

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

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ABSTRACT: This study aims to examine the effect of capital expenditure, Gross Regional Domestic Product (GRDP), and investment on local government financial performance inefficiency, grounded in stewardship theory as the grand theory and supported by fiscal illusion theory. The sample covers 33 provincial governments in Indonesia over the 2012–2025 period, yielding a total of 462 observations selected via purposive sampling. The analytical method employed is panel data regression, with the Fixed Effects Model (FEM) selected as the optimal estimation model. Partial hypothesis testing (t-test) at a 5% significance level indicates that: (1) capital expenditure has a positive and significant effect on local government financial performance inefficiency; (2) GRDP has no significant effect on local government financial performance inefficiency; and (3) investment has a negative and significant effect on local government financial performance inefficiency. These findings highlight the need to strengthen regional financial management, enabling local governments to utilize limited fiscal space more effectively and efficiently to support development and enhance the quality of public services.

KEYWORDS: Capital Expenditure, Gross Regional Domestic Product, Investment, Financial Performance Inefficiency, Local Government, Stewardship Theory, Illusion Fiscal Theory.

I. INTRODUCTION

Over the past two decades, local governments in Indonesia have undergone a series of regional financial management reform processes. This transformation began with the enactment of Law No. 22 of 1999 alongside Law No. 25 of 1999, which established the legal foundation for regional autonomy and fiscal decentralization. Regional autonomy refers to the rights, authority, and responsibilities of autonomous regions to regulate and manage their own governmental affairs and local community interests independently (Mahmudi, 2020). Regional financial management reforms were implemented to support the financial performance of local governments. Local government financial performance reflects the level of achievement or financial condition that demonstrates the government's ability to organize and utilize resources (Jesika & Purnawati, 2025).

Pursuant to Law of the Republic of Indonesia No. 23 of 2014 on Regional Government, Article 280, paragraph (2), regional financial management must be executed in an effective, efficient, transparent, and accountable manner. In the public sector, financial performance measurement serves as a tool to improve performance, allocate resources, support decision-making, and as a form of public accountability (Aryasandi & Akbar, 2024). One key indicator for evaluating efficiency performance is the efficiency (or inefficiency) ratio, which measures the ratio of actual expenditure to actual regional revenue. The lower the efficiency ratio, the better the level of financial efficiency in regional government governance. Based on the Decree of the Minister of Home Affairs (Kepmendagri) No. 690.900.327 of 1996, as cited in Rosida et al., (2024), efficiency ratio values are categorized into five criteria: values exceeding 100% are classified as inefficient, 90%–100% as less efficient, 80%–90% as moderately efficient, 60%–80% as efficient, and below 60% as highly efficient (Mahsun, 2019). Measuring efficiency is critical as it reflects the extent to which the government can minimize budgetary inefficiency to create greater fiscal space (Permatasari, 2025).

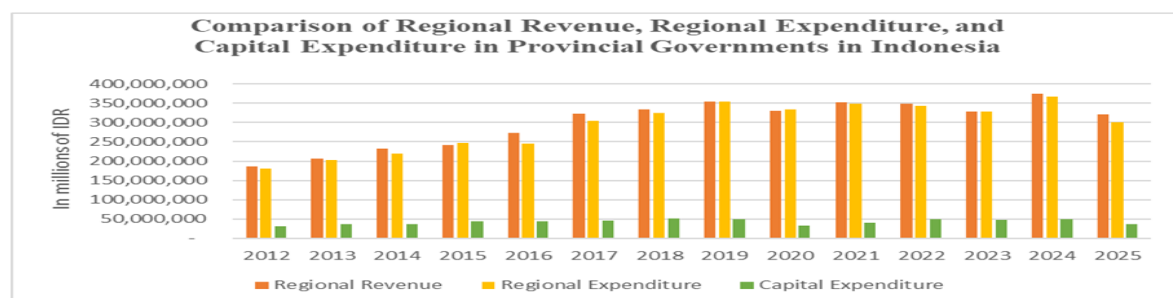


Figure 1 Comparison of Regional Revenue, Regional Expenditure, And Capital Expenditure In Provincial Governments In Indonesia

Data from the Directorate General of Fiscal Balance for the 2012–2025 period indicate that regional revenue and expenditure across provincial governments in Indonesia consistently increased with a narrow margin. Meanwhile, capital expenditure allocations remained relatively stagnant, resulting in a low proportion relative to total expenditure. In terms of the efficiency

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

ratio (expenditure to revenue), the values remained high, ranging between 89% and 100%, indicating a less efficient state. These figures suggest that the vast majority of regional revenue is absorbed by current-year operational expenditures, leaving local governments with relatively limited fiscal space. Limited fiscal space reduces local governments' capacity to respond to economic dynamics and strategic development needs. This potential for financial inefficiency magnifies when spending increases are dominated by less productive non-capital expenditures that fail to yield corresponding improvements in outputs, outcomes, public service quality, or regional economic capacity.

These conditions prompted the central government to issue Presidential Instruction No. 1 of 2025 on Expenditure Efficiency in the Implementation of the State Budget (APBN) and Regional Budget (APBD) for Fiscal Year 2025 to minimize waste and ensure more effective budget allocations (Hasan, 2025). This policy was further reinforced by cuts to Fiscal Transfers to Regions (TKD) in the 2026 State Budget driven by national fiscal constraints, compelling local governments to optimize own-source revenues while curbing spending inefficiencies and redirecting resources toward productive expenditures and national priorities (Kompas.com, 2025).

