
SYNERGY BETWEEN FISCAL DECENTRALIZATION AND REGIONAL EXPENDITURE IN PROMOTING INCLUSIVE ECONOMIC GROWTH IN INDONESIA



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Abstract

This study aims to analyze the synergy between fiscal decentralization and regional expenditure in promoting inclusive economic growth in Indonesia. The research employs a quantitative approach using panel data covering 33 provinces over the period 2017–2022. The analysis is conducted using the Fixed Effects Model (FEM), selected based on the results of the Chow test and Hausman test. The findings indicate that fiscal decentralization, as well as intergovernmental transfers and village funds, do not have a significant effect on inclusive economic growth in Indonesia. In contrast, regional expenditure has a positive effect on inclusive economic growth. These results suggest that the effectiveness of regional fiscal policy is determined more by the quality and allocation of public spending rather than by the magnitude of fiscal authority or the amount of transfers received by regions. This study highlights the importance of strengthening governance and optimizing productive expenditure to promote inclusive economic development in Indonesia.

Keywords: Fiscal Decentralization, Regional Expenditure, Inclusive Economic Growth, Fixed Effects Model, Panel Data

INTRODUCTION

Fiscal decentralization has been one of the main pillars of governance reform in Indonesia since the enactment of Laws Number 22 and 25 of 1999 concerning regional autonomy (Prasetyo et al., 2021). This policy grants broader authority to local governments in managing fiscal resources, with the aim of improving the efficiency of public spending, the quality of public services, and equitable development across regions. Fiscal decentralization is grounded in the theory of fiscal federalism, particularly the Decentralization Theorem proposed by Wallace E. Oates, which states that the provision of public goods will be more efficient when carried out by the level of government closest to the people (Plaček et al., 2020). Local governments are better positioned to tailor policies to local preferences, thereby enhancing the efficiency of public resource allocation and the responsiveness of policy.

Within the framework of public economics, fiscal decentralization aligns with the functions of government as proposed by Musgrave, namely allocation, distribution, and stabilization functions (Putra et al., 2023). These three functions emphasize that granting fiscal authority to local governments is a prerequisite for improving the efficiency of public goods provision, achieving equitable welfare distribution, and maintaining economic stability. In developing countries such as Indonesia, fiscal decentralization is viewed as a strategic instrument to promote inclusive economic growth by increasing public access to basic services such as education, healthcare, and infrastructure (Hanif et al., 2020; Sofilda et al., 2023; Clements et al., 2025).

Various empirical studies indicate that the impact of fiscal decentralization on economic growth and the inclusiveness of development remains mixed and inconsistent. International research shows that revenue decentralization can reduce inequality and improve welfare, particularly in developed countries (Hung & Thanh, 2022; Huynh et al., 2023; Tselios, 2023). In developing countries, however, the effectiveness of fiscal decentralization is often constrained by vertical and horizontal fiscal imbalances, limited institutional capacity, and weak local governance (Digdowiseiso et al., 2022; Mesfin & Teka, 2023; Yimenu, 2023). These conditions suggest that the success of fiscal decentralization depends heavily on institutional quality and the fiscal capacity of each region.

In Indonesia, empirical findings also show considerable variation. Several studies indicate that fiscal decentralization has not yet succeeded in enhancing regional fiscal independence due to the high dependence on central government transfers, such as general allocation funds and special allocation funds (Aritenang et al., 2023; Handraini et al., 2024; Nugroho & Candrawati, 2025). On the other hand, other studies find that fiscal decentralization, particularly through social spending and productive public expenditure, has a positive effect on inclusive economic growth at the regional level (Haryati et al., 2025; Simanjuntak et al., 2025). These differing results highlight the existence of an empirical gap in understanding the relationship between fiscal decentralization and development outcomes, especially in terms of economic inclusiveness.

