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THE EFFECT OF GOVERNMENT DEBT, ECONOMIC GROWTH, AND FISCAL INDEPENDENCE ON BUDGET DEFICIT IN LOCAL GOVERNMENTS IN BALI PROVINCE

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Abstract

This quantitative study employs a causal-explanatory design to examine the effects of public debt, economic growth, and fiscal autonomy on budget deficits across ten local governments in Bali Province. Utilizing a census-based approach on secondary panel data from audited Local Government Financial Reports (LKPD) and the Central Bureau of Statistics (BPS) over the 2020–2024 fiscal years, the hypotheses were tested via multiple linear regression analysis. The simultaneous test reveals that the independent variables highly significantly influence regional budget deficits, yielding an Adjusted R^2 of 89.1%. Partially, public debt exerts a positive and significant effect on the deficit, signaling a debt overhang condition and a deficit-debt spiral that constricts fiscal space. Conversely, economic growth exhibits a negative but non-significant trajectory due to pro-cyclical spending policies and structural expenditure rigidities. Meanwhile, fiscal autonomy has a negative and significant impact on mitigating deficits, demonstrating that optimizing local own-source revenue (PAD) serves as a resilient fiscal buffer against financial distress. To ensure long-term fiscal sustainability, local governments in Bali are advised to enhance expenditure efficiency, direct public debt strictly toward productive investments, and proactively expand their own-source revenue base.

Keywords : *Regional Budget Deficit, Public Debt, Economic Growth, Fiscal Autonomy, Panel Data, Bali* .

INTRODUCTION

The budget deficit is one of the most important macroeconomic issues (Nauman & Ahmad, 2024b) and a key indicator in assessing a country's fiscal health (Prassoga & Soebagiyo, 2025). Persistent budget deficits have become a hallmark of developing countries, raising serious concerns about macroeconomic stability, debt sustainability, and long-term growth prospects (Anus et al., 2025). High deficits can lead to lower economic growth, higher inflation, and crowding out private investment (Arif & Arif, 2023; Kasongo, 2023). Policymakers and practitioners need to understand the key determinants of budget deficits to formulate more effective policies to manage and reduce them (Nauman & Ahmad, 2024a).

Based on the audited Regional Government Financial Reports (LKPD) for 2020–2024, all regencies/cities and the Provincial Government in Bali experienced fluctuating budget deficits due to the economic shock, with the Bali Provincial Government recording the highest deficit. This was due to the collapse of Regional Original Income (PAD) due to reliance on the tourism sector during the COVID-19 pandemic, as well as a surge in regional spending on healthcare. Furthermore, the fiscal gap widened during the recovery period until 2024, with regional spending outpacing regional revenue.

Macroeconomic factors such as government debt and economic growth are key determinants of the deficit (Anus et al., 2025; Kasongo, 2023; Nauman & Ahmad, 2024b). Persistent deficits tend to be accompanied by a surge in public debt, which can lead to inefficient resource allocation and divert funds from productive spending such as infrastructure, education, or health, thus exacerbating the deficit (Kasongo, 2023; Anus et al., 2025; Nauman & Ahmad, 2024a). Economic growth has a significant negative correlation with the fiscal deficit, as increasing GDP can increase tax revenues and reduce the need for deficit financing (Nauman & Ahmad, 2024b; Anus et al., 2025). In the Indonesian context, fiscal decentralization grants authority to regions, but many regions still rely on Regional Transfers (TKD) such as the General Allocation Fund (DAU) and Special Allocation Fund (DAK) (Adhim et al., 2023; Kusumawardani & Iswara, 2025; Yasrizal et al., 2023). Regional fiscal independence is an important measure of the ability to finance government independently, where regions with high Regional Original Income (PAD) tend

to be more fiscally stable, while dependence on TKD increases fiscal vulnerability and can burden the national budget (Astiza et al., 2024; Kusumawardani & Iswara, 2025; Adhim et al., 2023). Therefore, this research is important to identify and analyze how macroeconomic variables (debt and economic growth) and sub-national fiscal variables (regional fiscal independence) collectively and dynamically influence the budget deficit in Indonesia, in order to provide insights for sustainable fiscal policies at both the central and regional levels.

LITERATURE REVIEW

Keynesian Theory

The Keynesian view of deficit financing is central to modern economic theory, emerging as a direct challenge to classical economic thought, particularly after the Great Depression. Keynes developed his theory, particularly in his 1936 book, *The General Theory of Employment, Interest, and Money*, in response to the failure of the laissez-faire economy, which held that the economy would correct itself (Zahariev, 2021). According to Keynesianism, the budget deficit is a vital and necessary fiscal policy tool to stabilize and stimulate the economy during difficult times (Abanikanda et al., 2023). The government should increase spending during economic downturns through deficit financing to boost productivity growth, which has a beneficial impact on the economy (Zahariev, 2021). This government spending creates a ripple effect throughout the economy, resulting in higher total spending and increasing domestic production and aggregate demand (Eigbiremolen et al., 2015).

Keynesians also offer a counterargument to the crowding-out effect, arguing that budget deficits increase domestic production and boost investor optimism, thus creating a "crowding-in" effect (Eigbiremolen et al., 2015). Overall, Keynesians accept deficit financing as a way to manage the business cycle, where deficits are considered a stimulating and beneficial factor for economic development (Bochkareva et al., 2023). This implies that deficits should not be avoided annually but should be managed over the course of the economic cycle. The Keynesian view is that budget deficits, particularly those driven by economic indicators and implemented through expansionary fiscal policy, are a legitimate and effective tool to stabilize and promote economic growth during difficult times (Abanikanda et al., 2023).

Budget deficit

A budget deficit is defined as a fiscal condition when expenditures (spending) exceed revenues within a specific budget period (Prassoga & Soebagiyo, 2025). Specifically, in the context of government administration, this deficit occurs when total state/regional spending exceeds revenue collected, either through taxes or other revenue sources. This concept is also often referred to in the literature as a negative budget balance (negative budget balance or negative fiscal balance) (Bochkareva et al., 2023; Kasongo, 2023). The Regional Budget (APBD) deficit has a clear legal definition within the Indonesian regional financial framework, namely the difference between Regional Revenue and Regional Expenditure in the same budget year (PMK No. 75 of 2024, n.d.). The deficit reflects the ratio between budget revenue and expenditure, which can be expressed in absolute and/or relative values (Bochkareva et al., 2023), and can be planned from the outset or arise during budget implementation. Fiscal policy in Indonesia—especially as a developing country—tends to focus on efforts to manage the budget deficit, but these efforts often create tension because they clash with the demands of urgent development needs, which require large investment allocations in key sectors such as infrastructure, education, and health (Huda et al., 2024).

