

Analysis of The Effectiveness of Fiscal Policy in Driving the Regional Economy: Case Study in South Sulawesi Province, Indonesia

Masnawaty S¹, Sahade², Syamsu Rijal³

Universitas Negeri Makassar¹, Universitas Negeri Makassar², Universitas Negeri Makassar³
Masnawaty.s@unm.ac.id¹, sahad@unm.ac.id², syamsurijalasnur@unm.ac.id³

ABSTRACT

This research investigates the relationship between fiscal policy, as implemented by the Indonesian government, and the economic growth of the South Sulawesi province. The economic landscape in Sulawesi is characterized by small-scale activities, primarily centered around resource extraction, agriculture, and fishing. The study aims to analyze the impact of fiscal policies on regional economic development in South Sulawesi, focusing on government budget allocation, infrastructure spending, social welfare programs, and tax policies. The research employs a quantitative approach, utilizing regression analysis to examine the causal relationships between fiscal policy variables and regional economic indicators. The results indicate a significant influence of fiscal policy and its effectiveness on the regional economy, emphasizing the importance of tailored fiscal strategies for sustainable economic growth. The findings offer valuable insights for policymakers at both regional and national levels to formulate effective economic policies aligned with the specific needs of the South Sulawesi province. Moreover, the study contributes to the broader literature on fiscal policy effectiveness, particularly within the context of regional economies.

Keywords: Fiscal Policy; Regional Economy; South Sulawesi; Indonesia

INTRODUCTION

Most economic activity on Sulawesi is conducted on a small scale, with the only notable concentrations of organized industry on the island being in Southern Sulawesi. The majority of economic activity on Sulawesi is related to resource extraction, including mining, forestry, and the harvesting of other valuable natural resources (Hidayat, 2019). Agriculture and fishing are also major sectors of the economy (Akhmad et al., 2012). Economic activity varies from region to region, with most economic activity being centered in Southern Sulawesi and parts of Northern Sulawesi. According to (Fattah & Rahman, 2013), the economy in South Sulawesi is influenced by domestic investment, exports, tourism and the number of companies in Industry.

Besides that, fiscal policy in Indonesia has undergone significant changes following the financial and economic crisis in 1997. Since the 1997–98 Asian financial crisis, Indonesian economic policy has consistently prioritized stability over riskier pathways to rapid economic growth (Rajah, 2018). This emphasis on stability has influenced the country's fiscal policy and its impact on the regional economy. The country transformed its economy from a centralized to a decentralized one (Hanipah et al., 2023). Indonesia has historically maintained a responsible and conservative fiscal policy, with a moderate surplus and relatively low public debt (Blöndal et al., 2009). The distributional impact of Indonesia's fiscal practices has shown modest impacts on inequality and poverty, partly due to a low revenue base (Jellema et al., 2017). Additionally, Indonesia has adopted a fiscal rule capping annual deficits at 3% of GDP and accumulated debt at 60% of GDP, contributing to the country's economic recovery (Blöndal et al., 2009).

This research aims to analyze the relationship between fiscal policy issued by the Indonesian government and regional economic growth in the South Sulawesi province and analyze how effective fiscal policy is on economic growth in the region. By achieving these objectives, the study can provide evidence-based insights into the effectiveness of fiscal policies in Sulawesi Selatan Province. This information can be crucial for policymakers at both regional and national levels to formulate and adjust economic policies that align with the needs of the region. Understanding the impact of fiscal policies on the regional economy can contribute to the overall economic development of Sulawesi Selatan Province. This knowledge can guide policymakers in designing strategies that foster sustainable economic growth, job creation, and poverty reduction. Academically, the study contributes to the existing literature on fiscal policy effectiveness, especially in the context of regional economies. Researchers and scholars can use the findings as a basis for further studies, comparisons with other regions, and theoretical advancements in the field of economics.

Literature Review

a. Fiscal Policy

Conventionally, fiscal policy is intended as a government engineering tool in an economy that adheres to free market mechanisms which is expected to influence the course of a country's economic activities (Murtadho, 2013). Fiscal policy is an economic policy in order to direct economic conditions to become better by changing government revenues and expenditures (D. Isnaeni., 2016). Fiscal policy is also an action taken by the government in the area of the state budget with the aim of influencing the course of the economy (Arianto, 2020).

