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REGIONAL FISCAL CAPACITY AND INVESTMENT: THE STRATEGIC IMPACT OF FOREIGN AND DOMESTIC DIRECT INVESTMENT ON LOCAL OWN-SOURCE REVENUE IN BANDUNG REGENCY

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Abstract

This study aims to examine the short-term and long-term effects of Foreign Direct Investment (FDI) and Domestic Direct Investment (DDI) on Local Own-Source Revenue (LOR) in Bandung Regency. In the era of fiscal decentralization, the ability of local governments to increase Local Own-Source Revenue is crucial for autonomy and sustainable development. Using annual time series data from 2011 to 2024, this research applies the Autoregressive Distributed Lag (ARDL) econometric model to analyze the causal relationship between investment variables and local fiscal capacity. The primary findings indicate a cointegration relationship, or long-term equilibrium, among FDI, DDI, and LOR. The estimation results show that DDI has a positive and significant impact on Local Own-Source Revenue in both the short and long term. Conversely, FDI demonstrates a significant influence only in the long term, suggesting a lag effect from foreign investment on local revenue. A significant Error Correction Term (ECT) confirms the existence of an adjustment mechanism towards long-term equilibrium. The conclusion of this research affirms that investment, particularly from domestic sources, is a strategic determinant for strengthening the fiscal capacity of Bandung Regency, with policy implications that emphasize the importance of improving the domestic investment climate as a primary pillar of regional fiscal independence.

Keywords: ***Foreign Direct Investment, Domestic Direct Investment, Local Own-Source Revenue, ARDL Model, Bandung Regency*****.**

INTRODUCTION

The implementation of regional autonomy in Indonesia, marked by the fiscal decentralization policy since the reformation era, has fundamentally reshaped the financial relationship between the central and local governments (Hardiana, 2023). This paradigm shift requires local governments to no longer function merely as executors of central policies, but rather as autonomous entities that proactively manage resources and finance their own development needs. In this context, Local Own-source Revenue emerges as a primary indicator of the success of autonomy and a foundational pillar of regional fiscal independence (Mukhlis & Makhya, 2019). The increase in Local Own-Source Revenue reflects a region's capacity to reduce dependency on intergovernmental fiscal transfers, which often fail to fully align with the unique needs and potentials of each locality. Nevertheless, empirical realities reveal that most regions in Indonesia still demonstrate low levels of fiscal independence, with regional expenditures remaining highly dependent on balancing funds from the central government (Pabayo, 2025). This condition underscores the urgency for local governments to strategically and innovatively explore and optimize all potential sources of revenue (Khairi, 2021). Among the most prominent and widely regarded effective strategies in enhancing regional fiscal capacity is the creation of a conducive investment climate to attract capital inflows, both from foreign investment (FDI) and domestic investment (DDI) (Ujang Amsyah & Sudardi, 2025).

Investment is no longer perceived merely as the engine of regional economic growth (Iamsiraroj, 2016), but has evolved into a strategic instrument to strengthen and broaden the fiscal revenue base of local governments (Jaimes, 2020). The underlying rationale is that incoming investment flows generate new economic activities, ranging from the establishment of factories and infrastructure, employment absorption, to the development of supporting sectors (Luu et al., 2024). These economic activities, both directly and indirectly, become subject to local taxes and levies, such as Land and Building Tax (*Pajak Bumi dan Bangunan/PBB*), Duty on the Acquisition of Land and Building Rights (*Bea Perolehan Hak atas Tanah dan Bangunan/BPHTB*), Hotel Tax, Restaurant Tax, and

various other forms of retributions that constitute the core components of Local Own-source Revenue (Sijabat et al., 2024). Consequently, the success of a region in attracting investment is closely correlated with its potential to enhance Local Own-Source Revenue and achieve sustainable fiscal independence (Reza & Sopiana, 2025). This symbiotic relationship positions institutions such as the Investment and One-Stop Integrated Services Office at the forefront, not only as licensing facilitators but also as key actors in regional fiscal strategies (Jamal Qadar et al., 2024). The literature on the relationship between investment and local government fiscal performance reveals diverse and at times contradictory findings, both at the international and national levels. International studies often highlight that in developing countries, non-fiscal factors such as infrastructure quality, political stability, and the quality of governance tend to weigh more heavily in investment location decisions than tax incentives alone (Ross, 2019; Sabir et al., 2019). Some research even warns of the risk of a "race to the bottom," where competition among regions to attract investment through excessive fiscal incentives ultimately erodes the tax base and undermines local revenue generation (Liu et al., 2020; Wu et al., 2018). In Albania, for example, fiscal decentralization has been found to encourage local governments to provide fiscal stimuli to attract investment; however, its effectiveness largely depends on the degree of revenue autonomy enjoyed by the local authorities (Brahimi et al., 2025).

