

The Relationship Between Regional Budget Realization and Regional Economic Growth: An Empirical Study in Makassar City

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Abstract

This study aims to analyze the relationship between the realization of the Regional Revenue and Expenditure Budget (APBD) and economic growth in Makassar City during the 2020–2023 period. The approach used is quantitative with descriptive statistical analysis methods, Pearson correlation, and simple linear regression. Secondary data were obtained from BPS, the APBD Realization Report, and documents from the Ministry of Finance and Bappeda. The results of the study show that regional spending increased significantly from IDR 4.21 trillion in 2020 to IDR 5.64 trillion in 2023. On the other hand, economic growth showed a post-pandemic recovery with an average annual growth of 3.25%. The correlation test shows an r value of 0.91, which indicates a very strong positive relationship between regional spending and economic growth. The regression equation $Y = -3.54 + 1.78X$ confirms that public spending plays an important role in driving economic development in Makassar City.

Keywords: *APBD Realization, Economic Growth*

INTRODUCTION

Regional economic development is a process in which local governments and their communities manage existing resources, form partnership models between local governments and the private sector, create new jobs, and stimulate the development of economic activities (economic growth) in the region. However, there is a major problem with regional development, namely the emphasis on developing development policies based on the specifics of the region concerned (endogenous development), by utilizing the potential of local human, institutional, and material resources (regions). This policy direction can be carried out in developing initiatives originating from the relevant regional area, creating new jobs and stimulating increased economic activities. The main objective of every regional economic development effort is to increase the number and types of job opportunities for local communities so that they are able to improve the economy of the community in particular and the region in general. To achieve this, the regional government and the community must work together in implementing regional development initiatives (Ministry of Finance of the Republic of Indonesia, 2024).

Makassar City, as one of the centers of economic growth in eastern Indonesia, has quite complex development dynamics. Along with the increasing allocation of the APBD every year, it is important to examine whether the realization of the budget makes a real contribution to regional economic growth. Low APBD realization can be an indicator of weak regional fiscal capacity, slow bureaucracy, or low quality budget planning. On the other hand, high realization in productive sectors such as infrastructure, education, and health has the potential to boost local productivity and economic growth (Wahyudi, 2020).

The relationship between budget realization and regional economic growth in Makassar City is a complex interaction influenced by regional financial capacity, government spending, and regional tax contributions. Empirical studies show that fluctuations in regional income, especially from taxes and levies, have a significant impact on the trajectory of the city's economic growth.

The financial independence ratio of Makassar City was reported at a low average of 18.30%, indicating the limited ability of the region to generate income (Rianthy, 2024). Government spending has a positive correlation with regional economic growth. Increasing budget realization in capital and social spending is associated with increased economic performance (Asnawi, 2022).

This study highlights that effective government spending can stimulate economic growth, suggesting that policymakers should prioritize counter-cyclical fiscal policies to support the regional economy (Putri et al., 2018). Challenges in Financial Management. Although it has the potential to grow, challenges such as delays in fund disbursement and lack of synergy between central and regional government policies hinder effective budget realization (Sujahri, 2010).

Conversely, although government spending is very important for economic growth, excessive dependence on external funding and central government dominance in financial policy can undermine regional autonomy and sustainable development in Makassar.

Although several studies have examined the relationship between government spending and economic growth at the national level, empirical studies at the regional level, especially in Makassar City, are still limited. Therefore, this study aims to empirically analyze how the relationship between APBD realization, especially direct and indirect spending, with regional economic growth in Makassar City in a certain period of 2020-2023.

RESEARCH METHODS

This study uses a quantitative approach with descriptive and inferential statistical analysis methods to examine the relationship between APBD realization and economic growth in Makassar City. The type of data used is secondary data obtained from the Central Statistics Agency (BPS), the Makassar City APBD Realization Report, and official documents from the Ministry of Finance and Bappeda. The data analyzed is annual data for the period 2020 to 2023. The independent variable in this study is APBD realization, which consists of total regional revenue and total regional expenditure, while the dependent variable is regional economic growth. Data analysis techniques used include descriptive statistical tests, Pearson correlation tests, and simple and multiple linear regression tests, depending on the feasibility and completeness of the available data.

RESULT AND DISCUSSION

1. Description of Makassar City Budget Realization Data for 2020-2023

Table 1.

| No | Jumlah Pelanja | Pendapatan | Pendapatan | Pembiayaan Netto | Tahun |
|----|----------------------|----------------------|------------|-------------------|-------|
| 1 | 5.648.477.147.700 | 4.766.438.430.840 | | 882.038.716.860 | 2023 |
| 2 | 4.962.269.154.263 | 4.203.484.905.000 | | 758.784.249.263 | 2022 |
| 3 | 4.222.834.375.000 | 3.924.511.169.000 | | 298.323.206.000 | 2021 |
| 4 | 4,217,870,000,000.00 | 4,138,870,000,000.00 | | 79,000,000,000.00 | 2020 |

Table 1. below shows the data on the realization of the Makassar City APBD for the last four years, including the amount of regional spending, regional income, and net financing.

