



The relationship between gross domestic product (gdp) growth and foreign direct investment in Indonesia 2010-2023

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ABSTRACT

This study aims to analyze the relationship between Gross Domestic Product (GDP) growth and Foreign Direct Investment (FDI) in Indonesia from 2010 to 2023. The research employs a descriptive quantitative approach using secondary data from the Central Bureau of Statistics (BPS) and other relevant institutions. The analysis reveals a positive long-term relationship between FDI and GDP growth. Although in certain periods an increase in FDI was not immediately followed by a surge in economic growth, the data generally indicate that FDI has a significant contribution to GDP growth, especially when directed toward strategic sectors. The study also finds that the effectiveness of FDI in promoting economic growth is strongly influenced by factors such as infrastructure quality, macroeconomic stability, and supportive investment regulations. These findings are consistent with previous studies that emphasize the importance of the domestic environment in maximizing the benefits of FDI. Therefore, appropriate policies are needed to enhance investment competitiveness and optimize the positive impact of FDI on national economic development.

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INTRODUCTION

Economic growth is a key indicator reflecting a country's performance and stability. Gross Domestic Product (GDP) is widely used as a benchmark for assessing economic activity because it encompasses the total production of goods and services within a given period. When GDP increases, it signifies a rise in economic activity that can generally support public welfare (Central Bureau of Statistics, 2023). Therefore, it is important to examine the various factors influencing GDP fluctuations, especially in developing countries such as Indonesia.

Gross Domestic Product (GDP) is one of the key indicators used to measure a country's economic performance. GDP reflects the total market value of all final goods and services produced within a territory over a specific period. This indicator is crucial as it provides a

comprehensive picture of the national economy, including the sectors that contribute to economic growth (Todaro & Smith, 2020).

GDP growth indicates the extent to which a country is able to expand its production capacity over time. This increase can result from the expansion of the labor force, capital accumulation, technological advancements, and improvements in production efficiency. In other words, GDP growth not only represents higher economic output but also reflects overall productivity gains (Mankiw, 2021).

In the context of a developing country like Indonesia, GDP growth serves as a primary reference for evaluating the effectiveness of economic development policies. The government uses GDP data to design fiscal, monetary, and investment strategies. Additionally, GDP is used as a benchmark to assess the success of development programs and to attract foreign investors, as it reflects the potential of a growing market (Sukirno, 2019).

However, while GDP is often used as a measure of economic growth, it does not fully capture the distribution of welfare or the quality of life of the population. Therefore, GDP analysis should be complemented with other social indicators to provide a more comprehensive view of a country's development (Todaro & Smith, 2020).

According to Todaro and Smith (2015), Foreign Direct Investment (FDI) can influence economic growth through capital flows, technology transfer, and labor dynamics. Meanwhile, Tambunan (2019) emphasizes the importance of economic stability and government policy in attracting FDI. Warni (2020) also highlights that the relationship between FDI and economic growth is not always linear and depends on the investment sectors.

FDI is defined as a cross-border investment in which a foreign investor holds control or a significant influence over the management of a company in the host country. FDI typically involves ownership of tangible assets such as factories, equipment, or production infrastructure. Unlike portfolio investment, which is speculative and short-term in nature, FDI is long-term oriented and reflects a deeper economic engagement (Krugman & Obstfeld, 2018).

FDI is regarded as a key driver of economic growth, particularly in developing countries. The inflow of foreign capital through FDI brings multiple benefits, including technology transfer, modern management practices, increased productivity, and job creation. Furthermore, FDI can accelerate structural transformation by strengthening the industrial sector and expanding export networks (Todaro & Smith, 2020). As a result, many countries strive to create a favorable investment climate to attract foreign investors.

In Indonesia, FDI has played a strategic role in economic development, especially since the reform era. The government, through the Investment Coordinating Board (BKPM), has consistently worked to improve the investment climate by reforming regulations, simplifying licensing procedures, and offering fiscal incentives in priority sectors. BKPM data show that FDI realization has continued to grow annually, particularly in the manufacturing, infrastructure, and energy sectors (Ministry of Investment/BKPM, 2022). However, its distribution remains concentrated in certain regions such as West Java and Jakarta.

Although FDI holds great potential for driving economic growth, its impact is not always evenly distributed or automatically positive. In some cases, the dominance of foreign companies may weaken local industries or create dependency on foreign technology and raw materials. Therefore, it is crucial for the government to channel FDI into truly productive and strategic sectors, while ensuring technology transfer and national capacity-building (Putri & Arsyad, 2023).

A study by Yusuf and Hartono (2021) found that FDI has a positive correlation with GDP growth in Indonesia, particularly in the manufacturing sector. However, they also emphasized the importance of synergy between investment policies and domestic preparedness, including human resource quality, supporting infrastructure, and legal stability. Thus, FDI can make a maximal contribution if it is managed properly and inclusively.

