will increase and this will encourage domestic investment (PMDN).

The Effect of labor (X3) on Domestic Investment

Based on the regression of panel random effect model (REM) data, it can be seen that the influence of labor on domestic investment (PMDN) in Sumatera Island is positive influence but is not significant, this means that Labor force in 2006-2015 directly influence the increase of domestic investment (PMDN) in Sumatera Island. Increasing the number of workers will increase the value of domestic investment (PMDN) in Sumatera Island.

This study has similar results to Muhammad Zaenuddin (2009) study which stated that labor has a positive influence on Investment. From the results of the study, it is also very clear that when labor increases, then the productivity in an area will increase as well. The increase productivity in an area will encourage investors to invest.

Hastuti, and Rusliana (2013) study, entitled Inflation Influence, Manpower and Exchange Rate to Investment in West Java Province also, found that labor has a positive influence on investment.

4The Effect of Inflation on Domestic Investment

From the random effect model (REM), it can be seen that the influence of inflation on domestic investment (PMDN) in Sumatera Island is negative and significant influence. This means that inflation in 2006 - 2015 directly influence domestic investment (PMDN). In this case, the rise of inflation in Sumatera Island will reduce investor interest in investing.

The result of this study has similarity with Hastuti, and Rusliana (2013) findings. The study found that inflation has a negative effect on investment. When the inflation is high, it indicates that the economy of a region is in bad condition so that the price of staple goods tends to rise and can reduce investor interest to invest.

So, it is clear that the stability of inflation is important to domestic investment (PMDN). the stability of inflation can be maintained by local governments by sustaining the stability and smooth distribution of goods and services or local governments. The direct mixture in terms of subsidizing of production that has an impact on the economy of the region as a whole.

CONCLUSION AND SUGGESTION

Conclusion:

1. Based on regression of panel data of Random Effects Model (REM), the foreign investment (PMA) in Sumatera Island shows a significant effect on domestic investment (PMDN) in the periods 2006-2015 and positive impact. Therefore, foreign investment (PMA) on the island of Sumatra can be regarded as one of the factors that positively affect domestic investment (PMDN) in Sumatera Island.

2. Based on Random Effect Model (REM) panel data regression, the gross domestic regional product (GRDP) in Sumatera Island shows significant effect on domestic investment (PMDN) in the periods 2006-2015 and positive impact. Therefore, the influence of gross domestic regional product (GRDP) in Sumatera Island and can be said to be one of the factors that positively affect domestic investment (PMDN) in Sumatera Island.
3. Based on Random Effect Model (REM) panel data regression, labor in Sumatera Island shows no significant effect on domestic investment (PMDN) during 2006 - 2015 periods and has a positive impact. Therefore, the influence of labors in Sumatera Island can be said to have a positive impact on PMDN in Sumatra Island but is not significantly.
4. Based on Random Effect Model (REM) data regression, Inflation in Sumatera Island shows significant effect to domestic investment (PMDN) during 2006 - 2015 periods and negative impact. So it can be said that inflation has a negative impact on the growth of domestic investment (PMDN) in Sumatera Island is significant.

Suggestion:

1. To increase domestic investment (PMDN) in Sumatra Island, the provincial government in Sumatra Island should increase foreign investment (PMA), protect domestic investment (PMDN) in order to compete with foreign investment (PMA). By increasing foreign investment (PMA), it will stimulate domestic investment. One of the positive impacts of foreign investment (PMA) on domestic investment (PMDN) is technological development brought from outside countries and can be adapted by domestic investors.
2. To increase domestic investment (PMDN) in Sumatera Island, one of the efforts to be made by the provincial government in Sumatra Island is to increase the amount of gross regional domestic product (GRDP) on the island of Sumatra. Because by increasing the gross domestic regional product (GRDP), it will increase the income per capita of society. The increase will raise the consumption of the area, therefore, the investment attraction in Sumatera Island is higher as well.
3. The next step that should be paid attention to the provincial government in the Sumatra Island is the labor. The government should be able to continuously improve the quality, welfare, security and education of the labor. Because quality, level of welfare, security level and education of labor also become one of the indicators that will be assessed by investor when want to invest.
4. The last step that should be done by the provincial government in Sumatra Island is to maintain the stability of inflation in the region. Investors tend to invest capital when inflation in a region is relatively stable. Low inflation in a region can indicate that the economy of a region is in good condition. The

stability of inflation in an area will continue to maintain stable foods price that minimizes the risk of losses experienced by investors.

5. In the academic field, this research can be used as a comparative data. Foreign investment (PMA), Gross Domestic Regional Product (GRDP), Labor, and Inflation are not the only factors that will affect PMDN in an area. There are several other factors such as Interest Rates, Infrastructure and Government Expenditure.