The effectiveness of fiscal policy has been a subject of extensive research in the field of macroeconomics. Several studies have investigated the impact of fiscal policy on economic growth and activity. A study found that fiscal policy had positive growth effects across emerging markets, with the improvement in institutions promoting higher crowding-in effects of fiscal policy. Additionally, the study highlighted the non-linear relationship of fiscal growth effects in emerging economies under the dynamic of debt levels (Phuc Canh, 2018). Another review of the literature on the effectiveness of fiscal policy, conducted by the International Monetary Fund, focused on the size of fiscal multipliers and the possibility that multipliers can turn negative. The review concluded that fiscal multipliers are overwhelmingly positive but small, with some evidence of negative fiscal multipliers (Mahfouz et al., 2002).

b. Regional Economy of Sulawesi Selatan Province

The economy of South Sulawesi, a province in Indonesia, is based on agriculture, fishing, and manufacturing. The province is rich in natural resources, and its economy has consistently grown above the national economic growth rate over the last decade. The main economic sectors include agriculture, manufacturing, and trading. Agriculture is a major component of the economy, employing a significant portion of the population. The province is known for producing corn, cassava, and other agricultural products. Additionally, the manufacturing and trading sectors are important pillars of economic growth in South Sulawesi. The province is strategically located as the gateway to Eastern Indonesia, and its connectivity infrastructure, including the Makassar - Parepare railway line and Sultan Hasanuddin International Airport, supports economic activities and trade. The province also benefits from an abundant energy supply, with a reliable electricity system and a surplus of 400 MW.

The characteristics of the regional economy in each regency/municipality in the province of South Sulawesi have been studied to identify economic sectors that could potentially be developed as leading economic sectors in each district/municipality. The economy of Sulawesi as a whole is largely based on resource extraction, including mining, forestry, and agriculture, with most economic activity being centered in Southern Sulawesi and parts of Northern Sulawesi (Fattah & Rahman, 2013).

METHOD

a. Design

This research was conducted using a quantitative approach. Through the use of quantitative data analysis, the researchers are able to evaluate how well fiscal policy drives the regional economy and offer insightful recommendations for the development of policies pertaining to Indonesia's financial balance between the national and local governments (Wibowo, 2007). Furthermore, the quantitative approach enables the researchers to measure and analyze various factors that pose a threat or danger in maintaining fiscal sustainability for local governments, which is crucial for understanding the dynamics of regional fiscal risk and formulating effective fiscal policies (Wibowo et al., 2022).

b. Variables and Data Collection

This research explores the causal relationship between fiscal policy variables and their effectiveness on regional economics in the South Sulawesi Province, Indonesia. Fiscal policy is measured by several indicators, namely government budget allocation, government expenditure on infrastructure, social welfare programs, and tax policies. Meanwhile regional economic variables are measured by several indicators such as GDP growth rate, employment rate, inflation rate, investment rate, government spending and tax revenue. Meanwhile, to measure the effectiveness of fiscal policy, one indicator commonly used according to the IMF is the balance.

Researchers collected data using the documentation method. Several reasons are the background why this method is suitable for this research. Documentation allows researchers to analyze fiscal policy based on real-time data, which is crucial for understanding the effectiveness of fiscal policy in driving the regional economy. Real-time data provides a more accurate representation of the current economic situation and helps policymakers make informed decisions. This method can provide a comprehensive dataset of fiscal variables for both industrialized and developing countries, published and maintained by central banks or other institutions. This comprehensive dataset is essential for analyzing the effectiveness of fiscal policy in driving the regional economy (Cimadomo, n.d.).

c. Data Analysis

Data were analyzed using a linear regression approach to determine the influence between variables. Linear regression is a statistical technique that models the relationship between variables in a straight line. It is particularly useful for examining the impact of fiscal policy on economic growth, as it allows for the analysis of the relationship between these two variables while accounting for other factors that may influence the relationship (Cohen, 2013).

