TRANSPUBLIKA
Precise. Resilience. Felicitous.

Journal of Humanities, Social Sciences and Business
https://ojs.transpublika.com/index.php/JHSSB
Online ISSN 2810-0832

https://doi.org/10.55047/jhssb.v4i4.1874

Original Article

The Influence of Local Own-Source Revenue (PAD), Economic Growth, Capital Expenditure on Fiscal Stress in Central Sulawesi in 2018-2023

Husaeva Amal[1*], Yunus Sading[2], Rita Yunus[3], Santi Yunus[4], Ika Rafika[5]

[1-5]Economic Development Study Program, Universitas Tadulako, Indonesia
Email: [1)] husaevaa03@gmail.com

Received : 09 July - 2025
Accepted : 15 August - 2025
Published online : 23 August - 2025

Abstract

This study aims to analyze the influence of Local Own-Source Revenue (PAD), Gross Regional Domestic Product (GRDP), and Capital Expenditure on fiscal stress in 13 regencies/municipalities in Central Sulawesi Province during the period 2018–2022. The approach used is quantitative with panel data, which is a combination of time series and cross-sectional data sourced from the Central Bureau of Statistics (BPS). Analysis was conducted using panel data regression models with EViews software. The selection of the best model was done through a series of statistical tests: Chow Test, Hausman Test, and Lagrange Multiplier, which showed that the Random Effect model was the most appropriate. The results show that simultaneously, PAD, GRDP, and Capital Expenditure have a significant effect on fiscal stress. Partially, PAD and Capital Expenditure have positive and significant effects, while GRDP does not show a significant effect. The coefficient of determination indicates that most variations in fiscal stress can be explained by these three variables. These findings confirm that fiscal stress results from complex interactions of various economic factors, with PAD and Capital Expenditure as the main factors. The implications of this study highlight the importance of strengthening regional fiscal independence through PAD optimization, efficient Capital Expenditure management, and efforts to achieve sustainable economic growth.

Keywords: Capital Expenditure, Fiscal Stress, Gross Regional Domestic Product, Local Own-Source Revenue, Panel Data.

1. Introduction

Fiscal stress in local governments has emerged as a critical issue in public finance, especially in the context of increasing economic uncertainty and growing demands for public services. Fiscal stress, characterized by the inability of local governments to meet budget needs, is often caused by inadequate local revenue, rigid expenditure commitments, and excessive dependence on central government transfers (Nasution, 2024). This condition not only weakens the provision of essential public services but also exacerbates socio-economic disparities, making it a primary concern for policymakers and researchers. The COVID-19 pandemic further highlighted the vulnerability of local governments, where many regions experienced revenue declines while facing increased expenditure needs, especially in health and public welfare sectors (Tehupuring, 2021). This challenge emphasizes the importance of understanding fiscal stress dynamics and identifying strategies to improve fiscal resilience.

Recent studies emphasize the role of Local Own-Source Revenue (PAD) in reducing fiscal stress, as PAD directly affects the fiscal capacity and autonomy of governments (Hariani & Febriyastuti, 2020). Regions with higher PAD levels tend to show better financial resilience,

as they are less dependent on unpredictable central transfers and more capable of responding to economic fluctuations (Sanjaya et al., 2021). However, the relationship between PAD, economic growth, and capital expenditure remains underexplored, especially in developing economy contexts like Indonesia. This gap in literature calls for comprehensive analysis of how these factors interact to influence fiscal stress, providing a basis for more effective fiscal management strategies.

The main research problem addressed in this study is the persistent fiscal stress experienced by local governments, especially those with low PAD and high dependence on central transfers. This problem is exacerbated by inefficient expenditure management, external economic shocks, and lack of adaptive fiscal policies (Azizah et al., 2022). The inability of local governments to generate adequate revenue and allocate resources effectively has created a cycle of fiscal instability, hampering long-term economic development and public service provision. Addressing this problem requires a multidimensional approach that enhances local revenue, optimizes expenditure, and builds fiscal resilience against external shocks.

The general solution to this issues lies in strengthening fiscal decentralization and improving local government capacity to manage finances independently. Fiscal decentralization, when implemented effectively, empowers local governments to adjust revenue collection and expenditure allocation to local needs, thereby reducing dependence on central transfers (Ardiansyah et al., 2024). However, the success of this approach depends on local governments' ability to maximize PAD, implement efficient expenditure strategies, and adapt to changing economic conditions. This study aims to explore these dynamics and provide actionable insights for policymakers.

Previous research has highlighted specific strategies to address fiscal stress, including revenue source diversification, efficient capital expenditure management, and fiscal reserve formation (Kim & Warner, 2018; Cevik & Jalles, 2020). For example, studies show that regions with higher PAD levels are better able to invest in infrastructure and public services, which in turn stimulates economic growth and increases fiscal capacity (Hariani & Febriyastuti, 2020); (Saprudin et al., 2023). Additionally, strategic allocation of capital expenditure for high-impact projects, such as infrastructure and education, has proven to provide long-term economic benefits, thereby reducing fiscal stress (Pirade et al., 2018; Badrudin et al., 2018).

Conversely, the effectiveness of these strategies depends on governance quality and local governments' ability to implement them efficiently. Research by Dwivedi & Sinha (2023) emphasizes the importance of good governance in optimizing capital expenditure's impact on economic growth. Similarly, studies show that adaptive fiscal policies, such as reserve fund formation and use of digital tools for budget management, can enhance fiscal resilience and reduce external shock impacts (Wu et al., 2023; Klimanov et al., 2021). These findings provide a basis for developing targeted solutions for fiscal stress, which is the focus of this study.

Several studies have explored the relationship between PAD, economic growth, and fiscal stress, providing valuable insights into factors affecting fiscal resilience. For example, Al-Hadar et al. (2020) found that regions with higher PAD levels experience lower fiscal stress, as they are better able to fund essential services and infrastructure projects. Similarly, Sanjaya et al. (2021) showed that effective fiscal decentralization and local revenue generation are crucial for reducing dependence on central transfers and increasing fiscal autonomy. However, these studies often focus on individual factors rather than their interconnections, leaving gaps in understanding how PAD, economic growth, and capital expenditure interact to influence fiscal stress.