BIBLIOGRAPHY

- Abdul Halim. (2003). Analisis Investasi. Edisi Pertama, Penerbit Salemba Empat: Jakarta.
- Acosta, 2005. *Short And Long Run Determinants Of Private Investment In Argentina*, (online), *Journal of Applied Economics*. Vol VIII, No. 2 (Nov 2005), 389-406
- Adrian Sutawijaya, Zulfahmi. 2013. *Faktor-Faktor yang Mempengaruhi Investasi Swasta di Indonesia*, (online), *jurnal Trikonomika Volume 12, No. 1, Juni 2013*, Hal. 32–39
- Agus Widarjono, 2016. *Ekonometrika pengantar dan aplikasinya*, Edisi keempat, Yogyakarta: Penerbit UPP STIM YKPN
- Arikunto, Suharsimi. 2002. *Metodologi Penelitian*. Penerbit PT. Rineka Cipta.
- Beatriks Sefle, dkk 2014 *Analisis Faktor-Faktor Yang Mempengaruhi Investasi Di Kabupaten Sorong (Studi Pada Kabupaten Sorong Tahun 2008-2012)*
- Boediono, 2001. *Ekonomi Makro Edisi 4*. Yogyakarta: BPFE BPS Boediono.
1992. *Teori Pertumbuhan Ekonomi*. Yogyakarta, BPFE UGM. Boediono.
1998. *Teori Pertumbuhan Ekonomi. Seri Sinopsis Pengantar Ilmu Ekonomi No. 2*. BPFE : Yogyakarta.
- Budi Sutrisno, Salim. (2008). *Hukum Investasi di Indonesia*. Jakarta : Rajawali Pers
- Dermawan Wibisono, 2005. *Metode Penelitian & Analisis Data*. Jakarta: Salemba
- Dwi Hastuti, Nanang Rusliana. 2013. *Pengaruh Inflasi, Tenaga Kerja Dan Kurs Terhadap Investasi Di Provinsi Jawa Barat*, (online) *Jurnal Ilmu Ekonomi Vol 3, no 1, Januari – Juni 2013*
- Gujarati, Damodar, 2003, *Ekonometri Dasar*. Terjemahan: Sumarno Zain, Irawan & Suparmoko, 1992, *Ekonomika Pembangunan*, BPFE – Yogyakarta, Yogyakarta.
- Irawan, Suparmoko. 1992. *Ekonomi pembangunan*, edisi pertama. Yogyakarta: BPFE.
- İsmet Göçer, dkk, 2014. *Effect of Foreign Direct Investments on the Domestic Investments of Developing Countries: A Dynamic Panel Data Analysis*, (online) *Journal of Economic and Social Studies*. Vol 4, No 1
- J. Supranto, 2001. *Statistik Teori dan Aplikasi*, Cetakan Kedua, Jakarta: Penerbit Erlangga. Jakarta.

James B. Ang, 2009. *Do public investment and FDI crowd in or crowd out private domestic investment in Malaysia? Applied Economics* ISSN: 0003-6846 Mardiasmo, 2002, "Otonomi dan Manajemen Keuangan Daerah". Penerbit ANDI, Yogyakarta. Medika.

Mulyadi, 2001. *Sistem Akuntansi*, Edisi Ketiga, Cetakan Ketiga, Penerbit Salemba Empat, Jakarta.

Mulyadi. (2001). "*Akuntansi Manajemen*". Jakarta: Salemba Empat.

Nopirin, 2000. *Pengantar Ilmu Ekonomi: Makro & Mikro*. BPFE Yogyakarta Prasetyo, P. Eko. 2009. *Fundamental Makro Ekonomi*. Yogyakarta: Beta Offset.

Sadono, Sukirno. 2002. *Pengantar Teori Makroekonomi*, edisi kedua, Rajawali Pers, Jakarta

Simanjuntak, Payaman, J. 2001. *Ekonomi Sumber Daya Manusia*. Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia: Jakarta.

Sukirno, 2006. *Makroekonomi: Teori Pengantar*, Penerbit PT. Raja Grafindo Persada, Jakarta.

Supriyono, R.A. 1987. *Akuntansi Biaya: Perencanaan dan Pengendalian biaya serta Pembuatan Keputusan*. Edisi 2. Yogyakarta: BPFE.

Temitope W. Oshikoya, 1994. *Macroeconomic Determinants of Domestic Private Investment in Africa: An Empirical Analysis*, (online) *Economic Development and Cultural Change*, Vol. 42, No. 3 (Apr., 1994), pp. 573-596

Todaro, Michael P. 2003. *Pembangunan Ekonomi Di Dunia Ketiga*. Alih Bahasa: Aminuddin dan Drs.Mursid. Jakarta: Ghalia Indonesia

Zaenuddin, 2009. *Analisis Faktor-Faktor Yang Mempengaruhi Investasi Pma Di Batam*, (online), *JEJAK*, Volume 2, Nomor 2, September 2009.

Source from Institution:
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<http://www.bi.go.id>, (online), accessed on 4th September 2017