THE RELATIONSHIP BETWEEN FOREIGN PORTFOLIO INVESTMENT AND FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH
(Study at Indonesia Stock Exchange and Bank of Indonesia period 2006-2014)

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ABSTRAK

Liberalisasi finansial yang diimplementasikan Indonesia memicu sumber aliran dana internasional yang tinggi. Pada umumnya, terdapat dua jenis investasi asing yakni investasi portofolio asing (FPI) dan investasi asing langsung (FDI). FPI merupakan investasi pasif dengan volatilitas tinggi yang digunakan investor asing untuk mendiversifikasi risiko. Sedangkan, FDI merupakan investasi lintas batas negara dimana investor yang berkedudukan di satu negara mendirikan operasi bisnis di negara lain dimana investor tersebut memiliki derajat pengaruh yang signifikan terhadap entitas tersebut. Kedua jenis modal asing tersebut mampu menjadi pelumas bagi pertumbuhan ekonomi. Pertumbuhan ekonomi merupakan peningkatan kapasitas produksi di suatu negara. Penelitian ini bertujuan untuk mengetahui pengaruh FPI terhadap pertumbuhan ekonomi, pengaruh FPI terhadap FDI dan pengaruh FDI terhadap pertumbuhan ekonomi di Indonesia. Lokasi penelitian meliputi situs Bursa Efek Indonesia dan Bank Indonesia untuk memperoleh data *time series* dari variabel FPI, FDI dan pertumbuhan ekonomi periode 2006-2014 secara kuartal. Populasi dan sampel yang digunakan dalam penelitian ini sebanyak 36 unit analisis. Penelitian ini mengaplikasikan analisis jalur sebagai metode penelitian. Hasil dari penelitian yakni FPI memiliki pengaruh signifikan terhadap pertumbuhan ekonomi, FPI memiliki pengaruh signifikan terhadap FDI dan FDI memiliki pengaruh signifikan terhadap pertumbuhan ekonomi. Hasil tersebut mengindikasikan bahwa melalui FDI pengaruh FPI terhadap pertumbuhan ekonomi dapat diperkuat.

Kata Kunci: investasi portofolio asing, investasi langsung asing, pertumbuhan ekonomi

ABSTRACT

The financial liberalization imposed by Indonesia triggers the rapid inflow from international financial resources. There are two major foreign investments namely foreign portfolio investment (FPI) and foreign direct investment (FDI). FPI is a passive investment with a high volatility which is used by foreign investor to diversify risk. Whist, FDI is a category of cross-border investment in which an investor resident in one country establishes a significant degree of influence over an enterprise resident in another country.Both forms of foreign capital can be an engine for the economic growth, in which economic growth is the increase of capacity to produce goods and services in a country. This research objectives are to figure out the effect of foreign portfolio investment (FPI) on economic growth, the effect of FPI on foreign direct investment (FDI) and the effect of FDI on economic growth in Indonesia. Using data from Indonesia Stock Exhange and Bank of Indonesia, this study applies quarterly time series data of FPI, FDI and economic growth period 2006-2014 as much as 36 unit of analysis. Applying path analysis as the research method the results of this research are FPI has a significant effect on economic growth, FPI has a significant effect on FDI and FDI has a significant effect on economic growth. These results also indicates that through FDI the relationship of FPI on economic growth is able to be strengthen.

Keywords: foreign portfolio investment, foreign direct investment, economic growth

INTRODUCTION

Financial liberalization that is adopted by developing countries, such as Indonesia,triggers various form of foreign investments. The most volatile investment favored by overseas investors is portfolio investment. Foreign portfolio investment (FPI) is a very liquid investment. Thus, rapid inflow of FPI is able to finance local companies and also be able to develop local capital market with professionalism and transparancy. However, according to Ahmad, Yang and Draz (2015) the sudden outflow of foreign portfolio investment is able to imbalance the strong economy.