Capital expenditure plays a strategic role in stimulating to exert a multiplier effect on the regional economy (Putri et al., 2018; Susani & Hanifa, 2026). Management of capital expenditure on infrastructure and productive assets can enhance regional economic efficiency and productivity (Barro, 1988). Well-targeted capital expenditure allocation can reduce operational inefficiency, improve public service quality, and drive regional own-source revenue growth over the long term (Haryati et al., 2025; Oktaviani & Sugiarto, 2025; Widayati et al., 2026). At the macroeconomic level, GRDP functions as the primary indicator of regional economic growth, representing a strengthened regional economic base that has the potential to improve regional financial efficiency, since with a strong economic base, local governments can optimize regional revenues (Miar et al., 2024; Simanjuntak, 2003). Meanwhile, investment—both domestic investment (PMDN) and foreign investment (PMA)—contributes significantly to driving regional economic activity and expanding the regional revenue base (Anugrah et al., 2025; Tarigan et al., 2025).

Several prior studies have examined the relationship between these variables and regional financial performance. Arsallya et al., (2021) found that capital expenditure is a significant determinant of regional fiscal capacity. Aryasandi & Akbar (2024) demonstrated that economic growth (GRDP) contributes positively to regional fiscal efficiency. Amanda & Murwiati, (2025) and Anugrah et al., (2025) confirmed the positive influence of investment in strengthening regional fiscal structure. However, most prior research focused on single regions or used financial independence as a proxy for financial performance, leaving a contextual gap for research covering all provincial governments in Indonesia using the efficiency ratio as the dependent variable. This study addresses that gap by reconstructing the model to place capital expenditure directly as an independent variable, incorporating GRDP and investment, and operationalizing the dependent variable as the "level of financial inefficiency" to ensure statistical interpretability and theoretical alignment.

II. LITERATURE REVIEW

A. Stewardship Theory

Stewardship theory describes the relationship between the principal—the party that grants responsibility—and the steward—the party that manages resources and makes decisions to achieve organizational goals (Donaldson & Davis, 1991). This theory views management not as a party driven by self-interest, but as a steward whose primary motivation is to act in the interest of the organization and the principal. In the public sector, this theory represents the relationship between the community (principal) and the government (steward). The government, as steward, is expected to manage regional financial resources effectively, efficiently, transparently, and accountably for the public interest (Frijunita et al., 2024; Safitri et al., 2023).

B. Fiscal Illusion Theory

Fiscal illusion theory was introduced by Puviani (1903) and further developed within the public choice framework by Buchanan (1967). This theory posits that cognitive distortions or misperceptions exist regarding actual fiscal conditions—particularly concerning tax burdens and the benefits of public spending—such that complex fiscal institutions can induce excessive demand for public expenditure (Mourão, 2008). The most common manifestation of fiscal illusion in local financial governance is the flypaper effect, a phenomenon wherein fiscal stimulus from central government transfers drives local spending to a greater degree than an equivalent increase in local own-source revenue. High reliance on central transfers creates the illusion of strong local fiscal capacity, thereby dampening local governments' incentives to pursue budgetary efficiency (Worthington & Dollery, 1999).

C. Inefficiency Local Government Financial Performance

Local government financial performance refers to the level of achievement attained by local governments in executing financial management across both revenues and expenditures in accordance with applicable policies and regulations (R. Saputra et al., 2024). One key indicator for evaluating efficiency performance is the efficiency (or inefficiency) ratio, which measures the ratio of actual expenditure to actual regional revenue. The lower the efficiency ratio, the better the level of financial efficiency in regional government governance (Mahsun, 2019; Rosida et al., 2024). In this study, the dependent variable is operationalized as the "inefficiency level" (IKKD) to ensure that regression coefficients are intuitively directional: a negative coefficient indicates that the independent variable reduces inefficiency, i.e., increases efficiency. Measuring local financial inefficiency plays a vital

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

role in enhancing performance quality, proper resource allocation, decision-making, and public accountability (Mardiasmo, 2002).

C. Capital Expenditure

Capital expenditure refers to government spending for the acquisition of fixed assets and other assets that provide benefits beyond one accounting period. Referring to Musgrave (1959) allocation function theory, capital expenditure is the primary instrument for the government to provide public goods that the market cannot supply efficiently. Government spending on infrastructure and productive assets can enhance regional economic efficiency and productivity (Barro, 1988). The capital expenditure ratio measures the proportion of realized capital expenditure relative to total realized regional expenditure, reflecting the government's commitment to long-term investment (Halim & Kusufi, 2021).

D. Gross Regional Domestic Product (GRDP)

GRDP represents the total added value of all goods and services produced in a region within a specific period, and serves as the primary indicator of regional economic growth (BPS, 2026). A higher GRDP implies greater regional revenue potential, as a stronger economic base expands the tax collection base (Ilmi, 2023; Simanjuntak, 2003). GRDP is calculated through three approaches: production, expenditure, and income. The expenditure approach is particularly relevant for fiscal policy formulation at the regional level (BPS, 2026).

E. Investment

Investment refers to the placement of funds with the expectation of obtaining economic returns in the future (Adnyana, 2020). Based on Law No. 25 of 2007 on Capital Investment, investment in Indonesia is classified into Domestic Investment (PMDN) and Foreign Investment (PMA). Both types of investment contribute to expanding economic activity, increasing regional revenue, and creating employment opportunities (Hendri et al., 2018; Tarigan et al., 2025). From a fiscal management perspective, the inflow of private capital shifts part of the infrastructure provision burden to the private sector, enabling local governments to allocate public spending more efficiently.

