

Research Article

Determinants of Foreign Direct Investment from China to Indonesia

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Abstract

This study identifies and analyzes the determinants influencing China's foreign direct investment level in Indonesia. The independent variables in this study are economic growth, inflation rate, wage rate, exchange rate, and export value. The data used is time series data from 2000 - 2016. The analytical method used is multiple linear regression. The study results show that wage and inflation rates significantly affect the foreign investment level from China to Indonesia. The variables of economic growth, exchange rates, and exports do not affect the level of foreign investment from China to Indonesia. The simultaneous test results significantly influence all the independent variables used in this study. The implication for foreign direct investment is that the government must increase foreign investment in Indonesia to increase economic growth by improving the investment climate in the country by providing several facilities to assist foreign investors so that investors feel safe investing their capital in Indonesia and with synergy with monetary policy in lowering interest rates to increase investor interest in investing.

Keywords: Inflation Rate, Wage Rate, Exchange Rate, Export Value, Foreign Direct Investment

JEL Classification: O11, O16, 047

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1. Introduction

One indicator of a country's prosperity can be seen in the amount of per capita income that country has (Lesmana, 2014). Per capita income can increase if there is an increase in real national income, reflected by economic growth. Therefore, every country tries to increase its production or national income through economic development to achieve its economic growth target (Azwar, 2016).

To increase national production, it is necessary to increase capital and labor resources, both in quality and quantity. Developing countries generally need more domestic savings due to capital difficulties. The size of domestic saving will affect capital formation so that for countries with relatively low income, domestic saving is also relatively low (Naufa et al., 2021)(Musvira et al., 2022).

Opening the faucet of economic relations between countries through exports and imports of goods and services and capital opens opportunities for developing countries to receive funds from abroad to finance development. Sources of development financing from abroad can come from foreign debt or foreign investment. However, if the financing comes from foreign debt, it can become a burden in the future because it can result in debt accumulation and interest payments. Therefore, in addition to debt from abroad, development financing can be obtained from other alternative sources, namely by inviting foreign capital, both in the form of foreign direct investment and in the form of portfolios (Hapsari & Prakoso, 2016).

Economic development in Indonesia since the beginning of independence until now has always been related to foreign debt and foreign investment. From year to year, foreign direct and portfolio capital flows in Indonesia always fluctuate and tend to increase (Putri, 2022). The development data for the last 5 years can be seen in the table below:

Table 1. Amount of Foreign Capital Flows in Indonesia (in Millions of US\$)

Year	Amount (million US\$)
2011	19.474,5
2012	24.564,7
2013	28.617,5
2014	28.529,7
2015	29.275,9

Source: BKPM, 2017

The data above shows that the amount of foreign investment in Indonesia has increased yearly except for 2014. If in 2011 the amount was US\$ 19,474.5, then in 2014, the amount reached US\$ 29,275.9 or an increase of US\$ 9,901.4. This result means that in 5 years, there has been an increase in foreign capital flows of 50.32% or an average increase of 10.3% per year.

The significant increase over the last 5 years means that the role of foreign capital must be addressed to support economic development in Indonesia. Judging from the source, foreign capital in Indonesia comes from various countries, especially Singapore, Japan, China, Hong Kong, and the Netherlands. The amount of foreign investment from the five countries can be seen in the table below:

Table 2. Countries of Origin of FDI in Indonesia in 2016

Country	Amount (in million US\$)	Percentage
Singapura	9,18	31,7%
Jepang	5,4	16,6%
China	2,7	9,2%
Hongkong	2,2	7,8%
Belanda	1,5	5,3%
Amerika Serikat	1,2	5,1%
Lainnya	8,0	27,3%

Source: BKPM, 2017

Based on the table above, Singapore is the country of origin for the largest investment in Indonesia throughout 2016. The investment value from the Lion Country reached US\$ 9.18 billion, beating other countries such as Japan, China, and the United States. The number of projects from Singapore investment reached 5,874 units. In second place is Japan, with an investment value of US\$ 5.4 billion and 3,302 projects. Then, in third place, China, where the investment value reached US \$ 2.67 billion with 1,734 projects.

Throughout 2016, foreign investment (FDI) in Indonesia reached US\$ 28.8 billion or IDR 389.3 trillion, down 1 percent from the previous year, which was US\$ 29.3 billion. The number of projects from foreign investment reached 25.3 thousand, an increase of 42.8 percent from 2015, namely 17,738 units (BKPM, 2017).