In the other hand, foreign direct investment (FDI) is a more stable capital and less volatile investment (Baharumshah and Thanoon, 2006). FDI has several advantage for the host country. The transfer knowledge is able toenhance the capability of human capital, advanced technology implementation and efficient production. Furthermore, the the activity of FDI supports local productivity and affected to economic growth.

The economic growth measures the walfare of a country. One of indicators to gauge a nation's economic growth is gross domestic product (GDP). The purpose of GDP according to Mankiw (2012) is to examine a country's economy as a whole whether the economy is doing well or poorly, it is natural to look at the total income earned everyone in the economy.

This paper is split up into five sections. The first is a brief of introduction and followed by reviewing existing literature. The next part is research method. After an elucidation of result and discussion, the crux of research findings are concluded along with suggestions.

LITERATURE REVIEW

Economic Growth

Economic growth definesas the increase of capacity to produce goods and services in a country (Mankiw, 2012:132). There are some theories regarding economic growth encompassing classic, neo-classic and Harrod-Domar theory. The theories statethat there are several factors influencing economic growth such as capital, labor, technology, natural resources and innovation (Sukirno, 2012:433-446).One measurement to gauge economic growth is gross domestic product (GDP). According to Mankiw (2012:143), GDP refers to the income earned within a country by both residents and nonresident.

Foreign Portfolio Investment

Portfolio investment is an investment which investors do not involve directly in the establishment of the enterprise because the capital is invested in capital market in the form of equity. Portfolio investment refers to financial investments by private individuals, corporations, pension funds, and mutual funds in stocks, bonds and certificates of deposit issued by private companies and the public agencies (Todaro and Smith, 2012:684). Furthermore, FPI is passive investment conducted by overseas investor (Ahmad, Yang and Draz, 2015).

Foreign Direct Investment

FDIis aninvestment fund that is directly used for engage in business activity to provide production factors such as buy land, establish factories, bring machines and buy raw materials. According to Todaro (2012:685)FDI isoverseas equity investments by private multinational corporations. Foreign direct investment requires higer investment than FPI and has so much more controlcapability than FPI.

Hypothesis

H_1 : foreign portfolio investment has a significant effect on economic growth

H_2 : foreign portfolio investment has a significant effect on foreign direct investment

H_3 : foreign direct investment has a significant effect on economic growth

RESEARCH METHOD

Research Type

The type that is used in this research is explanatory research with quantitative approach. The explanatory research are chosen because it can explain the influence between variables.

Research Location

Reseach locations are encompassing the official websites of Indonesia Stock Exchange (www.idx.co.id) and Bank of Indonesia (www.bi.go.id) due to the adequacy of the data needed.

Variable and Measurement

1. **Foreign Portfolio Investment**

   Portfolio buying in Indonesia Stock Exhange by foreign investor is chosen as foreign portfolio data. The value of FPI is expressed in rupiah period of 2006 to 2014 quarterly. The data is gathered from Indonesia Stock Exchange.

2. **Foreign Direct Investment**

FDI is direct investment by foreigner in Indonesia to establish an entreprise. The data of FDI used in this research is expressed in rupiah. The data is quarterly data during 2006 to 2014 which is gathered from Bank of Indonesia.

3. **Economic Growth**

Economic growth in this research uses GDP of Indonesia as the measurement because GDP represents economic growth in an economy. The quarterly data period 2006-2014 is gathered from Bank of Indonesia.

Population and Sample

1. **Population**

Population is the entire group of people, events, or things of interest that the researcher intends to investigate (Sekaran. 2006:265). Population in this research is the quarterly time series data of FPI, FDI and economic growth period 2006-2014 as much as 36 samples.

2. **Sample**

Sample for this research is saturated sample. According to Sugiyono (2010:12), saturated sampling is used when all member of population are used as sample. Hence, the amount of sample for this research is 36.

Data Collection Technique

Documentation is data collection technique used in this research.