In Indonesia, research on the impact of Foreign Direct Investment (FDI) and Domestic Direct Investment (DDI) investment on regional economies has been extensive, yet the findings remain inconclusive. Several studies have identified a positive and significant influence of investment on economic growth (measured by Gross Regional Domestic Product/GRDP) across provinces and districts/municipalities, as evidenced in North Sumatra and more broadly in other regions (Manihuruk et al., 2024). Other studies, such as those conducted by Sarmila, Nazori Madjid, & Muthmainnah (2024) and Risman Tamu Ama & Renggo (2022), found weak or even insignificant relationships between GRDP and Local Own-source Revenue, suggesting a disconnect between expanding economic activity and local government fiscal revenues. These findings imply potential inefficiencies in the tax collection system or investment characteristics that are not conducive to expanding the local tax base. Conversely, other research has revealed strong, positive, and significant relationships, indicating the existence of an effective fiscal capture mechanism, wherein local governments successfully translate economic growth into actual revenue (Nashiruddin & Witono, 2024; Yuniar, 2021). Nevertheless, a number of studies report differing outcomes. Some suggest that foreign direct investment exerts a negative long-term effect on economic growth, or that investment in general shows no significant impact on GRDP in certain contexts, such as in Mimika Regency (Alam & Bakar, 2024). Moreover, when the focus shifts from GRDP to Local Own-Source Revenue, the complexity deepens. Research in Jakarta Province found that investment had no effect on Local Own-source Revenue (Wadjaudje et al., 2018), while a study in Balikpapan City concluded that both FDI and DDI had not contributed significantly to Local Own-Source Revenue, despite GRDP exerting a strong influence on Local Own-Source Revenue. These contradictory findings underscore that the relationship between investment and Local Own-Source Revenue is highly contingent on local contexts, regional economic structures, and the quality of implemented policies (Rosmalia & Iskandar, 2014).

This condition gives rise to several significant research gaps. First, the majority of studies in Indonesia remain focused on the impact of investment on GRDP as a proxy for economic growth, while relatively few directly analyze its effect on Local Own-source Revenue as an indicator of fiscal capacity. Second, many of these studies continue to rely on static regression models such as Ordinary Least Squares (OLS), which assume linear and contemporaneous relationships between variables. Such approaches often fail to capture both the short- and long-run dynamics of the relationship, and tend to overlook the potential lagged effects of investment, even though the impact of investment on tax revenues is often indirect. Third, studies employing dynamic econometric models such as the Autoregressive Distributed Lag (ARDL) framework to test the cointegration relationship between realized investment and Local Own-Source Revenue at the regency/municipality level in Indonesia remain very limited. This study seeks to address these gaps by conducting a case study in Bandung Regency, one of the regions with highly dynamic investment activity in West Java Province. Using annual data from 2011 to 2024, the research specifically analyzes the dynamic relationship between Foreign Direct Investment (FDI), Domestic Direct Investment (DDI), and Local Own-source Revenue. Preliminary data reveal an intriguing phenomenon: despite substantial year-to-year fluctuations in realized FDI and DDI values, Local Own-source Revenue in Bandung Regency has exhibited a relatively stable and consistent upward trend.

Table 1. Foreign Direct Investment (FDI), Domestic Direct Investment (DDI), and Local Own-Source Revenue Realization (LOR) in Bandung Regency, 2011–2024 (in Billion Rupiah)

Year	FDI	DDI	LOR
2011	215.01	329.19	291.08
2012	980.94	1,425.93	366.32
2013	628.12	211.48	507.24
2014	662.83	156.97	702.05
2015	477.69	463.55	784.22
2016	436.29	425.22	856.51
2017	596.03	2,561.49	936.91
2018	377.41	2,757.56	927.54
2019	3,181.46	2,078.08	1,078.47
2020	2,849.64	1,096.96	1,025.41
2021	1,155.66	1,237.27	1,095.97
2022	2,642.61	3,098.69	1,237.41
2023	2,968.32	5,144.16	1,318.63
2024	3,904.06	5,078.13	1,283.38

