International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Dynamics of Economic Growth and Investment Patterns in East Java: A Flow of Funds Perspective in 2019-2024

Arie Dwi Riskiyanti[1], Rida Perwita Sari[2]

[1,2]Accounting Study Program, Faculty of Economics and Business Universitas Pembangunan Nasional "Veteran" Jawa Timur.

Email :19013010188@student.upnjatim.ac.id, ridaps.ak@upnjatim.ac.id

Abstract

East Java plays a strategic role in Indonesia's economy, yet the period 2019 to 2024 was marked by significant economic disruption and recovery. This study aims to analyze the dynamics of economic growth, examine changes in investment patterns through Gross Fixed Capital Formation (GFCF), Domestic Direct Investment (DDI), and Foreign Direct Investment (FDI), and interpret the investment financing mechanism using the Flow of Funds Account (FFA) framework. The study employs a descriptive quantitative approach using secondary time series data from Statistics Indonesia and the Ministry of Investment for the period 2019 to 2024. The analysis combines trend analysis and comparative phase analysis across three phases: pre-pandemic, contraction and transition, and recovery and normalization. The results show that economic growth contracted to -2.33% in 2020 and gradually recovered to 4.93% in 2024. Investment dynamics indicate that GFCF experienced a decline during the contraction phase but recovered gradually, with its share remaining relatively stable at around 27 to 28 percent of GRDP. In terms of composition, DDI increased consistently from IDR 45.45 trillion in 2019 to IDR 92.41 trillion in 2024, while FDI showed a more fluctuating pattern. The interpretation using the FFA framework indicates that investment dynamics can be interpreted as closely related to the structure of financing, particularly the interaction between savings, investment, and net lending or borrowing across sectors. The findings suggest that changes in investment do not immediately translate into economic growth and are influenced by the underlying financing mechanism. This study highlights the importance of an integrated approach that considers output, investment, and financing simultaneously in understanding regional economic dynamics.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Keywords: Economic Growth, Flow of Funds Account, Regional Investment, Gross Fixed Capital Formation, Structural Change.

INTRODUCTION

East Java is one of the largest contributors to Indonesia's Gross Domestic Product and plays a strategic role in the national economy. Its economic structure is supported by a strong manufacturing sector, extensive inter-island trade activities, and a productive agricultural base, making the province an important indicator of overall economic performance. However, the period from 2019 to 2024 represents a highly turbulent phase in its contemporary development trajectory.

The COVID-19 pandemic, which began to significantly affect economic activity in early 2020, pushed East Java's economy into a contraction of 2.33%. Disruptions to supply chains, restrictions on mobility, and a sharp decline in domestic demand affected nearly all economic sectors. On the investment side, heightened uncertainty led to a substantial decline in both Gross Fixed Capital Formation and overall investment realization. The recovery process during the period from 2021 to 2024 did not follow a linear path, but instead was influenced by various structural challenges and imbalances in financing.

Existing studies on investment and economic growth in Indonesian regions generally focus on causal relationships between investment variables and economic growth using econometric approaches. However, the findings remain inconsistent across regions and observation periods. Some studies report positive effects of investment on growth, while others find insignificant or even negative relationships, indicating that the investment-growth nexus cannot be fully explained through conventional causal models alone.

In addition, previous studies predominantly emphasize output and investment realization without examining the financing structure underlying investment activity. As a result, the role of savings allocation, intersectoral fund flows, and financing mechanisms in shaping investment dynamics remains insufficiently explored, particularly at the regional level. Studies applying the Flow of Funds Account (FFA) framework are also still concentrated at the national scale and rarely integrated with regional macroeconomic indicators such as GRDP, GFCF, DDI, and FDI.

Furthermore, limited research has specifically documented how investment patterns in East Java changed during the period of pandemic disruption and post-pandemic recovery between 2019 and 2024. Therefore, this study positions itself as an

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

integrative analysis that combines regional growth indicators, investment structure, and financing interpretation through the FFA framework to provide a more comprehensive understanding of investment dynamics in East Java.

