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The Effect of Fiscal Capacity and Capital Expenditure on GRDP per Capita in Regencies/Municipalities of Central Java Province, 2018–2023

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Abstract

This study examines the relationship between fiscal capacity, capital expenditure, and per capita Gross Regional Domestic Product (GRDP) in regencies/municipalities of Central Java Province during 2018–2023. Fiscal capacity is represented by local own-source revenue per capita and central government transfers per capita, while capital expenditure per capita is used to capture productive fiscal allocation. This study uses a quantitative approach with balanced panel data covering 35 regencies/municipalities over six years, resulting in 210 observations. The data are analyzed using panel regression, and the Fixed Effect Model is selected as the most appropriate model. All variables are transformed into natural logarithms, allowing the coefficients to be interpreted as elasticities. The findings show that local own-source revenue per capita has a positive and statistically significant relationship with GRDP per capita. Central government transfers per capita also have a positive and statistically significant relationship, with the largest coefficient among the fiscal variables. Meanwhile, capital expenditure per capita shows a positive but statistically insignificant relationship with GRDP per capita. These findings indicate that fiscal capacity is more closely associated with regional economic performance than capital expenditure during the observed period. The results highlight the importance of strengthening local revenue capacity, improving the productive use of intergovernmental transfers, and enhancing the effectiveness of capital expenditure allocation.

Keywords: Fiscal capacity, local own-source revenue, intergovernmental transfers, capital expenditure, GRDP per capita

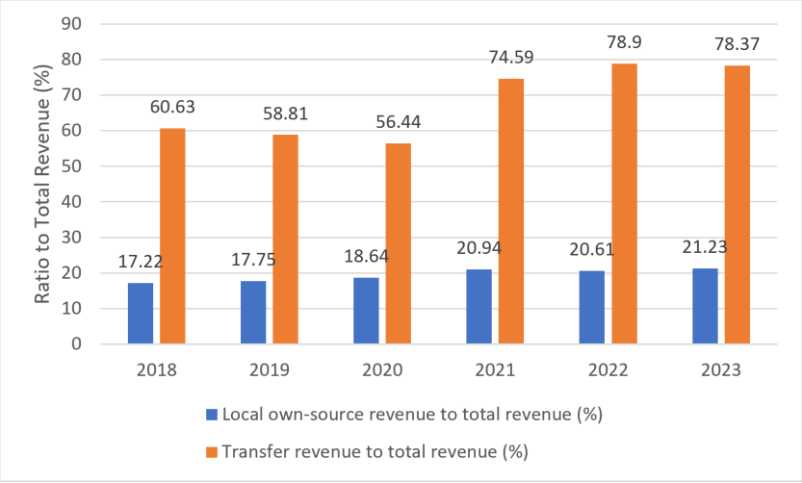
INTRODUCTION

Fiscal decentralization gives local governments greater authority to manage public finance and determine development priorities according to regional needs. In theory, decentralization can improve the efficiency of public service provision because local governments are closer to the preferences and needs of their communities (Oates, 1972; Gruber, 2019). However, fiscal decentralization does not automatically improve regional economic performance. Its effectiveness depends on the ability of local governments to mobilize revenue, manage intergovernmental transfers, and allocate expenditure toward productive activities. In Indonesia, this issue remains

important because many local governments still face limited own-source revenue capacity and strong dependence on central government transfers (Lewis, 2023).

Regional economic performance in this study is measured using Gross Regional Domestic Product (GRDP) per capita, which reflects the average economic output generated by the population in a region. This indicator is relevant because it allows comparison of regional economic performance across regencies and municipalities with different population sizes. In a decentralized fiscal system, differences in fiscal capacity and expenditure allocation may contribute to differences in GRDP per capita. Local governments with stronger fiscal capacity are expected to have greater fiscal space to finance public services, infrastructure, and development programs that support economic activity.

Central Java Province provides an important context for examining the relationship between fiscal capacity, capital expenditure, and GRDP per capita. Compared with several other provinces in Java, Central Java recorded relatively lower average economic growth during 2018–2023. At the same time, regencies and municipalities in Central Java still show high fiscal dependence on transfers from the central government. During 2022–2023, the share of transfers in total local revenue remained around 78 percent, while local own-source revenue accounted for only around 21 percent (Badan Pusat Statistik Provinsi Jawa Tengah, 2025). This condition indicates that the fiscal capacity of many local governments in Central Java is still largely supported by external funding rather than internal revenue sources.



