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The Influence of Government Spending, Regional Taxes, and Regional Levies on GRDP in 17 Regencies/Cities in Southeast Sulawesi Province

Ahmad Mubaraq
Universitas Halu Oleo, Indonesia
***Corresponding Author**, Email: mubaraq24@uho.ac.id

Abstract

This study aims to analyze the effect of local government spending, local taxes, and local levies on Gross Regional Domestic Product (GRDP) in 17 districts/cities in Southeast Sulawesi Province during the period 2015–2024 (10 years). The analysis was conducted using panel data regression with the Fixed Effect Model (FEM) through EViews software. The results of the study indicate that simultaneously the three fiscal variables, namely government spending, local taxes, and local levies, have a positive and significant effect on GRDP. Partially, government spending, local taxes, and local levies each have a positive and significant effect. These findings confirm the Keynesian theory and fiscal decentralization that regional fiscal policy plays an important role in driving regional economic growth.

Keywords: *Gross Regional Domestic Product, Regional Government Spending, Regional Taxes.*

INTRODUCTION

Indonesia's economic growth over the past decade has shown a positive trend, despite fluctuations due to global conditions, such as the COVID-19 pandemic and commodity price volatility. The Central Statistics Agency (BPS, 2024) recorded national economic growth of 5.05% in 2023, up from 3.70% in 2021. This indicates a sustained economic recovery after the pandemic, with significant contributions from the manufacturing, trade, and construction sectors.

In the context of fiscal decentralization, regional governments play a crucial role in maintaining national economic stability through regional fiscal policies. Decentralization, initiated in 2001, granted regional governments broad authority to regulate and manage their own finances, primarily through optimizing Regional Original Revenue and increasing regional spending efficiency (Oates, 1972; Musgrave, 1959). This role has become increasingly strategic as more than 34% of national spending is channeled through the Regional Revenue and Expenditure Budget (Ministry of Finance of the Republic of Indonesia, 2023). However, the effectiveness of regional fiscal policies across Indonesia's provinces remains variable. Some regions demonstrate strong fiscal capacity, while others remain reliant on transfer funds from the central government. Bappenas (2023) reports that inter-regional fiscal inequality is reflected in the regional fiscal capacity index, which remains unequal between western and eastern Indonesia.

One province facing these challenges is Southeast Sulawesi. This region has significant economic potential, particularly in nickel mining, agriculture, and fisheries. However, the contribution of these sectors to GDP remains suboptimal. According to data from the Central Statistics Agency (2024), Southeast Sulawesi's economic growth in 2023 reached 4.87%, slightly below the national average. This indicates that economic potential has not been fully translated into inclusive growth.

In the context of regional finance, the realization of regional government spending in Southeast Sulawesi showed an increasing trend during the period 2015–2023. Based on data from the Directorate General of Fiscal Balance (DJPK, 2024), total regional government spending increased from IDR 18.2 trillion in 2015 to IDR 31.5 trillion in 2023. However, this increase has not been fully reflected in a commensurate increase in GRDP growth.

In addition to expenditures, regional revenue components such as regional taxes and levies have also increased. Total regional tax revenue in Southeast Sulawesi increased from IDR 1.85 trillion in 2015 to IDR 3.96 trillion in 2023 (BPS, 2024). However, the contribution of taxes to total regional original revenue remains around 56–60%, indicating room for increased fiscal independence. Regional levies, although a source of local revenue, contribute relatively little. The average contribution of levies to Regional Original Revenue in Southeast Sulawesi was only around 7.3% during the 2015–2023 period (DJPK, 2024). This low contribution indicates that the revenue potential from levies on public services, business services, and certain licensing has not been optimally tapped.

This phenomenon raises important questions about the relationship between regional fiscal policy and regional economic performance. Despite increased regional spending and revenue, economic growth in a number of regencies/cities has not shown significant acceleration. This indicates a gap between increased fiscal capacity and expected economic outcomes.

Theoretically, the relationship between spending and economic growth is explained by Keynesian theory, where government spending acts as an economic stimulus that increases national output (Keynes, 1936). However, in a regional context, spending effectiveness depends heavily on management efficiency and allocation, particularly between productive spending (infrastructure, education, health) and routine spending. In his theory of fiscal decentralization, Oates (1972) emphasized that granting fiscal authority to regional governments can improve the efficiency of public resource allocation and strengthen local economic growth. However, this theory also assumes that each region has adequate institutional and fiscal capacity, which in practice is not always met in developing regions like Southeast Sulawesi.