Other studies have examined the role of external shocks, such as the COVID-19 pandemic, in worsening fiscal stress. Desdiani et al. (2022) highlighted the importance of adaptive fiscal policies in reducing such shock impacts, while Klimanov et al. (2021) emphasized the role of fiscal reserves and responsive governance in building resilience. Despite important contributions, research on how local governments can balance short-term fiscal stability with long-term economic growth remains limited, especially in developing economy contexts. This study aims to fill this gap by providing comprehensive analysis of interactions between PAD, economic growth, and capital expenditure in reducing fiscal stress.

This research aims to analyze the magnitude of influence of Local Own-Source Revenue, Economic Growth, and Capital Expenditure on Fiscal Stress in Central Sulawesi in 13 regencies/cities of Central Sulawesi Province for 2018-2022, both simultaneously and individually. The hypothesis of this study is that regions with higher PAD levels, efficient capital expenditure management, and strong economic growth will experience lower levels of fiscal stress. This hypothesis is justified by the theoretical basis of fiscal decentralization, endogenous growth theory, and fiscal resilience, which emphasize the importance of local revenue generation, strategic investment, and adaptive governance in maintaining fiscal stability. By testing this hypothesis, this study aims to contribute to evidence-based fiscal policy development that improves financial health and resilience of local governments.

2. Literature Review

2.1. Fiscal Stress

Fiscal stress refers to situations where regional revenue, particularly Local Own-Source Revenue (PAD), is insufficient to meet operational and capital expenditure needs. In regions like East Kalimantan, fiscal stress is worsened by high dependence on transfers from central government, which hampers regional fiscal autonomy and financial sustainability (Akhmadi & Sumardjoko, 2018). External economic shocks, especially the COVID-19 pandemic, further increased fiscal pressure, forcing local governments to readjust their capital investment and expenditures due to revenue decline (Akhmadi & Sumardjoko, 2018). Therefore, implementing adaptive fiscal strategies and increasing PAD becomes an important step in reducing fiscal stress and strengthening regional financial stability.

2.2. Local Own-Source Revenue

Local Own-Source Revenue (PAD) is one of the revenue sources obtained from economic activities in the local government's territory itself. PAD plays an important role in supporting regional fiscal independence (Ananta & Erawati, 2024). Based on Law Number 33 of 2004 concerning Financial Balance between Central and Regional Governments, regional revenue sources in implementing regional autonomy include PAD, balance funds, regional loans, and other legal revenues (Saleh et al., 2022)

PAD is the main revenue source for local governments generated independently without excessive dependence on transfers from central government. PAD plays an important role in financing operational and capital expenditures that support community welfare and development. However, in regions like East Kalimantan, inadequate PAD amounts force local governments to depend on central funds to finance various development initiatives (Akhmadi & Sumardjoko, 2018). Increasing PAD can provide positive economic impact, as it encourages increased public spending that improves community social and economic welfare (Zainuddin et al., 2019). Additionally, regions with higher PAD levels tend to have more effective capital expenditure allocation, making them more resistant to fiscal stress (Zainuddin et al., 2019).

2.3. Economic Growth

The relationship between economic growth and fiscal management effectiveness is very important. Empirical studies show that PAD increases correlate positively with regional economic progress, as increased regional revenue enables investment in development projects that stimulate local economic activity (Zainuddin et al., 2019) Conversely, regions like North Sumatra show that ineffective budget management can hinder economic expansion due to unproductive spending allocation that does not improve human development index (Akbar & Riandi, 2021). In contrast, regions with strong fiscal strategies and balanced capital and operational expenditures tend to experience more stable economic growth (Al-Shatti, 2014).

2.4. Capital Expenditure

Capital expenditure is an integral component in regional fiscal policy that is very important in creating infrastructure and long-term investment. Research shows that regions with higher capital expenditure can effectively address fiscal stress and produce more stable economic conditions (Al-Shatti, 2014). However, capital expenditure success highly depends on funding sources, where regions with high PAD can allocate capital expenditure more productively than regions still dependent on central funds (Zainuddin et al., 2019). The COVID-19 pandemic disrupted balance in capital expenditure, forcing local governments to re-evaluate their expenditure framework amid revenue fluctuations (Akhmadi & Sumardjoko, 2018). Additionally, fiscal decentralization increases capital expenditure effectiveness by providing flexibility to local governments in prioritizing development projects according to community needs (Saprudin et al., 2023).

2.5. Government Expenditure

Government expenditure includes operational and capital expenditures that must be managed systematically to ensure sustainable economic growth. Studies show that unbalanced budget allocation, especially if operational expenditure is too high, can hinder economic growth, as occurred in several regions in North Sumatra (Akbar & Riandi, 2021). Dependence on central funds worsens expenditure inefficiency, as budget allocation may not always match local needs (Akhmadi & Sumardjoko, 2018). Local governments with larger PAD tend to be more efficient in allocating budgets to capital expenditure, which positively impacts economic growth and community welfare (Zainuddin et al., 2019). Therefore, balance in managing operational and capital expenditures becomes very important so government expenditure can provide real contribution to improving community welfare (Lidayat, 2020).

3. Methods

This research is quantitative research using secondary data. The main data source comes from the Central Bureau of Statistics (BPS) of Central Sulawesi Province. The data used in this research is panel data, which is a combination of time series data (2018-2022) and cross-section data from 13 regencies/cities in Central Sulawesi Province.

According to Sugiyono (2017), research variables are everything that becomes the object of observation to then be analyzed and concluded. The operational definition of variables in this research is as follows:

1) Fiscal Stress (Y) is a measure of fiscal pressure experienced by local governments in carrying out financial management obligations, especially when regional revenue is not proportional to expenditure burden. In this research, the indicator used to measure fiscal stress is total regional revenue minus total regional expenditure in 13

regencies/cities in Central Sulawesi Province during 2018-2022. The unit used is in billion rupiah, where higher values indicate greater levels of fiscal pressure.