Source: Badan Pusat Statistik Provinsi Jawa Tengah, processed

Figure 1. Ratio Comparison of Local Own-Source Revenue (PAD) and Transfer Revenue to Total Regency/Municipal Revenue in Central Java, 2018–2023

The high dependence on central government transfers also indicates that fiscal independence among regencies and municipalities in Central Java remains uneven. Some regions

have stronger local revenue capacity due to their economic structure, urbanization level, and concentration of productive activities, while others still rely heavily on transfers to finance local expenditure. This difference matters because the ability of each region to transform fiscal resources into economic output is not always the same. Previous studies show that the effect of fiscal decentralization on regional economic performance is influenced by local characteristics, fiscal capacity, and governance quality (Akita et al., 2021; Fauji and Syafitri, 2024;Pramono et al., 2024).

In addition to the revenue side, the expenditure structure of local governments in Central Java also raises an important issue. During 2018–2023, local government expenditure was dominated by operational expenditure, while the share of capital expenditure remained relatively limited. In 2022–2023, operational expenditure accounted for around 70 percent of total expenditure, whereas capital expenditure was only around 12 percent (Badan Pusat Statistik Provinsi Jawa Tengah, 2024). This pattern suggests that local budgets were still mainly used for routine spending rather than asset formation and long-term development investment. Although capital expenditure is theoretically expected to support economic performance through infrastructure and public asset formation, its effect may not appear immediately because public assets require planning, construction, maintenance, and utilization before generating economic benefits (Stiglitz and Rosengard, 2015).

Empirical findings on the relationship between fiscal variables and regional economic performance are still mixed. Sulaeman and Silvia (2019) found that local own-source revenue, regional transfers, and capital expenditure had positive and significant effects on regional economic growth. Pramono et al. (2024) showed that local own-source revenue, general allocation funds, and special allocation funds had positive and significant effects on GRDP per capita, while revenue-sharing funds were not significant. In contrast, Priambodo and Hidayat (2024) found that capital expenditure, general allocation funds, and revenue-sharing funds did not significantly affect GRDP. Previous studies on capital expenditure also show inconsistent results. Winarni et al. (2020) found a positive and significant effect of capital expenditure on economic growth in Central Java, while Pradiatimi and Wibowo (2015) found that capital expenditure did not significantly affect regional economic growth. These differences indicate that the relationship between local fiscal variables and regional economic performance is not uniform across regions and periods.

This study offers a specific contribution by examining regencies and municipalities in Central Java Province during 2018-2023 using a consistent per capita approach. Unlike some previous studies that use aggregate economic growth or total fiscal variables, this study uses GRDP per capita as the dependent variable and measures local own-source revenue, central government transfers, and capital expenditure in per capita terms. Local own-source revenue per capita represents

internal fiscal capacity, central government transfers per capita represent external fiscal capacity, and capital expenditure per capita represents productive fiscal allocation. The period of 2018-2023 is also relevant because it covers the pre-pandemic period, the COVID-19 pandemic period, and the post-pandemic recovery period.

Based on this background, this study aims to analyze the relationship between local own-source revenue per capita, central government transfers per capita, capital expenditure per capita, and GRDP per capita in 35 regencies/municipalities of Central Java Province during 2018-2023. The findings show that local own-source revenue per capita and central government transfers per capita have positive and statistically significant relationships with GRDP per capita, while capital expenditure per capita has a positive but statistically insignificant relationship. These findings imply that strengthening local fiscal capacity and improving the productive use of intergovernmental transfers are important for supporting regional economic performance, while capital expenditure needs to be allocated more effectively toward assets and infrastructure connected to regional productivity.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

A. Fiscal Decentralization and GRDP per capita

Fiscal decentralization provides a theoretical basis for explaining the relationship between local fiscal capacity and regional economic performance. The decentralization theorem argues that local governments can provide public goods and services more efficiently when they are closer to the preferences and needs of local communities, as long as there are no large interregional externalities or economies of scale (Oates, 1972). Oates (1999) further explains that fiscal decentralization is related to the assignment of fiscal functions and instruments to the level of government that can perform them most effectively. However, fiscal decentralization does not automatically lead to better economic outcomes because its effectiveness depends on the ability of local governments to mobilize revenue, manage transfers, and allocate expenditure toward productive development programs.

In Indonesia, regency and municipal governments have an important role in public service delivery and local development. However, differences in local revenue capacity, transfer dependence, and expenditure allocation may create different economic outcomes across regions. Lewis (2023) emphasizes that fiscal decentralization in Indonesia still faces challenges related to local revenue mobilization, transfer dependence, fiscal equalization, and spending efficiency. Therefore, this study uses GRDP per capita as an indicator of regional

economic performance and examines whether fiscal capacity and capital expenditure are associated with differences in economic output across regencies/municipalities.

