

The Effect of Domestic Investment, Foreign Investment, Poverty, and Open Unemployment on Economic Growth in 10 Provinces of Indonesia, 2018–2022

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Abstract

This study analyzes the effects of Domestic Investment (PMDN), Foreign Investment (PMA), poverty, and open unemployment on economic growth in 10 provinces in Indonesia from 2018 to 2022. Secondary panel data were used, collected from the Central Bureau of Statistics (BPS). The method employed is panel data regression using the Fixed Effect Model (FEM), chosen based on results of Chow and Hausman tests. The results show that Domestic Investment has a negative and significant effect on economic growth, while Foreign Investment has a positive and significant effect. Poverty and open unemployment both have negative and significant effects. Simultaneously, all independent variables significantly influence economic growth with an R^2 of 0.6455. These findings underscore the importance of optimizing domestic investment allocation, improving the quality of foreign investment, and implementing policies for poverty alleviation and job creation to support sustainable economic growth.

Keywords: Domestic investment; Foreign investment; Poverty; Unemployment; Economic growth

INTRODUCTION

Economic growth is one of the main indicators of a country's development. In Indonesia, inclusive growth is highly dependent on the dynamics of investment, poverty levels, and open unemployment. Achieving sustainable and equitable growth across provinces remains a significant challenge (Suharlina, 2020). The global development

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agenda, *Sustainable Development Goals (SDGs)*, adopted by UN member states in 2015, emphasizes this challenge. Among its 17 targets, SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth) are directly relevant to how investment—both Domestic Investment (PMDN) and Foreign Investment (PMA)—can affect growth, generate employment, and reduce poverty and unemployment.

Economic growth is generally measured through Gross Regional Domestic Product (GRDP), which represents the total value of goods and services produced over a specific period. GRDP is influenced by household consumption, investment, government expenditure, and net exports. Among these, investment is a critical determinant of growth (Sinambela, Wahyudi, & Ciptawaty, 2024). PMDN and PMA are expected to contribute to reducing poverty, improving productivity, and creating new jobs. However, regional inequality persists, with certain provinces showing higher levels of poverty and unemployment despite substantial investment inflows.

From a theoretical standpoint, economic growth has been defined as the long-term increase in a country's productive capacity. Arsyad (2015) defines growth as the continuous effort of society to enhance economic activity to raise living standards. Output growth can be observed across various sectors and reflects both progress and setbacks (Rosminah et al., 2019). In practice, developing countries like Indonesia need large amounts of capital to stimulate growth. Investment flows, both domestic and foreign, thus play a pivotal role (Firdausy, 2016). According to Todaro and Smith (2000), investments not only foster economic growth but also generate multiplier effects, such as employment creation and poverty alleviation.

Empirical evidence shows that Indonesia's provincial economies experienced fluctuations during 2018–2022. As shown in BPS data, average economic growth in 10 selected provinces reached 4.9% in 2018, increased to 5.09% in 2019, but contracted to –2.03% in 2020 due to the COVID-19 pandemic. Growth rebounded to 3.55% in 2021 and further to 5.04% in 2022. The crisis highlighted the vulnerability of regional economies to external shocks. Studies such as James Thurlow (2012) suggest that growth generally reduces poverty, yet other findings (Prasetyawan, 2017) indicate that growth may have negative or insignificant impacts depending on structural conditions.

Investment trends further illustrate these complexities. PMDN in the 10 provinces increased consistently from IDR 23,030.3 trillion in 2018 to IDR 44,608.9 trillion in 2022. This upward trend suggests positive momentum for domestic capital mobilization. In contrast, PMA showed volatility: from US\$ 2,138.31 million in 2018, it declined in 2019 and 2020 due to global commodity shocks and the pandemic, before recovering in 2021

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and surging to US\$ 2,648.81 million in 2022. Studies are inconclusive: Nehemia (2023) emphasizes the vital role of investment in growth, aligned with Keynesian perspectives on aggregate demand, while Rendy Alvaro (2021) argues that both PMDN and PMA may not significantly influence growth due to inefficiencies and governance challenges.