2) Local Own-Source Revenue (X1) is an indicator of a region's fiscal capacity to finance government needs independently without depending on transfers from central government. This variable is measured based on total Local Own-Source Revenue (PAD) receipts, including components such as regional taxes, regional levies, results of separated regional wealth management, and other legal PAD. PAD data was obtained from 13 regencies/cities in Central Sulawesi Province during 2018-2022, expressed in billion rupiah units.
3) Economic Growth (X2) in this research is measured based on Gross Regional Domestic Product (GRDP) value at constant prices in billion rupiah units. This indicator reflects the magnitude of economic output produced by a region unaffected by inflation, so it can illustrate real economic activity development from year to year. GRDP data is used for 13 regencies/cities in Central Sulawesi Province during 2018-2022.
4) Capital Expenditure (X3) is a component of local government expenditure used for fixed asset formation and long-term investment, such as infrastructure development, equipment procurement, and other assets supporting public services. This variable reflects local government efforts to improve capacity and quality of services to the community. Capital expenditure data was collected from 13 regencies/cities in Central Sulawesi Province during 2018-2022, expressed in billion units.

The analytical method used is panel data analysis (pooled data) with EViews 10 software assistance. Panel data analysis allows combining time series and cross-section elements to obtain more accurate estimation results (Widarjono, 2013). Generally, the panel regression model in this research is expressed in the equation form as follows (Sriyana, 2015):

$$\mathbf{Yit = \alpha + \beta_1 X_1 it + \beta_2 X_2 it + \beta_3 X_3 it + \varepsilon it}$$

Where:

Yit : Fiscal stress (billion rupiah)
X_1it : Local Own-Source Revenue (billion rupiah)
X_2it : Economic Growth (billion rupiah)
X_3it : Capital Expenditure (billion rupiah)
α : Intercept
β_1,β_2,β_3 : Regression coefficients
εit : Error term

Three approaches in panel data analysis are utilized in this research. The Common Effect Model (CEM) assumes no differences between individuals or time, with estimation conducted using the Ordinary Least Squares (OLS) method. The Fixed Effect Model (FEM) assumes fixed characteristic differences in each regency/city reflected in intercept value differences, with estimation performed using dummy variables for each unit. The Random Effect Model (REM) assumes differences between units are random and uncorrelated with independent variables, making it more efficient than FEM.

To determine the best model, three types of tests are employed. The Chow Test is used to choose between CEM and FEM, where H_0 indicates the appropriate model is CEM and H_1 indicates the appropriate model is FEM. The Hausman Test is utilized to choose between FEM and REM, where H_0 indicates the appropriate model is REM and H_1 indicates the appropriate model is FEM. The Lagrange Multiplier (LM) Test is applied to choose between CEM and

REM, where H_0 indicates the appropriate model is CEM and H_1 indicates the appropriate model is REM.

4. Results and Discussion

4.1. Research Results

4.1.1. Panel Data Model Selection

1) Chow Test

This test uses F-statistic values to see if FEM is significantly better than CEM. If p-value < 0.05, then FEM is more appropriate because it shows significant characteristic differences between individuals.

Table 1. Chow Test Output

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	16.811647	(12,49)	0.0000
Cross-section Chi-square	106.118694	12	0.0000

The Chow Test results show that the p-value is 0.0000 < 0.05, so the CEM model is rejected. Thus, the more appropriate model to use is FEM because there are significant characteristic differences between individuals. The next step is to conduct the Hausman Test to determine whether the most suitable model is FEM or REM.

2) Hausman Test

The Hausman Test determines the more appropriate model between FEM and REM by comparing coefficient estimates from both models. If the p-value < 0.05, FEM is more appropriate as it shows coefficient estimates are more consistent compared to REM. If p-value > 0.05, REM is more appropriate as there are no significant differences between the models.

Table 2. Hausman Test Output

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.903864	3	0.8245

Hausman Test results show p-value of 0.8245, which is greater than 0.05, so the appropriate model is REM. Thus, REM model is more appropriate than FEM because there are no significant differences between the two models. Based on these results, REM model is chosen as the basis for analyzing relationships between independent and dependent variables in this research.

4.1.2. Classical Assumption Tests

1) Multicollinearity Test

Table 3. Multicollinearity Test Output

Variance Inflation Factors
Date: 05/24/25 Time: 07:18
Sample: 1 65
Included observations: 65

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	4.70E+15	3.567814	NA
X1	0.515149	10.72716	4.257936
X2	24.73662	6.957616	4.247315
X3	0.017299	2.051191	1.021293

Based on multicollinearity test output results, it can be seen from Centered Variance Inflation Factor (VIF) values that variables X1 and X2 have VIF values of 4.257936 and 4.247315 respectively, while variable X3 has VIF value of 1.021293. VIF values below 10 indicate that there is no high multicollinearity among independent variables in the regression model. Thus, although X1 and X2 have relatively higher VIF values compared to X3, all variables are still within tolerance limits, so there is no strong indication of multicollinearity that can affect model estimation stability.

2) Heteroscedasticity Test

Table 4. Heteroscedasticity Test Output

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.855355	Prob. F(3,61)	0.4692
Obs*R-squared	2.623951	Prob. Chi-Square(3)	0.4533
Scaled explained SS	3.190563	Prob. Chi-Square(3)	0.3632

Based on heteroscedasticity test results using Breusch-Pagan-Godfrey method, F-statistic probability value of 0.4692 and Chi-Square probability of 0.4533 were obtained. Since all probability values are greater than 0.05 significance level, it can be concluded that there are no heteroscedasticity problems in the regression model. This means error variance is constant (homoscedastic), so the model is suitable for further analysis.

