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Foreign Direct Investment in Indonesia: Implications of Real Minimum Wages, Economic Growth, and Perceptions of Corruption (2003–2023)

Pramudya Darel Sitorus[1], Any Widayatsari [2], Darmayuda[3]
[1]Universitas of Riau
[2]Universitas of Riau
[3]Universitas of Riau

Corresponding Author: Pramudya Darel Sitorus, e-mail: darel.eac@gmail.com.

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ABSTRAK

Foreign direct investment plays an important role as a catalyst for the Indonesian economy in realizing the golden Indonesia 2045, especially in increasing capital inflows, creating jobs, improving infrastructure and transferring technology and knowledge. The purpose of this study is to determine the effect of real minimum wage, economic growth and corruption perception index on the inflow of foreign direct investment in Indonesia in the period 2003 - 2023. The research method used is multiple regression analysis method (ordinary least square) using eviews 12. Data was collected through the Central Bureau of Statistics, Investment Coordinating Board, One Data Ministry of Manpower, and Transparency International. The results of this study show that partially, real minimum wage and economic growth have a positive effect on foreign direct investment, while corruption perception index has no effect on foreign direct investment. Furthermore, simultaneously real minimum wage, economic growth and corruption perception index affect foreign direct investment with 5% significance degree.

Keywords: Foreign Direct Investment, Minimum Wage, Real Minimum Wage, Economic Growth, Corruption Perception Index

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INTRODUCTION

Indonesia envisions transforming into a developed nation by 2045 through its ambitious Indonesia Emas vision. A cornerstone of this transformation is investment, both domestic and foreign, which is pivotal to sustaining robust economic growth. According to the Harrod-Domar theory, investment is fundamental for long-term economic development (Ayuningtyas et al., 2023). However, domestic capital constraints have compelled the Indonesian government to focus more aggressively on attracting Foreign Direct Investment (FDI), an internationally recognized catalyst for accelerating development in emerging economies (Inriama & Setyowati, 2020). FDI plays a multifaceted role—not only injecting capital but also facilitating job creation, technology transfer, and workforce skill enhancement—thereby supporting national development amid the pressures of globalization and international economic competition. Historical evidence underscores that today's developed countries have leveraged substantial foreign capital inflows to fuel industrial growth (Jumaedi et al., 2024)

Over the last two decades, FDI trends in Indonesia have exhibited significant fluctuations. While data from the Central Statistics Agency (BPS, 2025) reveal an overarching upward trend especially

post-COVID-19, this surge in FDI has not consistently translated into corresponding improvements in macroeconomic indicators such as GDP growth or the Corruption Perception Index (CPI) score (Transparency International, 2025). Notably, periods of rising FDI have sometimes coincided with stagnant or declining CPI scores, raising questions about the underlying factors driving FDI inflows.

Theoretical frameworks such as Dunning's eclectic paradigm outline four primary motives for FDI—market seeking, resource seeking, efficiency seeking, and strategic asset seeking (Dunning & Lundan, 2008). Empirically, variables such as real minimum wages, economic growth, and corruption levels serve as proxies for these investment motives. Competitive labor costs and stable economic growth typically attract foreign investors, while lower corruption levels are presumed to create a more conducive investment climate (Andhika et al., 2024; Sukirno, 2019). However, empirical findings from Indonesia challenge these generalizations; for instance, increases in FDI sometimes occur simultaneously with deteriorating corruption perceptions, and higher minimum wages generally discourage investment due to cost considerations (Choirunnisa & Khoirudin, 2024; Kopa & Widanta, 2022). Meanwhile, economic growth trends have been somewhat inconsistent, with stagnant or declining growth observed alongside rising FDI in recent years (Rahardja & Manurung, 2019)

This incongruity reveals a critical gap in understanding the nuanced influences of real minimum wages, economic growth, and corruption perception on FDI in Indonesia. Addressing this gap, the present study empirically analyzes these factors' effects on FDI inflows from 2003 to 2023.