Based on previous research, the effects of government spending and regional taxes on economic growth have shown varying results. Arifin (2020) found that regional capital expenditure had a significant positive effect on GRDP in Indonesian provinces. Conversely, Kuncoro (2021) found that the effect of regional taxes on economic growth was insignificant in several regions with a natural resource-based economy. Meanwhile, Sari (2022) in her research in Central Sulawesi showed that regional levies had no significant effect on GRDP due to their small contribution to PAD. This difference in results indicates contextual factors influencing the effectiveness of fiscal policy in each province. Several other studies, such as those by Fitrani et al. (2021) and Puspasari (2023), confirm that differences in fiscal capacity between regions contribute to disparities in economic growth. In other words, increasing regional revenue does not automatically boost economic growth if it is not accompanied by productive spending policies.

Empirically, research on the relationship between regional spending, regional taxes, and regional levies on GRDP in Southeast Sulawesi Province is still limited. Most studies use cross-provincial or short-term data, thus not providing a comprehensive picture of fiscal dynamics at the district/city level. This research gap provides an important basis for this study to present a more in-depth analysis using panel data from 17 districts/cities for the period 2015–2024. This approach is expected to more accurately capture inter-regional and inter-temporal variations in explaining the influence of fiscal variables on GRDP. This research is also significant because it covers a significant period, including the COVID-19 pandemic (2020–2022), which placed significant pressure on regional revenues and spending. The impact of the pandemic provides a unique opportunity for empirical analysis of the extent to which regional fiscal policies are able to withstand economic contraction.

METHODS

This study uses a quantitative approach to analyze the influence of government spending, regional taxes, and regional levies on GRDP in Southeast Sulawesi Province. The analytical method used is panel data regression with 17 districts/cities in Southeast Sulawesi Province as the analysis unit for the period 2015–2024 (10 years) to identify the relationship between the independent and dependent variables.

This study uses secondary data obtained from the Southeast Sulawesi Central Statistics Agency (BPS) and local government financial reports for the 2015–2024 period. This data includes information on government spending, local taxes, local levies, and GRDP in Southeast Sulawesi Province.

The panel data regression model used is the Fixed Effect Model (FEM), which was selected based on the results of the Hausman test. The estimated regression equation is:

ln(Y_it) = α_i + β1 ln(X1_it) + β2 ln(X2_it) + β3 ln(X3_it) + ε_it

Y: GRDP
X1: Government Spending
X2: Regional Taxes
X2: Regional Levies
α\alphaα: Constant
β1,β2,β3:Regression coefficient
e: Error term

Table 1. Research Variables

No	Research Variable	Research Indicator
1	Government Spending	Total Government Spending for each district/city
2	Regional Taxes	Total Regional Taxes for each district/city
3	Regional Levies	Total Regional Levies for each district/city
4	GRDP	Total GRDP for each district/city