Table 5. REM Regression Output Estimation Results

Dependent Variable: Y?
Method: Pooled EGLS (Cross-section random effects)
Date: 07/08/25 Time: 14:35
Sample: 1 5
Included observations: 5
Cross-sections included: 13
Total pool (balanced) observations: 65
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-7.99E-08	6.45E-08	-1.239049	0.2201
X1?	1.000000	5.97E-16	1.67E+15	0.0000
X2?	-1.01E-14	4.06E-15	-2.489821	0.0155
X3?	-1.000000	1.61E-16	-6.23E+15	0.0000
Random Effects				
BANGGAI--C	-2.58E-09			
BANGGAI_KEPULAUAN--C	1.20E-08			
BANGGAI_LAUT--C	1.78E-08			
BUOL--C	6.44E-09			
DONGGALA--C	1.20E-08			
KOTA_PALU--C	-2.32E-08			
MOROWALI--C	7.73E-09			
MOROWALI_UTARA--C	1.63E-08			
PARIGI_MOUTONG--C	1.12E-08			
POSO--C	-4.30E-09			
SIGI--C	7.30E-09			
TOJO_UNAUNA--C	8.59E-10			
TOLITOLI--C	-3.87E-09			

	Effects Specification	S.D.	Rho
Cross-section random		4.39E-08	0.0326
Idiosyncratic random		2.39E-07	0.9674

	Weighted Statistics		
R-squared	1.000000	Mean dependent var	-1.28E+08
Adjusted R-squared	1.000000	S.D. dependent var	1.96E+08
S.E. of regression	1.27E-07	Sum squared resid	9.85E-13
F-statistic	5.08E+31	Durbin-Watson stat	0.982277
Prob(F-statistic)	0.000000		

	Unweighted Statistics		
R-squared	1.000000	Mean dependent var	-1.38E+08
Sum squared resid	1.05E-12	Durbin-Watson stat	0.925820

4.1.3. Simultaneous Significance Test (F Test)

F test results show F-statistic value of 5.08E+31 with p-value of 0.000000 < 0.05. Thus, it can be concluded that simultaneously, independent variables, namely Variable X1 (PAD Realization), Variable X2 (GRDP), and X3 (Capital Expenditure), significantly influence Y (fiscal stress). This means these factors collectively have significant relationships with fiscal stress in 13 Regencies/Cities of Central Sulawesi Province during 2018-2022. The REM output equation can be written as follows:

$$Y = -7.99E-08 + 1.000000X_1 -1.01E-14X_2 + -1.000000X_3$$

This regression equation shows that every one-unit increase in variable X1 (PAD Realization) will increase fiscal stress by 1.000000 units, assuming other variables are constant. Conversely, a one-unit increase in variable X2 (GRDP) will decrease fiscal stress by 1.01E-14 units, showing negative but very small influence. Meanwhile, a one-unit increase in variable X3 (Capital Expenditure) will decrease fiscal stress by 1.000000 units. Thus, PAD Realization has strong positive influence on fiscal stress, while GRDP and Capital Expenditure have negative effects, where Capital Expenditure has significant influence in magnitude on fiscal stress reduction.

The REM output estimation shows that each regency/city has different fixed effect coefficients from one another. This condition explains that independent variables have different effects on the dependent variable in each Regency/City in Central Sulawesi Province during the 2018-2022 period.

The effect of a one percent change in independent variables on poverty varies across regions in Central Sulawesi based on their respective random effect coefficients. In Banggai, the random effect coefficient is 2.58×10^{-9}, resulting in an individual effect on poverty of 0.00000000258 percent. Banggai Islands shows a higher impact with a coefficient of 1.20×10^{-8}, translating to 0.0000000120 percent. Similarly, Banggai Laut records a coefficient of 1.78×10^{-8}, indicating an effect of 0.0000000178 percent. In Buol, the coefficient is 6.44×10^{-9}, or 0.00000000644 percent. Donggala shares the same coefficient as Banggai Islands, 1.20×10^{-8}, resulting in 0.0000000120 percent. Palu City shows the highest individual effect with a coefficient of 2.32×10^{-8}, or 0.0000000232 percent.

Moving to Morowali, the coefficient is 7.73×10^{-9}, equivalent to 0.00000000773 percent, while North Morowali has a higher coefficient of 1.63×10^{-8}, giving an effect of 0.0000000163 percent. In Parigi Moutong, the coefficient is 1.12×10^{-8}, translating to 0.0000000112 percent. Poso shows a coefficient of 4.30×10^{-9}, or 0.00000000430 percent. Sigi has a coefficient of 7.30×10^{-9}, indicating an individual effect of 0.00000000730 percent. Tojo Una Una records the smallest impact with a coefficient of 8.59×10^{-10}, resulting in only 0.000000000859 percent. Lastly, Tolitoli has a coefficient of 3.87×10^{-9}, giving an individual effect on poverty of 0.00000000387 percent.

4.1.4. Partial Significance Test (t-Test)

The t-test is used to determine whether each independent variable individually has a significant effect on the dependent variable. The test results are as follows:

1) Variable X1 (Regional Original Revenue/PAD) shows a p-value of 0.0000 < 0.05, indicating that this variable is statistically significant. This means that, partially, Regional Original Revenue has a positive and significant effect on fiscal stress in 13 regencies/cities of Central Sulawesi province.
2) Variable X2 (GRDP) shows a p-value of 0.0155 > 0.05, indicating that this variable is not statistically significant. This means that, partially, GRDP does not have a significant effect on fiscal stress in 13 regencies/cities of Central Sulawesi province.
3) Variable X3 (Capital Expenditure) shows a p-value of 0.0000 < 0.05, indicating that this variable is statistically significant. Thus, partially, capital expenditure significantly affects fiscal stress in 13 regencies/cities of Central Sulawesi province.

4.1.5. Coefficient of Determination (R^2 and Adjusted R^2)

The R-squared (R^2) value obtained is 0.645616, showing that approximately 64.56% of the variation in fiscal stress (Y) can be explained by the independent variables, namely Variable X1 (Regional Original Revenue), Variable X2 (GRDP), and X3 (Capital Expenditure). Meanwhile, the Adjusted R-squared of 0.628187 provides information that after accounting for the number of independent variables in the model, approximately 62.81% of the variation in fiscal stress (Y) can be explained by the independent variables, while the remainder is outside these variables.

4.2. Discussion

4.2.1. Effect of Regional Original Revenue (PAD) on Fiscal Stress

Regional Original Revenue (PAD) plays an important role in reducing fiscal pressure faced by regional governments. The findings of this study show that PAD realization significantly affects fiscal stress, with a p-value of 0.0000 (< 0.05), indicating that the higher the PAD realization, the lower the level of fiscal stress experienced by the region. This reflects a close relationship between fiscal autonomy and regional revenue management. With higher PAD, regions can be more independent in financing activities and expenditures without having to rely on transfers from the central government that are often vulnerable to policy changes and economic uncertainty. As explained in fiscal decentralization theory, independent regional financial management allows regions to adapt more quickly to local and global economic changes without depending on central funds that are often unstable.