MATERIALS AND METHODS

This study employs a quantitative research design with a descriptive approach to empirically examine the determinants of Foreign Direct Investment (FDI) inflows in Indonesia during the period 2003–2023. Specifically, the analysis is conducted using Ordinary Least Squares (OLS) multiple regression, which facilitates assessment of the simultaneous and individual effects of selected independent variables on FDI.

The research utilizes secondary data sourced from reputable official institutions, including the Badan Pusat Statistik (BPS), Transparency International (TI), and the Satudata Kemnaker. The dataset comprises annual observations over two decades, encompassing the dependent variable Foreign Direct Investment (FDI), measured in millions of US dollars; and three independent variables: real minimum wage, economic growth, and the Corruption Perception Index (CPI). The real minimum wage is operationalized as the average provincial minimum wage adjusted by the Consumer Price Index (CPI), thereby accounting for inflationary effects. Economic growth is represented by the annual percentage growth rate of real Gross Domestic Product (GDP), while corruption perception is quantified using the CPI scale ranging from 0 (highly corrupt) to 100 (very clean).

Data collection involved comprehensive literature reviews and extraction of relevant statistical reports and datasets from official institutional websites, ensuring data reliability and validity. The population under study includes all annual national-level observations within the specified timeframe, with no sampling applied due to the use of complete time-series secondary data.

Table 1. Real Minimum Wage, Economic Growth, Corruption Perception Index, and Foreign Direct Investment in Indonesia from 2003 to 2023

Year	*FDI (Million US$)*	*Indonesia's Real Minimum Wage (Rupiah)*	*Economic Growth (Percentage)*	*CPI Indonesia (Score)*
2003	*13207.20*	*318,742.54*	*4.78*	*19*
2004	*10279.80*	*331,210.20*	*5.03*	*20*
2005	*8,916.90*	*313,166.27*	*5.69*	*22*
2006	*5,977.00*	*348,751.28*	*5.50*	*24*
2007	*10,341.40*	*365,069.95*	*6.35*	*23*
2008	*14,871.40*	*364,509.15*	*6.01*	*26*
2009	*10,815.30*	*400,221.15*	*4.63*	*28*
2010	*16,214.80*	*404,099.98*	*6.22*	*28*
2011	*19,474.50*	*423,618.31*	*6.17*	*30*
2012	*24,564.70*	*447,258.30*	*6.03*	*32*
2013	*28,617.50*	*491,506.47*	*5.56*	*32*
2014	*28,529.70*	*554,132.27*	*5.01*	*34*
2015	*29,275.94*	*605,866.02*	*4.88*	*36*
2016	*28,964.10*	*656,258.87*	*5.03*	*37*
2017	*32,239.80*	*677,695.23*	*5.07*	*37*
2018	*29,307.91*	*697,497.63*	*5.17*	*38*
2019	*28,208.76*	*734,929.93*	*5.02*	*40*
2020	*28,666.30*	*786,572.14*	*-2.07*	*37*
2021	*31,093.10*	*776,569.13*	*3.70*	*38*
2022	*45,605.00*	*746,360.86*	*5.31*	*34*
2023	*50,267.50*	*780,165.92*	*5.05*	*34*

Source: Badan Pusat Statistik, Satu Data Kemnaker, Transparency Internasional 2025

The multiple regression model employed is expressed as follows:

$$\hat{Y} = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

where $\hat{Y}$ denotes FDI, X_1 the real minimum wage, X_2 economic growth, X_3 the CPI, α_0 the intercept, β_1, β_2, β_3 the regression coefficients, e the error term.

Prior to estimation, classical linear regression assumptions were rigorously tested to validate the model. Normality of residuals was assessed using the Jarque-Bera test; multicollinearity was examined through tolerance and Variance Inflation Factor (VIF) statistics; heteroskedasticity was tested via the White test; and autocorrelation was evaluated using the Lagrange Multiplier (LM) test. Subsequent hypothesis testing employed the F-test to determine the overall significance of the model, while t-tests assessed the statistical significance of individual predictors. The coefficient of determination (R^2) was also calculated to quantify the explanatory power of the model with respect to variations in FDI.