Beyond investment, poverty and unemployment remain structural barriers. In the 10 provinces, poverty averaged 8.04% in 2018, declined to 7.72% in 2019, but rose again in 2020 to 8.60% due to pandemic disruptions. Poverty then gradually decreased to 8.06% in 2022. Bappenas (2002) defines poverty as the inability to meet basic needs, encompassing both asset-based and social dimensions. Although government programs have been implemented, the outcomes remain below expectations. Studies provide differing views: Purnama (2017) found significant effects of growth on poverty reduction in North Sumatra, while Ely Kusuma (2013) suggested no significant relationship.

Similarly, open unemployment averaged above 5% in 2018–2019, peaked at 7.07% in 2020, and then declined to 5.86% in 2022. Sukirno (2011) defines unemployment as the inability of the labor force to obtain jobs despite actively seeking them. High unemployment not only reduces income but also undermines aggregate demand. The Keynesian framework emphasizes the importance of government intervention to stabilize employment and growth. Empirical findings also diverge: Pradana (2021) noted a positive relationship between growth and unemployment in Samarinda, whereas Putu (2019) found no significant effect in Bali.

Based on the above phenomena, investment, poverty, and unemployment are interconnected factors that influence regional economic growth in Indonesia. Although provinces with high investment do not always achieve optimal output, the combined impact of PMDN, PMA, poverty, and unemployment provides crucial insights into growth dynamics. This study focuses on 10 provinces with relatively high investment levels and significant economic activity—Jakarta, West Java, East Java, Banten, Central Java, East Kalimantan, South Sumatra, West Kalimantan, North Sumatra, and Riau—yet still face persistent challenges of poverty and unemployment.

Therefore, this study aims to address the following research questions:

1. Does Foreign Investment (PMA) significantly affect economic growth in 10 provinces in Indonesia during 2018–2022?
2. Does Domestic Investment (PMDN) significantly affect economic growth in 10 provinces in Indonesia during 2018–2022?
3. Does poverty significantly affect economic growth in 10 provinces in Indonesia during 2018–2022?

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4. Does open unemployment significantly affect economic growth in 10 provinces in Indonesia during 2018–2022?
5. Do PMA, PMDN, poverty, and open unemployment together significantly affect economic growth in 10 provinces in Indonesia during 2018–2022?

The objectives of this study are to empirically examine the effects of PMA, PMDN, poverty, and open unemployment on regional economic growth in Indonesia and to provide policy recommendations. The contributions are twofold: (1) Theoretical—enhancing the literature on investment and socio-economic factors affecting growth in developing countries; and (2) Practical—providing inputs for policymakers in designing strategies to optimize investment, reduce poverty, and create jobs, especially in provinces with high growth potential but persistent socio-economic challenges.

LITERATURE REVIEW

Economic Growth Theory

Economic growth is a central concept in development economics, generally defined as the long-term increase in a country's capacity to produce goods and services. According to Solow (1956), growth is driven by capital accumulation, labor growth, and technological progress. In his *neoclassical growth model*, investment plays a key role in expanding productive capacity, although diminishing returns to capital eventually require innovation and technology to sustain growth. Harrod-Domar theory similarly emphasizes the role of savings and investment in maintaining steady growth, while endogenous growth theorists highlight human capital and innovation as sources of sustained growth.

Keynesian economics provides another perspective by stressing the importance of investment as a determinant of aggregate demand. In conditions of underemployment, increased investment can boost production and employment, leading to higher economic growth. Thus, both PMDN and PMA are expected to play a vital role in stimulating Indonesia's regional growth.

Investment

Investment, both domestic and foreign, is considered one of the most significant drivers of economic development. Todaro and Smith (2000) argue that investment not only increases output but also has multiplier effects, such as creating employment opportunities, generating income, and stimulating consumption. Domestic Investment (PMDN) reflects local investors' confidence in the economy, while Foreign Direct

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Investment (FDI or PMA) often brings additional benefits such as capital inflow, advanced technology, managerial know-how, and integration into global value chains.