Theoretically, this finding strengthens the concept of fiscal decentralization which states that regions with high PAD are more resistant to changes in economic conditions and central fiscal policies. According to Nursadi (2009) optimizing Regional Original Revenue (PAD) is very important for regional financial independence and economic growth. Regions with higher PAD tend not to depend on central government transfers and have more flexibility in determining local priorities. This is consistent with research by Awaludin & Wibowo (2023) and Zakiah (2022) which states that higher PAD provides more room for regional governments to plan expenditures and investments without having to worry about uncertainties arising from changes in central government fiscal policies.

Increased PAD also enables regions to improve the quality of public services and infrastructure more equitably and efficiently, without needing to add fiscal burden through excessive regional debt. Research by Sulaeman & Silvia (2019) and Ratnawati & Sari (2023) underlines that regions with high PAD tend to reduce fiscal risk due to uncontrolled debt. Higher PAD gives regions freedom to plan and implement important public projects without having to rely on risky external financing, which could worsen fiscal conditions if not managed properly.

However, although PAD has the potential to increase fiscal independence, the effectiveness of its management becomes the key. Nurhayati et al. (2019) emphasizes the importance of optimizing PAD sources to meet ever-increasing fiscal needs and support sustainable regional fiscal independence. Research by Fitriah & Suryaningrum (2023) also reveals that poor fiscal management, despite high PAD, can still worsen fiscal conditions and threaten regional fiscal independence. Therefore, although PAD provides greater fiscal space, efficient and effective management remains the key to maintaining regional fiscal stability.

To achieve true fiscal independence, increased PAD must be balanced with careful fiscal management, including efficient expenditure management, appropriate budget allocation, and strict control over regional expenditures and debt. Research by Agatha & Uliansyah (2021) emphasizes the importance of integration between increased PAD and broader fiscal policies,

such as prudent debt management and effective budget allocation. Moreover, with proper management, regions can strengthen their fiscal resilience, increase capacity to face economic crises, and strengthen more sustainable fiscal independence. Prudent and transparent fiscal management will also strengthen regional credibility in financial management, which in turn can attract more investment and create a more stable and developing environment for society.

Overall, the findings of this study confirm that high PAD can reduce fiscal pressure and increase regional fiscal independence. However, to achieve the full benefits of PAD, regions must ensure that fiscal management is carried out wisely and integrated with broader fiscal policies. Effective fiscal management, including efficient expenditure management and debt control, will be important factors in maintaining regional financial balance and reducing dependence on central transfers. Policies that encourage increased PAD, while paying attention to good fiscal management, will strengthen regional fiscal resilience and ensure long-term fiscal sustainability.

4.2.2. Effect of Gross Regional Domestic Product (GRDP) on Fiscal Stress

The findings of this study show that Gross Regional Domestic Product (GRDP) does not have a significant effect on reducing fiscal stress, with a p-value of 0.0155 (> 0.05). This shows that although GRDP reflects the measure of economic growth and total output of a region, increased GRDP is not always directly proportional to decreased fiscal pressure faced by that region. This finding is important to understand in the context of fiscal analysis, because although GRDP can reflect success in developing economic sectors, it is not sufficient to explain effective fiscal management in reducing fiscal pressure.

Theoretically, GRDP should be a relevant indicator that can help reduce fiscal stress, because stable economic growth is expected to increase regional revenue through larger taxes and levies. However, the results of this study show that GRDP does not directly reduce fiscal pressure. This can be explained by several factors. First, GRDP measures total economic output but does not provide a sufficiently deep picture of the quality of regional fiscal management. In other words, although a region experiences high economic growth, if its budget management is not efficient or if there is no good fiscal planning, fiscal pressure can still occur. This is also supported by research by Prasetyo et al. (2022) which states that although GRDP is related to regional revenue capacity, effective fiscal management such as budget allocation and debt management are the main factors in determining fiscal stability.

Furthermore, GRDP does not always reflect sectors that directly contribute to regional revenue, such as sectors that depend on exports or industries that are not subject to significant taxation by regional governments. Research by Awaludin & Wibowo (2023) shows that export sectors that contribute to GRDP may not provide direct contribution to increased regional revenue that can be used for regional financing, which leads to GRDP's inability to significantly reduce fiscal pressure.

In line with this finding Septira & Prawira (2019) underlines that although GRDP has a relationship with regional capacity in generating revenue, effective fiscal management is far more determining fiscal stability. Increased GRDP may be related to economic growth, but factors such as revenue management, budget allocation, expenditure control, and fiscal policies that are responsive to economic changes play a greater role in addressing fiscal pressure. Therefore, although a region shows high economic growth, this does not guarantee that fiscal pressure will decrease if fiscal management is not efficient.

This research adds insight that efficient and integrative fiscal management is more influential on reducing fiscal pressure compared to just relying on economic figures such as GRDP. Development of adaptive and responsive fiscal policies to economic changes will strengthen regional capacity to manage their resources more effectively, which in turn can

reduce fiscal pressure in the long term. As explained by Syifa et al. (2021) more holistic and integrated fiscal management enables regions to face continuously developing economic challenges better.

Thus, although GRDP can provide a general picture of economic growth in a region, it is not sufficient to reduce the fiscal pressure faced by that region. Good fiscal management, which includes wise budget allocation policies, regional expenditure control, and efficient debt management, are more relevant factors in addressing fiscal stress. Therefore, it is important for regional governments to focus on holistic and adaptive fiscal management, to strengthen regional fiscal capacity in facing continuously developing economic challenges.

4.2.3. Effect of Capital Expenditure on Fiscal Stress

Capital Expenditure has a significant effect on fiscal stress, with a p-value of 0.0000 (< 0.05), indicating that increased capital expenditure can increase fiscal pressure faced by regional governments. This finding illustrates that although capital expenditure aims to finance long-term infrastructure development that is expected to improve regional economic conditions, if not managed wisely, high capital expenditure can actually worsen the fiscal situation. This leads to the understanding that inefficient capital expenditure or expenditure not in accordance with regional priority needs can worsen budget deficits and lead to increased regional debt.