Through these rigorous methodological steps, the study aims to produce valid and reliable empirical evidence on the impacts of labor costs, economic performance, and corruption perception on Indonesia's FDI inflows, contributing to informed policy formulation and scholarly discourse on investment dynamics in emerging economies.

RESULTS

Classical Assumption Test

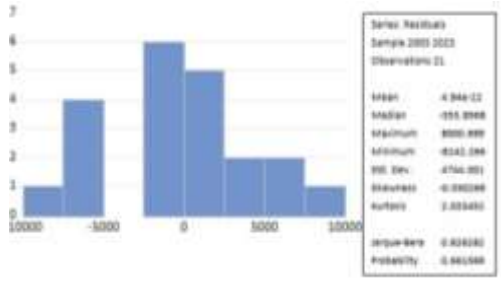


Figure 1. Normality Test Result
Source: data processed by researchers

The normality test aims to ensure that the residuals in the regression model have a normal distribution, so that the t-test for partial significance can be applied validly. One method used is the Jarque-Berra test, in which data is considered normally distributed if the probability value is greater than 0.05. Based on the test results in this study, a probability value of 0.6615 > 0.05 was obtained, so it can be concluded that the data on real minimum wages, economic growth, and the corruption perception index on foreign direct investment in Indonesia is normally distributed.

Variance Inflation Factors
Date: 05/08/25 Time: 15:00
Sample: 2003 2025
Included observations: 21

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	61650490	48.89734	NA
X1	0.000265	71.23676	6.679237
X2	623646.0	13.57213	1.407940
X3	180648.0	142.6033	5.757141

Figure 2. Multicollinearity Test Result
Source: data processed by researchers

The multicollinearity test aims to determine whether there is a high correlation between independent variables in the regression model, because if multicollinearity occurs, the predictive power of the model becomes unreliable and unstable. This test is conducted by examining the Variance Inflation Factor (VIF) values, where the model is considered free from multicollinearity if all VIF values are less than 10. Based on the data analysis using Eviews 12, all centered VIF values of the independent variables in this model are below 10, so it can be concluded that the regression model used does not exhibit multicollinearity.

Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	0.708033	Prob. F(9,11)	0.6929
Obs*R-squared	7.702966	Prob. Chi-Square(9)	0.5643
Scaled explained SS	2.608420	Prob. Chi-Square(9)	0.9778

Figure 3. Heteroskedasticity Test Result
Source: data processed by researchers

The heteroscedasticity test aims to determine whether there is a difference in residual variance between observations in the regression model, because heteroscedasticity can interfere with the validity of the estimation results. In this study, the test was conducted using the White Heteroskedasticity Test with the help of Eviews 12. The test results show that the Chi-Square probability value of Obs*R-squared is 0.5643 > 0.05, so it can be concluded that the regression model used does not experience heteroscedasticity problems and the residuals have homogeneous variance between observations.

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.933672	Prob. F(2,15)	0.1790
Obs*R-squared	4.304486	Prob. Chi-Square(2)	0.1162

Figure 4. Autocorrelation Test Result
Source: data processed by researchers

The autocorrelation test aims to test whether there is a relationship between the residuals of one observation and the residuals of other observations in the regression model, because autocorrelation can interfere with the validity of estimates, especially in time series data. In this study, the test was conducted using the Breusch-Godfrey serial correlation Lagrange Multiplier Test (LM Test), with the model deemed free of autocorrelation if the chi-square probability value was greater than 0.05. Based on the test results, the chi-square probability value obtained was 0.1162 > 0.05, so it can be concluded that the regression model in this study does not experience autocorrelation issues.

With the fulfillment of the four classical assumption tests—normality, multicollinearity, heteroscedasticity, and autocorrelation—the regression model in this study is deemed suitable for use in further hypothesis testing.