RESULTS AND DISCUSSION

Result

Classic Assumption Test

a. Normality Test

Table 1. Normality Test Result

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistics	df	Sig	Statistics	df	Sig
Fiscal Policy	0,427	4	0,466	0,518	4	0,256
Effectiveness of Fiscal Policy	0,333	4	0,132	0,526	4	0,511
Regional Economy	0,552	4	0,366	0,671	4	0,200

Source: Data Analysis Result, 2023

According to (Ghozali, 2018) data can be said to be normally distributed if it has a significance value in normality analysis greater than 0.05, while data is said to not meet the normality assumption if the significance value is above 0.05. Table 1 above shows that the dataset used in this research is normally distributed both per variable and overall. This indicates that the regression analysis referred to in this research can be carried out because the normality assumption can be met.

b. Heteroscedasticity Test

Table 2. Heteroscedasticity Test Result

Model	Sig
1 Fiscal Policy	0,300
Effectiveness of Fiscal Policy	0,289

Source: Data Analysis Result, 2023

The second classic assumption that must be met is the absence of heteroscedasticity. It occurs more often in datasets that have a large range between the largest and smallest observed values. Heteroscedasticity can be caused by various factors, such as the error variance changing proportionally with a factor, which might be a variable in the model. According to (Ghozali, 2013), heteroscedasticity testing using SPSS can be seen in the P value or sig column. If the P value is greater than 0.05 then the data can be declared free from heteroscedasticity issues. Meanwhile, on the other hand, if the P value is smaller than 0.05, then heteroscedasticity is stated to be present in the data. Table 2 above shows how the data for all variables is free from heteroscedasticity issues so that the analysis can continue.

c. Multicollinearity Test

Table 3. Multicollinearity Test Result

Model	Collinearity Statistics	
	Tolerance	VIF
1 Fiscal Policy	0,479	3,000
Effectiveness of Fiscal Policy	0,330	3,000

Source: Data Analysis Result, 2023

The existence of multicollinearity in the data must also be avoided when carrying out the analysis. The next classic assumption analysis is multicollinearity analysis which relies on or refers to the Tolerance and VIF values. (Ghozali, 2018) revealed that to state the existence of multicollinearity issues in the data, checking the

Tolerance and VIF values can be carried out. Tolerance values that are smaller than 0.10 and VIF values that are greater than 10 can be said to be affected by multicollinearity issues. The results of the multicollinearity analysis of the data in this study are shown in Table 3 where the VIF and Tolerance values of the data analyzed are respectively smaller than 10 and greater than 0.10, indicating the absence of multicollinearity issues.

Coefficient Determination

Table 5. R Square

	R Square	R Square Adjusted
Regional Economy	0,754	0,659

Source: Data Analysis Result, 2023

The coefficient of determination, denoted as R^2 , is a statistical measure used in the context of statistical models to assess how well observed outcomes are replicated by the model, based on the proportion of total variation of outcomes explained by the model. It is commonly used in linear regression analysis and is the square of the correlation coefficient (r) between the observed outcomes and the observed predictor values. If the coefficient of determination is 0, it indicates that the model does not explain any of the variation in the dependent variable. If the coefficient of determination is 1, it indicates that the model perfectly explains the variation in the dependent variable. If the coefficient of determination is greater than 0 and less than 1, it indicates that the model explains a certain proportion of the variation in the dependent variable. Table 5 informs the ability of the independent variable to explain the dependent variable which is quite strong, namely 0.659. This means that fiscal policy and its efficiency are able to explain 65.9% of the variance in regional economic variables in the South Sulawesi Province region while the remaining 34.1% is explained by other variables that were not observed in this research and become material for subsequent research to fulfill this research. .

Hypothesis Test

Table 6. Hypothesis Test Result

Table 3. Hypothesis Test Result						
Model		Unstandardized Coefficients	Standardized Coefficient Beta	t	Sig	
		B	Std. Error			
1	(Constant)	2,274	0,330		2,550	0,003
	Fiscal Policy	0,558	0,198	0,449	1,765	0,002
	Effectiveness of Fiscal Policy	0,410	0,200	0,389	1,876	0,002

Source: Data Analysis Result, 2023

In this research, naturally, three hypotheses can be developed referring to previous discussions and literature reviews. The first hypothesis (h1) is "fiscal policy has a significant effect on regional economic development in South Sulawesi Province". This hypothesis can be decided to be accepted based on the significance value in Table 6 which is smaller than 0.05. The second hypothesis (h2) is that "the effectiveness of fiscal policy has a significant influence on regional economic development in South Sulawesi Province" can also be accepted on the basis of the significance value in Table 6 which is smaller than 0.05, namely 0.002.

Table 7. Hypothesis Test Result

Model		Sum Of Squares	df	Mean Square	F	Sig
1	Regression	13,227	5	2,980	1,560	0,000
	Residual	4,881	1	4,881		
	Total	18,108	6			

Source: Data Analysis Result, 2023

While the two hypotheses discuss the influence partially, the third hypothesis predicts the influence of fiscal policy variables and the effectiveness of fiscal policy simultaneously on regional economic development in the South Sulawesi region. This hypothesis can be accepted according to the information in Table 7 which requires a significance value of 0.000 (far below 0.05).