B. Local Own-Source Revenue

Local own-source revenue represents internal fiscal capacity because it comes from the ability of local governments to mobilize economic potential within their regions. Higher local own-source revenue may indicate a stronger local tax base, greater economic activity, and broader fiscal space for development financing. In a decentralized fiscal system, local governments with higher own-source revenue are expected to have greater flexibility in determining development priorities and financing public services according to local needs.

From a fiscal decentralization perspective, local own-source revenue is important because it reflects the degree of local fiscal independence. Regions with stronger own-source revenue capacity are less dependent on external funding and may have greater incentives to manage their budgets efficiently. Local own-source revenue can also support regional economic performance when it is allocated to public services, infrastructure, and development programs that strengthen productivity and local economic activity.

Previous empirical studies have shown that local own-source revenue is associated with regional economic performance. Sulaeman and Silvia (2019) found that local own-source revenue had a significant effect on regional economic growth. Pramono et al. (2024) also found that local own-source revenue had a significant effect on GRDP per capita. Based on this theoretical and empirical explanation, the first hypothesis is formulated as follows:

Hypothesis 1: Local own-source revenue per capita affects GRDP per capita.

C. Central Government Transfers

Central government transfers represent external fiscal capacity because they provide financial support from the central government to local governments. Transfers are important in a decentralized fiscal system because not all regions have the same ability to generate local revenue. Through transfers, local governments can finance public services and development programs even when their own-source revenue is limited. Therefore, central government transfers can expand the fiscal space of local governments, especially in regions with weaker internal revenue capacity.

The role of intergovernmental transfers is closely related to fiscal equalization. Transfers are expected to reduce fiscal disparities across regions and ensure that local governments have sufficient resources to carry out their responsibilities. However, the effect of transfers on regional economic performance depends on how local governments use these funds. Transfers may support GRDP per capita when they are allocated to productive programs, infrastructure,

public services, and economic development activities. Conversely, if transfers are mostly absorbed by routine expenditure, their relationship with regional economic performance may be weaker.

Empirical findings support the view that transfers can contribute to regional economic performance, although the results may vary across studies. Sulaeman and Silvia (2019) found that general allocation funds and revenue-sharing funds had significant effects on regional economic growth. Pramono et al. (2024) showed that general allocation funds and special allocation funds had significant effects on GRDP per capita, while revenue-sharing funds were not significant. These findings suggest that intergovernmental transfers may support regional economic performance, but their effect depends on the type of transfer and the quality of budget allocation. Therefore, the second hypothesis is formulated as follows:

Hypothesis 2: Central government transfers per capita affect GRDP per capita.

D. Capital Expenditure

Capital expenditure is used to capture productive fiscal allocation from the expenditure side. Unlike local own-source revenue and central government transfers, which represent sources of financing, capital expenditure reflects how local governments allocate their budget to form assets and support long-term development. Capital expenditure may include spending on land, equipment and machinery, buildings, roads, irrigation, networks, and other fixed assets. In public finance theory, public investment can reduce transaction costs, improve accessibility, and increase private sector productivity (Stiglitz and Rosengard, 2015). Therefore, capital expenditure is expected to support GRDP per capita when it produces public assets that are directly connected to economic activity and regional productivity.

Economic growth theory also supports the role of capital expenditure in regional economic performance. The neoclassical growth model emphasizes the role of capital accumulation in increasing output, although its effect may decline over time without technological progress (Solow, 1956). Meanwhile, Barro (1990) argues that productive public expenditure, such as infrastructure and public services that support production, can enter the production process and promote economic growth. However, the effect of capital expenditure may not appear immediately because public assets require planning, procurement, construction, and utilization before generating economic benefits. Its impact also depends on the quality of planning, implementation, maintenance, and accountability in budget management (Setiyanto, 2021).

Empirical findings on capital expenditure remain mixed. Winarni et al. (2020) and Sulaeman and Silvia (2019) found that capital expenditure had a positive and significant effect

on economic growth, while Priambodo and Hidayat (2024) found that capital expenditure did not significantly affect GRDP. These different findings indicate that the relationship between capital expenditure and regional economic performance may depend on the timing, allocation quality, and regional context of the spending. Therefore, the third hypothesis is formulated as follows:

Hypothesis 3: Capital expenditure per capita affects GRDP per capita.

RESEARCH METHODS

A. Research Design

This study uses a quantitative approach to examine the relationship between fiscal capacity, capital expenditure, and per capita Gross Regional Domestic Product (GRDP). The quantitative approach is used because the variables are measured in numerical form and analyzed statistically. This study applies panel data regression because the data combine cross-sectional units and time-series observations. The cross-sectional units consist of regencies and municipalities in Central Java Province, while the time dimension covers the period from 2018 to 2023.