In theory, the level of foreign investment is influenced by various pull factors (domestic) and push factors (global). Attractive factors are factors or conditions a recipient country creates to attract foreign investors to invest their capital, such as a stable macroeconomic environment and efficiency in that country (Dheera-Aumpon & Changwatchai, 2020). At the same time, the driving factors are sources of capital or conditions that occur in the global economy, such as economic policies, shifts in the orientation of development in investors' countries, lower interest rates in the United States, and economic developments in developed countries. According to Juliannisa (2020), various empirical results show that macroeconomic fundamentals are important in attracting foreign capital to a country.

Among the countries that are partners in foreign investment (PMA), China is one of the countries that is the main source of FDI in Indonesia. China's high economic growth and the opening of the ASEAN and China free trade faucet or the ASEAN - China Free Trade Area (ACFTA) have increasingly opened up opportunities for the country's capital to enter Indonesia. Given the important role of foreign capital in economic development in Indonesia, examining the factors thought to attract foreign capital from China to Indonesia (Putri, 2022).

2. Literature Review and Hypothesis

Foreign Capital

According to Wahyuni and Putri (2019), foreign direct investment is an international flow of capital in which companies from a country establish or expand operations or business networks in other countries. Foreign Direct Investment (FDI) is a long-term investment made directly by foreign investors in a domestic business sector. Investment in this form is a relatively stable investment in the long term. This FDI will assist in the economy's recovery, which requires many funds and absorbs a large enough workforce. In addition, the inflow of direct foreign capital shows the confidence of foreign investors to carry out their economic activities, thereby encouraging capital inflow (Gebremariam & Ying, 2022).

Economic growth

Gross Domestic Product measures productivity and economic prospects in a country, so it is good at describing economic growth. Strong gross domestic product (economic growth) growth can increase foreign direct investment flows, but a country must have good infrastructure capacity to take advantage of the benefits. Strong economic growth implies a higher return for foreign investors in increased investment. The gross domestic product is the same as the national income of a country. According to Sukirno (2016), in his book, a high level of national income will affect people's income, and then high people's income will increase the demand for goods and services. Then, the company's profits will increase, encouraging more investment (Eliza, 2013). A positive relationship exists between accelerated economic growth and FDI entering a country. An increase in a country's economic growth indicates an increase in market size. Countries with these conditions are investment destinations that attract foreign investors. The research results of Sari & Baskara (2018) and Eliza (2013) show that the factors that significantly affect the flow of foreign direct capital to Indonesia are the variables of gross domestic product and SBI interest rates.

H1: Economic Growth Affects Foreign Direct Investment

Exchange rate

Exchange rates can affect foreign direct investment in various ways, depending on the purposes for which the goods are produced. If the investor aims to serve the local market, then the movement of foreign direct investment is a substitute. So, when there is an appreciation of the exchange rate in the local currency, this can increase foreign direct investment because the purchasing power of

local consumers becomes higher (Hodijah, 2015). Alternatively, suppose foreign direct investment aims to produce to export (supplement). In that case, the appreciation of the local currency will reduce the inflow of foreign direct investment through low competitiveness due to higher labor costs. Overall, the choice of investment placement abroad is motivated by lower costs, such as labor and transportation costs. Low transportation costs can encourage more output in the country. This exchange rate has a negative relationship with an increase in FDI. An increase (appreciation) of the exchange rate in a country results in investment in that country being relatively more expensive than in other countries or even in the investor's own country. Another factor related to the exchange rate that influences investment inflows in the country is the stability of the exchange rate. The research results by Sari and Baskara (2018) show that exchange rates affect foreign direct investment.

H2: The Exchange Rate Has An Effect On Foreign Direct Investment

Export

The openness of a country's economy can be seen from the large proportion of exports to national income. A country's exports reflect the country's competitiveness. The increase in exports shows that the country's products are competitive internationally. Thus, the market share faced is not solely from domestic consumers but also from consumers from abroad. Thus, exports can encourage foreign investors to enter a country. The research results by Rahmawati (2022) and Ginting (2017) show that export value affects foreign direct investment.

H3: Exports Have An Effect On Foreign Direct Investment

Inflation

Inflation is one indicator that can describe a country's economic stability level. A high inflation rate indicates internal economic instability. It implies that the country's government is unable to balance the economy and the failure of the Central Bank to carry out proper monetary policy. With high inflation, companies face uncertainty in terms of product and input prices (Khan et al., 2021). Therefore, in these circumstances, multinational companies will avoid or reduce investment in countries with high inflation. When inflation in a country increases, it will make the prices of goods and services more expensive, increasing production's input costs (raw materials and labor wages). Conditions like this can cause business actors to have to increase output prices so that competitiveness becomes lower. In addition, inflation can also cause people's purchasing power to be low, and demand for goods and services will decrease, resulting in sluggish trading activities and investors finding it difficult to gain profits. It can reduce the attractiveness of investors to invest in the country. The research results of Sugiartiningsih (2017) and Permana & Rivani (2013) show that inflation affects foreign direct investment.