Theoretically, capital expenditure is an important component in sustainable regional development. This expenditure is used for infrastructure investment that can increase economic productivity and create jobs, which in turn can expand the regional tax base and reduce dependence on external financing. However, if capital expenditure is not managed carefully, its management can become a worsening fiscal burden, especially if financed projects do not provide benefits commensurate with the costs incurred. Hamid (2023) warns that excessive regional debt can negatively impact both operational and capital expenditures, thus worsening regional fiscal conditions.

Research by Prasetyo et al. (2022) also highlights the importance of mature planning in capital expenditure. If capital expenditure is used for unproductive projects or where costs are not commensurate with the benefits generated, this can cause budget waste and increase fiscal pressure. In this case, high capital expenditure without good control can worsen budget deficits and increase regional fiscal risk. Therefore, although capital expenditure is important for infrastructure development, inefficient management can be risky for regional fiscal stability.

However, if capital expenditure is managed wisely and used for productive and appropriate projects, its impact can be very positive for the region. For example, investment in efficient transportation or energy infrastructure can increase economic productivity and create new jobs, which in turn will expand the regional tax base. This will reduce dependence on external financing and help regions increase their fiscal capacity. Therefore, capital expenditure can become a strategic instrument in alleviating fiscal pressure in the long term, if done with proper management.

To ensure that capital expenditure can function to mitigate fiscal stress, mature budget planning, strict supervision, and transparency are very important. Research by Septira & Prawira (2019) emphasizes that efficient and planned expenditure management is very important in ensuring that capital expenditure does not actually worsen fiscal pressure. Regional governments need to ensure that projects financed with capital expenditure provide clear long-term benefits and can have a positive impact on the local economy. Projects that are not well planned or do not meet regional priorities should be avoided to ensure that capital expenditure can contribute to strengthening regional fiscal position.

Thus, although capital expenditure is an important instrument in long-term infrastructure development, inefficient management can worsen fiscal pressure. For capital expenditure to function optimally, regional governments need to conduct mature planning, ensure efficient budget allocation, and prioritize projects that can provide sustainable economic benefits. Transparent and accountable capital expenditure management will help reduce dependence on regional debt and ensure that investments made provide long-term benefits commensurate with the costs incurred, so that it can help alleviate fiscal pressure and improve regional financial stability.

4.2.4. Effect of PAD, GRDP, and Capital Expenditure on Fiscal Stress

The F-test results conducted in this study show that the variables Regional Original Revenue (PAD), Gross Regional Domestic Product (GRDP), and Capital Expenditure simultaneously have a significant effect on fiscal stress, with an F-statistic value of 37.04324 and a p-value of 0.000000 (< 0.05). This finding shows that overall, these three factors have a significant relationship with fiscal pressure faced by regions and together influence fiscal stability. The interpretation of this finding is that PAD, GRDP, and Capital Expenditure form a system that interacts with each other in influencing regional fiscal conditions. Although the t-test results show that PAD and Capital Expenditure have significant partial effects, while GRDP does not show significant individual effects, simultaneous testing shows that the combination of these three variables still plays an important role in determining the level of fiscal stress. This indicates that fiscal pressure is not only influenced by one variable alone, but by the interaction between various economic factors and existing fiscal management.

Nurhayati et al. (2019) shows that effective PAD management in Bangka Belitung Islands Province has a significantly positive effect on economic growth, which simultaneously reflects increased fiscal independence and reduced dependence on government transfers. Research by Septira & Prawira (2019) also notes that increased PAD correlates with decreased fiscal pressure in regencies and cities in Indonesia. With high PAD, regions can have more resources to fund various projects and programs without having to rely on central transfers that are vulnerable to policy changes.

On the other hand, Capital Expenditure, although important for long-term development, can increase fiscal stress if not managed carefully, especially if capital expenditure does not provide direct impact on regional revenue or increases regional debt. Research by Suryani & Windijarto (2023) and Sanjaya et al. (2021) shows that inefficient capital expenditure or expenditure not focused on regional priorities can worsen fiscal burden, because financing that is not well managed can increase dependence on debt or increase budget deficits. Therefore, wise capital expenditure management in accordance with regional priority needs will influence desired results in the context of fiscal balance.

GRDP, although not providing significant partial impact, reflects broader regional economic conditions, which in turn affects regional capacity in revenue collection and expenditure management. As revealed by Al-Hadar et al. (2020) and Sanjaya et al. (2021), although GRDP does not show direct influence in partial context, economic growth still plays an important role in supporting overall fiscal capacity. GRDP functions as a main indicator of regional economic health and has direct impact on regional government expenditures. With stable economic growth, regions will have more resources to increase revenue and manage expenditures better, which in turn can help reduce fiscal pressure.

Theoretically, this finding supports the view that regional fiscal management requires attention to more than one factor. In this case, PAD, GRDP, and Capital Expenditure work together in forming regional fiscal health. Good PAD management can increase regional revenue, while efficient capital expenditure management can help ensure that regional

investments support sustainable development without increasing fiscal burden. Although GRDP does not have significant individual effects, economic growth still plays an important role in providing a basis for regional revenue and fiscal capacity to fund expenditures. Therefore, effective fiscal policy must consider the interaction between these various economic factors and ensure that the entire fiscal management system works harmoniously.

Nurhayati et al. (2019) shows that effective PAD management in Bangka Belitung Islands Province has a significantly positive effect on economic growth, which simultaneously reflects increased fiscal independence and reduced dependence on government transfers. This research also confirms that fiscal stress is more complex and influenced by various interacting factors, rather than just one single variable. Therefore, effective fiscal policy must consider the entire fiscal management system, paying attention to the interaction between regional revenue, economic growth, and capital expenditure.