Economic growth

The concept of economic growth is crucial in policy analysis, given that it serves as a primary indicator of a country's or region's economic progress (Sondakh et al., 2023). Economic growth is defined as the process of continuous change in a country's conditions toward better conditions over a specific period, representing a long-term increase in real output per capita and closely correlated with improvements in social welfare, macroeconomic stability, and the effectiveness of fiscal policy, including budget deficits. The main indicators used are Gross Domestic Product (GDP) at the national level or Gross Regional Domestic Product (GRDP) at the regional level. GDP represents the total market value of all goods and services produced in a region during a given period, serving as a key economic indicator for measuring development performance, analyzing economic structure, and forming the basis for formulating government policies, including Regional Fiscal Independence (Central Bureau of Statistics, 2024). GRDP is used at the regional level to measure regional economic development (Yuandina & Inayati, 2024), and GDP per capita is used to compare living standards (Sondakh et al., 2023). However, GDP has limitations because it does not include non-monetary aspects such as unpaid labor, black market activity, or qualitative dimensions such as community happiness, and does not measure the quality of growth such as environmental impact.

GDP growth and economic growth are generally driven by Capital and Technology Improvements, Higher Labor Productivity, Population Increases that serve as a stimulus for capital investment (von Weizsäcker & Krämer, 2021), Public Investment that triggers multiplier effects (Carvalho et al., 2024), and Institutional Quality that includes the legal system, property rights, infrastructure, and political stability (Arif & Arif, 2023).

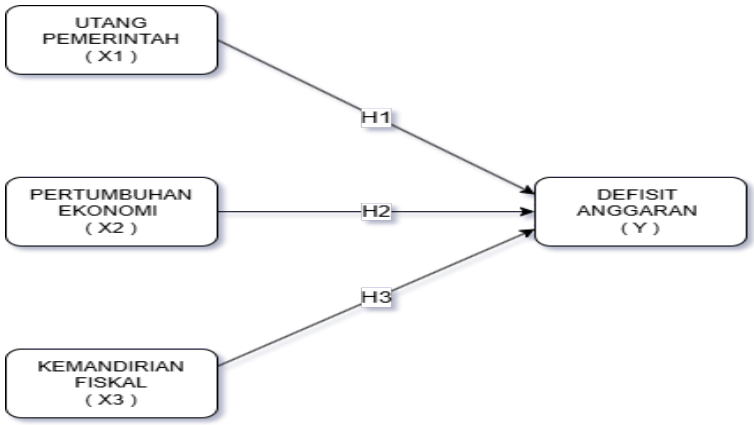
Fiscal independence

Regional fiscal independence fundamentally refers to a local government's capacity to finance government activities, development, and public services by relying entirely on revenues derived from its internal resources, thereby minimizing dependence on external assistance, whether from the central government or loans (Miftahurrohman & Prasetya, 2024). This independence reflects the ability to self-finance, where the local government can manage locally generated resources to support development and provide the best services to the community (Kusumawardani & Iswara, 2025). The main dimension of fiscal independence is seen in the role of Regional Original Revenue (PAD), which indicates the extent to which a local government is able to finance its activities with its own collected revenue (Kusumawardani & Iswara, 2025). Ideally, PAD should be the largest component in mobilizing operational funds for regional government implementation (Yuandina & Inayati, 2024). Therefore, this independence is achieved by reducing dependence on transfer funds from the central government (Astiza et al., 2024), where the lower a region's dependence on the central government, the higher its level of independence (Adhim et al., 2023).

Efforts to achieve fiscal independence are heavily influenced by optimizing the components of Regional Original Revenue (PAD), which specifically include regional taxes, regional levies, proceeds from the management of separated regional assets, and other legitimate PAD (Astiza et al., 2024). This fiscal independence is a crucial pillar within the framework of regional autonomy, which grants local governments the rights, authority, and obligations to manage their own affairs (Adhim et al., 2023), and has implications for increasing capital expenditure allocation, financial sustainability, and encouraging the maximization of local revenue potential (Kusumawardani & Iswara, 2025; Ernawati & Prasetya, 2024; Adhim et al., 2023).

Hypothesis Development

H1: Government debt has a positive effect on the budget deficit.
H2: Economic growth has an impact on the budget deficit
H3: Fiscal independence has a positive effect on the budget deficit.



Gambar 3. 1 Kerangka Konseptual Penelitian

METHOD

This research is a quantitative study with an explanatory approach that aims to explain the influence of Government Debt, Economic Growth, and Fiscal Independence on Budget Deficits at the district/city level in Bali Province. The research design is causal to identify the cause-and-effect relationship between the independent variables (Government Debt, Economic Growth, and Fiscal Independence) and the dependent variable (Budget Deficit).

The research population comprised all district/city governments and the Bali Provincial Government, comprising eight districts, one city, and one province, totaling 10 local governments. The entire population was sampled (census) due to its limited number and complete data availability for the 2020–2024 fiscal year period, resulting in a total sample of 50 units (10 × 5). The research variables consisted of three independent variables: Government Debt (X1), Economic Growth (X2), and Fiscal Independence (X3), and one dependent variable: Budget Deficit (Y). The data used are quantitative data in the form of Regional Government Financial Reports and GRDP data published by the Central Statistics Agency. The data sources are external secondary data obtained from the Audit Report of the Supreme Audit Agency of Bali Province Representative and publications of the Central Statistics Agency. The data collection method uses non-participant observation through Regional Government Financial Reports, Audit Reports of the Supreme Audit Agency of Bali Province Representative, and GRDP data from the Central Statistics Agency. The data are arranged in panel data form (cross-section and time-series) using Microsoft Excel and processed with SPSS.

Data analysis used multiple linear regression which includes descriptive statistics, classical assumption tests, and hypothesis tests. Descriptive statistics are used to describe data through the average (mean), maximum, minimum, mode, and standard deviation values. Classical assumption tests include normality tests using PP Plot and Kolmogorov-Smirnov graphs, heteroscedasticity tests using Scatterplott, Glejser, and Spearman's Rho, and multicollinearity tests. Multiple linear regression analysis is used to model the relationship between the dependent and independent variables. Hypothesis testing is carried out using the t-test to determine the partial effect of each variable, while the coefficient of determination test (Adjusted R^2) is used to measure the model's ability to explain the dependent variable.

RESULTS AND DISCUSSION

Bali Province is an archipelago in Indonesia located east of Java Island and west of Lombok Island, with Denpasar City as its capital and largest city. Demographically, the population of Bali Island reached 4,275,894 in 2024. Known internationally as the Island of the Gods, Bali has unique characteristics where the life of the krama (society) and its culture are closely integrated with customs, religion, artistic traditions, and noble local wisdom. Behind its beauty and tourism potential, the management of the regional budgets (APBD) of all regencies/cities in Bali Province faces significant challenges in maintaining fiscal stability, particularly related to the budget deficit phenomenon. Throughout the period of 2020 to 2024, the dynamics of the fiscal deficit in this region experienced very complex fluctuations due to economic shocks. The impact of the COVID-19 pandemic at the beginning of the period crippled the tourism sector, which is Bali's core economy, thus triggering a drastic decline in Regional Original Income (PAD) amidst soaring needs for healthcare spending. Entering the post-pandemic phase until 2024, budget management challenges shift to accelerating economic recovery, improving tourism infrastructure, and financing leading sectors such as agriculture and culture. The high pace of regional spending, disproportionate to the normalization of regional revenues, has widened the fiscal gap, forcing local governments in all regencies/cities across Bali to rely on alternative financing sources, including borrowing, to cover the resulting budget deficit.