One external factor considered to play a significant role in economic growth is Foreign Direct Investment (FDI). The presence of FDI not only brings fresh capital but also facilitates the transfer of technology, managerial expertise, and access to international markets, all of which can enhance domestic production capacity (Putri & Arsyad, 2023). FDI is also believed to improve the competitiveness of the national industrial sector through increased efficiency, innovation, and job creation. Thus, FDI has the potential to strengthen long-term economic growth.

Indonesia is an attractive destination for foreign investors due to its large population, relatively stable political environment, and regulatory reforms that support a favorable investment climate. The government continues to implement strategic measures such as simplifying business licensing procedures and providing fiscal incentives to enhance national investment competitiveness (Ministry of Investment/BKPM, 2022). Nevertheless, the volume of FDI inflows does not always have a direct impact on GDP growth, as its effectiveness depends on the readiness of infrastructure, labor quality, and bureaucratic efficiency.

Previous studies have shown mixed results. Research conducted by Yusuf and Hartono (2021) indicated a significant positive relationship between FDI and GDP growth, particularly in the manufacturing sector. On the other hand, some studies argue that an increase in FDI does not necessarily align with economic growth if it is not accompanied by structural reforms and equitable investment distribution across regions (Putri & Arsyad, 2023). These differing findings highlight the importance of further empirical investigation into the relationship between the two.

Using secondary data from the Central Bureau of Statistics (BPS) covering the period 2010–2023, this study aims to analyze the relationship between GDP growth and FDI in Indonesia through a descriptive quantitative approach and correlation analysis. The findings are expected to contribute to the formulation of evidence-based investment policies and national economic development strategies (Central Bureau of Statistics, 2023).

RESEARCH METHOD

This study employs a quantitative approach using descriptive methods and correlation analysis. The data used are secondary data obtained from the Central Bureau of Statistics (BPS), specifically regarding Indonesia's FDI and GDP values for the period 2010–2023. Data processing is conducted using statistical software such as SPSS or Excel to determine the strength and direction of the relationship between the variables.

RESULTS AND DISCUSSIONS

Gross Domestic Product (GDP) is one of the main indicators used to measure a country's economic performance. GDP reflects the total market value of all final goods and services produced within a specific area during a certain period. This indicator is vital because it provides a comprehensive overview of the national economy, including the sectors that contribute to economic growth (Todaro & Smith, 2020). GDP growth indicates the extent to which a country can increase its production capacity over time. This increase can result from a growing labor force, capital accumulation, technological advancement, and improvements in production efficiency. In other words, GDP growth reflects not only a larger economic output but also an overall increase in productivity (Mankiw, 2021).

In the context of developing countries like Indonesia, GDP growth serves as a primary reference for evaluating the effectiveness of economic development policies. The government uses GDP data to formulate fiscal, monetary, and investment strategies. Moreover, GDP is also used to assess the success of development programs and to attract foreign investors by signaling a growing market potential (Sukirno, 2019). However, although GDP is often used as a measure of economic

growth, it does not fully capture wealth distribution or the quality of life. Therefore, GDP analysis should be complemented with other social indicators to provide a more comprehensive picture of a country's development (Todaro & Smith, 2020).

According to Todaro and Smith (2015), FDI can influence economic growth through the flow of capital, technology, and labor. Meanwhile, Tambunan (2019) emphasizes the importance of economic stability and government policy in attracting FDI. Warni (2020) also highlights that the relationship between FDI and economic growth is not always linear and depends on the sector being invested in.

Foreign Direct Investment (FDI) is defined as a form of cross-border investment in which foreign investors have control or significant influence over the management of a company in the host country. FDI typically involves ownership of tangible assets such as factories, equipment, or production infrastructure. Unlike portfolio investment, which is speculative and short-term in nature, FDI is long-term oriented and reflects deeper economic engagement (Krugman & Obstfeld, 2018).

FDI is considered one of the key drivers of economic growth, especially in developing countries. The inflow of foreign capital through FDI offers various benefits such as technology transfer, modern management practices, increased productivity, and job creation. Beyond that, FDI can accelerate structural transformation by strengthening industrial sectors and expanding export networks (Todaro & Smith, 2020). Consequently, many countries strive to create a favorable investment climate to attract foreign investors.

In Indonesia, FDI has played a strategic role in economic development, particularly since the reform era. The government, through the Investment Coordinating Board (BKPM), has consistently worked to improve the investment climate through regulatory reforms, licensing deregulation, and the provision of fiscal incentives in priority sectors. BKPM data shows that FDI realization continues to rise year by year, especially in manufacturing, infrastructure, and energy sectors (Ministry of Investment/BKPM, 2022). However, the distribution of FDI remains concentrated in certain regions such as West Java and Jakarta.