Accordingly, this study pursues three objectives: (1) to analyze the economic growth dynamics of East Java over 2019-2024 through a three-phase approach (pre-pandemic, contraction and transition, and recovery and normalization); (2) to identify changes in investment patterns through trend analysis of GFCF, DDI, and FDI; and (3) to interpret the investment financing mechanism using the national FFA framework as a proxy for financing conditions in East Java.

LITERATURE REVIEW

Theories of Economic Growth

Three major paradigms dominate modern economic growth theory. The Harrod-Domar model (1946) posits that growth is determined by the savings ratio and the incremental capital-output ratio (ICOR), making capital accumulation through investment the primary determinant of growth. In this framework, the financing of investment, whether through domestic savings or foreign capital, determines an economy's capacity for sustained expansion.

Solow's neoclassical growth model (1956) introduced technology as an exogenous factor in the production function, with investment serving as the mechanism for physical capital accumulation. Its key implication is that economies converge toward a steady-state equilibrium where only technological progress drives long-run growth. Romer (1990) and subsequent endogenous growth theorists internalized technology as a function of investment in human capital and research and development, extending the role of investment well beyond physical capital.

These theoretical frameworks are directly relevant to the economic dynamics of East Java, where investment in physical capital represented by GFCF interacts with infrastructure development and human capital quality to stimulate regional economic growth. In this context, the relationship between investment and growth is not purely linear because the effectiveness of capital accumulation also depends on productivity, institutional capacity, labor absorption, and sectoral distribution. The relatively weak translation of post-pandemic investment recovery into proportional economic growth indicates that investment transmission mechanisms operate through complex structural channels that cannot be fully explained by traditional single-factor growth models.

Investment Theory and Gross Fixed Capital Formation

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Gross Fixed Capital Formation (GFCF) represents real investment within the expenditure structure of Gross Regional Domestic Product, reflecting the addition and replacement of fixed assets used in the production process. In the system of national accounts, GFCF is recorded as part of capital accumulation and indicates the expansion of productive capacity through the formation of long-term assets such as buildings, machinery, and equipment. As an indicator of investment activity, GFCF is widely used to assess the ability of an economy to strengthen its production base and support future economic growth. An increase in GFCF generally reflects higher business confidence and greater economic expansion, whereas a decline may indicate weakened investment activity and reduced productive capacity development.

In this context, GFCF is not only interpreted as a component of aggregate demand but also as a mechanism of capital accumulation that supports economic production. Changes in the value and share of GFCF in GRDP indicate shifts in the role of real investment within the regional economic structure. An increase in its share reflects a strengthening of production capacity, while a decline may signal a weakening of investment activity or a shift toward other expenditure components.

Within this study, GFCF is used as the main proxy for real investment to analyze changes in investment patterns in East Java. The analysis emphasizes growth trends, absolute changes, and the contribution of GFCF to GRDP in order to evaluate the strength and consistency of investment activity over time. Through this approach, the study is able to identify whether investment dynamics indicate expansion, stagnation, or structural adjustment during different economic phases. Furthermore, the interpretation of GFCF movements provides insight into how investment behavior responds to external shocks, economic recovery processes, and broader regional development conditions.

Domestic Direct Investment and Foreign Direct Investment in the Analytical Framework

Domestic Direct Investment (DDI) and Foreign Direct Investment (FDI) represent two forms of investment distinguished by the origin of capital, namely domestic and foreign sources (Investment Law No. 25/2007). In practice, both types of investment show different patterns in terms of development and stability. DDI tends to be more resilient to external shocks because its financing base draws on domestic savings and is more oriented toward sectors in which the local economy holds comparative advantages. FDI, by contrast, is more sensitive to shifts in the global investment climate, exchange rate movements, and political stability.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

In the context of East Java, these differences can be observed in their development trends during the period 2019 to 2024, where DDI shows a more consistent increase while FDI exhibits fluctuations. This pattern reflects differences in how each type of investment responds to changing economic conditions. Therefore, the composition of DDI and FDI becomes an important indicator in understanding changes in regional investment patterns.