The relevance of this study has increased following the implementation of reforms in intergovernmental transfers and village funds in 2017, which aimed to improve the quality of local government spending, strengthen fiscal equalization, and align regional

financing with national development priorities. However, the implementation of these policies continues to face challenges, including disparities in fiscal capacity and governance quality across regions. The relationship between fiscal decentralization and economic growth is also nonlinear and influenced by institutional quality and the effectiveness of regional budget management (Hanif et al., 2020; Digdowiseiso, 2022; Rodríguez-Pose & Muštra, 2022).

In terms of development outcomes, Indonesia still faces challenges in achieving inclusive economic growth. The relatively stagnant level of income inequality, along with increasing inequality during crisis periods such as the COVID-19 pandemic, indicates that economic growth has not been evenly distributed across all segments of society (Santoso & Mukhlis, 2021). Inclusive economic growth is not only measured by increased output, but also by its ability to reduce poverty, decrease inequality, and expand access to economic opportunities and basic services (Van Niekerk, 2020; Kamran et al., 2023).

Although numerous studies have examined the relationship between fiscal decentralization and economic growth, empirical results remain varied across the literature. Most previous studies have analyzed fiscal decentralization partially, either from the revenue side or the expenditure side, without integrating both into a single analytical framework. Studies that specifically evaluate the effectiveness of fiscal decentralization in promoting inclusive economic growth in the post-reform period of intergovernmental transfers and village funds remain limited. The relationship between fiscal decentralization and inclusive development is influenced by the interaction between regional fiscal capacity, the quality of public spending, and institutional governance.

Based on this gap, this study offers a novel contribution by integrating the dimensions of fiscal decentralization and regional expenditure into a single analytical model to explain inclusive economic growth in Indonesia. This study employs a panel data approach covering provinces during the period 2017–2022, enabling the analysis to capture both cross-regional variation and time dynamics simultaneously. This approach provides a more comprehensive analytical foundation for understanding the heterogeneity of regional fiscal capacity and the effectiveness of public spending in promoting economic inclusiveness.

This study aims to analyze the synergy between fiscal decentralization and regional expenditure in promoting inclusive economic growth in Indonesia during the period 2017–2022. The findings are expected to provide empirical contributions to the development economics literature, particularly regarding the effectiveness of fiscal decentralization policies in developing countries. Furthermore, the results are expected to serve as a reference for policymakers in formulating more effective, equitable, and welfare-oriented regional fiscal policies that promote inclusive development.

REVIEW OF LITERATURE

The Effect of Fiscal Decentralization on Inclusive Economic Growth

Fiscal decentralization, from the perspective of Fiscal Federalism Theory—particularly through the Decentralization Theorem proposed by Oates—emphasizes that local governments possess superior information regarding local community preferences, enabling them to allocate public resources more efficiently (Plaček et al., 2020). This

allocation efficiency improves the quality of public services, such as education, healthcare, and infrastructure, which play a crucial role in promoting inclusive economic growth (Clements et al., 2025).

Within the framework of Public Finance Theory developed by Musgrave, fiscal decentralization performs a distribution function through regional fiscal policies that are more responsive to social and economic inequalities (Desmarais-Tremblay et al., 2023). Broader fiscal authority allows local governments to design targeted policies to reduce poverty and inequality, thereby strengthening the inclusiveness of economic growth.

The effectiveness of fiscal decentralization is influenced by institutional capacity and the quality of regional governance. In the outcome-based decentralization approach, positive impacts on economic inclusivity are achieved when local governments are able to manage revenues and expenditures optimally and accountably (Onofrei et al., 2022; Lewis, 2023). Therefore, increased fiscal decentralization supported by adequate institutional capacity will strengthen inclusive economic growth.

H₁: Fiscal decentralization has a positive effect on inclusive economic growth.

The Effect of Intergovernmental Transfers and Village Funds on Inclusive Economic Growth

Intergovernmental transfers and village funds are fiscal policy instruments aimed at reducing vertical and horizontal fiscal imbalances across regions. Within the framework of Fiscal Equalization Theory, fiscal transfers from the central government are directed to ensure that each region has relatively equal fiscal capacity to provide basic public services (Buettner & Krause, 2021). Thus, regions with limited local revenue capacity are still able to finance development that improves public welfare.