B. Population and Sample

The population of this study consists of all regencies and municipalities in Central Java Province. The sample includes 35 local governments, consisting of 29 regencies and 6 municipalities. This study uses all regencies and municipalities in Central Java Province as the research sample because the data are available for all units during the observation period. The period of analysis covers six years, from 2018 to 2023. Therefore, this study uses balanced panel data with 210 observations.

C. Data Collection Techniques

This study uses secondary data obtained from official government publications. The data were collected through documentation techniques by identifying and compiling data related to GRDP per capita, local own-source revenue, central government transfers, capital expenditure, and population. The main data source is Badan Pusat Statistik (BPS), especially publications related to regional economic indicators and local government financial statistics of regencies/municipalities in Central Java Province. The use of official secondary data is intended to ensure that the data are comparable across regions and years.

D. Instrument Development

The variables used in this study consist of one dependent variable and three independent variables. The dependent variable is GRDP per capita, while the independent variables are local own-source revenue per capita, central government transfers per capita, and capital expenditure per capita. All variables are transformed into natural logarithms to reduce scale differences among variables and to allow the coefficients to be interpreted as elasticities.

Table 1. Variable Measurement

Variable	Symbol	Measurement	Description
GRDP per capita	LNPDRB	Natural logarithm of real GRDP per capita	Represents the average real economic output of the population in each regency/municipality
Local own-source revenue per capita	LNPAD	Natural logarithm of local own-source revenue divided by population	Represents internal fiscal capacity
Central government transfers per capita	LNTRF	Natural logarithm of central government transfers divided by population	Represents external fiscal capacity from the central government
Capital expenditure per capita	LNBM	Natural logarithm of capital expenditure divided by population	Represents productive fiscal allocation from the expenditure side

GRDP per capita is measured using GRDP at constant prices divided by the population in the same region and year. Local own-source revenue per capita is measured by dividing total realized local own-source revenue by population. Central government transfers per capita are measured by dividing total central government transfers received by the local government by population. Capital expenditure per capita is measured by dividing total realized capital expenditure by population. The per capita approach is used to make fiscal and economic indicators more comparable across regions with different population sizes.

E. Data Analysis Techniques

The data are analyzed using panel data regression. In panel data analysis, there are three estimation approaches: Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Model selection is conducted using the Chow test and the Hausman test. The Chow test is used to choose between CEM and FEM, while the Hausman test is used to choose between FEM and REM. Based on the model selection process, the Fixed Effect Model is used as the most appropriate model in this study.

The regression model used in this study is written as follows:

$$\ln PDRB_{it} = \alpha_i + \beta_1 \ln PAD_{it} + \beta_2 \ln TRF_{it} + \beta_3 \ln BM_{it} + e_{it}$$

Where:

LNPDRB_it = natural logarithm of GRDP per capita in region i and year t

LNPAD_it = natural logarithm of local own-source revenue per capita in region i and year t

LNTRF_it = natural logarithm of central government transfers per capita in region i and year t

LNBM_it = natural logarithm of capital expenditure per capita in region i and year t

α_i = region-specific intercept

β_1, β_2, β_3 = regression coefficients

ε_it = error term

i =regency/municipality

t = year

Since the model is expressed in natural logarithms, the regression coefficients can be interpreted as elasticities. This means that a 1 percent change in an independent variable is associated with a percentage change in GRDP per capita equal to the value of its coefficient, assuming other variables remain constant.

Before interpreting the regression results, this study conducts classical assumption tests that are relevant to panel data regression. Multicollinearity is examined using the correlation matrix among independent variables. Heteroscedasticity is tested using the Glejser test by regressing the absolute residual value on the independent variables. The goodness of fit of the model is evaluated using the coefficient of determination, F-test, and t-test. The coefficient of determination is used to assess the ability of the model to explain variation in GRDP per capita. The F-test is used to examine the joint significance of the independent variables, while the t-test is used to examine the partial significance of each independent variable.

RESULTS AND DISCUSSION

RESULTS

A. Descriptive Statistics

Descriptive statistics are used to provide an initial overview of the economic and fiscal characteristics of regencies/municipalities in Central Java Province during 2018–2023. The variables analyzed in this study consist of GRDP per capita, local own-source revenue per

capita, central government transfers per capita, and capital expenditure per capita. The descriptive statistics are presented in Table 2.

