



## The Effect of Foreign Direct Investment and External Debt on Economic Growth in Indonesia

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### ABSTRACT

Indonesia as a development country, has a good economic growth in the 1990's. It shows by increasing of GDP year by year, stabilization of inflation, etc. But since 1997's economic crisis in Asia's countries, Indonesia's economic growth has been declining. It effected the monetary sector and real sector, and add again with progressively the amount of foreign debt of Indonesia, so that effect of Rupiah rate wich progressively weakening. This paper will analyze the foreign direct investment also foreign debt, on the economic growth of Indonesia. By using the OLS model on Indonesia yearly data from 1975-2009 and the confirm the significant of these independent variables as the factors that effected the economic growth of Indonesia. Foreign direct investment and foreing debt represent the way able to be gone through by government in overcoming deficit of national saving utilize to push the national development to get the good economic growth. Pursuant to things told above, writer try to study the problem of economic growth in Indonesia in its relation with the foreign direct investment and foreign debt by lifting title "Influence on The Foreign Direct Investment and The Foreign Debt to Economic Growth of Indonesia".

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### 1. INTRODUCTION

Indonesia as a developing country, strives to try to build a nation and state independently and tries not to depend on assistance from other countries. The development of development is in line with the rapid progress globally which requires every country to be able to follow every development that occurs even though it is a developing country, requiring Indonesia to follow the current developments (Evans & Yen, 2006) (Duclos et al., 2009). Indonesia is trying this by establishing more cooperative relationships with other nations in order to support development that still has to be developed, especially from an economic perspective. Indonesia as a developing country, especially from an economic perspective, experienced a promising economy in the 1980s until the mid-1990s (Yiu et al., 2007) (Tambunan, 2009). Based on data from the Indonesian Central Statistics Agency, Indonesia's economic growth from 1986 to 1989 continued to increase, namely 5.9% in 1986, then 6.9% in 1988 and

to 7.5% in 1989(Zhang et al., 2005)(Ngoc, 2008)(Chung, 2007). However, in 1990 and 1991 recorded the same figure of 7.0%, then in 1992, 1993, 1994, 1995, and 1996 the economic growth rates were 6.2%, 5.8%, 7, respectively. 2%, 6.8%, and 5.8%(Rapacki & Próchniak, 2009)(Ranjan et al., 2007). However, this condition with a fairly stable climate does not last forever(Grosch et al., 2006)(Chen et al., 2005). The collapse of the Indonesian economy is marked by high inflation, fewer job opportunities that trigger increased unemployment, the rupiah's exchange rate is getting weaker against the dollar, and Indonesia's foreign debt is increasing in line with the weakening of the rupiah exchange rate against the US dollar(Ramli & Nuryadin, 2007)(Aswicahyono et al., 2010)(Hill & Shiraishi, 2007)(Sihono & Yusof, 2010).

The problems that have not been resolved until now are KKN that is happening and is increasingly entrenched in Indonesia, less competitive human resources, a lack of entrepreneurial spirit, and so on Anggito Abimayu. 2008:8 Law No.1 / 1967 concerning foreign investment where in this case what is meant by PMA is Foreign Direct Investment and Law No. 6 / 1968 concerning domestic investment, triggering increased investment growth in Indonesia. In addition, the influx of foreign capital is also able to stimulate sluggish economic activity due to lack of capital for the implementation of economic development(Bartlett, 2009)(Kayed & Hassan, 2011)(Mullen & Williams, 2005)(Gibb & Nel, 2007)(Hindman, 2005). For developing countries like Indonesia, the rapid flow of capital is a good opportunity to finance economic development(Prasad et al., 2006)(Lin, 2011)(Demirgüç-Kunt, 2006). Economic development that is being carried out by the Indonesian government is a sustainable effort that is expected to create a just and prosperous society in accordance with Pancasila and the 1945 Constitution(Butt & Lindsey, 2008)(Ismail et al., 2007)(Butt & Lindsey, 2009). One of the things that can make it happen is by building a strong and stable economy. Foreign direct investment and foreign loans still dominated investment in Indonesia in the 1980s(Reiter & Steensma, 2010)(Palanca-Tan, 2007)(Colen et al., 2009)(Johnson, 2005)(Sahoo, 2006).

## 2. RESEARCH METHODS

### 2.1 The scope of research

The scope of this research is to analyze the impact of Foreign Direct Investment (PMAL) and Foreign Debt (Foreign Debt) on Indonesia's Economic Growth.

### 2.2 Data Types and Sources

The type of data used in this study is to use secondary data, namely the processed results obtained from the official service or agency related to this research. Data obtained in the form of time series (time series) which is quantitative, namely data in the form of numbers from 1975 - 2009. Sources of data obtained from: Bank Indonesia (BI) Medan Branch located at Jln. City Hall no. 4 Medan, and obtained from the Asian Development Bank data to retrieve data such as: data on the rupiah exchange rate, inflation rate, foreign investment and other related data needed in this study.

### 2.3 Data Collection Methods and Techniques

The author uses a research method, namely library research conducted through library materials in the form of literature books, scientific writings, scientific research reports, which have a relationship with the topic to be studied(Hellqvist, 2010)(Jesson et al., 2011)(Baker, 2006). From here will be obtained secondary data that has been processed by agencies related to the research topic. The data collection technique used by the author is to record data, where the data used is periodic data (time series) with an analysis period of 35 years (1975 - 2009)(Sandelowski & Barroso, 2006).

### 2.4 Data Processing in processing data,

The author uses the Eviews 5.1 program as the main software to process data in writing this thesis. In addition, Microsoft Excel software is also used as auxiliary software in converting data in the standard form provided by the source into a more representative form for use in the main software above with the aim of minimizing errors in data recording when compared to manual recording.