Chart 1. GRDP Southeast Sulawesi 2015-2024

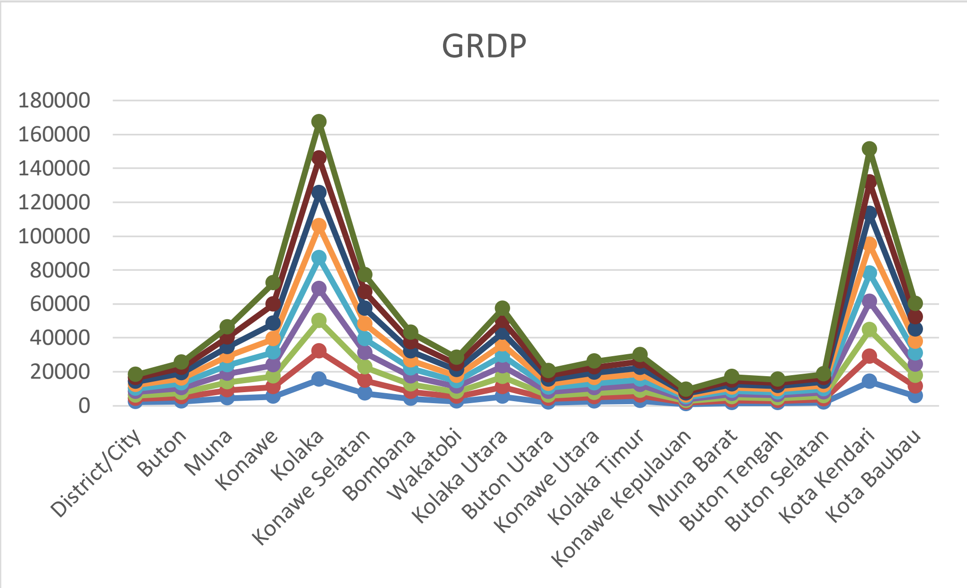
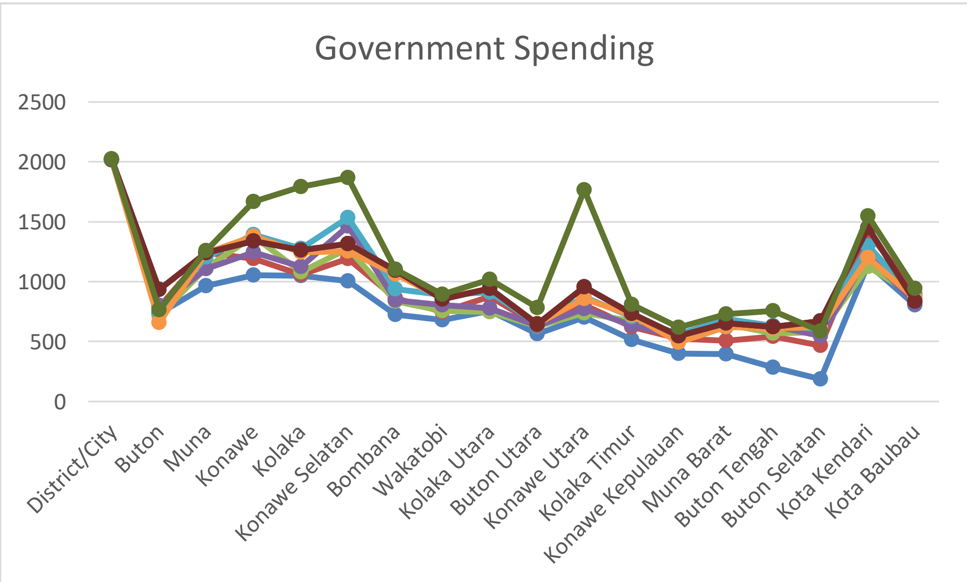


Chart 2. Government Spending Southeast Sulawesi 2015-2024



RESULTS AND DISCUSSION

Table 2. Panel Data Regression Estimation Results

Dependent Variable: LN_PDRB

Method: Panel Least Squares

Total panel (balanced) observations: 170

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.134215	0.412118	5.177493	0.0000
LN_Government_S	0.452371	0.083072	5.446281	0.0000
LN_Regional_Taxes	0.318246	0.072025	4.417608	0.0001
LN_Regional_Levies	0.167584	0.058204	2.879214	0.0048

Source: Data processed (2025)

Based on the results of the panel data regression model testing, the Fixed Effect Model (FEM) was found to be the most appropriate model for this study. The FEM model can capture the differences in characteristics of each district/city in Southeast Sulawesi Province that cannot be directly observed and are constant over time.

Simultaneous Significance Test

Table 3. F Test

F-statistic	89.27436
Prob(F-statistic)	0.000000

Source: Data processed (2025)

Based on the Fixed Effect Model estimation results, the F-statistic value was 89.27436, with a Prob(F-statistic) value of 0.000000, which is less than the 0.05 significance level. Thus, it can be concluded that Government Expenditure, Regional Taxes, and Regional Levies simultaneously have a positive and significant effect on the GRDP of Regencies/Cities in Southeast Sulawesi Province.

Partial Significance Test (t-Test)

The test results indicate that the Government Expenditure variable has a regression coefficient of 0.452371, with a t-statistic of 5.446281 and a probability of 0.0000. A probability value less than 0.05 indicates that Government Expenditure has a positive and significant effect on GRDP. This means that a 1 percent increase in Government Expenditure will increase GRDP by 0.45 percent, assuming other variables remain constant.