Table 2. Descriptive Statistics of Research Variables, 2018–2023

Variable	Mean	Median	Maximum	Minimum	Std. Dev	Observations
GRDP per capita (million rupiah)	29.30	21.59	95.50	12.34	18.77	210
Local own-source revenue per capita (million rupiah)	0.53	0.37	3.10	0.19	0.45	210
Central government transfers per capita (million rupiah)	1.61	1.47	5.08	0.86	0.67	210
Capital expenditure per capita (million rupiah)	0.38	0.30	2.23	0.10	0.27	210

Source: Badan Pusat Statistik Jawa Tengah, processed

Table 2 shows that the average GRDP per capita of regencies/municipalities in Central Java Province was 29.30 million rupiah, with a standard deviation of 18.77. This indicates a relatively large variation in regional economic performance across regencies/municipalities during the observation period. The average local own-source revenue per capita was 0.53 million rupiah, while the average central government transfers per capita reached 1.61 million rupiah. This comparison indicates that, on average, central government transfers were much larger than local own-source revenue. Meanwhile, the average capital expenditure per capita was 0.38 million rupiah, showing that fiscal allocation for asset formation was relatively limited compared with the amount of transfers received by local governments.

B. Model Selection and Classical Assumption Tests

Before estimating the panel data regression model, model selection and classical assumption tests were conducted. The Chow test and Hausman test were used to determine the most appropriate panel data model. The classical assumption tests included normality, multicollinearity, and heteroscedasticity tests. The results are summarized in Table 3.

Table 3. Model Selection and Classical Assumption Test Results

Test	Indicator	Result	Decision
Chow test	Cross-section F probability	0.0000	Fixed Effect Model
Chow test	Cross-section Chi-square probability	0.0000	Fixed Effect Model
Hausman test	Cross-section random probability	0.0000	Fixed Effect Model
Normality test	Jarque-Bera probability	0.207341	Residuals are normally distributed
Multicollinearity test	Highest correlation among independent variables	0.710650	No strong multicollinearity
Glejser test	LNPAD probability	0.0738	No heteroscedasticity
Glejser test	LNTRF probability	0.2356	No heteroscedasticity
Glejser test	LNBM probability	0.4215	No heteroscedasticity

Source: Processed data, 2026

The Chow test results show probability values of 0.0000 for both Cross-section F and Cross-section Chi-square. These values are below the 5 percent significance level, indicating that the Fixed Effect Model is more appropriate than the Common Effect Model. The Hausman test also shows a probability value of 0.0000, which indicates that the Fixed Effect Model is more appropriate than the Random Effect Model. Therefore, the Fixed Effect Model was selected as the estimation model in this study.

The classical assumption test results show that the regression model satisfies the required assumptions. The Jarque-Bera probability value of 0.207341 is greater than 0.05, indicating that the residuals are normally distributed. The multicollinearity test shows that all correlation values among independent variables are below 0.80, meaning that there is no strong multicollinearity in the model. The Glejser test also shows that the probability values of LNPAD, LNTRF, and LNBM are greater than 0.05, indicating that the model does not show heteroscedasticity problems.

C. Panel Data Regression Results

The estimation was conducted using balanced panel data consisting of 35 regencies/municipalities in Central Java Province during 2018-2023, with a total of 210 observations. All variables were transformed into natural logarithms, so the coefficients can be interpreted as elasticities. The Fixed Effect Model estimation results are presented in Table 4.

Table 4. Fixed Effect Model Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-1.545990	0.451393	-3.424930	0.0008
LNPAD	0.063918	0.028983	2.205355	0.0288
LNTRF	0.266664	0.033716	7.909093	0.0000
LNBM	0.011899	0.010416	1.142372	0.2549

Source: Processed data, 2026

Table 4 shows that local own-source revenue per capita and central government transfers per capita have positive and statistically significant relationships with GRDP per capita, with probability values of 0.0288 and 0.0000, respectively. Since all variables are expressed in natural logarithms, the coefficients can be interpreted as elasticities. A 1 percent increase in local own-source revenue per capita is associated with a 0.063918 percent increase in GRDP per capita, while a 1 percent increase in central government transfers per capita is associated with a 0.266664 percent increase in GRDP per capita, assuming other variables remain constant. Meanwhile, capital expenditure per capita has a positive coefficient of 0.011899 but is not statistically significant, as indicated by its probability value of 0.2549.