Although FDI holds significant potential to drive economic growth, its impact is not always evenly distributed or automatically positive. In some cases, foreign firm dominance may weaken local industries or create dependence on foreign technology and raw materials. Therefore, it is essential for the government to direct FDI towards truly productive and strategic sectors while ensuring technology transfer and strengthening national capacity (Putri & Arsyad, 2023).

A study conducted by Yusuf and Hartono (2021) reveals that FDI has a positive correlation with GDP growth in Indonesia, especially in the manufacturing sector. However, they also emphasize the importance of synergy between investment policies and domestic readiness, such as the quality of human resources, supporting infrastructure, and legal stability. Thus, FDI can contribute optimally when managed appropriately and inclusively.

Table 1. GDP Growth (BPS Data 2010-2023)

Tahun	Pertumbuhan PDB (%)
2010	6.2
2011	6.5
2012	6.3
2013	5.6
2014	5
2015	4.9
2016	5
2017	5.1
2018	5.2
2019	5
2020	-2.1
2021	3.7
2022	5.3

Indonesia's GDP growth from 2010 to 2023 reflects the dynamics of the national economy, shaped by various domestic and global factors. At the beginning of the decade, Indonesia recorded relatively strong economic growth. In 2010 and 2011, the economy grew by 6.2% and 6.5%, respectively, reflecting a solid recovery from the 2008 global financial crisis.

Between 2012 and 2015, the growth rate gradually declined. In 2013, GDP growth stood at 5.6%, and by 2015 it had decreased to 4.9%. This slowdown was largely driven by weakening global demand, falling prices of key Indonesian export commodities such as coal and palm oil, and heightened uncertainty in international financial markets.

Economic stability began to return between 2016 and 2019, with average annual growth ranging between 5.0% and 5.2%. This trend indicates the government's success in maintaining macroeconomic stability and promoting domestic consumption as the main driver of growth.

However, in 2020, Indonesia experienced an economic contraction of -2.1% due to the COVID-19 pandemic, which significantly disrupted economic activities across various sectors. This marked the country's first negative growth in over two decades. Nonetheless, the Indonesian economy began to recover in subsequent years, with growth reaching 3.7% in 2021 and increasing to 5.3% in 2022, supported by the easing of social restrictions and improved public mobility.

In 2023, the economy maintained a stable growth rate of 5.0%, indicating that post-pandemic recovery remained on a relatively steady path, although global challenges such as inflation and geopolitical tensions persisted.

Overall, the period from 2010 to 2023 demonstrates a relatively stable trend in Indonesia's economic growth, with a significant disruption occurring only during the COVID-19 pandemic. This reflects the resilience of the national economy and provides a critical foundation for evaluating the contribution of other factors, such as Foreign Direct Investment (FDI), to GDP growth.

Table 2. FDI In Indonesia (BPS Data 2010-2023)

Tahun	FDI (Miliar USD)
2010	16.2
2011	19.2
2012	20.5
2013	22.4
2014	23
2015	29.3
2016	28.9
2017	32
2018	29.3
2019	28.2
2020	28
2021	31.1
2022	35.5
2023	36.2

Foreign Direct Investment (FDI) is one of the key drivers supporting national economic development, particularly in developing countries such as Indonesia. Based on data from 2010 to 2023, FDI inflows into Indonesia have shown a fluctuating trend but have generally increased in line with improvements in the investment climate and favorable global economic conditions.

At the beginning of the decade, FDI inflows in 2010 amounted to USD 16.2 billion. This figure continued to rise over the next few years, reaching USD 22.4 billion in 2013. The increase was driven by macroeconomic stability and growing foreign investor interest in strategic sectors such as manufacturing, mining, and infrastructure.

The year 2015 marked a significant turning point, with FDI surging to USD 29.3 billion, reflecting the government’s success in implementing regulatory reforms and streamlining investment licensing procedures. Although there was a slight decline in 2016 to USD 28.9 billion, the upward trend continued in the following years, peaking in 2017 at USD 32.0 billion.

However, global uncertainties and domestic economic dynamics led to a decline in FDI in 2018 and 2019, falling to USD 29.3 billion and USD 28.2 billion, respectively. The situation became more challenging in 2020 due to the COVID-19 pandemic, with FDI slightly decreasing to USD 28.0 billion—though this contraction was milder compared to that experienced by several other countries in the region.

The post-pandemic national economic recovery is reflected in the increase in FDI to USD 31.1 billion in 2021, followed by continued growth in 2022 and 2023, reaching USD 35.5 billion and USD 36.2 billion, respectively. This upward trend indicates a renewed confidence among foreign investors in Indonesia’s economic prospects, supported by structural reforms and strengthened international cooperation.

Overall, the 2010–2023 period shows that FDI inflows into Indonesia experienced positive long-term growth. Despite annual fluctuations caused by external and domestic factors, foreign investment remains a vital source of support for infrastructure development, job creation, and national GDP growth.