F. Hypotheses Development

F.1. Capital Expenditure and Financial Performance Inefficiency

Capital expenditure refers to spending allocated to acquire fixed assets and other long-term assets that yield benefits extending beyond a single accounting period. From the perspective of Musgrave, (1959) allocation function theory, capital expenditure serves as a primary government instrument to provide public goods that market mechanisms fail to efficiently supply. Government spending on infrastructure and productive assets can mitigate inefficiencies and boost regional economic productivity (Barro, 1988). Acting as stewards, local governments are expected to direct expenditure toward long-term productive investments, making the effective management of capital spending a critical driver for improving regional financial performance efficiency in the era of fiscal decentralization (Oktavianti, 2020). Based on this rationale, the first hypothesis is formulated as follows:

H1: Capital expenditure has a significant effect on the financial performance inefficiency of local governments.

F.2. GRDP and Financial Performance Inefficiency

An increase in Gross Regional Domestic Product (GRDP) is positively correlated with the expansion of local revenue potential as public income and fiscal contribution capacity rise (Aji & SBM, 2021). Regions experiencing high economic growth tend to generate higher revenues, thereby enhancing financial efficiency (Todaro & Smith, 2015). As stewards entrusted by the public to manage regional financial resources in an effective, efficient, transparent, and accountable manner, local governments reflect their success in optimizing regional macroeconomic conditions through high GRDP achievements, providing a primary stimulus to strengthen regional financial structures and minimize budgetary waste. Based on this rationale, the second hypothesis is formulated as follows:

H2: GRDP has a significant effect on the financial performance inefficiency of local governments.

F.3. Investment and Financial Performance Inefficiency

Sustained investment boosts economic activity, employment opportunities, and national income, ultimately enhancing public welfare (Hendri et al., 2018). Both domestic and foreign direct investment contribute to expanding regional economic capacity, thereby enhancing government financial efficiency (Borensztein et al., 1998; Tarigan et al., 2025). Stewardship theory views local governments as stewards committed to aligning their objectives with the public interest, thereby requiring proactive and strategic behavior to ensure organizational sustainability (going concern)—such as formulating policies that attract domestic and foreign investment to support regional development (Yurianto, 2020). Based on this rationale, the third hypothesis is formulated as follows:

H3: Investment has a significant effect on the financial performance inefficiency of local governments.

The research model is shown in Figure

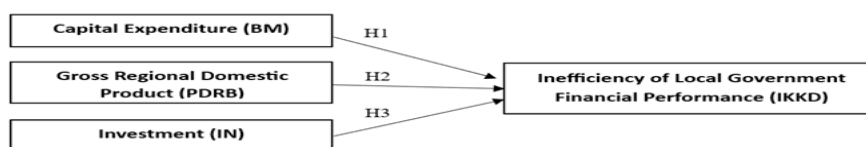


Figure 2 Research Model

III. RESEARCH METHODOLOGY

This study employs a quantitative causal research design. The research object comprises 33 provincial governments in Indonesia for the period 2012–2025. Secondary data were obtained from the Budget Realization Reports (LRA) of provincial APBDs published by the Directorate General of Fiscal Balance (www.djpk.depkeu.go.id) and macroeconomic data from the Central Statistics Agency (www.bps.go.id) and Ministry of Investment/Investment Coordinating Board (BKPM) (data.bkpm.go.id). The research population consists of all provincial governments in Indonesia. Sampling used a purposive sampling method; five provinces were excluded as they are newly autonomous regions that do not yet have complete APBD data for the entire

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

observation period (North Kalimantan, South Papua, Central Papua, Highland Papua, and Southwest Papua), yielding 33 provinces with a total of 462 observations.

This study uses data analysis techniques comprising descriptive statistics, classical assumption tests (multicollinearity and heteroscedasticity tests), panel data regression, t-hypothesis tests, and the Coefficient of Determination (R^2).

A. Variable Measurement

Table I. Operational Variable Definitions

Variable	Operational Definition	Indicator
Efficiency (Inefficiency) Ratio	The efficiency (inefficiency) ratio is an indicator measuring the ratio between realized costs (expenditure) incurred and revenue obtained by local governments	IKKD = Realized Regional Expenditure / Realized Regional Revenue (Mahsun, 2019)
Capital Expenditure Harmony Ratio	Capital expenditure harmony ratio measures the balance of expenditure allocation for fixed asset acquisition relative to total expenditure	Capital Expenditure = Capital Expenditure / Total Regional Expenditure (Halim & Kusufi, 2021)
GRDP	Gross Regional Domestic Product (GRDP) at Constant Prices by Expenditure is calculated as the sum of total spending in a given year evaluated at base-year prices.	GRDP = Ln (GRDP at Constant Prices by Expenditure)
Investment	Investment refers to the allocation of funds at present with the objective of generating returns in the future (Adnyana, 2020) Total Domestic Direct Investment (DDI) and Foreign Direct Investment (FDI) are measured in Indonesian Rupiah (IDR). Foreign Direct Investment figures were converted using Bank Indonesia's middle exchange rate.	Investment = Ln (PMDN + PMA)

IV. RESULTS AND DISCUSSION

A. Descriptive Statistics

The following table presents the results of the descriptive statistical tests.

Table II. Descriptive Statistics Results

	IKKD	BM	LnPDRB	LnIN
Mean	0.991138	0.164510	32.26853	0.991138
Median	0.987134	0.155695	32.32561	0.987134
Maximum	1.438652	0.332303	35.35557	1.438652
Minimum	0.383753	0.038867	21.52201	0.383753
Std. Dev.	0.079711	0.063067	1.629048	0.079711
Skewness	0.447083	0.542496	0.534226	0.447083
Kurtosis	3.043506	3.052280	2.537575	3.043506
Jarque-Bera (Prob)	3.406 (0.182)	5.015 (0.081)	5.761 (0.056)	3.406 (0.182)
Observations	462	462	462	462

Source: Processed Data (2025)

The IKKD variable has a mean value of 0.991138, indicating that provincial expenditure generally almost equals regional revenue, placing provincial governments in Indonesia, on average, within the less efficient category. The lowest IKKD value was recorded in West Java Province in 2016 (0.383753), while the highest was observed in Papua Province in 2023 (1.438652). The capital expenditure (BM) variable has a mean of 0.164510, with the lowest value recorded in Central Java in 2020 and the highest in North Sulawesi in 2012. The LnPDRB variable exhibits a mean of 32.26853, ranging from a minimum in West Sumatra in 2013 to a maximum in DKI Jakarta in 2025. The LnIN variable has a mean of 29.96766, with the lowest value in Maluku in 2012 and the highest in West Java in 2025. All Jarque-Bera probability values exceed 0.05, confirming that the data across all four variables are normally distributed.