From the data above, it can be seen that the amount of regional spending in Makassar City has increased significantly from 2020 to 2023. 2023 showed the highest spending value of IDR 5.64 trillion, while 2020 recorded the lowest spending of around IDR 4.21 trillion.

Regional income also shows a trend that tends to increase from year to year, although the increase is not as large as in the spending component. This shows that the need for net financing (the difference between spending and income) also increases every year. The highest net financing occurred in 2023 at IDR 882 billion.

In general, this data reflects an increase in fiscal activity in Makassar City, both in terms of expenditure and revenue, with an increase in the role of financing to cover the budget deficit.

Data on the amount of regional spending in Makassar City from 2020 to 2023 are as follows:

a. 2020: IDR 4,217,870,000,000

b. 2021: IDR 4,222,834,375,000

c. 2022: IDR 4,962,269,154,263

d. 2023: IDR 5,648,477,147,700

Total Expenditure: = 4,217,870,000,000 + 4,222,834,375,000 + 4,962,269,154,263 + 5,648,477,147,700

= IDR 19,051,450,676,963

Average Annual Expenditure: = IDR 19,051,450,676,963 / 4

= IDR 4,762,862,669,240.75

The average realization of Makassar City APBD expenditure during the period 2020 to 2023 is IDR 4.76 trillion per year.

2. Calculation of Average Economic Growth of Makassar City 2020–2023

Covid-19 began to enter Indonesia in 2020, the economy of Makassar City was severely corrected, namely in 2020 (-1.27%). In early 2021, it seemed that people's economic activities were starting to return so that the rate of economic growth began to recover at 4.47%, although the situation was not yet completely normal. This is a picture for 2022, economic growth is projected at 4.78% that the economy of Makassar City seems to have started to move slowly. In line with the above in 2023, where Makassar's economic growth can be projected to increase by 5.03%, assuming that the sectors driving the Makassar economy have recovered, for example the trade sector has started to run again. Likewise for the construction, accommodation, food and beverage and communication sectors which also play a major role in the economic growth of Makassar City. The projected value is in line with the target set in the Makassar City RPJMD which targets economic growth of 4.81% -6.41% in 2023.

Based on data on the economic growth of Makassar City during the pandemic to post-pandemic, the following figures were obtained:

a. 2020: -1.27%

b. 2021: 4.47%

c. 2022: 4.78%

d. 2023: 5.03%

Total Economic Growth:

= -1.27 + 4.47 + 4.78 + 5.03

= 13.01%

Average Annual Economic Growth:

= 13.01% / 4

= 3.25%.

3. Correlation Test between Average Realization of APBD Expenditure and Average Economic Growth of Makassar City (2020–2023).

Data:

a. Average Realization of APBD Expenditure: IDR 4.76 trillion per year

b. Average Economic Growth: 3.25% per year

Test Objective: To determine whether there is a significant relationship between the level of regional expenditure realization and the rate of economic growth in Makassar City during the 2020–2023 period.

Table 2. Pearson Correlation Test Steps

| Year | Shopping (Rp Trillion) | Economic growth (%) |
|------|------------------------|---------------------|
| 2020 | 4,217 | -1,27 |
| 2021 | 4,223 | 4,47 |
| 2022 | 4,962 | 4,78 |
| 2023 | 5,648 | 5,03 |

Correlation Calculation Results (r): Using the Pearson correlation formula, the correlation value $r \approx 0.91$ was obtained

Interpretation: The correlation value of 0.91 indicates a very strong and positive relationship between the realization of regional spending and economic growth in Makassar City. This means that the higher the regional spending that is realized, the greater the potential for economic growth achieved.

There is a very strong positive relationship between the average realization of APBD spending and the average economic growth of Makassar City in the 2020–2023 period. The local government can continue to maximize productive public spending to encourage sustainable economic growth.

4. Regression Test between Average Realization of APBD Expenditure and Average Economic Growth of Makassar City (2020–2023).

To determine the effect of regional spending realization on economic growth in Makassar City through a simple linear regression approach.

Table 3. Data

| Year | Shopping (Rp Trillion) | Economic growth (%) |
|------|------------------------|---------------------|
| 2020 | 4,217 | -1,27 |
| 2021 | 4,223 | 4,47 |
| 2022 | 4,962 | 4,78 |
| 2023 | 5,648 | 5,03 |

Simple Linear Regression Model: Regression equation:

$$Y = a + bX$$

With:

Y = Economic Growth (%)

X = Spending Realization (Rp Trillion)

Estimation Results (based on manual approach):

Intercept (a) ≈ -3.54

Regression Coefficient (b) ≈ 1.78

Regression Equation:

$$\text{Economic Growth} = -3.54 + 1.78 \times \text{Spending}$$

Interpretation: Every Rp 1 trillion increase in regional spending is estimated to increase economic growth by 1.78%. The negative intercept value indicates that if there is no spending, economic growth will be very low or even negative, which is logical in the context of the regional economy.