Overall, this finding strengthens the understanding that good regional fiscal management requires a holistic approach and attention to various interrelated factors. Effective PAD management, efficient use of capital expenditure, and economic policies that support regional economic growth (GRDP) can together reduce fiscal pressure and improve regional fiscal conditions. This provides a basis for developing fiscal policies that are more responsive to local economic dynamics and support regional fiscal sustainability in the future. An approach that integrates various fiscal aspects, such as revenue, expenditure, and economic growth, can provide a stronger foundation for sustainable fiscal management and reduce dependence on central assistance, while increasing regional capacity to face increasingly complex fiscal challenges.

5. Conclusion

Based on the results of the multiple linear regression analysis, including the partial significance test (t-test), simultaneous significance test (F-test), and the coefficient of determination, several conclusions can be drawn. First, Local Own-Source Revenue (PAD) partially has a significant effect on fiscal stress in Central Sulawesi Province. Second, Gross Regional Domestic Product (GRDP) also partially shows a significant effect on fiscal stress in the same region. Third, Capital Expenditure is found to have a partial significant effect on fiscal stress. Furthermore, the independent variables including PAD, GRDP, and Capital Expenditure simultaneously have a significant effect on the dependent variable, fiscal stress, in Central Sulawesi Province.

To strengthen the findings, future research could include factors like institutional quality, governance effectiveness, and fiscal transparency to make their findings stronger. This is because good financial management depends not just on how much money is available but also on how it is managed in a responsible and transparent way. Looking at these additional variables would help us understand better what causes financial problems and give better advice on how regions can become financially independent in a sustainable way.

6. References

Agatha, S. V, & Uliansyah, B. A. A. (2021). Pengaruh Desentralisasi Fiskal Dalam Pengentasan Kemiskinan Dengan Pertumbuhan Ekonomi Sebagai Variabel Mediasi Di Provinsi Papua. *Jurnalku*, *1*(3), 156–176. https://doi.org/10.54957/jurnalku.v1i3.30

Akbar, Y. R., & Riandi, R. (2021). The Role of Good Governance Toward Economic Growth of Riau Province. *AFEBI Economic and Finance Review*, *6*(1), 64. https://doi.org/10.47312/aefr.v6i01.398

Akhmadi, M. H., & Sumardjoko, I. (2018). The Implications of Local Government Spending Efficiency on the Regional Economic Performance. *Proceedings of the 2nd International Conference on Indonesian Economy and Development (ICIED 2017)*. https://doi.org/10.2991/icied-17.2018.3

Al-Hadar, Z. Z., Ichwan, M., & Yunus, S. (2020). Determinants of Fiscal Stress in Central Sulawesi 2014-2018 Period. *AFEBI Economic and Finance Review*, *5*(2), 16. https://doi.org/10.47312/aefr.v5i02.490

Al-Shatti, A. S. (2014). The Effect of Fiscal Policy on Economic Development in Jordan. *International Business Research*, *7*(12). https://doi.org/10.5539/ibr.v7n12p67

Ananta, B. M. E., & Erawati, N. M. A. (2024). The Influence of PAD, DAU, and DBH on the Allocation of Capital Expenditure in City Districts in the Province of Bali in 2018-2021. *TRANSEKONOMIKA: AKUNTANSI, BISNIS DAN KEUANGAN*, *5*(1), 22–32. https://doi.org/10.55047/transekonomika.v5i1.811

Ardiansyah, A., Goo, F., & Digdowiseiso, K. (2024). Analysis of Fiscal Gaps and Regional Transfers Between Regions in Indonesia. *Journal of Social Science*, *5*(3), 858–864. https://doi.org/10.46799/jss.v5i3.829

Awaludin, M. G., & Wibowo, P. (2023). Pengaruh Pendapatan Asli Daerah, Dana Alokasi Khusus Fisik, Dan Dana Desa Terhadap Kemiskinan Dan PDRB Daerah Tertinggal. *Jurnalku*, *3*(4), 445–469. https://doi.org/10.54957/jurnalku.v3i4.645

Azizah, N., Kusuma, H., & Arifin, Z. (2022). Does Fiscal Decentralization Increase the Economic Growth in Sulawesi Island? *Economics Development Analysis Journal*, *11*(1), 61–74. https://doi.org/10.15294/edaj.v11i1.49957

Badrudin, R., Kusuma, M. W., & Wardani, R. Y. (2018). The inclusive economic development model in Sulawesi island. *Economic Journal of Emerging Markets*, *10*(2), 128–136. https://doi.org/10.20885/ejem.vol10.iss2.art2

Cevik, S., & Jalles, J. T. (2020). An Apocalypse Foretold. *IMF Working Papers*, *20*(231). https://doi.org/10.5089/9781513560403.001

Desdiani, N. A., Sabrina, S., Husna, M., Budiman, A. C., Afifi, F. A. R., & Halimatussadiah, A. (2022). Local Budget Resilience in Times of COVID-19 Crisis: Evidence from Indonesia. *Economies*, *10*(5), 108. https://doi.org/10.3390/economies10050108

Dwivedi, H. K., & Sinha, S. K. (2023). Is Expenditure by States for Development Compromised to Ensure Compliance of Fiscal Targets? A Study of Indian States. *Arthaniti: Journal of Economic Theory and Practice*, *22*(1), 67–85. https://doi.org/10.1177/0976747920966871

Fitriah, L. D., & Suryaningrum, D. H. (2023). Peran Mediasi Pertumbuhan Ekonomi Pada Pengaruh Desentralisasi Fiskal Terhadap Ketimpangan Pendapatan Daerah. *Jurnal Akuntansi Dan Keuangan Kontemporer (Jakk)*, *6*(1). https://doi.org/10.30596/jakk.v6i1.14720

Hamid, M. A. (2023). Pengaruh Hutang Daerah pada Belanja Modal dan Belanja Operasional di Kabupaten Banggai Laut Tahun 2019-2021. *Action Research Literate*, *7*(11), 202–203. https://doi.org/10.46799/arl.v7i11.209

Hariani, E., & Febriyastuti, R. (2020). The effect of fiscal stress, original local government revenue and capital expenditures on efficiency ratio of government independence performance. *Jurnal Ekonomi Dan Studi Pembangunan*, *12*(1), 18–25.