Poverty

Nurkse (1953) introduced the *vicious circle of poverty*, which explains how low income leads to low savings, low investment, and hence persistent poverty. Poverty reduces access to education, health, and resources, thereby limiting productivity and economic participation. This cycle is particularly relevant in developing countries like Indonesia, where poverty alleviation remains a key challenge to inclusive growth.

Unemployment

Unemployment is another structural problem faced by developing economies. Sukirno (2011) defines unemployment as a condition where labor force participants are willing to work but unable to find employment. Keynesian theory suggests that unemployment results from insufficient aggregate demand, hence government intervention is necessary to stimulate job creation. High unemployment reduces household incomes, limits aggregate demand, and hampers growth.

RESEARCH METHODOLOGY

This quantitative study uses panel data from 10 provinces over 5 years (2018–2022), for a total of 50 observations. Data were sourced from the Central Bureau of Statistics (BPS). The dependent variable is economic growth (percentage, measured by PDRB ADHK growth). The independent variables are Domestic Investment (log form), Foreign Investment (log form), poverty rate (%), and open unemployment rate (%).

Panel regression analysis was conducted using EViews 10 software. To select the best model, the Chow test and Hausman test were employed. Results confirmed that the Fixed Effect Model (FEM) was the most appropriate estimation technique.

RESULTS AND DISCUSSION

Table 1 Descriptive Statistics

Variable	Mean	Max	Min	Observations
Economic Growth (%)	3.42	6.17	-3.39	50
Domestic Investment (log)	9.52	11.30	1.91	50



Foreign Investment (log)	7.20	10.23	5.93	50
Poverty (%)	2.07	2.56	1.23	50
Unemployment (%)	1.82	2.39	1.33	50

Source: Processed data, EViews 10

Regression Results

Variable	Coefficient	t-Statistic	Probability
Constant (C)	57.9806	5.5266	0.0000
Domestic Investment	-1.0822	-2.0623	0.0465*
Foreign Investment	1.2442	2.1789	0.0360*
Poverty	-16.7004	-3.4596	0.0014*
Unemployment	-10.2874	-4.5481	0.0001*

$R^2 = 0.6455$ | Adjusted $R^2 = 0.5175$ | F-Statistic = 5.042 (Prob = 0.000057)

*Significant at $\alpha = 5\%$

DISCUSSION

The regression reveals that Domestic Investment negatively affects economic growth, which may indicate inefficiencies in how domestic capital is allocated. This finding contrasts with classical growth theory, which predicts positive contributions of capital formation. It may suggest that a large portion of domestic investment is not directed towards productive sectors, or that corruption and inefficiencies dilute its impact. Foreign Investment positively impacts growth, consistent with theories on capital accumulation and technology transfer. FDI often brings technology spillovers, better management practices, and integration into global markets. The result aligns with Amiruddin (2018) and Fatimah et al. (2022).

Poverty and open unemployment show significant negative effects, reinforcing the theories that emphasize barriers to growth when socio-economic challenges are present. This is consistent with Handayani & Hanifa (2024), who found that poverty reduction directly correlates with stronger regional economic growth. Similarly, Pratama et al. (2021) highlighted that unemployment suppresses productivity and limits income distribution.



The R^2 value (0.6455) indicates that the model accounts for approximately 64.55% of the variation in economic growth. This implies that the four variables studied play a major role in explaining provincial growth differences, though other factors such as education, infrastructure, and government spending may also contribute significantly.

CONCLUSION AND RECOMMENDATIONS

Conclusion

1. Domestic Investment has a negative and significant effect on economic growth.
2. Foreign Investment has a positive and significant effect on economic growth
3. Poverty has a negative and significant effect on economic growth
4. Open Unemployment has a negative and significant effect on economic growth
5. All independent variables together significantly affect economic growth in the studied provinces.

Recommendations

1. The government should allocate Domestic Investment more efficiently, especially in productive sectors such as manufacturing and infrastructure.
2. Policies that facilitate Foreign Investment should be maintained and improved to maximize benefits such as technology transfer.
3. Poverty alleviation programs should be integrated with strategies for creating jobs to support inclusive and sustainable growth.
4. Further research should incorporate other development indicators such as human capital, infrastructure, and institutional quality to obtain a more holistic picture.

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