B. Panel Data Estimation Model Selection, Panel Data Regression Results and Hypothesis Testing

The panel data estimation model was selected using a two-way effects approach that simultaneously accounts for both cross-sectional and period effects. This approach is appropriate given that the study utilizes panel data comprising a relatively large

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

number of cross-sectional units over an extended time horizon, which inherently entails both cross-provincial and temporal heterogeneity (Widarjono, 2018).

Table III. Panel Data Estimation Model Selection

Test	Value	Desc	Test Statistic	Result
Uji Chow	Prob >0,05	CEM	Cross-section/period f (p-value 0.0000 <0,05)	FEM
	Prob <0,05	FEM		
Uji Hausman	Prob >0,05	REM	Cross-section and period random (p-value 0.0023 <0,05)	FEM
	Prob <0,05	FEM		
Uji Lagrange Multiplier	Prob >0,05	CEM	Breusch-pagan (p-value 0.0000<0,005)	REM
	Prob <0,05	REM		

OAA Based on the panel data selection tests, the fixed effect model (fem) was identified as the most appropriate model for analyzing the panel data in this study."

Table IV. Panel Data Regression Results (Fixed Effect Model)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.452717	0.816291	3.004710	0.0028
BM	0.360950	0.086834	4.156802	0.0000
LnPDRB	-0.034533	0.026083	-1.323960	0.1862
LnIN	-0.013096	0.006347	-2.063262	0.0397
R-squared	0.221151	Mean dependent var		0.991138
Adjusted R-squared	0.130631	S.D. dependent var		0.079711
S.E. of regression	0.074323	Akaike info criterion		-2.263673
Sum squared resid	2.281345	Schwarz criterion		-1.825053
Log likelihood	571.2452	Hannan-Quinn criter.		-2.090985
F-statistic	2.443112	Durbin-Watson stat		2.155397
Prob(F-statistic)	0.000001			

Based on the panel data regression using the Fixed Effect Model (FEM), the estimated regression equation is expressed as follows:

$$IKKD = 2.452717 + 0.360950(BM) - 0.034533(LnPDRB) - 0.013096(LnIN)$$

The capital expenditure (BM) variable yields a regression coefficient of 0.360950 with a p-value of 0.0000. Because the p-value is below the 5% significance threshold ($0.0000 < 0.05$), capital expenditure significantly affects IKKD. Holding all other factors constant (*ceteris paribus*), a one-unit increase in capital expenditure increases the financial inefficiency ratio (IKKD) by 0.360950. Conversely, a one-unit decrease in capital expenditure reduces the IKKD ratio by 0.360950.

The LnPDRB variable has a coefficient of -0.034533 with a p-value of 0.1862. This suggests that, *ceteris paribus*, a one-unit increase in LnPDRB decreases the inefficiency ratio by 0.034533, whereas a one-unit decrease increases the ratio by 0.034533. However, because its p-value exceeds the 5% significance level ($0.1862 > 0.05$), LnPDRB does not exert a statistically significant impact on regional financial inefficiency.

The log investment variable (LnIN) displays a regression coefficient of -0.013096 with a p-value of 0.0397. Since the p-value falls below the 5% significance threshold ($0.0397 < 0.05$), log investment significantly influences IKKD. *Ceteris paribus*, a one-unit increase in log investment reduces the inefficiency ratio (IKKD) by 0.013096. Conversely, a one-unit decrease in investment increases the inefficiency ratio by 0.013096.

The panel data regression results yield an Adjusted R^2 of 0.130631, indicating that capital expenditure, LnPDRB, and LnIN collectively explain 13.06% of the variance in Regional Government Financial Performance Inefficiency (IKKD). The remaining 86.94% is explained by factors outside the scope of this model, such as institutional governance, regional fiscal capacity, and socio-demographic indicators not included in this study.

C. Classical Assumption Tests

All classical assumption tests—including normality, multicollinearity, and heteroscedasticity were fully satisfied.

D. DISCUSSION

D.1. Effect of Capital Expenditure on Financial Inefficiency (H1 Accepted)

The empirical findings demonstrate that the first hypothesis (H_1) is supported: capital expenditure exerts a positive and statistically significant effect on regional government financial performance inefficiency (coefficient =0,36095; p-value=0,000).

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

This finding departs from the normative tenets of Stewardship Theory, which assume that stewards manage public finances efficiently through long-term productive investments (Barro, 1988; Donaldson & Davis, 1991). Instead, this outcome is better explained by Fiscal Illusion Theory, wherein a high reliance on central government transfer funds induces a flypaper effect that dampens local governments' incentives to pursue budgetary efficiency (Henderson, 1968; Hines & Thaler, 1995)

This result aligns with Safitri et al., (2023) and Marselina & Herianti, (2022) who reported that capital expenditure negatively influences financial performance and fiscal autonomy because spending is not adequately targeted toward productive assets. Conversely, it diverges from the findings of Arsallya et al., (2021), Mtd et al., (2022), and Auliya & Hidajat (2024), who argued that capital expenditure enhances regional financial performance.