Source: DPMPTSP and Regional Revenue Agency, (2025)

The contrast between investment volatility and the stability of Local Own-Source Revenue growth suggests that the relationship between these variables is unlikely to be a simple linear one. There may be lagged effects, whereby the impact of investment on local revenue becomes evident only after a certain period of time. This phenomenon reinforces the justification for employing a dynamic model capable of distinguishing between short-run and long-run effects. Accordingly, this study aims to empirically examine: (1) whether a long-run equilibrium relationship exists between Foreign Direct Investment (FDI), Domestic Direct Investment (DDI), and Local Own-Source Revenue in Bandung Regency; and (2) how the short-run and long-run dynamic impacts of these two types of investment affect Local Own-Source Revenue. By addressing these research questions, this study is expected to provide a set of significant contributions encompassing theoretical, practical, and methodological aspects. Theoretically, it advances the literature on regional economics and public finance by presenting empirical evidence within the context of a local economy in a developing country. The application of the ARDL model further enriches the literature on local public finance through a more sophisticated dynamic analysis compared to static approaches, thereby enabling a deeper understanding of both short- and long-run relationships. From a practical and policy standpoint, the findings offer an evidence-based foundation for local governments to formulate more effective investment strategies. For instance, insights on the dominant role of Domestic Direct Investment (DDI) may inform resource allocation priorities toward fostering domestic investors, while an understanding of the long-run effects of Foreign Direct Investment (FDI) may guide efforts to attract foreign capital aligned with regional development objectives. The study also serves as an evaluative tool for ongoing investment policies. Finally, from a methodological perspective, this research provides a concrete example of applying the ARDL time-series econometric model to district-level data with a relatively small sample size, where alternative methods may be less reliable. By transparently outlining the stages of analysis from stationarity tests to diagnostic checks the study can serve as both a reference and a replicable guide for other researchers or policy analysis units in different local governments seeking to conduct similar investigations.

LITERATURE REVIEW

Understanding the transmission mechanism from investment inflows to the enhancement of Local Own-Source Revenue requires a solid and multidimensional theoretical foundation. This relationship cannot be explained by a single theory alone but rather emerges from the interaction of various economic forces operating at the macro,

regional, and institutional levels. The theoretical framework of this study is grounded in several major strands of economic theory, namely the neoclassical growth theory, investment location theory, fiscal decentralization theory, and the Keynesian multiplier theory. When integrated, these four perspectives form a coherent line of reasoning to explain why and how investment both Foreign Direct Investment (FDI) and Domestic Direct Investment (DDI) can and should serve as a strategic determinant of regional fiscal capacity. The first foundation derives from the **Neoclassical Growth Theory**, pioneered by Robert Solow. The Solow model fundamentally posits that the accumulation of physical capital is one of the primary drivers of economic output growth. In this model, investment functions to increase the capital stock per worker. An increase in the capital–labor ratio, under the assumption of diminishing marginal productivity of capital, will enhance output per worker until it converges toward a steady state (Jeong, 2014). Applied to the regional context, this theory explains that inflows of investment both foreign (FDI) and domestic (DDI) into a given area increase the stock of productive capital, such as the establishment of new factories, acquisition of modern machinery, and development of supporting infrastructure. The resulting expansion of production capacity, in aggregate, drives the growth of Gross Regional Domestic Product (GRDP) (Chizema, 2025). GRDP growth is crucial as it directly broadens the economic base subject to local taxation and levies. Rising economic activity, increasing property values, and larger business transaction volumes become the primary objects of local taxes, including Hotel Tax, Restaurant Tax, Land and Building Tax, and Duty on the Acquisition of Land and Building Rights, all of which constitute vital components of Local Own-Source (Shidqiya et al., 2024). Thus, the Solow model provides the first causal linkage: investment drives output, and higher output creates a broader tax base.