Discussion

The results of the analysis show that both partially and simultaneously fiscal policy and its effectiveness have a significant effect on the regional economy. These findings require policy makers to be able to formulate effective fiscal policies to accelerate economic growth and development in the South Sulawesi region. Fiscal policy, which involves government spending, taxation, and borrowing, can significantly impact the economy. According to a report published by IMF, governments use fiscal policy to promote stable and sustainable growth, reduce poverty, and address economic crises. Fiscal policy can influence the economy by changing the level and types of taxes, the extent and composition of spending, and the degree and form of borrowing. It plays an important role in supporting strong, lasting, and equitable growth, especially in the aftermath of global financial crises. Fiscal policy can affect economic growth through both macroeconomic and microeconomic channels. At the macroeconomic level, it can impact aggregate demand, stabilize the economic cycle, and boost business confidence, investment, and long-term growth. At the microeconomic level, it can influence private sector behavior by encouraging employment, investment, and productivity (Kim et al., 2014).

Research analyzing the influence of fiscal policy on the economy was also conducted in Indonesia. (Jellema et al., 2017) found through his research that fiscal policies issued by the government were able to reduce inequality in society. Additionally, a study analyzes the impact of fiscal policy shocks on GDP, inflation, and interest rates during economic crises in Indonesia, concluding that fiscal policy does matter and has significant effects on the economy (Prasasti & Ekananda, 2023). Another research indicates that fiscal policy, particularly government spending on infrastructure projects and social programs, has a positive influence on economic growth in Indonesia (Hanipah et al., 2023). These studies collectively suggest that fiscal policy plays a crucial role in shaping the Indonesian economy, impacting inequality, economic growth, and the country's vulnerability to external conditions.

Several previous studies have also specifically analyzed the relationship between fiscal policy and economic growth in the South Sulawesi region. The results of the research collectively state that there is a positive and significant influence between fiscal policy and economic growth in the region. The study conducted by (Akhmad et al., 2012) showed that fiscal policy had a significant impact on the regional economy of South Sulawesi Province. Another study aimed to describe the impact of

fiscal policy on the agricultural development in cities and regencies of South Sulawesi and showed that fiscal policy had a significant impact on agricultural development in South Sulawesi (Shaleh, 2021). Thus, this research supports and is also supported by previous research which states the relationship between fiscal policy and regional economic growth in South Sulawesi Province.

Implication

The study underscores the importance of continued emphasis on effective fiscal policies at the regional level. Policymakers can leverage these findings to refine and optimize existing fiscal strategies, ensuring that they align with the unique economic dynamics of Sulawesi Selatan. This may involve targeted investments, tax incentives, or other measures aimed at sustaining and amplifying the positive economic impact. This research also indicates the effectiveness of fiscal policy can enhance investor confidence in Sulawesi Selatan's economic landscape. This newfound confidence may attract more investments, both domestic and international, further fueling economic activities and creating a positive feedback loop for sustained growth.

CONCLUSION

Based on the results of the existing analysis, it can be concluded that there is a significant influence between fiscal policy and its effectiveness on economic growth and development in the South Sulawesi Province. These results require policy makers to be able to create effective fiscal policies by utilizing various potential and existing resources. This research, like research in general, of course still has shortcomings and limitations. One of them is that we are still unable to determine which fiscal policy can most dominantly influence the economy. Thus, it is hoped that future research will be able to explore this and explain and complement these findings.