Three key arguments account for these empirical findings:

1. **Low Capital Expenditure Allocation:** The proportion of capital expenditure within Indonesian provincial budgets remains relatively small compared to total regional spending, indicating it is not yet prioritized.
2. **Suboptimal Spending Targets:** Capital expenditure has not been fully channeled into productive assets capable of stimulating economic activity and generating local revenue.
3. **Time-Lag and Upfront Cost Pressures:** The procurement of fixed assets requires substantial upfront budget allocations during the current fiscal year, while the underlying economic returns materialize only after a significant time lag. Consequently, capital expenditure realization triggers new routine expenses in the short term—specifically asset maintenance and depreciation—which burden the budget without a corresponding increase in revenue.

D.2. Effect of GRDP on Financial Inefficiency (H2 Rejected)

The empirical results demonstrate that the second hypothesis (H_2) is not supported: LnPDRB does not exert a statistically significant effect on regional government financial performance inefficiency (coefficient = -0,034533; p-value=0,1862. This finding aligns with Susetyo et al., (2017), Saputra et al., (2021), and Insani et al., (2023), who confirmed that regional economic growth does not directly influence regional fiscal autonomy performance. However, it contrasts with Aryasandi & Akbar, (2024), Miar et al., (2024) and Nugrahanto et al., (2026) who observed a positive and significant impact of GRDP on regional financial performance.

Key arguments account for these empirical findings: the main components of provincial GRDP—household consumption (PKRT), gross fixed capital formation (PMTB), and exports (BPS, 2017, 2021, 2025). There are primarily taxed at the national level or at the district/city level, not at the provincial level. Household consumption is subject to specific goods and services tax (PBJT) collected by district/city governments. Most components of PMTB contribute to central tax revenues (VAT/PPh) or district/city taxes (PBB-P2/BPHTB), with only motor vehicles directly benefiting provincial revenues. Export revenues flow to the central government and only partially return to provinces through revenue-sharing funds (DBH).

This reliance on DBH induces a fiscal illusion, rendering provincial governments less proactive in exploiting PAD potential from primary GRDP driver sectors. Concurrently, provincial governments remain obligated to absorb economic externalities, such as the maintenance of inter-regional road infrastructure. This asymmetry between the burden of providing public goods and the limited yield from direct provincial tax revenues accounts for why aggregate GRDP growth does not automatically curb financial inefficiency within provincial governments.

D.3. Effect of Investment on Financial Inefficiency (H3 Accepted)

The empirical results indicate that the third hypothesis (H_3) is supported: investment exerts a negative and statistically significant effect on regional government financial performance inefficiency (coefficient = -0,013096, p-value = 0,00397). This finding aligns with the tenets of Stewardship Theory, wherein competent stewards successfully stimulate private-sector participation in public development, thereby minimizing inefficiency risks and optimizing the utilization of limited regional budgets. This finding is also linked to Fiscal Illusion Theory, as the influx of private investment introduces stringent market mechanisms, transparency, and objective cost-benefit analyses, which encourage local governments to move beyond the comfort zone of fiscal illusion and manage public expenditure more efficiently.

This outcome is consistent with Amanda & Murwiati, (2025) and Tarigan et al., (2025), who found that private investment accumulation positively stimulates regional economic activity and strengthens both revenue structures and regional fiscal capacity. However, it contrasts with Haptari et al., (2024) and Miar et al. (2024), who reported that investment negatively affects regional financial autonomy due to low domestic investment realization and the dominance of foreign direct investment in capital-intensive sectors with minimal local labor absorption.

The reason investment has a negative effect on the level of regional financial inefficiency relates to budget management: the inflow of private capital drives regional financial efficiency by stimulating alternative funding schemes. Data from Bappenas (2025) record that the Public-Private Partnership (PPP / KPBU) scheme produced 254 projects from 2012 to 2025. Consequently, part of the burden of infrastructure provision is shifted to the private sector, enabling local governments to reallocate their budgets to other priority sectors. Furthermore, The influx of private investment serves as a primary catalyst driving local governments to reform institutional governance toward good and clean governance.

E. CONCLUSIONS

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

This study examines the effects of capital expenditure, GRDP, and investment on regional government financial performance inefficiency (the expenditure-to-revenue ratio) across 33 provincial governments in Indonesia from 2012 to 2025 using panel data regression with a Fixed Effect Model. Of the three proposed hypotheses, two are supported and one is not.

First, capital expenditure exerts a positive and statistically significant effect on regional government financial performance inefficiency. This outcome is driven by the substantial budget required for fixed asset procurement during the current fiscal year, the prolonged time lag between capital spending realization and regional revenue growth, and the suboptimal allocation of capital expenditure toward productive assets.

Second, GRDP does not exert a statistically significant effect on regional government financial performance inefficiency. This is attributable to the compositional structure of provincial GRDP, which contributes primarily to central or regency/municipal tax revenues, combined with a fiscal illusion phenomenon that renders provincial governments less proactive in exploiting Local Original Revenue (PAD) potential from key economic driver sectors.

Third, investment exerts a negative and statistically significant effect on regional government financial performance inefficiency. The influx of private capital reduces the local fiscal burden by shifting part of the infrastructure provision burden to the private sector while simultaneously driving institutional governance reforms toward good governance.