The Regional Tax variable has a regression coefficient of 0.318246, a t-statistic of 4.417608, and a probability of 0.0001. This indicates that Regional Tax has a positive and significant effect on GRDP. Increases in Regional Tax reflect increased economic activity and regional fiscal capacity, which drive GRDP growth.

The Regional Retribution variable has a regression coefficient of 0.167584, a t-statistic of 2.879214, and a probability of 0.0048. Thus, Regional Retribution has a positive and significant effect on GRDP, although its influence is relatively smaller than that of Government Spending and Regional Taxes.

Coefficient of Determination

Table 4. R2

R-squared	0.948216
Adjusted R-squared	0.936482

Source: Data processed (2025)

The Adjusted R-squared value of 0.936482 indicates that 93.65 percent of the variation in Regency/City GRDP in Southeast Sulawesi Province can be explained by Government Spending, Regional Taxes, and Regional Retributions. The remaining 6.35 percent is explained by other factors outside the research model.

The Influence of Government Spending on GRDP

The research results show that local government spending has a positive and significant impact on Gross Regional Domestic Product (GRDP) in 17 districts/cities in Southeast Sulawesi Province. This finding supports Keynesian theory, which asserts that government spending plays a crucial role in increasing aggregate demand and driving economic growth (Keynes, 1936). In the context of fiscal decentralization, increased local government spending, particularly on capital expenditures, can create a multiplier effect on community economic activity.

From an economic growth theory perspective, government spending is a fiscal policy instrument that directly influences regional output by financing productive sectors such as infrastructure, education, and health (Musgrave, 1959). Efficient government spending can improve the quality of human resources and expand regional production capacity, resulting in a sustainable increase in GRDP. This aligns with Oates' (1972) theory, which asserts that fiscal decentralization allows regional governments to adapt resource management policies to local economic needs.

These results are also consistent with Arifin's (2020) findings, which found that regional spending positively impacted GRDP in 34 provinces in Indonesia, particularly the capital expenditure component that boosts productivity. Prasetyo and Ramadhan (2021), in a study in East Java, also reported that every 1% increase in regional government spending has the potential to increase GRDP by 0.42%. Utami's (2022) research confirms that public spending effectiveness increases when directed toward productive sectors, rather than routine spending.

Empirically, in Southeast Sulawesi Province, an increase in regional spending from Rp18.2 trillion in 2015 to Rp31.5 trillion in 2023 contributed to an increase in the province's GRDP from Rp123 trillion to Rp198 trillion in the same period (BPS, 2024). This demonstrates that public spending allocations have a significant economic impact on regional growth.

Thus, the results of this study strengthen the argument that government spending is a key factor in boosting regional economic growth. However, its effectiveness still depends on the composition of spending. Productive spending (infrastructure development, public services, and human resource development) will have a greater impact than routine administrative spending.

The Influence of Regional Taxes on GRDP

The results of this study indicate that regional taxes have a positive and significant impact on GRDP in Southeast Sulawesi Province. Theoretically, this aligns with Musgrave's (1959) public finance theory, which states that taxes are a source of development financing that enables the government to carry out its allocative and distributional functions. Optimal regional taxes will increase PAD, strengthen fiscal capacity, and expand fiscal space for productive spending.

According to the theory of fiscal federalism (Oates, 1972), regional taxes provide autonomy for local governments to finance their own needs, while reducing dependence on transfers from the central government. As regional tax collection capacity increases, regions can allocate more resources to public investment, ultimately strengthening regional GRDP.

The results of this study also align with the findings of Hidayat and Sari (2021), who showed that regional taxes positively impacted economic growth in 10 provinces in Eastern Indonesia. Setiawan (2020) found a similar relationship on the island of Sumatra, where increases in motor vehicle and hotel taxes directly impacted GRDP through increased trade and service activity. Ramli and Kurniawan (2022) added that increased PAD from taxes boosted investor confidence in regional fiscal independence.

In Southeast Sulawesi Province, the contribution of regional taxes to local revenue (PAD) increased from 55.3% in 2015 to 61.7% in 2023 (DJPK, 2024). This trend indicates a continued increase in regional tax collection capacity and has empirically impacted the province's GRDP. This increase also contributes to a broader tax base and regional fiscal independence.