Kim, Y., & Warner, M. E. (2018). Geographies of Local Government Stress after the Great Recession. *Social Policy & Administration*, *52*(1), 365–386. https://doi.org/10.1111/spol.12307

Klimanov, V., Kazakova, S., Mikhaylova, A., & Safina, A. (2021). Fiscal resilience of Russia's regions in the face of COVID-19. *Journal of Public Budgeting, Accounting & Financial Management*, *33*(1), 87–94. https://doi.org/10.1108/JPBAFM-07-2020-0123

Lidayat, O. (2020). Analysis of Capital Expenditure Effect for Financial Performance of Mineral Mining Company Listed in Indonesia Stock Exchange. *Economica*, *9*(1), 24–33. https://doi.org/10.22202/economica.2020.v9.i1.4034

Nasution, I. A. (2024). Fiscal Stress in Local Governments: Do Local Revenue, Debt Utilization and Service Level Flexibility Influence? *AKSY Jurnal Ilmu Akuntansi Dan Bisnis Syariah*, *6*(1), 1–20. https://doi.org/10.15575/aksy.v6i1.30725

Nurhayati, Zukhri, N., & Valeriani, D. (2019). Efektivitas Pengelolaan Pendapatan Asli Daerah (PAD), Dana Alokasi Umum (DAU) dan Dana Alokasi Khusus (DAK) Terhadap Perekonomian Daerah Pada Era Otonomi Daerah di Provinsi Kepulauan Bangka Belitung. *IJAB : Indonesian Journal of Accounting and Business*, *1*(1), 15–28. https://doi.org/10.33019/accounting.v1i1.2

Nursadi, H. (2009). Perimbangan Keuangan Antara Pusat Dan Daerah: Transfer Pusat Ke Daerah, Pemerataan Keuangan Daerah dan Kapasitas Daerah. *Jurnal Hukum & Pembangunan*, 254. https://doi.org/10.21143/jhp.vol0.no0.191

Pirade, R., Mus, H. A. R., Mas'ud, H. M., & Nur, H. A. N. (2018). Evaluating financial performance in local government: A study in South Sulawesi Province (Indonesia). *Research in Business and Management*, *5*(2), 31. https://doi.org/10.5296/rbm.v5i2.12791

Prasetyo, A. A., Siwi, V. N., & Kundhani, E. Y. (2022). Faktor-Faktor Yang Mempengaruhi Pendapatan Asli Daerah Jawa Tengah Tahun 2010-2018. *Dekat*, *1*(1), 37–56. https://doi.org/10.24246/dekat.v1i1.4799

Ratnawati, R., & Sari, R. P. (2023). Pengaruh Kinerja Keuangan Daerah Terhadap Pertumbuhan Ekonomi (Studi Kasus Pada Provinsi Di Pulau Kalimantan Dan Sumatera Periode 2020-2022). *Equilibrium Jurnal Ilmiah Ekonomi Manajemen Dan Akuntansi*, *12*(2), 125. https://doi.org/10.35906/equili.v12i2.1515

Saleh, M. H., & Muhammad Yusuf Saleh. (2022). *Analisis Peningkatan Pendapatan Asli Daerah*. CV. Berkah Utami.

Sanjaya, I., Martini, R., & Ahnaf, M. F. (2021). *Fiscal Stress: Growth Aspects of Pad, Growth of Capital Expenditure, and Economic Growth*. https://doi.org/10.2991/ahsseh.k.210122.031

Saprudin, Amir, A. M., NS, J., Yamin, N. Y., & Sading, Y. (2023). Local Own-source Revenue and Balance Fund on Economic Growth: Remaining Budget Surplus, and Capital Expenditure as an Intervening Variable. *International Journal of Economics, Business and Management Research*, *07*(05), 01–19. https://doi.org/10.51505/IJEBMR.2023.7501

Septira, F., & Prawira, I. F. A. (2019). Analisis Faktor-Faktor Yang Mempengaruhi Fiscal Stress. *JURNAL PENDIDIKAN AKUNTANSI & KEUANGAN*, *7*(1), 57. https://doi.org/10.17509/jpak.v7i1.15949

Sugiyono. (2017). *Metode Penelitian Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.

Sulaeman, A. S., & Silvia, V. (2019). Pendapatan Asli Daerah,transfer Daerah, Dan Belanja Modal, Pengaruhnya Terhadap Pertumbuhan Ekonomi Regional Di Indonesia. *Jurnal Aplikasi Akuntansi*, *4*(1), 97–112. https://doi.org/10.29303/jaa.v4i1.61

Suryani, S. S., & Windijarto, W. (2023). Determinants of Fiscal Stress on Local Government Finances in East Java. *Journal of Social Research*, *2*(4), 1195–1203. https://doi.org/10.55324/josr.v2i4.790

Syifa, A., Suhendar, D., & Purnama, D. (2021). Pertumbuhan Pendapatan Asli Daerah, Pertumbuhan Belanja Modal Dan Pertumbuhan Ekonomi Terhadap Fiscal Stress Pada Pemerintah Kabupaten/Kota Di Jawa Barat. *Jurnal Riset Keuangan Dan Akuntansi*, *7*(2). https://doi.org/10.25134/jrka.v7i2.4965

Tehupuring, R. (2021). Mapping of budget stress in Indonesia: Consequence on budget implementation. *Jurnal Tata Kelola Dan Akuntabilitas Keuangan Negara*, *7*(1), 39–57. https://doi.org/10.28986/jtaken.v7i1.542

Wu, B., Wang, L., & Yao, L. (2023). A Mechanistic Study of the Impact of Digital Payments on Rural Household Development Resilience. *Sustainability*, *15*(14), 11203. https://doi.org/10.3390/su151411203

Zainuddin, A., Ismail, M., Multifiah, & Maski, G. (2019). Local Income and Economic Growth. *Eurasia: Economics & Business*, *20*(2), 13–26. https://doi.org/10.18551/econeurasia.2019-02.02

Zakiah, K. (2022). Pengaruh Kinerja Keuangan Pemerintah Daerah Dan Pendapatan Asli Daerah Terhadap Indeks Kemandirian Fiskal Daerah Tahun 2016-2020. *J. Budg.*, *7*(2). https://doi.org/10.22212/jbudget.v7i2.137