Data Analysis Technique

1. **Descriptive Statistic**

Descriptive statistic defines as statistical computations describing either the characteristics of a sample or the relationship among variables in a sample (Jonker and Pennink, 2010:143).

2. **Classic Assumption Test**

Classic assumption test is a statistical requirements before conducting linear regression analysis. There are four classic assumption tests used in this research encompassing normality test, multicollinearity, autocorrelation, and heteroscedasticity test.

3. **Path Analysis**

Path analysis is analysis techniques to search for a causal relationship between the variables inherent and arranged in order temporarily in determining how big the influence of exogenous variables on endogenous variables (Sarwono, 2012:4).

Partial test is used to calculate path coefficient. Path coeffient used is gathered from standardized coefficient beta. Furthermore, the calculation involving direct effect, indirect effect and total effect.

RESEARCH RESULT AND DISCUSSION

Descriptive Statistic

Table 1. Descriptive Analysis

Variable	N	Min.	Max.	Mean
FPI	36	25,183	358,742	103,745
FDI	36	5,076	90,381	33,235
EG	36	448,485	745,577	583,354

Source: processed data, 2016

The highest value of FPI is 358,742 billion rupiah whislt the lowest value is 25,183 and the average is 103,745. FDI gains its higest value in 90,381 billion rupiah and 5,076 for the lowest value then the average of 33,235. For the economic growth, the highest value reaches 745,577 billion rupiah and the lowest value is 448,485 billion rupiah with mean value is 583,354.

Classical Assumption Test

1. **Normality Test**

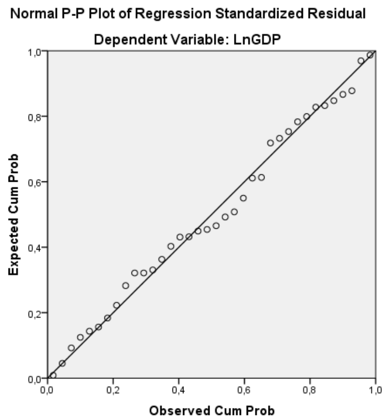

Figure 1. Normal Probability Plot

Source: SPSS 21.0 result, 2016

Normal distribution forms a straight diagonal line. Figure 1 above shows that the dots spread around the diagonal line. According to the normal probability plot graphic, the regression model already fulfills normality assumption.

2. **Multicollinearity Test**

Table 2. Multicollinearity Test Result

Coefficients^a

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
LnFPI	.548	1.826
LnFDI	.548	1.826

a. Dependent Variable: LnGDP

Source: SPSS 21.0 result, 2016

The cutoff value that is used to show multicollinearity is VIF ≥ 10. The table shows that the VIF value is 1.826 which is less than 10. The tolerance value is 0.548 more than 0.1. So that, there is no multicollinearity among variables.

3. Autocorrelation Test

The result of autocorrelation test can be seen in the Table 3 below.

Table 3. Autocorrelation Test Result

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.766[a]	.586	.561	.10034	.579

a. Predictors: (Constant), LnFDI, LnFPI

b. Dependent Variable: LnGDP

Source: SPSS 21.0 result, 2016

Table 3 shows the value of Durbin-Watson (DW) test as much as 0.579. For the significant level of 5%, DU value is as much as 1,587and DL as much as 2,413. The value of DW in table above is less than DU value which indicates positive autocorrelation. However, to overcome the autocorrelation problem, researcher uses Autoregressive test which resulted:

Table 4. Autocorrelation Treatment Result

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.913[a]	.834	.818	.06293	1.730

a. Predictors: (Constant), LnFDI, lag_ut, LnFPI

b. Dependent Variable: LnGDP

Source: SPSS 21.0 result, 2016

After using Autoregressive test as the treatment to cure autocorrelation result, the value of DW changed. The value of DW in table above is more than DU value and less than 4-DU or 1.587< 1.730<2.413. According to the assumption DU<DW<4-DU, it can be concluded that there is no autocorrelation in the regression model.