Description of Research Variables

The budget deficits in Bali Province and its regencies/cities fluctuate annually. More details on the budget deficits for Bali Province and its regencies/cities are presented in Table 5.1.

Table 5.1 1Province and Regency/City Budget Deficit 2020-2024 (Billion Rupiah)

No	Province/District/City	2020	2021	2022	2023	2024
1	Bali	831,825	1,907,855	1,945,341	683,933	919,665
2	Badung	159,844	308,161	155,624	1,064,355	739,611
3	Bangli	56,917	140,122	178,524	39,855	1,306
4	Buleleng	71,432	59,551	56,390	49,925	62,113
5	Denpasar	233,301	304,102	367, 347	413,363	476,611
6	Gianyar	384,642	474,243	39,701	144,926	166,380
7	Jembrana	75,751	98,359	127,754	91,790	68,752
8	Karangasem	102,824	109,908	115,688	119,799	187,095
9	Klungkung	40,949	182,995	161,696	55,825	64,041
10	Tabanan	14,608	156,607	41,890	27,523	3,193

Source: Regional Government Financial Report for 2020 to 2024

Table 5.1 shows that Bali Province had the largest budget deficit from 2020 to 2024, while Bangli Regency had the smallest deficit in 2024, amounting to Rp 1,306,298,802.69.

Government debt from 2020 to 2024 in Bali Province and regencies/cities has continued to increase every year except for Gianyar, Bangli, Buleleng, and Tabanan regencies, while Badung and Bali province have experienced fluctuations.

Table 5.2 2of the Bali Provincial Government and Regencies/Cities 2020-2024 (Billion Rupiah)

No	Province/District/City	2020	2021	2022	2023	2024
1	Bali	160,015	1,426,567	1,918,450	2,316,395	1,563,448
2	Badung	64,320	132,529	168,857	249,589	186,737
3	Bangli	23,311	49,250	100,607	170,059	125,662
4	Buleleng	28,888	95,497	40,804	95,409	106,899
5	Denpasar	25,045	50,718	22,610	46,202	61,413
6	Gianyar	432,784	826,476	723,196	562,196	468,619
7	Jembrana	10,259	43,468	10,770	47,923	36,243
8	Karangasem	42,615	47,633	34,870	62,466	43,407
9	Klungkung	28,478	42,986	98,017	128,943	105,527
10	Tabanan	54,178	255,809	160,442	230,052	180,229

Source: Regional Government Financial Report for 2020 to 2024

Based on Table 5.2, it can be explained that the Regency/City and Province of Bali with the largest government debt is Gianyar Regency in 2024 amounting to Rp. 468,619,480,374.78 and Jembrana Regency has the smallest government debt in 2024 amounting to Rp. 36,243,175,478.00.

The economic growth of the regencies/cities and province of Bali from 2020 to 2024 fluctuated, where in 2020 and 2021 each regencies/cities and province of Bali experienced a decline in economic growth, even to the point of negative economic growth caused by Covid-19, but starting from 2022 to 2024, economic growth began to increase.

Table 5.3 3Growth of Bali Province and Regencies/Cities 2020-2024 (Percentage)

No	Province/District/City	2020	2021	2022	2023	2024
1	Bali	-6.17	-1.98	2.93	3.56	4.94
2	Badung	-4.98	-0.65	2.98	3.65	4.98
3	Bangli	-16.55	-6.74	9.97	11.29	5.94
4	Buleleng	-8.39	-1.05	4.04	5.06	5.47
5	Denpasar	-6.38	-0.23	3.12	4.70	5.08
6	Gianyar	-4.10	-0.33	2.80	3.50	4.54
7	Jembrana	-4.49	-0.56	2.58	3.10	4.33
8	Karangasem	-5.80	-1.27	3.11	3.64	5.04
9	Klungkung	-9.44	-0.92	5.02	5.69	5.55
10	Tabanan	-9.34	-2.46	4.84	5.71	5.48

Source: BPS Bali Province 2025

Based on Table 5.3, it can be explained that the economic growth of each district/city and province of Bali fluctuates, contractionary growth occurred in 2020 and 2021, the highest contraction occurred in Bangli district, namely -16.55 percent, while the highest economic growth occurred in Bangli district in 2023 at 11.29 percent.

The fiscal independence of each Regency/City in Bali province from 2020 to 2024 fluctuated, ranging from 0.12 percent in Bangli Regency in 2020 to the highest fiscal independence in 2023 in Badung Regency, which was 6.95 percent.

Table 5.4 4Independence of Bali Province and Regencies/Cities 2020 - 2024 (Percentage)

No	Province/District	2020	2021	2022	2023	2024
1	Bali	1.16	1.11	1.91	2.16	2.42
2	Badung	2.42	2.02	4.12	6.95	6.75
3	Bangli	0.12	0.17	0.15	0.21	0.20
4	Buleleng	0.20	0.25	0.25	0.27	0.26
5	Denpasar	0.65	0.71	0.74	0.94	1.14
6	Gianyar	0.48	0.40	0.69	1.41	1.31
7	Jembrana	0.16	0.22	0.19	0.25	0.18
8	Karangasem	0.19	0.21	0.24	0.30	0.31
9	Klungkung	0.26	0.30	0.37	0.34	0.40
10	Tabanan	0.22	0.26	0.32	0.34	0.35

Source: Regional Government Financial Report for 2020 to 2024

Based on Table 5.4, it can be explained that the highest fiscal independence occurred in Badung Regency, followed by Bali Province, while the lowest fiscal independence of the 9 regencies/cities and Bali Province was Bangli Regency with a value of 0.12 percent in 2020 and in 2024 had a fiscal independence value of 0.20 percent.

Inferential Analysis

Based on the description of the research results above, the researcher continued the data analysis using a multiple linear regression model. This analysis aims to determine the effect of the independent variables, namely government debt (X1), economic growth (X2), and fiscal independence (X3) on the dependent variable, namely the fiscal deficit of districts/cities and Bali Province (Y). Statistical tests used to prove the research hypothesis include partial tests (t-test) and simultaneous tests (F-test). Data processing was carried out using the SPSS (Statistical Package for the Social Sciences) Version 24 program, which is a comprehensive and flexible software system for statistical analysis and data management.