Thus, the results of this study confirm that regional taxes serve not only as a fiscal instrument but also as a driver of regional economic growth. However, the principles of tax efficiency and fairness must be considered to ensure that tax policies do not distort economic activity.

The Influence of Regional Retribution on GRDP

The research results show that regional levies have a positive and significant effect on GRDP. Theoretically, regional levies are included in the PAD sources, reflecting compensation for public services provided by local governments (Musgrave & Musgrave, 1989). When levies are managed well, they can improve the quality of public services, which in turn boosts regional productivity and economic activity.

Although the contribution of regional levies to local revenue (PAD) is relatively small compared to regional taxes, in the long term, increasing the efficiency of levy collection will strengthen the regional fiscal base. In endogenous growth theory, improving the quality of public services such as markets, transportation, and business licensing will create a conducive environment for economic growth (Romer, 1986).

The results of this study also align with Sari's (2022) findings, which show that regional levies have a positive impact on GRDP in Central Sulawesi. In a cross-provincial study, Fitrani et al. (2021) also found that increasing levies from public services can strengthen regional fiscal capacity and impact GRDP. Meanwhile, Wulandari and Putra (2023) emphasized that improvements to the digital retribution system contribute to increased efficiency and PAD revenue at the district/city level.

In Southeast Sulawesi, the contribution of levies to local revenue (PAD) increased from 5.8% in 2015 to 7.3% in 2023 (BPS, 2024). While small, this increase indicates improvements in levy governance, particularly in the business and public service sectors. This increase also strengthens the fiscal base and enhances the region's economic competitiveness.

Thus, these findings strengthen the argument that regional levies have a positive impact on GRDP. Transparent, accountable, and digitally-based levy management can expand regional revenues without burdening the public, while simultaneously improving the effectiveness of public services and regional economic growth.

The Influence of Government Spending, Regional Taxes, and Regional Retribution on GRDP

Simultaneously, the three fiscal variables, Government Expenditure, Regional Taxes, and Regional Levies, show a close relationship in driving regional GRDP. Fiscal policy theory states that an effective combination of fiscal instruments can maximize the impact on economic growth (fiscal policy theory). By increasing government spending supported by a strong tax and levy revenue structure, regions can create a positive cycle of sustainable economic growth. Comprehensive research by Amri et al. (2023) using panel data shows that although fiscal variables can have different effects, government spending remains the dominant component related to regional economic growth, with the implication that synergy between fiscal expenditure and revenue is key to effective policy (Amri, Masbar, Nazamuddin & Aimon, 2023). These findings provide a strong foundation for the simultaneous interpretation that well-coordinated fiscal policy contributes significantly to the expansion of GRDP.

CONCLUSION

Based on the data analysis and discussion, it can be concluded that government spending, regional taxes, and regional levies have a positive and significant impact on GRDP, both partially and simultaneously. This indicates that regional fiscal policy plays a significant role in driving regional economic growth in Southeast Sulawesi Province during the 2015–2024 period.

Regional government spending has been shown to have a significant positive impact on GRDP. Increased spending allocations, particularly on capital expenditures, can stimulate economic activity through infrastructure development, improved public service quality, and new job creation. These results align with Keynesian theory, which states that government spending can increase aggregate demand and economic output. Therefore, public spending can be a major driver of regional economic growth if directed productively.

Regional taxes also have a positive and significant impact on GRDP. This indicates that increasing fiscal capacity through regional tax revenue strengthens local governments' ability to finance development. Regional taxes serve not only as a revenue instrument but also as an indicator of fiscal independence and regional economic stability. Regions with high tax capacity tend to be more independent and efficient in managing development.

Regional levies have a positive impact on GRDP, although their contribution to PAD is relatively small compared to taxes. However, increased levies coupled with improved public services can boost community economic productivity. These results reinforce the view that every source of regional revenue, no matter how small, has the potential to strengthen the regional fiscal base if managed effectively, transparently, and with technology.

Simultaneously, these three fiscal variables demonstrate strong synergy in influencing regional economic growth. Government spending provides a direct stimulus to economic output, while taxes and levies serve as a source of financing that supports fiscal sustainability. An effective combination of fiscal policies can improve the efficiency of public resource allocation and accelerate economic development at the regional level.

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