The Flow of Funds Account as an Analytical Framework

The Flow of Funds Account (FFA) is part of the System of National Accounts that describes the interrelationship among institutional sectors through financial transactions and their connection to economic activities, including investment. This framework records the flow of funds across sectors such as households, corporations, government, financial institutions, and the rest of the world, allowing a systematic understanding of how economic activities are financed. Through this approach, the FFA provides insight into the sources and uses of funds within an economy and explains how surplus and deficit sectors interact through financial intermediation. In macroeconomic analysis, the framework is important for identifying financing patterns, capital movement, and the structural relationship between savings, investment, and economic growth.

Within this framework, the relationship between savings and non-financial investment determines the financial position of each sector. The difference between savings and investment is reflected in the net lending or net borrowing position, which indicates whether a sector provides funds or requires financing from other sectors. This mechanism is linked through financial transactions that connect surplus sectors with deficit sectors in the economy.

In this study, the Flow of Funds Account (FFA) is used as a conceptual interpretive framework to understand the possible financing mechanisms underlying investment dynamics. Since regional Flow of Funds data are not available, the analysis refers to national-level patterns as a macroeconomic reference for interpreting the relationship between savings, investment, and intersectoral financing in the context of East Java. This approach enables the study to explain how investment activity may be supported by financial surpluses originating from different institutional sectors despite the absence of direct regional financial flow statistics. Consequently, the FFA framework strengthens the interpretation of investment behavior by linking real sector developments with broader financial structures and capital circulation mechanisms.

Prior Research and Positioning of This Study

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Previous studies on investment and economic growth show varying results and different analytical focuses. Several studies using quantitative approaches examine the relationship between investment and economic growth, but the findings are not always consistent. For example, some studies find that investment does not have a significant effect on economic growth in East Java, while others show that certain types of investment, such as domestic investment, may even have a negative relationship with growth. These differences indicate that the relationship between investment and economic growth cannot be explained solely through simple causal models.

Other studies adopt a descriptive approach and emphasize the impact of the COVID-19 pandemic on regional economic performance. These studies highlight the occurrence of economic contraction and structural changes across sectors, but they generally do not explore how investment is financed within the economic system. As a result, the analysis remains limited to observable changes in output and investment indicators without addressing the underlying financing mechanisms.

In addition, studies that use the Flow of Funds Account (FFA) framework are still predominantly conducted at the national level. These studies generally provide an overview of the relationship between savings, investment, and intersectoral financial positions within a macroeconomic perspective. However, their findings cannot be directly applied to regional contexts because each region has different economic structures, sectoral compositions, institutional capacities, and investment characteristics. The limited availability of regional financial flow data also constrains the development of more detailed subnational FFA-based analyses.

Based on these conditions, this study positions itself as an integrative analysis that combines regional macroeconomic indicators, namely Gross Regional Domestic Product (GRDP), Gross Fixed Capital Formation (GFCF), Domestic Direct Investment (DDI), and Foreign Direct Investment (FDI), with an interpretative approach using the Flow of Funds Account (FFA) framework. The study focuses on the 2019-2024 period in order to capture the dynamics of economic contraction, recovery, and structural adjustment following major economic disruptions. Through this approach, the research seeks to provide a more comprehensive understanding of investment patterns and their possible financing mechanisms in East Java. In addition, the integration of real sector indicators and financial flow interpretation allows the study to explain investment dynamics not only from the perspective of growth performance, but also from the structure of economic financing and capital allocation.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

RESEARCH METHODOLOGY

Research Design and Approach

This study employs a descriptive quantitative approach combining time-series trend analysis and comparative phase analysis. This approach is appropriate because the study's objective is not to test statistical causal hypotheses but rather to document and interpret the dynamic patterns of macroeconomic variables over a defined time horizon. Through time-series analysis, the study identifies the direction and magnitude of changes in variables such as GRDP, GFCF, DDI, and FDI across different years. Meanwhile, comparative phase analysis is used to distinguish economic conditions during the pre-pandemic, contraction, recovery, and post-recovery periods in East Java.