### 2.5 Analysis Techniques and Models

In analyzing how far the independent variables are to the dependent variable, an econometric model is used by regressing the existing variables using an analytical technique, namely the Ordinary Least

Square (OLS) method. The analytical model used in analyzing the data is a multiple linear function (Mateos-Aparicio, 2011)(Winkelmann & Boes, 2006)(Chan & Park, 2005)(Quddus, 2008), as follows:

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

From the equation specified into the model as follows:  $\dots \mu_2 X_2 + \beta_1 X_1 + \beta + \alpha Y =$

Where: Y = Indonesia's Economic Growth as proxied by GDP (Billion US Dollar)

X<sub>1</sub> = Foreign Direct Investment (PMAL) (Billion US Dollar)

X<sub>2</sub> = Foreign Loans (Billion US Dollars)

z = Regression Coefficient

$\beta_1 \beta$  = Intercept  $\alpha$

$\mu$  = Term of error

So the form of the hypothesis is as follows:

1.  $dY/dX_1 > 0$ , there is a positive relationship between X<sub>1</sub> and Y, ceteris paribus.
2.  $dY/dX_2 > 0$ , there is a positive relationship between X<sub>2</sub> and Y, ceteris paribus.

### 3. RESULTS AND DISCUSSION

#### 3.1 Analysis of Research Results

The analysis of this discussion is intended to determine the correlation between the two variables, namely the independent variable of Foreign Direct Investment (PMAL) and External Debt (ULN) and the dependent variable is Indonesia's Economic Growth.

##### Goodness of Fit Test

The coefficient of determination (R-square) was conducted to see how much the independent variables were able to explain the dependent variable together. From the results of the regression obtained R<sup>2</sup> value of 0.80454. this illustrates that the independent variables together are able to explain the dependent variable by 80% or 0.80. The other 20% is explained by other variables that are not included in the model.

##### F-Statistics Test

This F-statistical test was conducted to see the effect of the independent variables as a whole or together on the dependent variable. For this test, the following hypothesis is used:

H<sub>0</sub> :  $b_1 = b_2 = 0$  ..... (no effect)

H<sub>a</sub> :  $b_1 \neq b_2 \neq 0$  ..... (no effect)

This test is conducted to compare the F-count value with the F-table. If F-count > F-table, then H<sub>0</sub> is rejected, meaning that the independent variable as a whole affects the dependent variable and if F-count < F-table then H<sub>0</sub> is accepted, meaning that the dependent variable together does not affect the dependent variable. From the results of the regression analysis, it is known that F-count = 65.85945 Where,  $\alpha = 1\%$

degrees of freedom numerator (V<sub>1</sub>) = k = 2

denominator degrees of freedom (V<sub>2</sub>) = nk-1 = 35-2-1 = 32

then F-table = 7.56

Based on the above calculation, it is found that F-count > F-table (65,85945 > 7.56). Thus H<sub>a</sub> is accepted which means that the variables of Foreign Investment (PMAL) and External Debt (ULN) together have a significant effect on GDP (Y) at the 99% confidence level.

##### T-statistic test (Partial Test)

The t-statistical test is a partial test that aims to determine whether each regression coefficient is significant or not on the dependent variable by assuming the other variables are constant. In this case, the following hypothesis is used:

H<sub>0</sub> :  $b_i = 0$  ..... (no effect)

H<sub>a</sub> :  $b_i \neq 0$  ..... (no effect)

Where b<sub>i</sub> is the coefficient of the independent variable i the value of the hypothesis parameter, usually b is considered = 0. This means that there is no effect of variable X on Y. If tcount > t-table, then at a certain level of confidence H<sub>0</sub> is rejected. This means that the independent variable being

tested has a significant (significant) effect on the dependent variable. And if  $t\text{-count} < t\text{-table}$ , then at a certain level of confidence  $H_0$  is accepted. This means that the independent variables tested have no significant effect on the dependent variable.

#### Classical Assumption Deviation Test

##### Multiconierity

Multicollinearity is a condition where there is a relationship of independent variables between each other. In this study, there is no multiconierity between the independent variables. This can be seen from each coefficient of each variable in accordance with the predetermined hypothesis. From the analysis model as follows:

$$Y = + 1X_1 + 2X_2 + \dots\dots\dots (1)$$

$$R^2 = 0.804543$$

Then the test is carried out between each independent variable. This is done to see if there is a relationship between each independent variable.

#### 4. CONCLUSION

Based on the results of research on the effect of Direct Foreign Investment (PMA) and External Debt (ULN) on Indonesia's Economic Growth, the authors draw several conclusions, namely: (a). The coefficient of determination (R-square) is 0.804543 or 80%, this shows that overall the independent variables of Foreign Direct Investment (PMAL) and External Debt (ULN) can explain the dependent variable (Indonesian GDP (Y)) of 80% and the remaining 20% is explained by other variables not included in the estimation model. (b). Indonesia's Foreign Direct Investment (PMAL) has a positive influence on Indonesia's GDP. This can be seen from the  $X_1$  coefficient of 20.91463, which means that every 1 billion US Dollar increase in Foreign Direct Investment (FDI) will result in an increase in GDP of 20.91463 Billion US Dollars, ceteris paribus. (c). Indonesia's external debt (ULN) has a positive influence on Indonesia's GDP. This is indicated by the  $X_2$  coefficient of 1.442847, which means that every 1 billion US dollar increase in Indonesia's external debt (ULN) will result in an increase in GDP of 1.442847 billion US dollars, ceteris paribus.

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