However, growth theory alone does not explain why capital chooses to invest in one location rather than another. This is where **Investment Location Theory** becomes relevant. The classical perspective introduced by Alfred Weber emphasizes firms' efforts to minimize costs particularly transportation and labor costs when determining their optimal location (Redding & Turner, 2015). Over time, this concept has evolved into the broader notion of an "investment climate," which encompasses not only cost considerations but also the quality of infrastructure, the availability of skilled labor, political and social stability, legal certainty, and bureaucratic efficiency. Local governments, through their respective agencies, play an active role in shaping this investment climate to make it more attractive to investors. Bandung Regency, for instance, benefits from its strategic location near the capital of West Java, convenient accessibility via toll roads, and an industrial-friendly spatial planning system, all of which significantly enhance its investment appeal. When investment inflows are successfully attracted due to locational advantages and a conducive climate, the resulting economic activities tend to cluster geographically. Such spatial concentration facilitates the local government's ability to levy taxes and fees, thereby improving the efficiency of locally generated revenue collection. As highlighted in various studies, in the context of developing countries, the quality of infrastructure and sound governance often serve as more decisive factors than mere fiscal incentives in securing long-term investment (Asongu, 2019).

Subsequently, **Fiscal Decentralization Theory** provides the context of why local governments have strong incentives to attract investment. This theory, which underpins the policy of regional autonomy in Indonesia, posits that the transfer of authority and fiscal responsibilities from the central government to local governments enhances efficiency and accountability in the provision of public services. Decentralization grants local governments the authority to manage their own affairs, while simultaneously imposing the responsibility to finance public services such as education, health care, and local infrastructure (Aswin, 2022). To meet these financing obligations, local governments are encouraged to proactively mobilize their own revenue sources, particularly local own-source revenues. Within this framework, attracting foreign and domestic direct investment (FDI and DDI) becomes one of the most logical and viable policy strategies. This dynamic creates a symbiotic relationship: investors seek favorable locations with supportive climates, while local governments require new revenue streams to fund their functions (Yuliani et al., 2023). Success in attracting and sustaining investment can therefore be viewed as a reflection of local governments' institutional capacity and credibility. Nevertheless, the theory also implies potential risks, as inter-regional competition may lead to unhealthy incentive policies that could ultimately undermine future revenue potential (Hariandja, 2020). Finally, the full impact of investment on the local economy cannot be separated from the **Keynesian Economic Multiplier Theory**. This theory posits that every initial investment expenditure generates a multiplier effect on aggregate income within a region. For instance, an investment project to establish a new factory does not only generate value equivalent to the cost of construction itself. It also creates derived demand for various goods and services, such as the demand for construction labor (who, in turn, receive wages and spend them), raw materials from local suppliers, catering services for workers, transportation services, and beyond (Perez-Montiel & Manera, 2022). This chain of expenditures continues in successive rounds: raw material suppliers pay their

employees, food stall owners serving the project earn profits, and so forth. Each round of spending further increases aggregate income in the region. The rise in household income subsequently stimulates consumption, part of which flows back into local government revenue through restaurant taxes and other indirect levies. Similarly, the overall expansion of business activities enhances corporate profits, which form the basis for income taxes and other local taxes. Thus, the multiplier effect ensures that the total impact of investment on the local own-source revenue is substantially greater than the mere value of the initial investment or the direct taxes paid by the investing firm. The four theoretical foundations outlined above collectively form a robust conceptual framework. Fiscal Decentralization provides the motivation for local governments to improve the investment climate in order to attract investment inflows (FDI and DDI). These investments, in turn, directly enhance the stock of capital and regional output, which through the multiplier effect stimulate broader economic activity. The resulting expansion of output and economic activity ultimately enlarges the tax and levy base, thereby increasing Local Own-Source Revenue. If this additional revenue is effectively managed and reinvested in the improvement of public services and infrastructure, it will further strengthen the investment climate, creating a sustainable virtuous cycle of development.

Based on the theoretical framework outlined above, three research hypotheses are formulated. First, there exists a positive and significant cointegration (long-run equilibrium) relationship between realized FDI, DDI, and local own-source revenue in Bandung Regency. This hypothesis rests on the argument that, despite short-term fluctuations, capital accumulation from investment (Solow's Growth Theory) constitutes a long-term driver of regional economic and fiscal expansion, which aligns with the objectives of fiscal decentralization (Fiscal Decentralization Theory). Second, in the short run, changes (shocks) in realized FDI and DDI exert a positive and significant impact on changes in local own-source revenue. This hypothesis is grounded in the Keynesian Multiplier Theory, which suggests that new investment inflows rapidly generate waves of economic activity and derived demand that directly affect several local own-source revenue components. Third, in the long run, DDI exerts a stronger and more stable influence on LOR compared to FDI. This hypothesis is built upon initial data observations showing the dominance of DDI in recent years, and is further supported by literature emphasizing that DDI is often more integrated with local supply chains and more labor-intensive, thereby generating larger multiplier effects within the regional economy than FDI, which tends to be more capital-intensive.