Multiple Regression Analysis

Dependent Variable: Y
Method: Least Squares
Date: 05/08/25 Time: 14:56
Sample (adjusted): 2003 2023
Included observations: 21 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-17443.45	7851.783	-2.221591	0.0402
X1	0.086521	0.016880	5.125747	0.0001
X2	2181.677	789.7126	2.762621	0.0133
X3	-518.6051	425.0270	-1.220170	0.2391

R-squared	0.840139	Mean dependent var	23592.31
Adjusted R-squared	0.811928	S.D. dependent var	11865.17
S.E. of regression	5145.592	Akaike info criterion	20.09931
Sum squared resid	4.50E+08	Schwarz criterion	20.29827
Log likelihood	-207.0428	Hannan-Quinn criter.	20.14249
F-statistic	29.78084	Durbin-Watson stat	1.121320
Prob(F-statistic)	0.000001		

Figure 5. Autocorrelation Test Result
Source: data processed by researchers

Based on the results of multiple linear regression analysis, the equation FDI = -17443.45 + 0.086521 UMR + 2181.677 EG - 518.6051 CPI was obtained. The constant value of -17,443.45 indicates that if the real minimum wage, economic growth, and corruption perception index are assumed to be zero, then foreign direct investment (FDI) in Indonesia will decrease by US$ 17,443.45 million. The regression coefficient for real minimum wage (UMR) of 0.086521 means that every increase in UMR of Rp 1 will increase FDI by US$ 0.086521 million, indicating a positive relationship between real minimum wage and FDI. The economic growth (EG) coefficient of 2,181.677 indicates that a 1% increase in economic growth will increase FDI by US$ 2,181.677 million, also showing a positive relationship. Conversely, the corruption perception index (CPI)

coefficient of -518.6051 means that every one-point increase in the CPI score actually reduces FDI by US$ 518.6051 million, indicating that the CPI has a negative relationship with FDI in Indonesia during the study period. These findings confirm that real minimum wage and economic growth are the primary drivers of FDI, while the CPI shows an opposite relationship in the Indonesian context.

The regression results show that the Adjusted R^2 value is 0.811928, meaning the regression model explains 81.19% of the variation in foreign direct investment (FDI) in Indonesia, while the remaining 18.81% is explained by factors outside the model. The simultaneous test (F-test) yielded an F-statistic value of 29.78084 with a probability of 0.000001, which is far below 0.05, thus concluding that real minimum wage, economic growth, and the corruption perception index collectively have a significant effect on FDI in Indonesia from 2003 to 2023. The partial test (t-test) shows that real minimum wage and economic growth each have a significant positive effect on FDI, as indicated by a probability < 0.05, while the corruption perception index does not have a significant effect because its probability is > 0.05. Thus, this model confirms that real minimum wage and economic growth are important determinants of FDI in Indonesia, while the partial influence of the CPI is not significant during the study period.

DISCUSSION

Influence of Real Minimum Wage on FDI

Based on the results of the multiple regression analysis that has been carried out, the Indonesian real minimum wage variable has a partially positive effect on foreign direct investment in Indonesia during the observation data time span of this study, namely 2003 - 2023. This result means that the more Indonesia's real minimum wage increases, the more foreign direct investment in Indonesia will increase as well, this is inversely proportional to the hypothesis which states that the minimum wage has a negative effect on foreign direct investment in Indonesia due to the efficiency-seeking motive of investors who are assumed to be investors investing in host countries with cheaper production costs.

However, there are previous studies conducted by Nainggolan & Yusnida (2025) and Sitorus & Sakti (2017) that support the results of this study, that the minimum wage has a positive influence on foreign direct investment in Indonesia. The real minimum wage is the level of wages seen from the ability of these wages to meet the needs of workers (purchasing power of workers), the higher the real wage, the higher the purchasing power of these workers. In this study it was found that the effect of real minimum wages on foreign direct investment is positive, meaning that in investing in Indonesia foreign companies see real wages as purchasing power (market-seeking) rather than seeing real wages as production costs (efficiency-seeking).