Table 5. Coefficient of Determination and F-Test Results

Indicator	Value
R-squared	0.994995
Adjusted R-squared	0.993919
F-statistic	924.2270
Prob(F-statistic)	0.000000

Source: Processed data, 2026

Table 5 shows that the model has an R-squared value of 0.994995 and an adjusted R-squared value of 0.993919. Since this study uses the Fixed Effect Model, the high coefficient of determination should be interpreted as the explanatory power of the model as a whole, including regional fixed effects that capture time-invariant characteristics of each

regency/municipality. The F-statistic probability of 0.000000 indicates that local own-source revenue per capita, central government transfers per capita, and capital expenditure per capita jointly have a statistically significant relationship with GRDP per capita.

DISCUSSION

A. The Effect of Local Own-Source Revenue per Capita on GRDP per capita

The estimation results show that local own-source revenue per capita has a positive and statistically significant relationship with GRDP per capita. Therefore, Hypothesis 1 is supported. This finding indicates that regions with higher local own-source revenue per capita tend to have higher GRDP per capita. In this study, local own-source revenue represents internal fiscal capacity because it reflects the ability of local governments to mobilize revenue from their own economic potential.

The positive relationship between local own-source revenue per capita and GRDP per capita can be explained through the fiscal capacity mechanism. Higher local own-source revenue provides local governments with greater fiscal space to finance public services, infrastructure, and development programs. In addition, higher local own-source revenue may also reflect stronger regional economic activity, because local taxes and charges generally increase when the local economic base expands. Therefore, this finding suggests that local own-source revenue is not only a source of local government financing, but also an indicator of the strength of local economic capacity.

This result is in line with fiscal decentralization theory, which emphasizes the role of local governments in managing fiscal resources according to regional needs. It also supports previous studies by Sulaeman and Silvia (2019) and Pramono et al. (2024), which found that local own-source revenue has a significant relationship with regional economic performance. However, this result should not be interpreted as an automatic effect of local own-source revenue on GRDP per capita. The contribution of local own-source revenue depends on how local governments manage and allocate it. If local own-source revenue is used mainly for routine expenditure, its contribution to productive economic activity may be limited. Conversely, when it is allocated to public services and development programs that support productivity, its relationship with GRDP per capita can be stronger.

B. The Effect of Central Government Transfers per Capita on GRDP per capita

The estimation results show that central government transfers per capita have a positive and statistically significant relationship with GRDP per capita. Therefore, Hypothesis 2 is supported. Among the independent variables, central government transfers per capita have

the largest coefficient. This indicates that external fiscal capacity from the central government is closely associated with regional economic performance in regencies/municipalities of Central Java Province during 2018–2023.

This finding is relevant to the fiscal structure of local governments in Central Java, where transfers from the central government remain a dominant source of local revenue. In regions with limited local own-source revenue, central government transfers provide important fiscal support for financing public services, infrastructure, and development programs. Therefore, transfers can expand the fiscal space of local governments and support economic activity, especially in regions that do not yet have a strong local revenue base.

The positive and significant relationship between transfers and GRDP per capita is consistent with the role of intergovernmental transfers in fiscal decentralization. Transfers are intended to reduce fiscal disparities and ensure that local governments have sufficient resources to carry out their responsibilities. This finding is also in line with Sulaeman and Silvia (2019), who found that general allocation funds and revenue-sharing funds have significant effects on regional economic growth, and Pramono et al. (2024), who found that general allocation funds and special allocation funds have significant effects on GRDP per capita.

However, the interpretation of this result must consider that this study uses aggregate central government transfers. Therefore, the result does not distinguish the effect of each transfer component, such as general allocation funds, special allocation funds, revenue-sharing funds, or other transfer schemes. The positive relationship found in this study shows that transfers are important for regional economic performance, but it does not automatically imply that every type of transfer has the same effect. The impact of transfers depends on the design of the transfer scheme, the allocation of funds, and the ability of local governments to use these resources for productive purposes.

C. The Effect of Capital Expenditure per Capita on GRDP per capita

The estimation results show that capital expenditure per capita has a positive but statistically insignificant relationship with GRDP per capita. Therefore, Hypothesis 3 is not statistically supported. The positive coefficient indicates that the direction of the relationship is consistent with the theoretical expectation that capital expenditure can support regional economic performance. However, the probability value greater than 0.05 shows that the relationship is not strong enough to be statistically confirmed during the observation period.

The insignificant relationship may occur because capital expenditure does not always generate an immediate effect on economic output. Capital expenditure usually requires planning, procurement, construction, and utilization stages before the resulting assets can be

used by the public and economic actors. Therefore, the benefits of capital expenditure may appear with a time lag and may not be fully captured in the same fiscal year. In addition, not all capital expenditure has the same level of productivity. Some spending may be directed toward administrative buildings, equipment, or assets that are not directly connected to production, market access, or regional connectivity.