Data Sources and Collection

All data are secondary, collected through documentary analysis from the following official sources. The main sources include: (1) Statistics Indonesia (BPS), East Java Province for GRDP, GFCF, and regional expenditure component data; (2) the Ministry of Investment/Investment Coordinating Board (BKPM) for DDI and FDI realization by province; and (3) the Flow of Funds Account publications of Statistics Indonesia for national intersectoral fund flow data. The analysis covers the period 2019-2024.

Analytical Techniques

Analysis proceeds through three stages. First, time-series trend analysis is used to identify chronological growth patterns in GRDP, GFCF, DDI, and FDI. Second, comparative phase analysis divides the study period into three distinct phases: pre-pandemic (2019), contraction and transition (2020-2022), and recovery and normalization with new challenges (2023-2024). Third, the FFA framework is applied to interpret the relationship between savings, investment, and net lending or borrowing across sectors, rather than to provide direct measurement at the regional level.

RESULTS AND DISCUSSION

Economic Growth Dynamics of East Java, 2019-2024

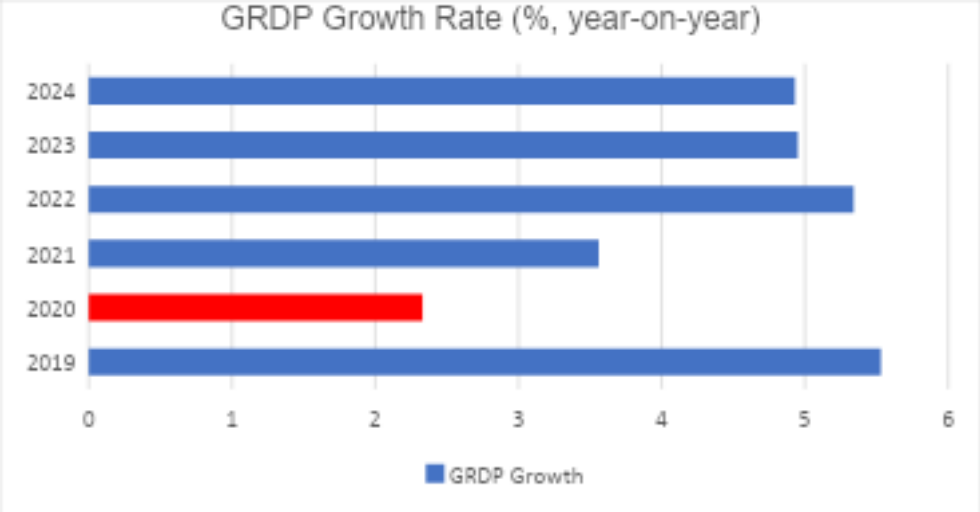
Trend analysis of East Java's GRDP growth over the 2019-2024 period reveals three distinct phases that differ both qualitatively and quantitatively. These phases reflect changes in economic conditions associated with pre-pandemic stability, pandemic-induced contraction, and the subsequent recovery and adjustment process. Figure 1 illustrates the trajectory of regional economic growth throughout the observation period

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

and highlights the fluctuations that occurred across different phases. The visualization also provides a clearer understanding of the pace and consistency of economic recovery after the sharp decline experienced during the pandemic period..

Figure 1. Economic Growth Trend of East Java, 2019-2024



Source: Statistics Indonesia (BPS), East Java Province, 2019-2024 (processed by authors)

In the pre-pandemic phase of 2019, East Java recorded economic growth of 5.53%, reflecting relatively stable economic conditions prior to the shock. Entering 2020, the economy experienced a sharp contraction of minus 2.33% as the impact of the COVID-19 pandemic disrupted economic activities across sectors. This contraction marked a significant turning point, driven by restrictions on mobility, declining demand, and weakening production activities.

The recovery process began gradually in 2021, with economic growth improving to 3.56%, followed by a stronger stabilization in 2022 when growth reached 5.34%. Nevertheless, this period still reflected transitional adjustment rather than full normalization. However, in the subsequent period, growth showed a slight moderation, reaching 4.95% in 2023 and 4.93% in 2024. This pattern suggests that the recovery process did not progress in a fully linear manner, but instead reflected ongoing adjustments and stabilization within the regional economy.