Based on these findings, the study recommends: (1) Provincial governments should reform financial management in capital expenditure planning to prioritize assets with demonstrable economic returns and revenue-generating capacity, with mandatory projections of future maintenance costs. (2) Efforts should be made to diversify provincial revenue sources beyond transfer dependency, given that provincial GRDP components are largely taxed at other government levels. (3) Provincial governments should strengthen investment facilitation ecosystems—through streamlined licensing, competitive incentives, and regulatory certainty—to accelerate private investment inflows that demonstrably improve fiscal efficiency. Future research should extend the observation period to include post-efficiency-policy years (post-2025 Presidential Instruction), broaden the sample to include district/city governments, and incorporate additional variables such as fiscal capacity and fiscal transfer dependence.

F. LIMITATIONS AND RECOMMENDATIONS

This study has several limitations. First, the Adjusted R^2 value of 13,06% indicates that the capacity of the independent variables to explain variations in regional financial performance inefficiency remains relatively limited. Second, this study relies exclusively on provincial government data, which does not reflect the financial performance inefficiency of regency and municipal governments. Third, this research focuses solely on a single efficiency (inefficiency) ratio indicator—specifically, the expenditure-to-revenue ratio.

Based on these limitations, future research is recommended to:

1. Future research should incorporate additional independent variables to obtain a more comprehensive understanding of the factors influencing regional government financial performance inefficiency. Specifically, subsequent studies could examine other regional expenditure components variables, institutional governance factors variables, socio-demographic variables, regional fiscal capacity metrics variables, and additional financial ratios variables.
2. Extend coverage to regency and municipal governments to enhance the generalizability of the findings across all local government tiers.
3. Employ other efficiency indicators, such as expenditure efficiency relative to budget ceilings, revenue collection efficiency ratios, or metrics measuring the direct relationship between expenditure, outputs, and outcomes.

G. RESEARCH IMPLICATIONS

Theoretical Implication, this study expands Stewardship Theory by demonstrating that a steward's commitment to achieving efficient governance cannot be evaluated solely by the level of capital expenditure absorption. Instead, it must be integrated with long-term projections of routine fiscal burdens, accounting for the asymmetric costs between short-term physical procurement and long-term fiscal sustainability. Furthermore, this study reinforces the relevance of Fiscal Illusion Theory in explaining local governments' passive behavior in optimizing PAD when aggregate fiscal capacity appears large but remains constrained in real terms. It also highlights a shift in the steward's role from a sole facility provider to a regulator and facilitator of a conducive investment ecosystem.

Practical Implications, these findings emphasize the need for regional financial management reform through the enhancement of Planning, Organizing, Actuating, and Controlling (POAC) functions:

- Planning: Capital expenditure must be strategically formulated and oriented toward productive outputs and outcomes, accompanied by maintenance and asset depreciation projections to prevent future financial inefficiencies, rather than relying uncritically on aggregate GRDP assumptions.
- Organizing: Functional synergy across Regional Government Agencies (Organisasi Perangkat Daerah / OPD) should be fostered, alongside the establishment of dedicated units or committees for Public-Private Partnership (PPP / KPBU) management to oversee legal compliance, risk mitigation, and private investment portfolios.
- Actuating: Implementation efforts should focus on intensifying local taxes that are responsive to GRDP growth while streamlining investment licensing bureaucracy.

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

- Controlling: Local governments must evaluate capital expenditure not merely based on budget absorption rates, but primarily on the quality of output and outcome delivery.