Influence of Economic Growth on FDI

Based on the results of multiple regression analysis that has been done, economic growth has a positive effect partially on foreign direct investment in Indonesia during the observation data time span of this study, namely 2003 - 2023. This result means that the more economic growth increases, the more foreign direct investment in Indonesia will also increase. This is in accordance with the dunning theory regarding the market-seeking motive of investors in investing in the host country. Investors will invest in the host country with the aim of developing new markets, of course, an attractive market for investors is a market that is experiencing good growth, therefore economic growth will have a positive relationship with foreign direct investment.

Previous research conducted by Elian et al. (2025) supports the results of this study which state that economic growth has a positive influence on foreign direct investment both in the short and long term.

Influence of Corruption Perception Index on FDI

Based on the results of the multiple regression analysis that has been carried out, the corruption perception index has no partial effect on foreign direct investment in Indonesia during the observation data time span of this study, namely 2003 - 2023. The ineffectiveness of CPI on FDI can be explained by the dominance of other variables that are more decisive in attracting foreign investment, which in this study is a market factor proxied through economic growth. This result shows that foreign investors tend to consider Indonesia's large market potential (market-seeking) more than the efficiency factor or the level of corruption.

This market-seeking motive is reflected in the tendency of foreign investors to invest in countries with large domestic markets, stable economic growth, and adequate infrastructure. In the context of Indonesia, economic growth and population size are the main attractions for foreign investors, so they continue to invest even though perceptions of corruption have not improved significantly.

The results of this study are in line with research conducted by Firman & Munim (2022); Adiyudawansyah & Santoso (2012); Lule & Karundeng (2020) which show the results that the corruption perception index has no effect on foreign direct investment.

CONCLUSIONS

This study concludes that both real minimum wage and economic growth exert a positive and significant influence on Foreign Direct Investment (FDI) inflows in Indonesia over the period 2003–2023, while the Corruption Perception Index (CPI) does not exhibit a significant partial effect on FDI. Collectively, the three variables significantly affect FDI, indicating that market-seeking motives predominantly drive foreign investment in Indonesia. These findings contribute meaningfully to a deeper understanding of the macroeconomic determinants shaping foreign investors' decisions within the Indonesian context and reinforce the applicability of international investment theories in developing economies.

Theoretically, this research enriches the literature by elucidating the dynamic relationships among wage levels, economic growth, and corruption perceptions in influencing FDI, highlighting the critical role of market conditions and purchasing power in attracting foreign capital. Practically, the results suggest that policymakers should prioritize maintaining real wages that support workers' purchasing power and sustaining stable economic growth as fundamental strategies to lure FDI. Additionally, continuing efforts to enhance governance and transparency remain essential to fostering a conducive investment climate.

This study further provides a valuable reference point for evaluating the effectiveness of minimum wage regulations and economic policies designed to enhance Indonesia's competitiveness as a destination for foreign investment.

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The authors acknowledge several limitations inherent in this study. Data inconsistencies may have arisen during the 2003–2023 period due to evolving recording methodologies, discrepancies among data sources, and shifts in economic conditions and government policies influencing reporting standards over time. Additionally, certain variables present measurement constraints; for instance, the real minimum wage metric may not fully capture investment attractiveness at the local level, while the Corruption Perception Index (CPI) relies on perceptions that can be subject to bias. Furthermore, the findings of this research are contextually specific to Indonesia and may not be directly generalizable to countries with differing socioeconomic and institutional characteristics.

Despite these limitations, this study contributes valuable insights into the macroeconomic determinants of Foreign Direct Investment in Indonesia. For future research, the authors recommend broadening the analytical framework by incorporating additional variables such as infrastructure quality, political stability, and government policy impacts. Employing more granular data—such as provincial or sector-specific datasets—and integrating both quantitative and qualitative methodologies are also suggested to deepen the understanding of FDI determinants in Indonesia.

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