This finding differs from Winarni et al. (2020) and Sulaeman and Silvia (2019), who found that capital expenditure had a positive and significant effect on economic growth. However, it is consistent with Priambodo and Hidayat (2024) and Pradiatimi and Wibowo (2015), who found that capital expenditure did not significantly affect GRDP or regional economic growth. This difference indicates that the effect of capital expenditure depends not only on the amount of spending, but also on the quality of planning, project completion, maintenance, and utilization of public assets. Setiyanto (2021) also emphasizes that capital expenditure does not always produce a positive long-term effect on economic growth when it is not supported by accountability and effective management.

Thus, the insignificant result does not mean that capital expenditure is unimportant. Instead, it suggests that capital expenditure needs to be more strongly directed toward assets that are closely related to regional productivity, such as production roads, irrigation, local markets, logistics facilities, tourism facilities, and infrastructure supporting local production centers. Overall, the finding indicates that the availability of fiscal resources alone is not sufficient; local governments also need to improve the effectiveness of budget allocation so that capital expenditure can generate stronger economic benefits.

CONCLUSION

A. Summary

Based on the analysis of fiscal capacity, capital expenditure, and GRDP per capita in 35 regencies/municipalities of Central Java Province during 2018–2023, this study concludes that local own-source revenue per capita, central government transfers per capita, and capital expenditure per capita jointly have a statistically significant relationship with GRDP per capita. However, the partial estimation results show that not all fiscal variables have a statistically significant relationship with GRDP per capita.

Local own-source revenue per capita has a positive and statistically significant relationship with GRDP per capita. This finding indicates that regencies/municipalities with higher local own-source revenue per capita tend to have higher average economic output per resident. Local own-source revenue reflects internal fiscal capacity that comes from local economic

potential, such as local taxes and charges. Therefore, stronger local own-source revenue capacity is associated with greater fiscal space for local governments to finance public services, development programs, and activities that support regional economic performance.

Central government transfers per capita also have a positive and statistically significant relationship with GRDP per capita. This finding shows that external fiscal support from the central government remains closely associated with regional economic performance in Central Java. This result is relevant because the revenue structure of regencies/municipalities in Central Java is still largely supported by transfers from the central government. However, because this study uses aggregate central government transfers, the result does not distinguish the contribution of each transfer component, such as general allocation funds, special allocation funds, revenue-sharing funds, village funds, or other transfer schemes.

Capital expenditure per capita has a positive but statistically insignificant relationship with GRDP per capita. This means that capital expenditure tends to move in the same direction as GRDP per capita, but its relationship is not strong enough to be statistically confirmed during the period of analysis. This condition may occur because not all capital expenditure directly supports economic activity. Some capital expenditure may be allocated to administrative assets, while infrastructure expenditure may require time before the assets can be fully used by the public and business sector.

B. Implications

The findings imply that local governments need to strengthen local own-source revenue through the expansion of the regional economic base, not merely through higher tax rates or additional charges. Efforts to improve local own-source revenue can be carried out through updating local tax and charge databases, digitalizing local tax payments, integrating business licensing data with local tax objects, and identifying potential revenue from growing local sectors such as trade, services, hotels, restaurants, tourism, parking, and other business activities. Strengthening local own-source revenue should be accompanied by productive budget management so that higher revenue can support economic activity rather than only increase fiscal collection.

The positive relationship between central government transfers and GRDP per capita implies that transfers remain important for supporting regional economic performance, especially in regions with limited internal fiscal capacity. Therefore, local governments need to improve the use of central government transfers by aligning them with regional development priorities. Transfers should be directed toward programs related to public services, economic infrastructure, education, health, labor productivity, and local economic development.

Coordination among local government agencies is also needed so that transfers are not only used to meet financing needs, but also to generate broader economic benefits.

The insignificant relationship between capital expenditure and GRDP per capita implies that increasing capital expenditure alone is not sufficient. Local governments need to improve the quality, direction, and effectiveness of capital expenditure. Capital expenditure should be prioritized for assets that have a direct relationship with regional productivity, such as production roads, irrigation, local markets, logistics facilities, tourism facilities, and infrastructure that supports micro, small, and medium enterprises. In addition, the planning, implementation, maintenance, and utilization of capital assets need to be strengthened so that capital expenditure can generate more visible economic benefits.

C. Limitations

This study has several limitations. First, central government transfers are measured in aggregate form, so this study cannot identify the different effects of each transfer component, such as general allocation funds, special allocation funds, revenue-sharing funds, village funds, and other transfer schemes. Second, this study uses capital expenditure in the current year, so it has not captured the possibility of time lag effects from capital expenditure on GRDP per capita. Third, GRDP per capita is used as an indicator of regional economic performance, but it does not fully reflect income distribution, poverty conditions, or broader welfare aspects. Fourth, the period of 2018–2023 includes the COVID-19 pandemic and post-pandemic recovery, so the results should be interpreted within the context of changing economic and fiscal conditions during the period.