Classical assumption test

The test used to test that the data and regression line equation obtained are linear or BLUE (best linear unbiased estimator) and can be used (valid) to find forecasts and estimates, before moving on to the hypothesis test, a classical assumption test will be carried out, namely the normality test, multicollinearity test, autocorrelation test and heteroscedasticity test.

1. Normality test

The normality test is a classic assumption test used to determine whether the obtained regression model has normally distributed residuals. A good regression model is one where the residuals are normally distributed. To determine whether research data is normally distributed, look at normal probability plots. This test is performed by observing the distribution of data points relative to the diagonal line on a histogram .

Table 5.5 5Test

One-Sample Kolmogorov-Smirnov Test					
		Government Debt (X1)	Deficit (Y)	Economic Growth (X2)	Fiscal Independence (X3)
N		50	50	50	50
Normal Parameters [a,b]	Mean	25.3380	25.5111	3.5560	1.0888
	Standard Deviation	1.63857	1.61030	3.11737	1.66203
Most Extreme Differences	Absolute	.144	.146	.184	.286
	Positive	.093	.091	.182	.281
	Negative	-.144	-.146	-.184	-.286
Test Statistics		.144	.146	.184	.286
Asymp. Sig. (2-tailed)		.011 [c]	.089 [c]	.100 [c]	.090 [c]
a. Test distribution is Normal.					
b. Calculated from data.					
c. Lilliefors Significance Correction.					

Source Appendix 2

Based on the results of the One-Sample Kolmogorov-Smirnov test in Table 5.6, the significance value (Asymp. Sig. 2-tailed) for the deficit variable (Y) was 0.089, economic growth (X2) was 0.100, and fiscal independence (X3) was 0.090. These three variables have a significance value greater than the 5% error level (α = 0.05), so it can be concluded that the data for variables Y, X2, and X3 are normally distributed. Meanwhile, the government debt variable (X1) shows a significance value of 0.011.

2. Multicollinearity test

The multicollinearity test aims to test whether the regression model finds a correlation between independent variables. To test for multicollinearity by looking at the VIF value and *tolerance value* of each independent variable, if the VIF value ≤ 10 and the *tolerance value* ≥ 10. Based on the results of the data analysis, the *tolerance value* and VIF value can be known from the results of the SPSS analysis, the meaning of these numbers is:

Model		Tolerance	VIF
1	(Constant)		
	Government Debt (X_1)	.883	1,182
	Economic Growth (X_2)	.891	1,122
	Fiscal Independence (X_3)	.979	1,021

Source: Appendix 2

a. *tolerance and VIF* values for government debt are 0.883 and 1.182, which means that the variable X_1 does not experience symptoms of malticolinearity, because the tolerance value is greater than 0.10 or (0.883 > 0.10) and the VIF value is less than 10 (1.182 < 10).
b. *tolerance and VIF* values for economic growth are 0.891 and 1.122, which means that the variable X_2 does not experience multicollinearity symptoms, because the tolerance value is greater than 0.10 (0.891 > 0.10) and the VIF value is less than 10 (1.122 < 10).
c. *tolerance and VIF* values for fiscal independence are 0.979 and 1.021, which means that the variable X_3 does not experience multicollinearity symptoms, because the tolerance value is greater than 0.10 (0.979 > 0.10) and the VIF value is less than 10 (1.021 < 10).

3. Heteroscedasticity test

The heteroscedasticity test aims to determine whether there is unequal variance in the residuals from one observation to another in a regression model. There are several methods for conducting a heteroscedasticity test. This study uses a plot graph. The following is a histogram of the data used in this model. This histogram shows whether one observation is identical to another. A good regression equation is homoscedastic, while a poor one is heteroscedastic.

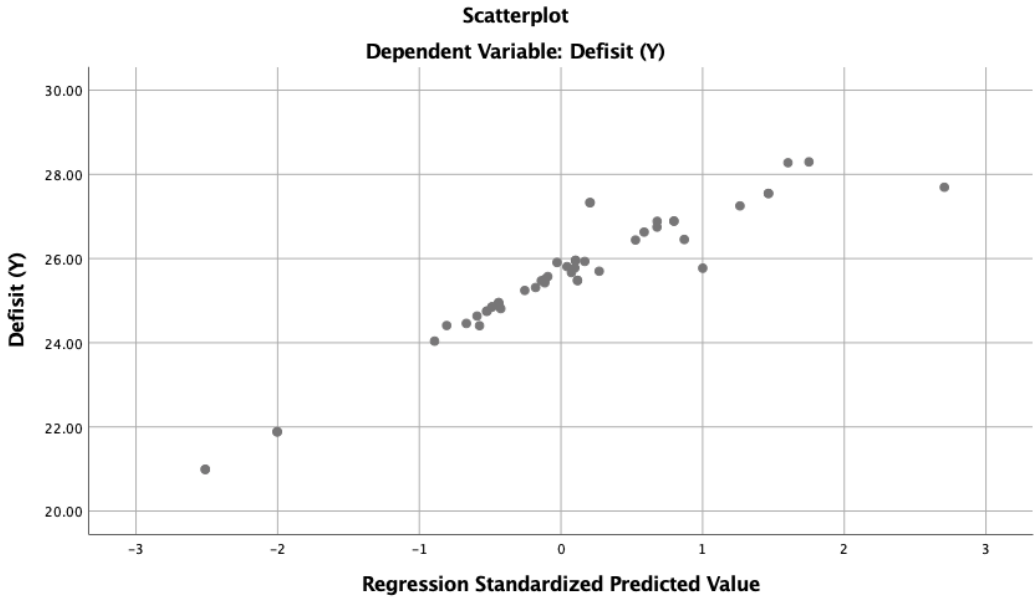


Figure 5.1 1of Heteroscedasticity Test Data Processing Results

Based on the histogram above, it can be seen that the points resulting from data processing are spread out and do not have a particular pattern, so it can be concluded that the multiple linear regression equation model obtained does not show symptoms of heteroscedasticity.

4. Autocorrelation test

The autocorrelation test is the correlation between observation elements. Autocorrelation problems in a model indicate a correlation between the confounding error in period t and the confounding error in period t-1 (previous) within a single model. This phenomenon can be detected through the Durbin-Watson test, which is used to determine the presence or absence of autocorrelation in a regression model. If autocorrelation occurs, the equation becomes invalid or unsuitable for use as a prediction. According to Wirawan (2009), the Durbin-Watson test is used to determine the presence or absence of autocorrelation symptoms, with the following provisions:

a. Positive autocorrelation symptoms occur if the Durbin-Watson value is below -2 (Durbin-Watson < -2).
b. Negative autocorrelation symptoms occur if the Durbin-Watson value is above 2 (Durbin-Watson > 2).
c. There is no autocorrelation symptom if the Durbin-Watson value is between -2 and 2 (-2 < Durbin-Watson < 2).

Based on the calculation results, the DW value is 1.851, meaning that this value is at a point where there are no autocorrelation symptoms because the Durbin-Watson value is between -2 and 2 (-2 < Durbin-Watson < 2) or (-2 < 1.851 < 2).