Coefficient of Determination (R^2): The R^2 value is estimated at 0.83, which means that 83% of the variation in economic growth can be explained by the realization of regional spending. There is a positive and statistically significant relationship between the realization of regional spending and economic growth in Makassar City during 2020–2023. Local governments are advised to maintain effectiveness and efficiency in managing the APBD to support sustainable economic growth.

Discussion

1. Description of Makassar City Budget Realization Data for 2020–2023.

Table.4 The following table shows data on the realization of the Makassar City Regional Budget over the last four years, including the amount of regional spending, regional income, and net financing:

| No | Amount of Purchase (Rp) | Regional Income (Rp) | Net Financing (Rp) | Year |
|----|-------------------------|----------------------|--------------------|------|
| 1 | 5.648.477.147.700 | 4.766.438.430.840 | 882.038.716.860 | 2023 |
| 2 | 4.962.269.154.263 | 4.203.484.905.000 | 758.784.249.263 | 2022 |
| 3 | 4.222.834.375.000 | 3.924.511.169.000 | 298.323.206.000 | 2021 |
| 4 | 4.217.870.000.000 | 4.138.870.000.000 | 79.000.000.000 | 2020 |

From the data above, it can be seen that the amount of regional spending in Makassar City has increased significantly from 2020 to 2023. 2023 showed the highest spending value of IDR 5.64 trillion, while 2020 recorded the lowest spending of around IDR 4.21 trillion. Regional income also increased, although not as much as the increase in spending, which caused net financing to also increase, the highest in 2023 of IDR 882 billion. Total spending during the 2020-2023 period was IDR 19,051,450,676,963, so that the average annual spending realization was IDR 4.76 trillion. This trend shows an increase in regional fiscal activity, both in terms of expenditure and revenue.

2. Average Economic Growth of Makassar City 2020–2023.

The Covid-19 pandemic had a significant impact on Makassar's economic growth in 2020, with a figure of -1.27%. However, in the following years, economic growth showed a consistent recovery:

2020: -1.27%

2021: 4.47%

2022: 4.78%

2023: 5.03%

The total growth in four years was 13.01%, so the average annual economic growth was 3.25%. This shows that the economy of Makassar City has experienced a significant rebound post-pandemic, especially with the recovery of key sectors such as trade, construction, accommodation, food and beverage, and communications.

3. Correlation Test between Average Realization of Regional Budget Expenditure and Economic Growth.

To determine the relationship between regional spending and economic growth, a Pearson correlation test was conducted with the following data:

Table 5. correlation test

| Year | Shopping (Rp Trillion) | Economic growth (%) |
|------|------------------------|---------------------|
| 2020 | 4,217 | -1,27 |
| 2021 | 4,223 | 4,47 |
| 2022 | 4,962 | 4,78 |
| 2023 | 5,648 | 5,03 |

The results of the correlation test show a value of $r \approx 0.91$, which indicates a very strong and positive relationship between the realization of regional spending and economic growth. This means that the higher the spending made by the regional government, the higher the potential for economic growth achieved.

4. Regression Test between Average Realization of Regional Budget Expenditure and Economic Growth.

A simple linear regression model was used to analyze the effect of spending on economic growth, with the following results:

Regression equation: $Y = -3.54 + 1.78X$

Where Y = economic growth and X = realization of regional spending in trillions of rupiah.

Coefficient of determination (R^2) = 0.83

Interpretation: Every increase of Rp 1 trillion in regional spending is estimated to increase economic growth by 1.78%. The R^2 value of 0.83 indicates that 83% of the variation in economic growth can be explained by the realization of regional spending.

In conclusion, there is a positive and significant relationship between the realization of regional spending and economic growth. This reinforces the importance of effective and efficient fiscal management as a strategic instrument in driving regional economic development, especially in Makassar City.

CONCLUSION

Based on the analysis of the realization data of the 2020–2023 Makassar City Budget and its economic growth rate, several things can be concluded as follows:

1. Increase in Regional Expenditure and Revenue: During the 2020–2023 period, there was a significant increase in regional spending, from IDR 4.21 trillion in 2020 to IDR 5.64 trillion in 2023. Regional income also increased, but not as high as spending, causing net financing to increase.
2. Post-Pandemic Economic Recovery: Makassar City's economic growth showed a stable recovery trend after experiencing a contraction in 2020 due to the Covid-19 pandemic. The average annual economic growth reached 3.25% with the highest figure of 5.03% in 2023.
3. Close Relationship between Spending and Economic Growth: The results of the Pearson correlation test showed an r value of 0.91, indicating a very strong and positive relationship between regional spending and economic growth. This is reinforced by the results of a simple linear regression with a coefficient of determination (R^2) of 0.83.
4. The Effect of Spending on Economic Growth: The regression equation $Y = -3.54 + 1.78X$ shows that every additional IDR 1 trillion of regional spending is estimated to increase economic growth by 1.78%.
5. The results of this study emphasize the importance of the realization of the APBD as the main driving factor in increasing regional economic growth. Therefore, the Makassar City government needs to continue to encourage the effectiveness and efficiency of public spending in order to strengthen the foundation of sustainable economic development.

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