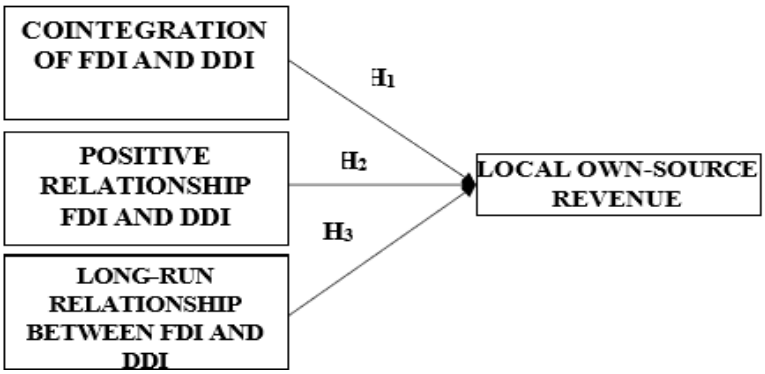

Figure 1. Research Model

METHOD

Data and Research Variables

This study employs a quantitative method with a time series data analysis approach to test the developed hypotheses and answer the research questions. This approach was chosen for its ability to analyze the dynamic relationships between variables over time, including lag effects and long-term equilibrium relationships. This study uses annual secondary data for the period 2011 to 2024. The data include the realization of Foreign Direct Investment (FDI) and Domestic Direct Investment (DDI) as independent variables, and Local Own-Source Revenue (LOR) in Bandung Regency as the dependent variable. All data were sourced from the databases provided by the Investment and One-Stop Integrated Service Agency (DPMPTSP) of Bandung Regency and the Regional Revenue Agency of Bandung Regency. The collected data were then analyzed using Eviews version 12 software. For the purpose of econometric analysis, all variables (LOR, FDI, and DDI) will be transformed into their Natural Logarithm (Ln) form. This transformation serves several purposes. First, to normalize the distribution of data that is often positively skewed. Second, to reduce the potential problem of heteroscedasticity in the regression model. Third, and most

importantly, so that the resulting regression coefficients can be directly interpreted as elasticities, measuring the percentage change in the dependent variable in response to a one percent change in the independent variable.

Analysis Method

The data analysis method used is the Autoregressive Distributed Lag (ARDL) model. This model was chosen for several advantages that are highly suitable for the data characteristics and research objectives. First, the ARDL model is highly reliable and provides robust results even with a small sample size, as in this study with only 14 observations. Other cointegration techniques like Johansen-Juselius generally require a much larger data sample. Second, ARDL does not require all variables to be stationary at the same order of integration. This model can be applied as long as the variables are stationary at level I(0), first difference I(1), or a mix of both, provided that no variable is stationary at the second difference I(2). This advantage avoids biases that may arise from unit root testing. Third, the ARDL model can estimate short-term and long-term parameters simultaneously in a single equation, providing a comprehensive picture of the dynamic relationship.

The general ARDL (p, q1, q2) model to be estimated in this study is formulated as follows:

$$LN(LOR)_t=\beta_0+\sum_{i=1}^{p}\delta_i LN(LOR)_{t-i}+\sum_{i=0}^{q1}\theta_i LN(FDI)_{t-i}+\sum_{i=0}^{q2}\phi_i LN(DDI)_{t-i}+\varepsilon_t \quad (1)$$

Where *p*, *q1*, and *q2* are the optimal lag lengths for each variable. From this ARDL model, an Error Correction Model (ECM) can be derived to analyze short-term dynamics and the speed of adjustment towards long-term equilibrium:

$$\Delta LN(LOR)_t=\alpha_0+\sum_{i=1}^{p-1}\lambda_i\Delta LN(LOR)_{t-i}+\sum_{i=0}^{q1-1}\gamma_i\Delta LN(FDI)_{t-i}+\sum_{i=0}^{q2-1}\psi_i\Delta LN(DDI)_{t-i}+\sigma ECT_{t-1}+u_t \quad (2)$$

σ on ECT_{t-1} (Error Correction Term) indicates the speed of adjustment. This coefficient is expected to be negative and statistically significant as a condition for a stable cointegration relationship.