Multiple Linear Regression Analysis

The analysis model in this study uses multiple linear analysis, namely to analyze the effect of government debt (X1), economic growth (X2) and fiscal independence (X3) on the Deficit (Y) Budget Deficit in Regional Governments in Bali Province from 2022 to 2024. In addition to knowing the magnitude of the influence of the independent variables on the dependent variable, the next step is to test whether the influence of the independent variables on the dependent variable is significant, both partially and simultaneously.

Table 6Summary of SPSS Analysis Calculation Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.124	1,281		4,001	.000
	Government Debt (X1)	.791	.049	.805	16,010	.000
	Economic Growth (X2)	-.020	.026	-.039	-.783	.437
	Fiscal Independence (X3)	-.387	.046	-.399	-8,365	.000

Source: Appendix 2 SPSS Data Processing

Based on the results of the multiple linear regression analysis in Table 5.6 above, the following multiple linear regression model equation can be obtained:

$Y = 5.124 + 0.791X_1 - 0.020X_2 - 0.387X_3$

Based on the multiple linear regression model equation above, each regression coefficient can be explained as follows:

1. The value of β_0 (constant) of 5.124 means that the average Budget Deficit in the Regional Government in Bali Province from 2022 to 2024 is 5.124 percent with the assumption that the variables of government debt (X_1), economic growth (X_2) and fiscal independence (X_3) are equal to zero.
2. The $\beta_{1\ value}$ of government debt of 0.791 means that if government debt increases by one percent, the Budget Deficit in the Regional Government in Bali Province from 2022 to 2024 will increase by 0.791 percent, assuming other variables remain constant.
3. The β_2 value of economic growth of -0.020 means that if economic growth increases by one percent, the Budget Deficit in the Regional Government in Bali Province from 2022 to 2024 will decrease by -0.0020 percent, assuming other variables remain constant.
4. The $\beta_{3\ value}$ of fiscal independence of -0.387 means that if fiscal independence increases by one percent, the Budget Deficit in the Regional Government in Bali Province from 2022 to 2024 will decrease by -0.387 rupiah , assuming other variables remain constant.

Model Fit Test

The F test is used to assess the overall feasibility of the regression model (*overall model fit*). Based on the results; the F test analysis ratio is 134.085 with a significance level of 0.000. The significance value is much smaller

than the real level α = 0.05 (0.000 < 0.05). This means that the research model used in this study is appropriate or fit.

Hypothesis Testing

A partial significance test (t-test) is conducted to examine the partial influence of independent variables on the dependent variable, assuming other independent variables are held constant. This study partially examines the effects of government debt (X1), economic growth (X2), and fiscal independence (X3) on the Budget Deficit in the Regional Government of Bali Province from 2022 to 2024 (Y). The t-test is conducted by examining the significance level ≤ 0.05, then drawing conclusions. The t-test results show: Government Debt (X1) has a positive and significant effect on the Budget Deficit (t-count 16.010; p-value 0.000 < 0.005; β1 = 0.791) so that H1 is accepted. Economic Growth (X2) does not have a significant effect on the Budget Deficit (t-count -0.783; p-value 0.437 > 0.005; β2 = -0.020) so that H2 is rejected. Fiscal Independence (X3) has a negative and significant effect on the Budget Deficit (t-count -8.365; p-value 0.000 < 0.005; β3 = -0.387) so that H3 is accepted.

Multiple determination coefficient test (R2)

The collective relationship between these three independent variables is reinforced by the coefficient of determination (Adjusted R2) of 0.891. This figure indicates that 89.1% of the variation, or fluctuations, in the regional budget deficit in Bali Province can be explained simultaneously by debt conditions, economic growth rates, and the region's fiscal independence capacity. Meanwhile, the remaining 10.9% is influenced by factors outside the linear model estimated in this study Theoretically and practically, in the context of public financial management, the results of this simultaneous test confirm that the budget deficit phenomenon cannot be viewed as the result of a single factor. Financing policies through regional loans or debt, the capacity of the regional original revenue (PAD) structure, reflected in fiscal independence, and local macroeconomic dynamics interact systematically to influence the fiscal space of the regional budget (APBD).

Discussion

The Impact of Debt on the Budget Deficit

This study found that government debt positively impacted the budget deficit in local governments in Bali Province. This means that as government debt increases, the budget deficit in Bali Province increases from 2022 to 2024.–In the economics and fiscal policy literature, these findings have several profound interpretations regarding the government's financial health. First, *the debt overhang effect is occurring* . This finding indicates that debt levels may have reached a point where they limit the government's flexibility to engage in productive spending (Anus et al., 2025) . The government is forced to continue deficit financing due to high past liabilities.

Second, the government is trapped in a vicious cycle (*deficit-debt spiral*). These results provide empirical evidence of a mutually reinforcing cycle between debt and deficit. Accumulated debt forces the government to incur greater costs to service it, ultimately sucking up a significant portion of state revenue and creating a new, larger deficit (Anus et al., 2025; Ubi et al., 2024) . This condition creates a recurring deficit-debt cycle: persistent deficits lead to debt accumulation, and debt accumulation reinforces the cycle by increasing interest obligations, further exacerbating the fiscal imbalance (Kasongo, 2023). Dependence on debt without a commensurate increase in state revenue has narrowed the government's fiscal space (Anus et al., 2025) .

The most prominent driving factor behind the widening deficit due to debt is the cost of interest payments and principal repayments on the debt itself (Anus et al., 2025) . Furthermore, research by Anus et al. (2025) also found that in countries with high debt, a significant portion of government revenue is siphoned off solely to pay interest on loans. Because the debt repayment portion is so large, the government lacks funds to finance essential development expenditures, forcing it to borrow again to cover the shortfall (Nauman & Ahmad, 2024b) . Government debt should be able to increase state revenue if allocated to projects that grow the economy. However, if accumulated debt is not allocated efficiently (for example, leaking due to corruption, or allocated to unproductive spending), it will not generate economic growth or additional tax revenue in the future (Anus et al., 2025) . As a result, debt continues to grow while the government's capacity to service it (from revenue) remains stagnant, directly worsening the deficit. This finding provides policy implications that the government needs to undertake fiscal consolidation, such as expanding the tax revenue base and ensuring that debt funds are actually allocated to productive investments, to break the debt-deficit cycle.

The Impact of Economic Growth on Budget Deficit

The research results show that Economic Growth (GDP) has a negative but insignificant partial effect on the fiscal deficit. This finding suggests that high or low economic growth does not affect the Budget Deficit in Regional Governments in Bali Province from 2022 to 2024 A negative trend means that theoretically, when economic growth increases, the fiscal deficit tends to decrease (Prassoga & Soebagiyo, 2025) . This aligns with Keynesian theory, where an increase in Gross Domestic Product (GDP) indicates increased economic activity, which in turn generates greater tax revenue for the government. With higher revenues, the government has more resources to cover budget shortfalls (reducing the deficit).