Table 3. Indonesia’s GDP Growth (%) and FDI Net Inflows (US\$ Billion), 2010–2023

Year	GDP Growth (%)	FDI Net Inflows (US\$ Billion)
2010	6.2	16.2
2011	6.5	19.2
2012	6.3	20.5
2013	5.6	22.4
2014	5.0	23.3
2015	4.9	29.3
2016	5.0	28.9
2017	5.1	32.0
2018	5.2	29.3
2019	5.0	28.2
2020	-2.1	28.0
2021	3.7	31.1
2022	5.3	35.5
2023	5.0	36.0

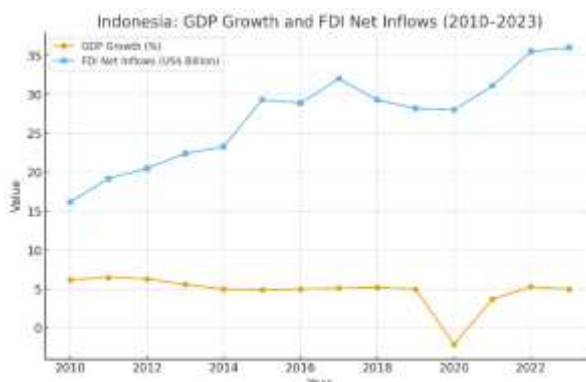


Figure 1 Line Chart (2010–2023)

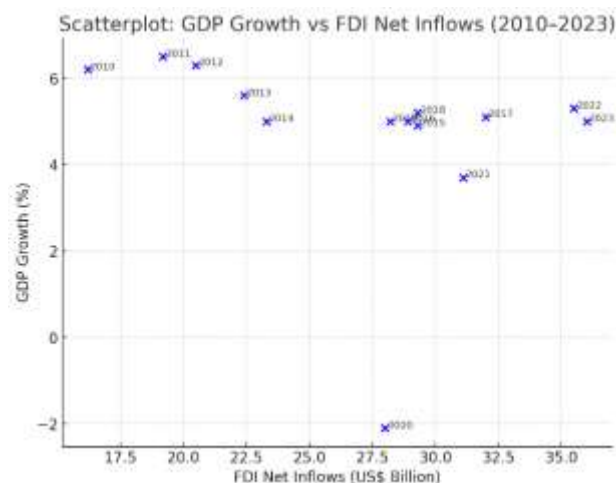


Figure 2. Scatterplot (GDP vs FDI)

Indonesia's GDP growth shows a fluctuating pattern during the period 2010–2023. The economy recorded relatively strong growth in the early 2010s, averaging above 6% in 2010–2012, but gradually slowed to around 5% by 2014–2019. A sharp contraction of -2.1% occurred in 2020 as a result of the COVID-19 pandemic, marking the first negative growth in more than two decades. However, the economy recovered in the subsequent years, reaching 5.3% in 2022 and stabilizing at 5.0% in 2023.

FDI net inflows generally followed an upward trajectory, rising from US\$16.2 billion in 2010 to around US\$36 billion in 2023, despite fluctuations caused by external shocks and domestic adjustments. A peak was observed in 2017 at US\$32 billion, followed by declines in 2018–2019, before recovering strongly in the post-pandemic period.

These trends suggest that while GDP growth and FDI inflows are not perfectly aligned on a year-to-year basis, both indicators exhibit a long-run upward movement, providing a solid empirical basis for analyzing their relationship.

CONCLUSION

This study concludes that there is a relatively strong relationship between Foreign Direct Investment (FDI) and Gross Domestic Product (GDP) growth in Indonesia during the period of 2010–2023. The trend indicates that increases in FDI are often followed by improvements in economic performance, particularly through the development of strategic sectors such as manufacturing, mining, and infrastructure. However, the influence of FDI on GDP growth is not absolute. It is moderated by various internal factors such as government policy, regulatory frameworks, and domestic market dynamics, as well as external factors including global economic conditions, commodity prices, and geopolitical tensions. Therefore, while FDI remains a vital driver of economic development, it cannot work in isolation. The Indonesian government is encouraged to continue fostering a conducive investment climate by ensuring macroeconomic stability, simplifying investment procedures, strengthening legal certainty, and promoting international cooperation. Such efforts will not only attract higher inflows of FDI but also enhance the quality of investment, ultimately contributing to more inclusive and sustainable economic growth.

Theoretical contribution for this study enriches the academic literature by emphasizing that the FDI-GDP growth relationship in emerging economies is not linear but conditional on

domestic and external factors, thus refining existing growth theories. Practical Implication for businesses, the findings suggest that investment opportunities in Indonesia are most promising in strategic sectors aligned with government priorities, but success depends on adapting to regulatory frameworks and global market dynamics.

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