H4: Inflation Effect on Foreign Direct Investment

Labor Wage Rate

Labor wages have a negative relationship with the entry of FDI into a country. Increased labor wages indicate an increase in production costs so that the cost of production within a country becomes relatively more expensive. Labor has a positive effect on the total value of investment realization. The more labor in a sector of the economy, the lower the wage rate, so the production costs incurred by investors decrease. This cost reduction will certainly increase investors' profits, attracting investors to invest (Sukirno, 2016).

H5: Labor Wage Rates Effect On Foreign Direct Investment

3. Data and Method

This correlational study examines the direction of the relationship and the magnitude of the influence of the independent variables, which affect the size of the dependent variable (Sugiyono, 2017) (Santosa & Hidayat, 2014). The independent variables in this study are economic growth, exchange rates, export values, inflation rates, and wage rates. The dependent variable is the size of Foreign Direct Investment from China to Indonesia during the study period. From the type of data, this study uses quantitative data with a ratio scale. Research data was obtained from various publishing sources (secondary data), including the Capital Market Coordinating Board (BKPM), International Financial Statistics, Bank Indonesia Annual Reports, Bank Indonesia Financial

Reports, World Bank, and Statistics Indonesia. At the same time, the period studied is between 2000 – 2016 with quarterly data. The form of the regression equation in this study is:

$$\text{Ln FDI} = \alpha + \beta_1 g + \beta_2 \text{LnKURSs} + \beta_3 \text{LnEXP} + \beta_4 \text{INFL} + \beta_5 \text{LnUPAH} \quad (1)$$

Information :

LnFDI = Log of Foreign Direct Investment from China to Indonesia
 g = Indonesia's economic growth rate
 LnKURS = Log of the nominal exchange rate of the United States dollar against the rupiah
 LnEXP = Log of Indonesia's total export value
 INF = Inflation rate
 LnUPAH = Log of wage levels in Indonesia

The relationship between the independent variable and the dependent variable can be made in the following conceptual framework:

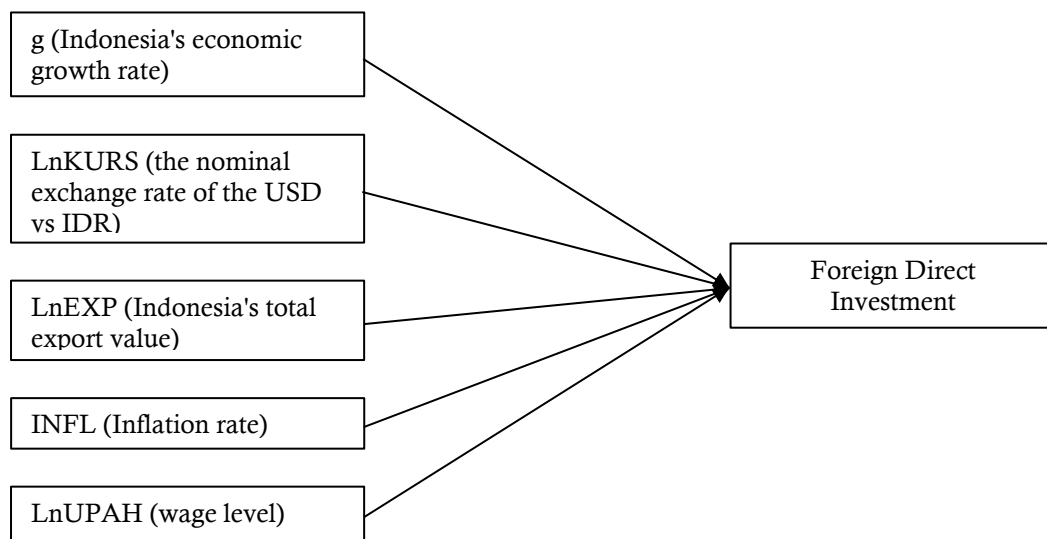


Figure 1. Conceptual framework

The research data were processed and analyzed using multiple linear regression approaches. We conducted the data processing to determine the effect of each independent variable on the dependent variable. We were then tested with a statistical test, namely a partial test (t-test). The test criterion is to compare the t-count value with the t-table value. The next statistical test is simultaneous testing by comparing the calculated F value with the F-table. The criterion is that if the calculated F value exceeds the F table, all variables are considered influential.

4. Results

Estimation of the Regression Equation Coefficient

The results of multiple linear regression equations with the Ordinary Least Square (OLS) model are obtained by processing the data, some of which must be transformed into natural logarithms.