Although negative, it is partially insignificant, meaning that economic growth, on its own, is not strong enough to be the primary determinant of budget deficit reduction (Prassoga & Soebagiyo, 2025) . This means that even if the economy is growing well, this does not automatically or immediately guarantee that the country's fiscal deficit will shrink significantly. These results demonstrate that the fiscal deficit is a product of a complex economic ecosystem. Economic growth will only show its impact on the deficit if it interacts with other macroeconomic variables (such as the exchange rate, foreign exchange reserves, inflation, or government debt) (Prassoga & Soebagiyo, 2025) .

Budget deficits are often driven more by the government's own fiscal policy choices than by GDP. For example, even when GDP is rising and state revenues are increasing, the government may consciously decide to increase spending even more for social or economic reasons, such as providing subsidies, financing aid programs, or building large infrastructure projects (Prassoga & Soebagiyo, 2025) . As a result of this deliberate increase in spending, the budget deficit will persist or not significantly decrease even when the economy is growing. Similar evidence is also found in developed countries, such as a study of 27 European Union member states, which found no significant impact of GDP growth on budget balance (Abanikanda et al., 2023).

Increasing GDP should lead to tax increases to cover the deficit. However, in many developing countries, tax systems are often problematic due to high levels of tax evasion, a vast informal economy, and inefficient tax collection administration (Anus et al., 2025) . As a result, high economic growth fails to translate into commensurate state revenue, forcing governments to continue relying on deficit financing (debt) to fund their spending. The structure of government spending in developing countries is often highly inflexible , dominated by routine mandatory payments, such as civil servant salaries, energy subsidies, social assistance, and interest payments on past debt (Anus et al., 2025) . When the economy grows and revenues increase, these funds are often immediately siphoned off to finance these already bloated mandatory expenditures. As a result, fiscal space does not increase, and the budget deficit does not significantly decrease.

The Influence of Economic Independence on Budget Deficit

This study found that economic independence negatively impacts the budget deficit. This finding suggests that increased economic independence can reduce the budget deficit in the Bali Province Regional Government from 2022 to 2024. These results indicate that the regional government has successfully implemented the essence of regional autonomy, namely having the capacity to self-fund government affairs, development, and public services without having to borrow money or allowing the budget to run a deficit. These findings indicate that regions with high levels of independence have a significantly lower risk of experiencing financial distress . These regions are considered to have sufficient fiscal capacity to meet their obligations sustainably (Kusumawardani & Iswara, 2025) . Fiscal independence that reduces the deficit is clear evidence that local governments are able to maintain and improve community welfare without burdening future generations with past debts (Ernawati & Prasetya, 2024; Miftahurrohman & Prasetya, 2024) .

Regional financial independence is measured by the proportion of Regional Original Income (PAD) compared to total revenue (Kusumawardani & Iswara, 2025; Miftahurrohman & Prasetya, 2024) . Budget deficits generally occur due to the failure of local governments to achieve revenue targets while spending continues (Amirullah et al., 2024) . Therefore, regions that continue to stimulate regional tax and levy revenues (high independence) will have sufficient cash availability at the end of the year, so that the gap between revenue and spending (deficit) can be significantly closed (Kusumawardani & Iswara, 2025) . Empirically, an increase in PAD has a direct impact on reducing the deficit.

Many regional deficits occur suddenly due to cuts, delays, or rationalization of Transfer Funds (such as the General Allocation Fund (DAU) and Special Allocation Fund (DAK) from the central government due to macroeconomic shocks (e.g., during the pandemic) (Handraini et al., 2024; Insani et al., 2023) . Regions with a high level of independence are less vulnerable to these external shocks. Because they have a strong "cushion" of local revenue (PAD), they will not immediately fall into a deficit when central funding is reduced (Handraini et al., 2024;

Kusumawardani & Iswara, 2025) . Independent regions have greater flexibility in developing priority programs because their funds are not tied to specific requirements (as is the case with DAK funds from the central government) (Handraini et al., 2024) . This flexibility allows regions to align their expenditures proportionally with their projected revenues, thus maintaining a balanced or even surplus budget (Kusumawardani & Iswara, 2025) .

This significant result also implicitly demonstrates that the increase in local revenue (PAD) in your sample regions was accompanied by budget discipline. This means that local governments did not respond to the increase in revenue by excessively spending on operational expenses. Fund allocation was directed more toward productive investments and capital expenditures, thus maintaining financial health and avoiding deficits (Kusumawardani & Iswara, 2025) Fiscal independence acts as a lifeline, effectively reducing budget deficits. High levels of independence (through optimizing local revenue (PAD) free regions from dependence on central government funding, provide flexibility to manage spending within cash capacity, and significantly protect local governments from the risk of *financial distress* . In short, high levels of financial independence serve as a strong fiscal buffer, although its effectiveness depends heavily on the productive allocation of PAD within regional spending patterns (Syarifudin & Suwandi, 2025).

CONCLUSION

Government debt has a positive impact on the budget deficit in the Bali Provincial Government from 2022 to 2024. This indicates that as government debt increases, the budget deficit in the Bali Provincial Government will also increase. This condition indicates a debt overhang effect that limits regional fiscal flexibility due to high past obligations. Furthermore, regional governments tend to be trapped in a vicious cycle of debt (deficit-debt spiral), where the accumulation of past debt increases interest and principal repayments, which drain regional revenues, forcing the government to again finance the deficit through new debt. Economic growth had no effect on the budget deficit in the Bali Provincial Government from 2022 to 2024. This indicates that high or low economic growth (GDP) alone is not strong enough to be a major determinant in significantly reducing or reducing the regional budget deficit. This proves that the fiscal deficit is driven more by government spending policy choices (such as expansionary spending on subsidies or infrastructure) than by GDP itself. Furthermore, structural issues such as inefficient tax administration and a rigid (inflexible) regional expenditure structure mean that additional revenue from economic growth is immediately siphoned off to finance mandatory routine spending, thus failing to significantly reduce the deficit. Economic independence negatively impacted the budget deficit in Bali Province's regional governments from 2022 to 2024. This indicates that the higher a region's economic independence, the lower the budget deficit. This indicates that optimizing Regional Original Revenue (PAD) can provide sufficient cash to cover spending gaps. This strong fiscal independence serves as a fiscal buffer that protects regions from external shocks—such as cuts in central government transfer funds—and also reflects budget discipline, where revenue increases are balanced by productive and efficient spending allocations.