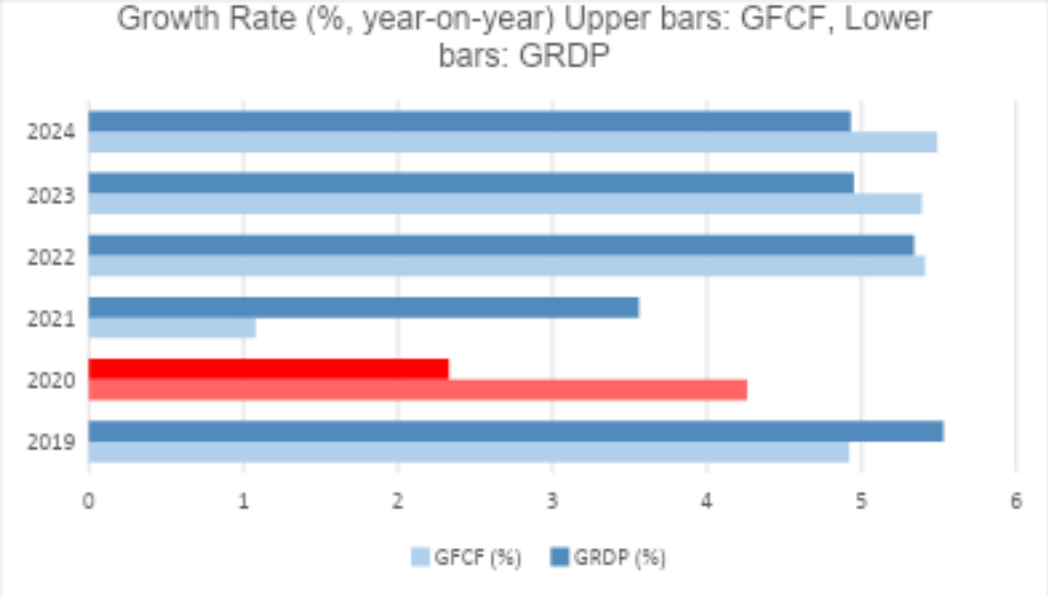
Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Changing Investment Patterns: GFCF, DDI, and FDI

Investment pattern analysis reveals dynamics that are more complex than those indicated by aggregate economic growth alone. Throughout the study period, substantial structural changes occurred in the composition, sourcing, and sectoral distribution of investment in East Java. These changes indicate that investment behavior responded differently across sectors and financing sources during periods of contraction and recovery. The findings also suggest that fluctuations in investment were influenced not only by macroeconomic conditions, but also by shifts in business confidence, policy direction, and economic adjustment processes.

Figure 2. GFCF Growth vs. GRDP Growth in East Java, 2019-2024



Source: Statistics Indonesia (BPS), East Java Province, 2019-2024 (processed by authors)

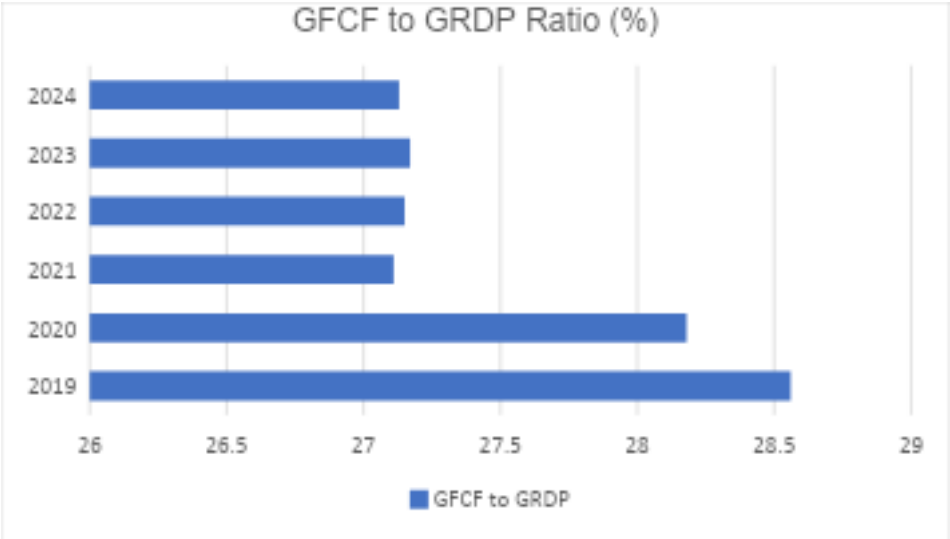
Figure 2 analysis shows that the movement of GFCF follows the general direction of GRDP, although the magnitude of change differs across periods. In 2020, when economic growth contracted to minus 2.33%, GFCF also experienced a decline, indicating a weakening of investment activity during the same period. This reflects the sensitivity of real investment to economic shocks, where uncertainty and reduced economic activity are followed by a decline in capital formation.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