4. Heteroscedasticity Test

The result of heteroscedasticity classic assumption test can be seen in the Figure 2 below which depicts the scatterplot result.

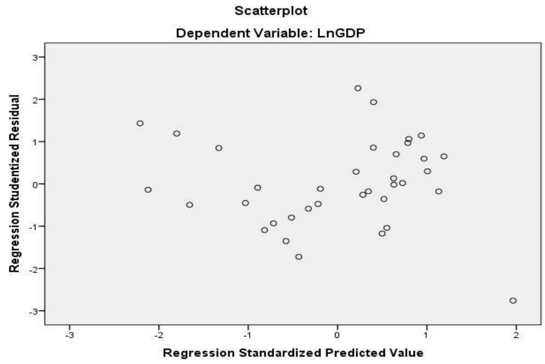

Figure 2. Scatterplot Result

Source: SPSS 21.0 result, 2016

The result of scatterplot in Figure 2 shows that there is no heteroscedasticity because the plots spread and do not form a certain pattern. It can be concluded that there is no heteroscedasticity among variables.

Path Analysis

Before analysing with path. The path coefficient must be figured out through unstandardized coefficient beta.

Table 5.Partial Test of FPI effecton FDI

Coefficients

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
1 (Constant)	7.169	6.934		1.034	.308
LnFPI	.736	.215	.507	3.426	.002

a. Dependent Variable: LnFDI

Source: SPSS 21.0 result, 2016

Table 6.Partial Test of FPI and FDI effect onEG

Coefficients[a]

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	27,221	1,139		23,897	,000
LnFPI	,150	,047	,483	3,194	,003
LnFDI	,088	,038	,352	2,330	,026

a. Dependent Variable: LnGDP

Source: SPSS 21.0 result, 2016

1. H_1: FPI has a significant effect on EG

   According to Table 6,FPI variable (X) significant value is 0.3% which is less than 5% that indicates FPI variable (X) has a significant influence on economic growth variable (Y). Hence, H_1 which states that foreign portfolio investment (X) has a significant effect on economic growth (Y) is approved.
2. H_2 : FPI has a significanteffect on FDI

   According to table 5, FPI variable (X) significant value is 0.2% which is less than 5%. It indicates FPI (X) has a significant influence on FDI (Z). Hence, H_2 which states that foreign direct investment (Z) has a significant effect on economic growth (Y) is approved.

3. H_3 : FDI has a significanteffect on EG

According to Table 6,FDI variable (Z) significant value is 0.26% which is less than 5% that indicates FDI variable (Z) has a significant influence on economic growth variable (Y). Hence, H_3 which states that foreign direct investment (Z) has a significant effect on economic growth (Y) is approved.

According to path coefficient result, Table 7 records path analysis result.

Table 7.Direct and Indirect Effect Result

Independent	X	X	Z
Dependent	Z	Y	Y
Direct Effect	0.507	0.483	0.352
Indirect Effect	0	0.178	0
Total Effect	0.507	0.859	0.352
Calculated t	3.426	3.194	2.330
Sig.	0.002	0.003	0.026
Desc.	Sig.	Sig.	Sig.

Source: Processed Data, 2016

From the table above FDI as the intervening variable can strengthen the position of FPI as the independent variable towards Economic Growth as the dependent variable as it can be seen that the total effect shows the result 0.859 is higer than the indirect effect which has the value of 0.178. Figure 3 below depicts path diagram interpretation.