Suggestion

The government needs to optimize debt management by ensuring that debt is used for productive projects and to increase regional revenues. Focus on government spending efficiency to reduce reliance on debt and improve debt repayment capacity. Increase regional original revenue (PAD) by developing local economic potential and increasing regional taxes, accompanied by regular monitoring and evaluation of debt use and its impact on the budget deficit. Optimize economic growth through the development of the tourism and creative industries sectors, encourage economic diversification, invest in infrastructure, and ensure government spending is aligned with economic growth and supports long-term growth. Encourage increased fiscal independence by optimizing local revenue (PAD) through effective taxes and levies, efficient government spending, development of local economic potential, and transparent and accountable financial management. Further research can be conducted with an in-depth analysis of the structure of regional expenditure, particularly the composition of routine operational expenditure and capital/infrastructure expenditure as moderating variables to prove the types of expenditure that are most vulnerable to causing deficit traps. In addition, further research can include other macroeconomic and institutional variables, such as inflation, foreign exchange reserves, exchange rates, and institutional quality, including the level of efficiency of tax collection administration, to explain the remaining variation in the budget deficit outside the research model.

REFERENCES

Abanikanda, E. O., Dada, J. T., & Ogunjumo, R. A. (2023). Fiscal deficit in sub-saharan Africa: A new intuition from the institution and political drivers. *PLOS ONE*, *18*(9), e0291150. https://doi.org/10.1371/journal.pone.0291150

Adhim, C., Ramadhan, M. S., Suhaety, Y., Mulyati, M., Hayat, N., & Mauzu, F. (2023). Determinants Affecting The Level Of Regional Financial Independence. *International Journal of Social Science*, *2*(5), 2077–2086. https://doi.org/10.53625/ijss.v2i5.4820

Amirullah, S., Edy, S. A., & Mus, S. F. (2024). Pengelolaan Keuangan Daerah: Sebuah Kajian Fenomenologi terhadap Defisit Anggaran Kabupaten Majene. *AKUNSIKA: Jurnal Akuntansi Dan Keuangan*, 09–18. https://doi.org/10.31963/akunsika.v0i0.4509

Anus, M., Audi, M., & Ali, A. (2025). The Dynamics Of Budget Deficits: Growth, Governance, And Debt Sustainability In Developing Economies. *Contemporary Journal of Social Science Review*, *3*(2), 2669–2675.

Arif, A., & Arif, U. (2023). Institutional Approach to the Budget Deficit: An Empirical Analysis. *Sage Open*, *13*(2), 21582440231171297. https://doi.org/10.1177/21582440231171297

Astiza, I. D., Daulay, A. N., & Tambunan, K. (2024). Analisis Kemandirian Fiskal Kota Pematang Siantar di Tinjau dari Perspektif Ekonomi Islam. *Jambura Economic Education Journal*, *6*(1), 180–198. https://doi.org/10.37479/jeej.v6i1.26739

Badan Pusat Statistik. (2024). *Produk Domestik Bruto Indonesia Triwulanan 2020-2024*. https://www.bps.go.id/id/publication/2024/10/09/7290b829d2eaa972e4968d19/produk-domestik-bruto-indonesia-triwulanan-2020-2024.html

Bochkareva, E., Kurdyuk, P., Kozhushko, S., & Solovyeva, S. (2023). Budget Balance, Budget Revenues, Expenditures, And Deficits: A Comprehensive Economic And Legal Characteristic. *Lex Humana*, *15*(2), 358–371.

Carvalho, A. C., Carvalho, D. F., Santos, C. S. dos, Oliveira, L. I. S. de, & Filgueiras, G. C. (2024). Financiamiento de inversiones públicas en la economía capitalista y sus efectos económicos y sociales: Comprendiendo su importancia a través de la historia y de la teoría de Keynes. *Espacio Abierto*, *33*(1), 164–199.

Eigbiremolen, G. T. O., Ezema, N. J., & Orji, A. (2015). Dynamics of Budget Deficit and Macroeconomic Fundamentals: Further Evidence from Nigeria. *International Journal of Academic Research in Business and Social Sciences*, *5*(5), Pages 31-42. https://doi.org/10.6007/IJARBSS/v5-i5/1590

Ernawati, E., & Prasetya, B. P. (2024). Pengaruh IPM dan Kemandirian Keuangan Terhadap Financial Sustainability Pemerintah Kota Yogyakarta. *PRIVE: Jurnal Riset Akuntansi Dan Keuangan*, *7*(1), 76–81. https://doi.org/10.36815/prive.v7i1.3305

Hançer, N. S. (2025). SPENDING REVIEW AS A POLICY TOOL FOR ENSURING EFFICIENCY IN PUBLIC EXPENDITURES AND ITS IMPACT ON FISCAL BALANCE. *Sayıştay Dergisi*, *35*(135), 531–567. https://doi.org/10.52836/sayistay.1579973

Handraini, H., Frinaldi, A., Asnil, A., & Putri, N. E. (2024). Pengaruh Pendapatan Asli Daerah (PAD) Dan Dana perimbangan Terhadap Kemandirian Keuangan Pemerintahan Daerah Di Kab. Pasaman Barat. *Professional: Jurnal Komunikasi Dan Administrasi Publik*, *11*(2), 593–600. https://doi.org/10.37676/professional.v11i2.7225

Huda, R. A., Puspita, R. A., Hasanah, S. N., & Malik, A. (2024). Peran Kebijakan Fiskal Dalam Meningkatkan Kesejahteraan Sosial Di Indonesia Sebagai Negara Berkembang. *Kalianda Halok Gagas*, *7*(2), 189–201. https://doi.org/10.52655/khg.v7i2.102

Insani, A., Rahayu, S., & Erwati, M. (2023). Determinan Kinerja Keuangan Pemerintah Daerah. *Akurasi : Jurnal Studi Akuntansi dan Keuangan*, *6*(1), 109–125. https://doi.org/10.29303/akurasi.v6i1.343

Kasongo, A. (2023). The Determinants of Fiscal Deficit in South Africa: A Bayesian Vector Autoregressive Approach. *International Journal of Economics and Financial Issues*, *13*(4), 30–36. https://doi.org/10.32479/ijefi.14433

Kusumawardani, N. P., & Iswara, U. S. (2025). Pengaruh Rasio Efisiensi, Kemandirian Keuangan, Rasio Efektivitas Terhadap Financial Distress. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, *14*(7). https://jurnalmahasiswa.stiesia.ac.id/index.php/jira/article/view/6341

Lailiyah, N. I., & Desitama, F. S. (2024). Kemandirian Keuangan, Rasio Efisiensi, Rasio Solvabilitas Anggaran dan Rasio Pertumbuhan terhadap Financial Distress Pemerintah Daerah. *Reslaj : Religion Education Social Laa Roiba Journal*, *6*(3), 1952–1973. https://doi.org/10.47467/reslaj.v6i3.5868