In the subsequent period, the recovery pattern of investment did not immediately match the pace of economic growth. While GRDP began to recover in 2021 and strengthened in 2022, the improvement in GFCF occurred more gradually, with fluctuations in its growth and contribution to regional output. This indicates that the recovery of investment required a longer adjustment process compared to output, reflecting structural and contextual factors affecting investment dynamics.

Figure 3. Share of GFCF to GRDP in East Java, 2019-2024



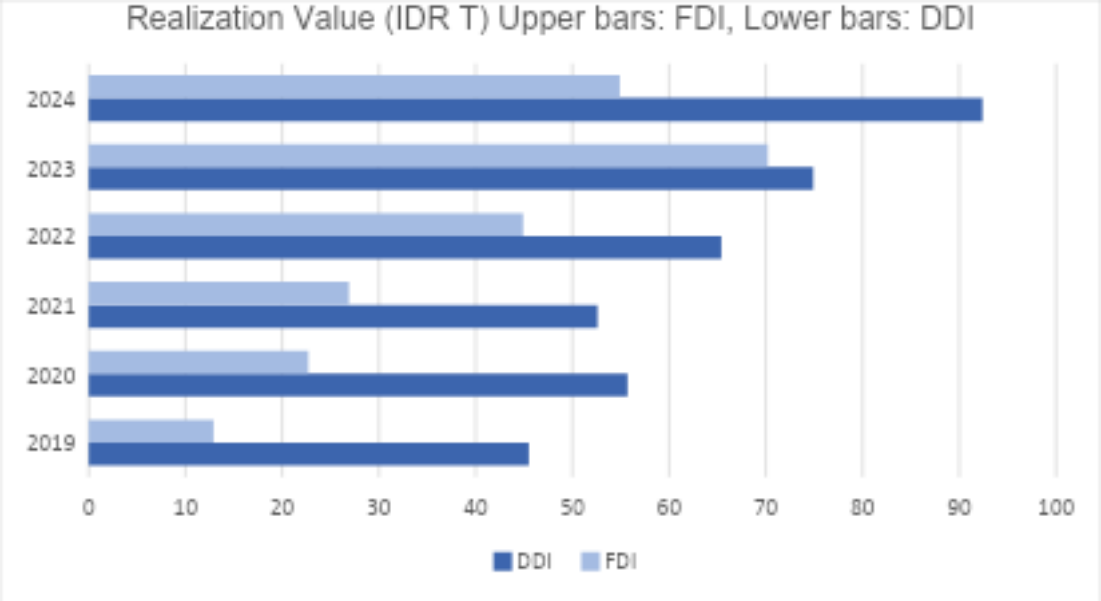
Source: Statistics Indonesia (BPS), East Java Province, 2019-2024 (processed by authors)

Figure 3 reveals that Gross Fixed Capital Formation in East Java declined in 2020 in line with the economic contraction, before gradually recovering in the following years. The value of GFCF began to recover gradually in 2021 and strengthened more significantly in 2022, although fluctuations remained visible toward 2023 and 2024. Despite these changes, the share of GFCF in GRDP remained relatively stable at around 27 to 28 percent throughout the 2019 to 2024 period, indicating that the role of investment in the regional economic structure did not shift significantly.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Figure 4. DDI vs. FDI Realization in East Java, 2019-2024



Source: Ministry of Investment/BKPM, 2019-2024 (processed by authors)

Figure 4 shows that the pattern of Domestic Direct Investment and Foreign Direct Investment in East Java differs across the observed period. Domestic investment increased consistently from IDR 45.45 trillion in 2019 to IDR 92.41 trillion in 2024. In contrast, foreign investment fluctuated over time and did not show a stable upward trend.