D. Recommendations

Future research is recommended to separate central government transfers into more specific components, such as general allocation funds, special allocation funds, revenue-sharing funds, village funds, and other transfer schemes. This approach can provide a more detailed understanding of which types of transfers are more closely associated with regional economic performance. Future studies can also use lagged capital expenditure variables to examine whether the effect of capital expenditure appears in the following years rather than in the same fiscal year.

In addition, future research can include other indicators of regional welfare, such as poverty, income inequality, human development, or employment, to provide a broader picture of development outcomes. Further studies may also extend the observation period or include policy variables related to the pandemic and recovery period. By doing so, future research can

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provide deeper evidence on how fiscal capacity and budget allocation contribute to regional economic performance under different economic conditions.

Bibliography

Akita, T., Riadi, A. A., & Rizal, A. (2021). Fiscal disparities in Indonesia in the decentralization era: Does general allocation fund equalize fiscal revenues? *Regional Science Policy and Practice*, *13*(6), 1842–1865. https://doi.org/10.1111/rsp3.12326

Badan Pusat Statistik Provinsi Jawa Tengah. (2024). *Statistik Keuangan Pemerintah Provinsi dan Kabupaten/Kota se-Jawa Tengah 2022-2023*.

Badan Pusat Statistik Provinsi Jawa Tengah. (2025). *Statistik Keuangan Pemerintah Provinsi dan Kabupaten/Kota se-Jawa Tengah 2023-2024*.

Barro, R. J. (1990). Government Spending in a Simple Model of Endogenous Growth. In *Journal of Political Economy* (Vol. 98, Number 5). http://www.journals.uchicago.edu/t-and-c

Fauji, Z., & Syafitri, W. (2024). The impact of local governance and regional own-source revenue on economic growth at the district level in Indonesia. *Jurnal Ekonomi Dan Bisnis*, *27*(Oktober), 153–174.

Gruber, J. (2019). *Public Finance and Public Policy*.

Lewis, B. D. (2023). Indonesia's New Fiscal Decentralisation Law: A Critical Assessment. *Bulletin of Indonesian Economic Studies*, *59*(1), 1–28. https://doi.org/10.1080/00074918.2023.2180838

Oates, W. E. (1972). *Fiscal Federalism*.

Oates, W. E. (1999). An Essay on Fiscal Federalism. In *Journal of Economic Literature: XXXVII*. https://about.jstor.org/terms

Pradiatimi, I. N., & Wibowo, H. (2015). *Pengaruh Kinerja Keuangan dan Belanja Modal terhadap Pertumbuhan Ekonomi pada Kabupaten/Kota di Jawa Tengah*. *5*(1), 759–768.

Pramono, R., Ciptawaty, U., Wahyudi, H., & Yuliawan, D. (2024). *Analisis Pengaruh Desentralisasi Fiskal terhadap PDRB Per Kapita di Lampung Tahun 2015–2021*. https://ojs.unud.ac.id/index.php/bse/index

Priambodo, A. P., & Hidayat, N. W. (2024). Pengaruh PAD, DAU, DBH, dan Belanja Modal terhadap PDRB dan Kemiskinan di Kabupaten Sidoarjo. In *Jurnal Manajemen Keuangan Publik* (Vol. 8, Number 1).

Setiyanto, A. (2021). Indonesia's Capital Expenditure and Economic Growth 1990-2020: Role of Accountability. *Jurnal Tata Kelola Dan Akuntabilitas Keuangan Negara*, 245–256. https://doi.org/10.28986/jtaken.v7i2.653

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. In *The Quarterly Journal of Economics* (Vol. 70, Number 1).

Stiglitz, J., & Rosengard, J. (2015). *Economics of the Public Sector Fourth Edition*.

Sulaeman, A., & Silvia, V. (2019). *Pendapatan Asli Daerah, Transfer Daerah, dan Belanja Modal: Pengaruhnya terhadap Pertumbuhan Ekonomi Regional di Indonesia* (Vol. 4, Number 1).

Winarni, E., Ahmad, A. A., & Suharno, S. (2020). Pengaruh Investasi dan Belanja Modal terhadap Pertumbuhan Ekonomi di Provinsi Jawa Tengah. *Jurnal Ilmiah Universitas Batanghari Jambi*, *20*(2), 447. https://doi.org/10.33087/jiubj.v20i2.946