Miftahurrohman, A., & Prasetya, B. P. (2024). Pengaruh Kemandirian Keuangan dan Kinerja Keuangan Terhadap Keberlanjutan Keuangan (Financial Sustainability) Pada Pemerintah Kota Yogyakarta: Pengaruh Kemandirian Keuangan dan Kinerja Keuangan Terhadap Keberlanjutan Keuangan (Financial Sustainability) Pada Pemerintah Kota Yogyakarta. *Bisman (Bisnis dan Manajemen): The Journal of Business and Management*, *7*(2), 363–372. https://doi.org/10.36815/bisman.v7i2.3259

Muliati, M., Ruma, Z., Anwar, A., Budiyanti, H., & Aslam, A. P. (2024). Perencanaan dan Kinerja Keuangan Badan Pengelolaan Keuangan Daerah (BPKD) Kabupaten Gowa. *Journal of Management and Social Sciences*, *3*(3), 227–254. https://doi.org/10.55606/jimas.v3i3.1468

Mulyani, S., & Fitra, H. (2023). Pengaruh Rasio Derajat Disentralisasi, Rasio Kemandirian Keuagan Daerah dan Rasio Tingkat Pembiayaan SiLPA terhadap Alokasi Belanja Modal di Kabupaten/Kota Sumatera Barat. *Jurnal Nuansa Karya Akuntansi*, *1*(2), 135–144. https://doi.org/10.24036/jnka.v1i2.11

Nauman, M., & Ahmad, R. (2024a). Budget Deficits in Pakistan: A Time Series Analysis of The Impact of Economic Political and Institutional Factors. *Pakistan Journal of Humanities and Social Sciences*, *12*(2), 1057–1071. https://doi.org/10.52131/pjhss.2024.v12i2.2157

Nauman, M., & Ahmad, R. (2024b). Economic, Political, and Institutional Determinants of Budget Deficit: A Dynamic Panel Data Approach to South Asian Countries. *iRASD Journal of Economics*, *6*(1), 175–198. https://doi.org/10.52131/joe.2024.0601.0201

Permendagri No. 15 Tahun 2024. (t.t.). Database Peraturan | JDIH BPK. Diambil 19 Oktober 2025, dari http://peraturan.bpk.go.id/Details/304633/permendagri-no-15-tahun-2024

PMK No. 75 Tahun 2024. (t.t.). Database Peraturan | JDIH BPK. Diambil 19 Oktober 2025, dari http://peraturan.bpk.go.id/Details/306326/pmk-no-75-tahun-2024

Pranoto, F. C., Hasthoro, H. A., & Nurwiyanta, N. (2022). Determinan Financial Distress Pemerintah Daerah. *Prosiding Seminar Nasional Hasil Riset (SNHR)*, (0). https://e-journal.janabadra.ac.id/index.php/snhr/article/view/2034

Prassoga, T., & Soebagiyo, D. (2025). Analysis of Factors Affecting Budget Deficit in Indonesia. *Jambura Equilibrium Journal*, *7*(1), 26–32. https://doi.org/10.37479/jej.v7i1.27746

Ramadhan, H. R., & Ratifah, I. (2023). *Pengaruh Kemandirian Keuangan Dan Derajat Desentralisasi Terhadap Financial Distress (Studi Empiris Pada Kabupaten/Kota Di Wilayah Provinsi Jawa Barat Tahun Anggaran 2017-2021)* [Other, Universitas Pasundan Bandung]. http://repository.unpas.ac.id/66183/

Sari, N., Olilingo, F. Z., Santoso, I. R., Mopangga, H., & Akib, F. H. Y. (2025). Faktor-Faktor yang Mempengaruhi Pendapatan Asli Daerah (PAD) Provinsi Sulawesi Teggara. *KNOWLEDGE: Jurnal Inovasi Hasil Penelitian Dan Pengembangan*, *5*(2), 273–279. https://doi.org/10.51878/knowledge.v5i2.5325

Sondakh, C. A., Rorong, I. P. F., & Sumual, J. I. (2023). Analisis Ketimpangan Pendapatan Dan Kualitas Pertumbuhan Ekonomi Empat Kota Di Provinsi Sulawesi Utara. *Jurnal Berkala Ilmiah Efisiensi*, *23*(4), 1–12.

Syarifudin, A., & Suwandi, E. D. (2025). Ketimpangan Fiskal Pasca UU HKPD: Analisis PDRD, Kemandirian, Dan Pola Belanja Kabupaten/Kota Di Jawa Tengah. *Prosiding Seminar Nasional Teknologi Informasi Dan Bisnis*, 1560–1572. https://doi.org/10.47701/59eeb405

Ubi, B. B., Agbo, N. I., Oluwaseun, O., Ubi, J. J., Okpanachi, Y. I., & Sezuo, A. H. (2024). A Theoretical Review on Budget Deficit in Nigeria. *Law and Economy*, *3*(11), 1–5.

Ulum, M. B., & Syaputri, A. G. G. (2021). Defisit Anggaran Pendapatan dan Belanja Daerah Kabupaten/Kota Provinsi di Sumatera Selatan. *Journal Management, Business, and Accounting*, *20*(2), 111–122. https://doi.org/10.33557/mbia.v20i2.1383

von Weizsäcker, C. C., & Krämer, H. M. (2021). Investment, Saving and Stagnation from a Keynesian Perspective. Dalam C. C. von Weizsäcker & H. M. Krämer (Ed.), *Saving and Investment in the Twenty-First Century: The Great Divergence* (hlm. 201–223). Springer International Publishing. https://doi.org/10.1007/978-3-030-75031-2_7

Wahyudi, T., Nawawi, M., & Pohan, E. S. (2023). Desentralisasi Fiskal Dan Efisiensi Anggaran: Tinjauan Sistematis. *Jurnal Dinamika Ekonomi Rakyat*, *2*(2), 32–49. https://doi.org/10.24246/dekat.v2i2.15509

Wulandari, P., Ramadhan, P. R., & Tripriyono, A. (2025). Analisis Pengaruh Pendapatan Asli Daerah Dan Dana Alokasi Umum Terhadap Belanja Daerah Pada Kabupaten/Kota Provinsi Sumatera Utara Periode 2018-2020. *Economics and Digital Business Review*, *6*(2), 1123–1132.

Yasrizal, Y., Mahrizal, M., Wahyuningsih, Y. E., Mahrizal, M., Harmaini, H., & Syafrizal, S. (2023). Regional Financial Efficiency Ratio and Suitability in Improving Regional Development of West Aceh Regency. *Jurnal Ilmiah Teunuleh*, *4*(3). https://doi.org/10.51612/teunuleh.v4i3.147

Yuandina, Y., & Inayati, I. (2024). Financial Performance Analysis of Dumai City Regional Government Financial Reports. *Journal La Bisecoman*, *5*(4), 577–593. https://doi.org/10.37899/journallabisecoman.v5i4.1333

Zahariev, A. (2021). The Keynesian Theory Of Deficit Financing. Dalam *Debt Management* (hlm. 18–25). ABAGAR. https://www.researchgate.net/publication/348649907_THE_KEYNESIAN_THEORY_OF_DEFICIT_FINANCING