During 2020, both types of investment were affected by the economic slowdown, but domestic investment remained relatively more stable. In the recovery period, the increase in total investment was primarily supported by the continued rise in domestic investment, while foreign investment showed variability across years. These patterns indicate that the composition of investment in East Java shifted toward a stronger role of domestic sources, while foreign investment remained influenced by changing economic conditions.

Table 1. Summary of Key Macroeconomic and Investment Indicators, East Java, 2019-2024

Year	GRDP Growth (%)	GFCF Growth (%)	GFCF/GRDP Share (%)	DDI (IDR T)	FDI (IDR T)	Phase
2019	5.53	4.92	28.56	45.5	12.9	Pre-pandemic
2020	-2.33	-4.26	28.18	55.7	22.7	Contraction and Transition

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

2021	3,.56	1.08	27.11	52.6	26.9	Contraction and Transition
2022	5.34	5.41	27.15	65.4	44.9	Contraction and Transition
2023	4.95	5.39	27.17	74.9	70.2	Recovery and Normalization
2024	4.93	5.49	27.13	92.4	54.9	Recovery and Normalization

Source: Statistics Indonesia (BPS) East Java & Ministry of Investment/BKPM (processed by authors, 2024)

Interpretation of the Financing Mechanism through the FFA Framework

The Flow of Funds Account (FFA) provides a conceptual framework for interpreting the relationship between savings, investment, and financing across institutional sectors. In this study, national-level FFA data are used as a macroeconomic reference to understand the possible financing dynamics underlying investment activities in East Java, given the absence of regional Flow of Funds statistics. Through this approach, the study is able to relate regional investment developments to broader intersectoral financial patterns occurring at the national level. The framework also helps explain how capital flows, financial surpluses, and funding allocation mechanisms may influence investment behavior and economic adjustment processes within the region.

The interpretation shows that the relationship between savings and investment varies across periods, reflecting changes in economic conditions. During the contraction phase, the financing structure experienced adjustments as economic uncertainty affected both the capacity to generate savings and the realization of investment. This condition suggests the presence of adjustment pressures in intersectoral financing flows during the contraction period.

In the recovery period, the pattern of financing gradually stabilized along with the improvement in economic activity. The interaction between sectors in terms of net lending and net borrowing reflects a gradual adjustment process, where available funds begin to support investment more effectively compared to the contraction phase. However, this process did not occur instantly and remained influenced by broader macroeconomic conditions.

Overall, the interpretation of the Flow of Funds Account (FFA) indicates that investment dynamics are closely associated with the structure of savings and intersectoral financing flows within the economy. This finding suggests that changes in

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

investment patterns in East Java cannot be fully understood solely from the perspective of output performance and investment realization data. Instead, investment developments also need to be interpreted through broader financing structures that connect households, corporations, government institutions, financial sectors, and external economic actors. The analysis therefore highlights that regional investment dynamics are influenced not only by real sector conditions, but also by the availability, allocation, and circulation of financial resources within the macroeconomic system.

Key Insights: Synthesis and Theoretical Implications

The synthesis of the three analytical dimensions reveals several important findings regarding the dynamics of economic growth and investment in East Java during the 2019-2024 period. Economic growth and investment generally moved in the same direction across different phases, particularly during the contraction period in 2020 and the subsequent recovery phase. However, the magnitude and speed of their movement were not always proportional, indicating differences in the adjustment process between investment activity and output performance.

The analysis also shows that changes in investment did not immediately produce equivalent changes in economic growth. During the recovery period, improvements in investment indicators were followed by a more gradual strengthening of output, suggesting the existence of a time lag in the transmission mechanism from investment to economic growth. This finding suggests that the relationship between investment and growth may also be associated with the efficiency, allocation, and absorption capacity of the regional economy.