Table 3. Estimation of the Regression Equation Coefficient

Model	Unstandardized Coefficients (B)	t-count	Sig.
(Constant)	3,580	2,537	,002
g	,108	0,776	,454
INFL	,044	1,886	,086
LnW	-,757	-2,469	,031
LnX	,426	1,237	,242

LnKurs	,668	0,725	,484
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Source: Processed Data, 2020

Hypothesis test

T Test

Statistical tests are carried out in 2 ways: partial and simultaneous. The partial test is carried out by comparing the t-count value with the t-table value or by comparing the Sig value with the output of the regression coefficient. Table 3 shows that the wage variable is statistically significant at the 5% confidence level. The inflation rate variable has a significant effect on the confidence level of 10%, while other variables are not significant.

F Test (Simultaneous)

Simultaneous testing aims to prove whether all independent variables affect the dependent variable. The trick is to compare the calculated F value with the table F value at a certain α level (5%).

Table 4. Simultaneous Test Results

	Model	F	Sig.
1	Regression	10,748	,001

The calculated F value in the table above is 10.748, and the Sig value is 0.01. So, it can be interpreted that simultaneously, all independent variables affect the dependent variable.

Determination Coefficient Value

To find out how the variation in the value of the dependent variable is affected by the variation in the value of the independent variable, it can be seen from the R² value. The Adjusted R Square value is used because the number of independent variables is more than 1.

Table 5. Value of the Coefficient of Determination

Model	R	R Square	Adjusted R Square
1	0,911 ^a	0,830	0,753

The R adjusted square value of 0.753 means that 75% of the variation in the dependent variable (the value of foreign direct investment from China to Indonesia) is influenced by the independent variables of economic growth, inflation rate, labor wages, the amount of exports and the exchange rate of the rupiah against other currencies (USD). In comparison, the rest (25%) is influenced by other variables not included in the model.

5. Discussion

The economic growth variable is partially insignificant. This finding can be interpreted that there is no real effect of economic growth on capital from China. In theory, economic growth is one of the attractions of foreign investors because economic growth shows an increase in people's prosperity. Thus, it will encourage investors because people's purchasing power increases. The insignificant factor of economic growth can occur because Indonesia is one of the countries that has good economic growth, so it is not a determining factor.

The inflation rate variable also has no effect at a significance level of 5% but becomes influential at a significance level of 10%. In theory, if the inflation rate is still below 10% (low inflation), it will attract investors because it provides better returns for investors where the price level rises before an

increase in the wage rate. Thus, business profits will increase, and investment interest will also increase. Suppose the inflation rate is categorized as moderate, let alone high. In that case, it will reduce investment interest due to the decline in people's purchasing power and weak competitiveness at the international level. The regression coefficient value is 0.44, and the direction of the relationship is positive. It can be interpreted that if there is a change in the inflation rate of 1% and other variables are considered constant, then there will be a change in the level of direct investment from China to Indonesia of 0.44% with a relationship pattern in the same direction.

The influential factor is the level of wages. Partially, the level of labor wages in Indonesia significantly affects the entry of Chinese capital into Indonesia. The magnitude of the labor wage coefficient is -0.757. This result can be interpreted that every increase in wages in Indonesia by 1% will cause a decrease in foreign direct investment from China by 0.76%. The negative sign of the coefficient indicates an inverse relationship between wage rates and investment. This finding proves that if workers' wages rise, it causes the rate of return on investment to decrease, and the price of goods is not competitive at the international level. Previous studies and standard theories explain that wage levels influence interest in foreign investment. Several foreign companies in Indonesia have moved to new countries, such as Cambodia, Laos, and Vietnam, due to differences in labor wages. In these new countries, labor wages are relatively cheaper than in Indonesia. Thus, it will reduce the interest of foreign investors in Indonesia, including those from China.

Other factors, such as exchange rates and exports, have no significant effect. This means there is no evidence that these variables influenced the interest of Chinese investors in Indonesia during the study period.

6. Conclusion

The research and analysis results show a significant influence between labor wages in Indonesia and direct foreign capital flows from China. The direction of the relationship between the two variables is negative, so any increase in workers' wages will reduce the interest of foreign investors, especially from China. The inflation rate is another variable that partially influences direct capital flows from China to Indonesia. If there is an increase in inflation within reasonable limits, it will be an attraction for Chinese investors in Indonesia during the study period. Factors other than labor wages and inflation (economic growth, the size of exports, and the exchange rate of the rupiah against the dollar) need sufficient evidence that these variables significantly affect the fluctuations in capital inflows from China to Indonesia.

Recommendation

From the conclusions above, several important things can be recommended, namely that the government needs to pay attention to labor wages so that every time there is a plan to increase the minimum wage, other aspects must be considered, namely the competitive level of foreign capital. Likewise, the inflation rate should be controlled because a high inflation rate can reduce people's purchasing power and reduce the level of direct investment from China to Indonesia.

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