Reference

- Akhmad, Achsan, N. A., Tambunan, M., & Mulyo, S. A. (2012). Impact of fiscal policy on the agricultural development in an emerging economy: Case study from the south Sulawesi, Indonesia. *International Research Journal of Finance and Economics*, 96(August 2018), 101–112.
- Arianto, B. (2020). Pengembangan UMKM digital di masa pandemi covid-19. *ATRABIS: Jurnal Administrasi Bisnis (e-Journal)*, 6(2), 233–247.
- Blöndal, J. R., Hawkesworth, I., & Choi, H. D. (2009). Budgeting in Indonesia. *OECD Journal on Budgeting*, 9(2), 1–31. <https://doi.org/10.1787/budget-9-5ks72wv89p48>
- Cimadomo, J. (n.d.). *WORKING PAPER SERIES NO 1408/DECEMBER 2011 REAL-TIME DATA AND FISCAL POLICY ANALYSIS A SURVEY OF* by Jacopo Cimadomo *WORKING PAPER SERIES NO 1408/DECEMBER 2011 REAL-TIME DATA AND FISCAL POLICY ANALYSIS A*.
- Cohen. (2013). Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences. *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*. <https://doi.org/10.4324/9780203774441>
- D. Isnaeni., 2017. (2016). Peranan Kebijakan Fiskal Dalam Sebuah Negara. *PENGARUH PENGGUNAAN PASTA LABU KUNING (Cucurbita Moschata) UNTUK SUBSTITUSI TEPUNG TERIGU DENGAN PENAMBAHAN TEPUNG ANGKAK DALAM PEMBUATAN MIE KERING*, 15(1), 165–175. <https://core.ac.uk/download/pdf/196255896.pdf>

- Fattah, S., & Rahman, A. (2013). Analysis of Regional Economic Development in the Regency / Municipality at South Sulawesi Province In Indonesia. *Journal of Economics and Sustainable Development*, 4(1), 1–10. <https://core.ac.uk/download/pdf/234645799.pdf>
- Ghozali, I. (2013). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*. Badan Penerbit Universitas Diponegoro.
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25 Edisi 9*. *Badan Penerbit Universitas Diponegoro*.
- Hanipah, H., Sugiartini, P., & Maula, I. M. (2023). Analysis of the Impact of Government Fiscal and Monetary Policies on Economic Growth in Indonesia: Government Economic Approach. *Journal of Social Research*, 2(11), 3867–3871. <https://doi.org/10.55324/josr.v2i11.1498>
- Hidayat, N. (2019). Model Kuliah Kerja Nyata (KKN) Integratif Interkonektif Berbasis pada Pengembangan Masyarakat yang Produktif Inovatif dan Kreatif. *Panangkaran: Jurnal Penelitian Agama Dan Masyarakat*, 2(2), 219. <https://doi.org/10.14421/panangkaran.2018.0202-03>
- Jellema, J., Wai-Poi, M., & Afkar, R. (2017). The distributional impact of fiscal policy in Indonesia. *World Bank. Forthcoming*.
- Kim, Y. D., Yoon, S., & Kim, H. G. (2014). An economic perspective and policy implication for social enterprise. *American Journal of Applied Sciences*, 11(3), 406–413. <https://doi.org/10.3844/ajassp.2014.406.413>
- Mahfouz, S., Hemming, R., & Kell, M. (2002). The Effectiveness of Fiscal Policy in Stimulating Economic Activity: A Review of the Literature. In *IMF Working Papers* (Vol. 02, Issue 208, p. 1). <https://doi.org/10.5089/9781451874716.001>
- Murtadho, A. (2013). Konsep Fiskal Islam Dalam Perspektif Historis. *Economica: Jurnal Ekonomi Islam*, 4(1), 33–50.
- Phuc Canh, N. (2018). The effectiveness of fiscal policy: contributions from institutions and external debts. *Journal of Asian Business and Economic Studies*, 25(1), 50–66. <https://doi.org/10.1108/JABES-05-2018-0009>
- Prasasti, S. R., & Ekananda, M. (2023). Does Fiscal Policy Matter? A Study on Economic Crises in Indonesia. *Jejak*, 16(1), 13–27. <https://doi.org/10.15294/jejak.v16i1.37532>
- Rajah, R. (2018). Indonesia's economy: Between growth and stability. *Lowy Institute Analyses*, August, 1–26. <http://www.jstor.com/stable/resrep19789>
- Shaleh, M. M. (2021). Pembangunan Ekonomi Inklusif Nasional, Provinsi dan Kabupaten/Kota Se-Sulawesi Selatan. *Equilibrium*, 10(1), 24–43. <https://journal.stiem.ac.id/index.php/jureq/article/view/741>
- Wibowo. (2007). *Manajemen Kinerja. Edisi ketiga*. PT.Raja Grafindo Prasada.
- Wibowo, T., Siregar, H., Rustiadi, E., & Hardiyanto, A. T. (2022). The Analysis of Sub-National Fiscal Risk in Indonesia. *International Journal of Sustainable Development and Planning*, 17(7), 2183–2188. <https://doi.org/10.18280/ijstdp.170718>