Furthermore, the interpretation using the Flow of Funds Account (FFA) framework suggests that investment effectiveness is closely associated with the structure of financing and intersectoral fund flows. The relationship between savings, investment, and net lending or borrowing across sectors reflects how financial resources circulate within the economy and influence the ability of investment to support growth. In terms of composition, domestic investment demonstrated a more stable and consistent upward trend during the recovery period, while foreign investment remained relatively fluctuating, indicating the increasingly important role of domestic financing sources in supporting regional investment recovery.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

CONCLUSION

This study answers three main research questions related to economic growth, investment patterns, and investment financing in East Java during the 2019-2024 period. The findings show that economic growth experienced three distinct phases consisting of pre-pandemic stability, economic contraction during the pandemic, and gradual recovery afterward. Economic growth declined sharply from 5.53% in 2019 to -2.33% in 2020, before gradually recovering to 3.56% in 2021 and above 4.9% during the 2022-2024 period, indicating that the recovery process occurred progressively rather than instantaneously.

The study also finds that investment patterns changed considerably throughout the observation period. Gross Fixed Capital Formation (GFCF) maintained a relatively stable contribution to GRDP despite temporary weakening during the contraction phase, while Domestic Direct Investment (DDI) showed a consistent increase and Foreign Direct Investment (FDI) remained more fluctuating. These patterns indicate the strengthening role of domestic investment as a supporting factor for regional economic recovery and development.

Furthermore, the interpretation using the Flow of Funds Account (FFA) framework suggests that investment dynamics are closely related to the structure of savings and financing flows across sectors. The findings imply that the effectiveness of investment depends not only on the level of investment realization, but also on how financial resources are allocated and circulated within the macroeconomic system. Although this study provides an integrated understanding of output, investment, and financing dynamics, the analysis remains limited by the use of secondary data and national-level Flow of Funds data as a proxy for regional financing patterns, while future studies are recommended to apply more detailed regional datasets and broader quantitative approaches.

REFERENCES

Badan Pusat Statistik. (2024). Produk Domestik Regional Bruto Provinsi Jawa Timur Menurut Pengeluaran 2019-2023.

Badan Pusat Statistik. (2025). Produk Domestik Regional Bruto Provinsi Jawa Timur Menurut Pengeluaran 2020–2024.

Domar, E. D. (1946). Capital Expansion, Rate of Growth, and Employment. Econometrica, 14(2), 137–147. https://doi.org/10.2307/1905364

Kementerian Investasi/BKPM. (2024). Perkembangan realisasi investasi. Diaksestahun

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

2026, dari https://data.bkpm.go.id/visualisasi-detail/perkembangan-realisasi-investasi-oLSgf7G

Kurniawan, R. H., Marseto, & Sishidayati. (2021). Analisis Pengaruh Konsumsi, Investasi Asing, Investasi PMDN Terhadap Pertumbuhan Ekonomi Jawa Timur. Jurnal Syntax Admiration, 2(7), 1359–1373. https://doi.org/10.46799/jsa.v2i7.279

Najah, S., Millah, H., & Kartikawati, Y. (2025). Pengaruh Investasi dan Indeks Pembangunan Manusia (IPM) terhadap Pertumbuhan Ekonomi di Provinsi Jawa Timur. Jurnal Ekonomi Studi Pembangunan, 10(01), 161–174. https://doi.org/10.37366/jespb.v10i01.2405

Romer, P. M. (1990). Endogenous technological change. The Journal of Political Economy, 98(5), S71–S102. https://doi.org/10.3386/w3210

Solow, R. M. (2010). A Contribution to the Theory of Economic Growth. The Quarterly Journal of Economics, 70(1), 65–94. http://www.jstor.org/stable/1884513

Undang-Undang Republik Indonesia Nomor 25 TAHUN 2007 TENTANG PENANAMAN MODAL, Sekretariat Negara Republik Indonesia (2007). https://peraturan.bpk.go.id/Home/Details/39907/uu-no-25-tahun-2007

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.