The stages of analysis in this study include: (1) Stationarity testing of data using the Augmented Dickey-Fuller (ADF) test to ensure no variable is integrated of order two, I(2). (2) Determination of the optimal lag length using information criteria such as the Akaike Information Criterion (AIC) or Schwarz Criterion (SC). (3) Cointegration testing using the ARDL Bounds Test approach, by conducting an F-test (Wald Test) to test the joint significance of the long-term coefficients. (4) Estimation of the long-term and short-term models (ECM). (5) Diagnostic testing of the model, which includes a normality test (Jarque-Bera), an autocorrelation test (Breusch-Godfrey LM test), and a heteroscedasticity test (Breusch-Pagan-Godfrey test).

RESULTS AND DISCUSSION (TNR, 12 BOLD)

Descriptive Statistics and Stationarity Test

A descriptive analysis was performed on the variables that had been transformed into their natural logarithm (LN) form. The descriptive statistics are presented in Table 2. It is observed that the LN_FDI variable has the highest standard deviation, which statistically confirms the volatility of the FDI data identified in the introduction.

Table 2. Descriptive Statistics of Research Variables

	LN_LOR	LN_FDI	LN_DDI
Mean	27.42546	27.6509	27.74531
Maximum	27.90390	28.99304	29.26888
Minimum	26.39686	26.09395	25.77935
Std. Dev.	0.4655677	0.9460025	1.158483
Observations	14	14	14

Source: Processed data, (2025)

Next, the Augmented Dickey-Fuller (ADF) stationarity test was conducted to determine the order of integration for each variable. The stationarity test is a fundamental prerequisite in the ARDL model to ensure that no variable is integrated of the second order, I(2). The results of the stationarity test are presented in Table 3.

Table 3. Unit Root Test Results (ADF Test)

Variable	Level		1st Difference		Order of Integration
	t-Statistic	Prob.	t-Statistic	Prob.	
LN_LOR	-4.644	0.0001**	-	-	I(0)
LN_FDI	-1.931	0.3175	-5.201	0.0000**	I(1)
LN_DDI	-1.457	0.5547	-4.230	0.0006**	I(1)

Source: Processed data, (2025)

The null hypothesis is that the variable has a unit root (is non-stationary). The test results in Table 3 show that the LN_FDI and LN_DDI variables are non-stationary at the level but become stationary after being differenced once (order of integration I(1)). Meanwhile, the LN_LOR variable is already stationary at the level (order of integration I(0)). The mixed order of integration, I(0) and I(1), further strengthens the justification for using the ARDL model.

Cointegration Test and Model Estimation

The next step is to perform the Bounds Test for cointegration to determine the existence of a long-term equilibrium relationship among the variables. Determining the optimal lag is a crucial stage in ARDL modeling to ensure the resulting model is efficient and unbiased. Based on the Akaike Information Criterion (AIC), the ARDL(1, 1, 0) model was selected as the best model from various lag combinations tested. The AIC was chosen for its ability to balance model goodness-of-fit with model complexity, where the model with the lowest AIC value is considered optimal.

Table 4. ARDL Model Selection Criteria Based on AIC

Model	Log Likelihood	AIC
ARDL(1, 1, 0)	**15.89**	**-2.178***
ARDL(1, 0, 0)	14.72	-2.045
ARDL(1, 1, 1)	15.21	-1.998
ARDL(2, 1, 0)	15.55	-1.953
ARDL(2, 0, 0)	14.11	-1.910

Source: Processed data, (2025), Note: * indicates the model selected based on the lowest AIC value.

The maximum lag tested was 2. The ARDL(1, 1, 0) model shows the lowest AIC value (-2.178), so this model is used for further analysis. After the optimal model was determined, the Bounds Test for cointegration was conducted.

Table 5. ARDL Bounds Test Results for Cointegration

Critical Value	Lower Bound I(0)	Upper Bound I(1)
1%	5.37	6.53
5%	4.17	5.17
10%	3.51	4.38
Nilai F-statistic	**6.894**	

Source: Processed data, (2025)

The F-statistic value from the Bounds Test is 6.894. This value is greater than the upper bound critical value (I(1)) at all significance levels (1%, 5%, and 10%). Therefore, the null hypothesis of no cointegration can be rejected. This result provides strong evidence of a long-term equilibrium relationship between LnLOR, LnFDI, and LnDDI in Bandung Regency, thus confirming Hypothesis 1 (H1). Once cointegration was established, estimation was performed to obtain the long-term and short-term coefficients. The long-term estimation results are presented in Table 6.