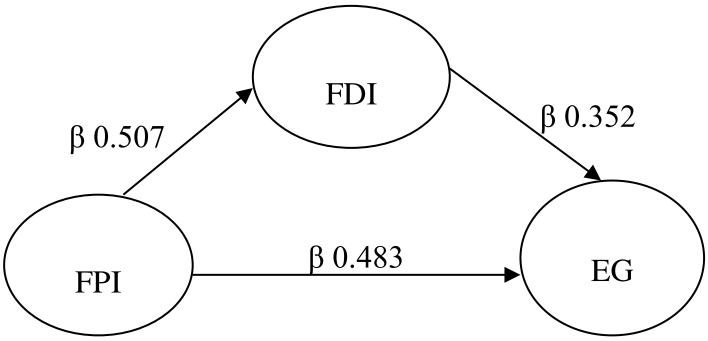

Figure 3.Diagram Interpretation
Source: Processed Data, 2016

Research Interpretation

1. Foreign Portfolio InvestmentHas a Significant Effect on Economic Growth

FPI is one of the factors that can determine economic growth supported by the research conducted by Ahmad, Draz and Yang (2016) which found that there is a significant unidirectional (one-way) causal relationship between FPI and GDP of the ASEAN5 except Singapore. The high capital gathered from portfolio investment by foreign investor is able to encourage more options of financing for companies and develops financial environment with transparency and professionally. The more availability of capital enables companies to finance their business efficiently and increasing economy productivity. Supported by World Bank (2006:68) the international capital market flows and the financial environment can reinforce each other over the long run. Greater financial sector development is expected to be associated with faster economic growth. In addition, the swift of FPI can trigger local investment to invest portfolio equity so that the capital market becomes more active.

2. Foreign Portfolio Investment Has a Significant Effect on Foreign Direct Investment

The result of this research shows that foreign portfolio investment is one of the factors that determine the change of foreign direct investment value. This research supports the research of Ahmad, Yang and Draz (2015) research which proved that there is a bidirectional relationship where FPI granger causes FDI. The role of FPI towardsFDI is the depiction of domestic financial market performance which can leads to higher foreign investment. The economic condition concerning in financial sector can be a catalyst for foreign investor to invest in the broader form of investment. Therefore, FPI flow is associated with developed financial market condition. A proper financial market condition supports investors to invest confidently. The market condition stability that is reflected by the flow in financial market will push investor to consider a broader form of investment. FDI is a wholly owned investment with more risk yet more profit, so that investor needs to assess the domestic market condition.

3. Foreign Direct Investment Has a Significant Effect on Economic Growth

This research result supports the research conducted by Baharumshah and Thanoon (2006) who confirms that there is a positive effect of FDI on economic growth. FDI can contribute to economic growth through labor, capital and technology. Furthermore, FDI through the standard operation from the headquarter brings new knowledge and build-up human capital capability. The other advantage is the transfer of technology to export sector and non-export sector. Export sector itself is an engine of economic growth. Finally, foreign direct investment directly contributes to economic growth through raising productivity.

CONCLUSION AND SUGGESTION

Conclusion

Based on the research result regarding to the relationship between foreign portfolio investment and foreign direct investment on economic growth study at Indonesia Stock Exchange and Bank of Indonesiaperiod 2006-2014, foreign portfolio investment has a significant effect on economic growth and so foreign direct investment has a significant effect on economic growh. It is also proved that foreign portfolio investment has a significant effect on foreign direct investment. Using path analysis, it can be seen that the existence of FDI as intervening variable can strengthen the position of FPI in influencing economic growth. The financial market condition can be depicted form its FPI flow which can be catalyst for foreign investment to invest higher such as in the form of FDI. Through FDI, subsidiaries are establish along with transfer technology, upgrading human-capital and advanced production. The increase of productivity will lead to higher growth of economic.

Suggestion

It is suggested for the government to keep the stability in capital market to maintain foreign investor confidence in investing in Indonesia so that the foreign investments be able to contribute more in economic growth. Along with it, for the next researcher, this research can be developed by adding or combining another independent variables. It is also suggested to use another research method to deeply figure out the relationship between foreign investments and economic growth because the relationship between both variable can be reciprocal which is not discovered in this study. However, this research can be a reference for the next researcher.

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