REFERENCES

- Adnyana, I. M. (2020). *Manajemen Investasi Dan Portofolio*. Lembaga Penerbitan Universitas Nasional (LPU-UNAS).
- Aji, F. B., & SBM, N. (2021). Faktor-Faktor Yang Mempengaruhi Pajak Daerah Kota Semarang. *Diponegoro Journal of Economics*, 10(1), 1–12. <https://doi.org/10.14710/djoe.29995>
- Amanda, S., & Murwiati, A. (2025a). Economics and Digital Business Review Pengaruh Investasi , Pengeluaran Pemerintah , Inflasi dan Pendapatan Asli Daerah Terhadap Pertumbuhan Ekonomi Seluruh Provinsi Di Indonesia Tahun 2010-2023. *Economics and Digital Business Review*, 6(2), 13–26.
- Amanda, S., & Murwiati, A. (2025b). Pengaruh Investasi , Pengeluaran Pemerintah , Inflasi dan Pendapatan Asli Daerah Terhadap Pertumbuhan Ekonomi Seluruh Provinsi Di Indonesia Tahun 2010-2023. *Economics and Digital Business Review*, 6(2), 13–26.
- Anugrah, R., Mandai, S., & Erza, O. (2025). Pendapatan Asli Daerah Meningkatkan Akibat Pengeluaran Pemerintah Daerah, Investasi Pemerintah, Investasi Swasta, Inflasi, Jumlah Penduduk di Jawa Barat Pada Tahun 2016 -2022. *Jurnal Ekonomi Trisakti*, 5(2), 1017–1024. <https://www.e-journal.trisakti.ac.id/index.php/jet/article/view/19183%0Ahttps://www.e-journal.trisakti.ac.id/index.php/jet/article/download/19183/13276>
- Arsallya, M. R., Azwardi, A., & Yusnaini, Y. (2021). Analysis of factors affecting capital expenditures and their implications on government financial performance provinces in Indonesia 2011-2019. *International Journal of Research in Business and Social Science* (2147- 4478), 10(5), 95–106. <https://doi.org/10.20525/ijrbs.v10i5.1195>
- Aryasandi, F. I., & Akbar, F. S. (2024). Pengaruh Pendapatan Asli Daerah, Pendapatan Transfer dan Pertumbuhan Ekonomi Terhadap Kinerja Keuangan Pemerintah Daerah Kabupaten/Kota Di Provinsi Jawa Tengah. *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*, 6(10), 7030–7043. <https://doi.org/10.47467/alkharaj.v6i10.3752>
- Auliya, N. W., & Hidajat, S. (2024). Pengaruh Kinerja Keuangan Pemerintah Daerah Terhadap Belanja Modal (Studi Di Kabupaten/Kota Provinsi Jawa Timur Tahun 2020-2022). *COSTING : Journal of Economic, Business and Accounting*, 7(5), 306–312.
- Bappenas. (2025). *Public Private Partnership Tahun 2025*.
- Barro, R. J. (1988). *Government Spending In A Simple Model Of Endogenous Growth* (Issue 2588).
- Borensztein, E., Gregorio, J. De, & Lee, J. (1998). How does foreign direct investment affect economic growth ? *Journal of International Economic*, 45, 115–135.
- BPS. (2017). *Produk Domestik Regional Bruto Provinsi -Provinsi di Indonesia menurut Pengeluaran Tahun 2012 -2016*.
- BPS. (2021). *Produk Domestik Regional Bruto Provinsi -Provinsi di Indonesia menurut Pengeluaran Tahun 2016 -2020*.
- BPS. (2025). *Produk Domestik Regional Bruto Provinsi -Provinsi di Indonesia menurut Pengeluaran Tahun 2020 -2024*.
- BPS. (2026). *Produk Domestik Regional Bruto Provinsi -Provinsi di Indonesia Menurut Pengeluaran*.
- Donaldson, L., & Davis, J. H. (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Australian Journal of Management*, 16(1). <https://doi.org/10.1177/031289629101600103>
- Frijunita, S., Gurendrawati, E., & Utaminingsyas, T. H. (2024). Pengaruh Pendapatan Asli Daerah (PAD), Tax Effort, dan Belanja Modal Terhadap Tingkat Kemandirian Keuangan. *Jurnal Akuntansi, Perpajakan Dan Auditing*, 5(2), 236–247.
- Halim, A., & Kusufi, M. S. (2021). *Akuntansi Sektor Publik : Akuntansi Keuangan Daerah* (Keempat). Salemba Empat.
- Haptari, V. D., Sofilda, E., Ginting, A. M., & Aritonang, F. D. (2024). Factors Influencing Regional Governments to Enhance Regional Financial Independence: Cases in Indonesian Provinces. *OIDA International Journal of Sustainable Development*, 17(9), 41–54.
- Haryati, D. C., Nurpiji, N., Masitoh, G., Wahyu Saputra, & Taufik Subarkah. (2025). Analisis Efisiensi Belanja Modal terhadap Pertumbuhan Ekonomi Daerah di Indonesia : Pendekatan Data Panel. *GEMILANG: Jurnal Manajemen Dan Akuntansi*, 5(3), 139–153. <https://doi.org/10.56910/gemilang.v5i3.2185>
- Hasan, R. (2025). *Efisiensi Anggaran untuk Belanja yang Lebih Baik (Spending Better)*. Kementerian Keuangan RI Direktorat Jenderal Perbendaharaan.
- Henderson, J. M. (1968). *Local Government Expenditures : A Social Welfare Analysis*.
- Hendri, H., Didik, S., Abdul, K. S., & Saadah, Y. (2018). Influence of Investment, Local Expenditure and Fiscal Autonomy Toward Economic Growth In Southern Sumatera Of Indonesia. *Russian Journal of Agricultural and Socio-Economic Sciences*, 8(80), 19–25.
- Hines, J. R., & Thaler, R. H. (1995). Anomalies The Flypaper Effect. *Journal of Economic Perspectives*, 9(4), 217–226.
- Ilmi, M. B. (2023). Analisis Pengaruh Pertumbuhan Ekonomi Daerah, Size Daerah, dan Pendapatan Asli Daerah Terhadap Kinerja Keuangan Pemda. *Jurnal Akuntansi, Keuangan, Perpajakan Dan Tata Kelola Perusahaan (JAKPT)*, 1(2), 216–223.
- Insani, A., Rahayu, S., & Misni Erwati. (2023). Determinan Kinerja Keuangan Pemerintah Daerah. *Akurasi : Jurnal Studi Akuntansi Dan Keuangan*, 6(1), 109–125. <https://doi.org/10.29303/akurasi.v6i1.343>
- Jesika, K. L., & Purnawati, N. K. (2025). The Role of Capital Expenditure in Mediating the Influence of Local Revenue on Local Financial Performance (A Study of Regency/City Governments in Bali Province). *Business and Investment Review*, 3(6), 1–9. <https://doi.org/10.61292/birev.212%0Ahttps://lgdpublishing.org/index.php/birev/article/download/212/179>

The Effect of Capital Expenditure, Gross Regional Domestic Product, and Investment on Financial Performance Inefficiency of Provincial Governments in Indonesia)