Table 6. Long-Run Coefficient Estimation of the ARDL Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_FDI	0.085	0.039	2.179	0.048*
LN_DDI	0.213	0.067	3.179	0.009**
C	18.765	1.543	12.161	0.000**

Source: Processed data, (2025), Note: * and ** indicate significance at the 5% and 1% levels, respectively.

The long-term estimation results show that both investment variables have a positive and significant influence on LOR. The LnFDI coefficient of 0.085 (significant at the 5% level) indicates that in the long run, a 1% increase in FDI realization will increase LOR by 0.085%. Meanwhile, the LnDDI coefficient of 0.213 (significant at the 1% level) indicates that a 1% increase in DDI will increase LOR by 0.213% in the long run. This finding supports Hypothesis 3 (H3) that DDI has a stronger influence on LOR compared to FDI. Next, the results of the short-term dynamics estimation are presented in the Error Correction Model (ECM) in Table 7.

Table 7. Error Correction Model (ECM) Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LN_FDI)	0.041	0.021	1.952	0.075
D(LN_DDI)	0.102	0.045	2.267	0.042*
C	-0.481	0.155	-3.103	0.011**

Source: Processed data, (2025), Note: * and ** indicate significance at the 5% and 1% levels, respectively.

In the short term, only the change in DDI (D(LnDDI)) has a positive and significant effect on the change in LOR, with a coefficient of 0.102. This means a 1% increase in DDI in the current year will increase LOR by 0.102% in the same year. Meanwhile, the change in FDI (D(LnFDI)) does not show a statistically significant influence in the short term (Prob. > 0.05). This result partially supports Hypothesis 2 (H2), where the short-term impact is predominantly from domestic investment. The Error Correction Term coefficient (ECT(-1)) is -0.481 and is highly significant. This reconfirms the existence of cointegration and indicates that there is an error correction mechanism. This value implies that whenever a shock causes a deviation from the long-term equilibrium, approximately 48.1% of this disequilibrium will be corrected and return towards equilibrium in the following year.

Diagnostic and Model Stability Tests

To ensure the reliability and validity of the estimated ARDL model, a series of diagnostic tests on the residuals and parameter stability tests were conducted. The results of these tests are summarized in Table 8.

Table 8. Error Correction Model (ECM) Estimation Results

Test Type	Method/Statistic	Std. Error	t-Statistic
Normality Test	Jarque-Bera	Prob. > 0.05	Residuals are normally distributed
Autocorrelation Test	Breusch-Godfrey LM Test	Prob. Chi-Square > 0.05	No autocorrelation problem
Heteroscedasticity Test	Breusch-Pagan-Godfrey Test	Prob. Chi-Square > 0.05	No heteroscedasticity problem

Source: Processed data, (2025)

The overall diagnostic test results indicate that the estimated ARDL model has met the classical assumptions. Therefore, the short-term and long-term estimation results presented earlier can be considered valid, reliable, and unbiased for interpretation and conclusion drawing.

Discussion

The empirical findings of this study provide a profound understanding of the strategic role of investment in shaping the fiscal capacity of Bandung Regency. The existence of a strong cointegration relationship affirms that, despite substantial annual volatility, investment serves as a solid long-run foundation for the growth of local revenue (LOR). This aligns with Solow's growth theory, as examined by (Jeong (2014), in which capital accumulation from investment gradually builds the region's productive capacity, thereby permanently expanding the tax base. LOR does not respond reactively to every fluctuation in investment but rather to the accumulated stock of capital formed over time. The differential impact between DDI and FDI is both prominent and significant. In the long run, the elasticity of local revenue (LOR) with respect to DDI (0.213) is more than twice that of FDI (0.085). In the short run, the effect of DDI is statistically significant, whereas FDI shows no significant influence. This divergence can be explained from several perspectives. First, DDI is more likely to be integrated into the local economy through supply chain linkages. Domestic investors tend to rely more heavily on local raw materials, employ a greater share of local labor across skill levels, and establish stronger connections with surrounding micro, small, and medium enterprises (MSMEs). These characteristics generate a larger and more immediate multiplier effect within the regional economy, which subsequently manifests in higher LOR through consumption and income taxation. By contrast, FDI is often more capital-intensive and technologically advanced, and in some cases operates within enclave-type settings, where supply chains are more connected to global markets than to the local economy. Consequently, its contribution to LOR may only materialize in the long run through slower mechanisms, such as technology transfer that enhances overall productivity, or property tax (PBB) revenues derived from high-value assets established by foreign investors.