- 28) Kompas.com. (2025). *Polemik Menkeu Purbaya Pangkas TKD 2026, Keterbatasan Fiskal Jadi Alasan*. Kompas.Com. <https://money.kompas.com/Read/2025/10/08/102224626/Polemik-Menkeu-Purbaya-Pangkas-Tkd-2026-Keterbatasan-Fiskal>
- 29) Mahmudi. (2020). *Manajemen Keuangan Pemerintah Daerah* (1st ed.). UPP STIM YKPN.
- 30) Mahsun, M. (2019). Pengukuran Kinerja Sektor Publik. In *BPFE-Yogyakarta*.
- 31) Mardiasmo. (2002). *Otonomi dan Manajemen Keuangan Daerah*. ANDI.
- 32) Marselina, A., & Herianti, E. (2022). Determinan Kemandirian Keuangan Daerah Andini. *Jurnal Akuntansi Dan Governance*, 2(2), 110–118.
- 33) Miar, Zakiah, W., Giovanni, J., & T, S. C. (2024). Analisis Pengaruh Desentralisasi Fiskal, Investasi, dan Kinerja Keuangan Daerah, Terhadap Pertumbuhan Ekonomi dan Kemiskinan di Provinsi Tengah Kalimantan : Perspektif Pendidikan. *Cendekia: Jurnal Pendidikan Dan Pembelajaran*, 18(1), 72–88.
- 34) Mourão, P. R. (2008). Towards a Puviani's fiscal illusion index. *Hacienda Publica Espanola*, 187(4), 49–86.
- 35) Mtd, S. K., Batubara, M., Ahmadi, N., & Rahmani, B. (2022). The Effect of Regional Original Income , Balanced Funds and Capital Expenditures on the Government ' s Financial Performance in The Regency / City of North Sumatra Province. *Budapest International Research and Critics Institute Journal*, 5(3), 22490–22500.
- 36) Musgrave, R. A. (1959). *The Theory of Public Finance*. McGraw Hill.
- 37) Nugrahanto, A., Sukarno, S., & Sriyani, S. (2026). Regional Economic Capacity and The Efficiency of Fiscal Decentralization : Evidence from Indonesia. *Jurnal Tata Kelola Dan Akuntabilitas Keuangan Negara*, 12(1), 17–32.
- 38) Oktaviani, D. S., & Sugiarto, S. (2025). Analisis Rasio Keuangan Untuk Mengukur Kinerja Keuangan Pemerintah Kota Malang. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 4(2), 3337–3348. <https://doi.org/10.31004/riggs.v4i2.1026>
- 39) Oktavianti, Y. A. (2020). Pengaruh Kinerja Keuangan Daerah Terhadap Belanja Modal Pada Kabupaten/Kota Di Provinsi Jawa Timur. *Jurnal Ilmu Dan Riset Akuntansi*, 1–20.
- 40) Putri, D. T., Azwardi, A., Marwa, T., & Andaiyani, S. (2018). Does Government Spending Drive Regional Economic Growth? *International Journal of Economics and Financial Issues*, 8(5), 261–265. <https://www.econjournals.com/index.php/ijefi/article/view/6979>
- 41) Rosida, S. A., Fitrawansyah, & Saepudin, U. (2024). Analisis Kinerja Keuangan Daerah Pemerintah Provinsi Jawa Timur Tahun Anggaran 2010 - 2014. *Jurnal GICI Jurnal Keuangan Dan Bisnis*, 16(2), 189–198. <https://doi.org/10.58890/jkb.v16i2.319>
- 42) Safitri, B. W., Dirgantari, N., Hariyanto, E., & Winarni, D. (2023). The Effect Of PAD , Capital Expenditures , Government Size , And Budget Changes On Regional Financial Performance (In Central Java Province In 2019-2021). *International Journal of Applied Finance and Business Studies*, 10(4), 201–208.
- 43) Saputra, M. R., Haliah, & Indrijawati, A. (2021). Pengaruh Belanja Modal terhadap Pertumbuhan Ekonomi Daerah dengan Pendapatan Asli Daerah sebagai Variabel Intervening. *Akrual: Jurnal Bisnis Dan Akuntansi Kontemporer*, 14(2), 129–134. <https://doi.org/10.46367/jas.v3i2.185>
- 44) Saputra, R., Ramzilah, R., & Akmal, S. (2024). Analisis Rasio Keuangan Daerah Untuk Menilai Kinerja Keuangan Daerah Kabupaten Pidie. *MAFEBIS: Jurnal Manajemen, Akuntansi Dan Bisnis*, 2(3), 24–38. <https://doi.org/10.47647/.v2i3.2445>
- 45) Simanjuntak, R. A. (2003). *Kebutuhan Fiskal, Kapasitas Fiskal, dan Optimalisasi Potensi PAD* (Issue 5).
- 46) Susani, D., & Hanifa, N. (2026). The Effect of Regional Fiscal Capacity and Capital Expenditure on Economic Growth in Central Java Province. *Efficient - Indonesian Journal of Development Economics*, 9(1), 15–23.
- 47) Susetyo, D., Zunaidah, Z., Rohima, S., Yulianita, A., Adam, M., & Valeriani, D. (2017). Expenditure analysis of local government and regional economic development district/city of ten province in Sumatra Island Indonesia. *International Journal of Applied Business and Economic Research*, 15(3), 17–42.
- 48) Tarigan, K. S. P., Simanungkalit, J., Sagala, T. O., & Veronica, Y. (2025). Analisis Investasi Terhadap Pertumbuhan Ekonomi. *Jurnal Publikasi Ekonomi Dan Akuntansi*, 5(2), 415–422. <https://doi.org/10.51903/jupea.v5i2.4383>
- 49) Widarjono, A. (2018). *Ekonometrika Pengantar dan Aplikasinya Disertai Panduan EViews* (5th ed.). UPP STIM YKPN.
- 50) Widayati, N., Swandari, S., & Zulfikar, A. L. (2026). Pengaruh Belanja Daerah dan Deviden Atas Penyertaan Modal Pemerintah Daerah Terhadap Produk Domestik Regional Bruto dan Desentralisasi Fiskal Kabupaten Kutai Timur. *Jurnal Teknologi Dan Manajemen Industri Terapan (JTMIT)*, 5(2), 753–758.
- 51) Worthington, A. C., & Dollery, B. E. (1999). Fiscal illusion and the Australian local government grants process: How sticky is the flypaper effect? *Public Choice*, 99(1), 1–14.
- 52) Yurianto. (2020). Pengaruh Belanja Daerah, Investasi, dan Kurs Terhadap Pertumbuhan Ekonomi DKI Jakarta Periode 1987 -2017. *Sosio Ekonomi*, 12(1), 31–34.



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