These findings provide a critical perspective on investment promotion strategies. A policy orientation that prioritizes annual "realization targets" of investment, particularly FDI, may prove less effective in fostering short-term fiscal self-reliance. The genuine fiscal impact arises not from the nominal value of approved investments, but rather from their operational sustainability and degree of integration with the local economic ecosystem. The relatively rapid adjustment speed (48.1% per year) indicates that Bandung Regency's economy possesses strong resilience in reverting to its long-run LOR growth trajectory following shocks. This implies that policies emphasizing the strengthening of local economic fundamentals and the domestic investment climate are likely to yield more stable and sustainable fiscal outcomes for regional government finances.

CONCLUSION

Conclusion

This study comprehensively analyzes the relationship between Foreign Direct Investment (FDI), Domestic Direct Investment (DDI), and Local Own-Source Revenue (LOR) in Bandung Regency for the period 2011–2024 using the Autoregressive Distributed Lag (ARDL) model. Based on the analysis, several key conclusions can be drawn. First, there exists a positive and significant long-run equilibrium (cointegration) relationship between investment (FDI and DDI) and LOR. This confirms that, despite the volatility of annual investment inflows, capital accumulation from investment activities fundamentally serves as a cornerstone for the long-term growth of regional

fiscal capacity. Second, the strategic roles of the two types of investment exhibit clear differences. DDI is shown to exert a more dominant, positive, and significant impact on LOR in both the short and long run. In contrast, the effect of FDI becomes significant only in the long run, indicating a longer lag for foreign investment to be transmitted into local revenue. Third, the presence of a significant error-correction mechanism demonstrates that the Bandung Regency economy has the capacity to realign toward its long-run equilibrium path following shocks. The findings of this study provide several concrete and actionable policy implications for the Bandung Regency Government. Given the stronger and more immediate impact of domestic investment (DDI) on LOR, local authorities are advised to design policies that are more supportive of domestic investors. This may include streamlining business regulations and licensing procedures, facilitating access to finance for small- and medium-scale investors, creating attractive non-fiscal incentive schemes, and strengthening linkages between large-scale domestic investment and local SMEs to maximize multiplier effects. Although its short-term impact is limited, the role of foreign direct investment (FDI) in technology transfer and global market access should not be overlooked. Therefore, FDI attraction strategies should be more selective, targeting technology-intensive and export-oriented sectors capable of generating knowledge spillovers and enhancing the quality of local human capital in the long run. Furthermore, investment policy should not be confined to the achievement of realization targets. The focus must shift toward ensuring that incoming investments operate sustainably and that their impacts on the local economy are fully maximized. This includes post-licensing monitoring and supervision of investors, facilitation in overcoming operational barriers and challenges, and fostering partnerships between investors and local economic actors.

Limitations and Future Research

This study is subject to several limitations that should be acknowledged. First, the model employed includes only investment variables and excludes other theoretically relevant control variables that may also influence local own-source revenue (LOR), such as government capital expenditure on infrastructure, inflation, or regional GDP. Second, the limited time span of the data, which results in a relatively small sample size, poses a challenge in regional time-series analysis, although the ARDL model is designed to mitigate such issues. Third, the study does not disaggregate investment data by sector (e.g., manufacturing, tourism, property), even though each sector is likely to exert heterogeneous impacts on LOR. For future development, several avenues of research can be further explored. First, conducting an analysis using panel data covering all regencies and municipalities in West Java Province could yield more robust and generalizable findings. Second, applying more sophisticated models such as the Non-linear ARDL (NARDL) would allow examination of whether the impacts of increases and decreases in investment are asymmetric with respect to local own-source revenue (LOR). Third, complementing this quantitative analysis with qualitative approaches, such as in-depth interviews with investors and policymakers, would provide deeper insights into the mechanisms and challenges underlying the statistical results.

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