Increased fiscal transfer allocations expand public access to basic services and infrastructure, particularly in underdeveloped regions (Dick-Sago, 2020; Khusaini et al., 2023). This condition promotes more equal economic opportunities and reduces poverty and inequality. Village funds, as part of these transfers, also strengthen community-based development that directly targets vulnerable groups (Wulandari et al., 2025).

The effectiveness of intergovernmental transfers and village funds depends on the quality of regional management and governance. Without adequate accountability and planning, fiscal transfers will not optimally promote economic inclusivity (Bakri et al., 2024). Therefore, increasing transfer allocations accompanied by good governance will enhance their contribution to inclusive economic growth.

H₂: Intergovernmental transfers and village funds have a positive effect on inclusive economic growth.

The Effect of Regional Expenditure on Inclusive Economic Growth

Regional expenditure is the primary instrument in implementing fiscal policy at the local level. Within the framework of Keynesian Theory, increased government spending generates a multiplier effect on economic activity, promoting growth through increased aggregate demand (Bouakez et al., 2023). When regional expenditure is directed toward productive sectors, such as infrastructure, education, and healthcare, it not only boosts economic growth but also expands public access to economic opportunities.

From the perspective of pro-poor growth theory, the composition of public spending determines the level of inclusivity in economic growth (Adeosun & Tabash, 2022). Pro-poor spending, such as social expenditures and basic services, plays a significant role in

reducing inequality and improving welfare more equitably (Popova, 2023; Isiaka et al., 2025). Therefore, the quality and effectiveness of regional expenditure are crucial factors in promoting inclusive economic growth.

Within the framework of fiscal decentralization, expenditure management authority allows local governments to align development priorities with local needs (Ain et al., 2025). This enhances allocation efficiency and promotes more equitable regional development. Thus, increased regional expenditure that is high-quality, productive, and well-targeted will strengthen inclusive economic growth.

H₃: Regional expenditure has a positive effect on inclusive economic growth.

RESEARCH METHOD

This study employs a quantitative approach to analyze the effect of fiscal decentralization and regional expenditure on inclusive economic growth in Indonesia. This approach is chosen because it is capable of testing causal relationships between variables using numerical data and measurable, objective inferential statistical analysis (Ghanad, 2023; Mweshi & Muhyila, 2024). In addition, the quantitative approach is relevant for evaluating the effectiveness of fiscal policies in promoting equitable economic development across regions.

The data used are secondary data obtained from official publications of the Central Statistics Agency (BPS) and the Directorate General of Fiscal Balance (DJPk) of the Ministry of Finance of the Republic of Indonesia. BPS data are used to obtain indicators of welfare and regional development, including the Human Development Index (HDI), Gini ratio, and poverty rate. DJPK data are used to obtain information related to regional fiscal structures, including intergovernmental transfers and village funds, as well as regional government expenditures.

The unit of analysis covers 33 provinces in Indonesia during the period 2017–2022. The Special Capital Region of Jakarta (DKI Jakarta) is excluded because it has significantly different fiscal characteristics compared to other provinces, particularly in terms of fiscal independence and regional revenue structure (Yurianto & Akhmad, 2021). This exclusion aims to maintain sample homogeneity and reduce potential estimation bias that could affect the validity of the research results. The combination of a cross-sectional dimension of 33 provinces and a time series over 6 years produces 198 observations in a balanced panel structure. The use of panel data enhances analytical power as it captures both cross-regional variation and dynamic changes over time (Ditzen et al., 2025).

The dependent variable is inclusive economic growth, measured using the Inclusive Economic Growth Index. This index is constructed from three main indicators: the Human Development Index (HDI), Gini ratio, and poverty rate. The index is developed using the Min–Max normalization method to standardize the scale across indicators so that they can be combined into a single composite index.

The main independent variable is fiscal decentralization, proxied by the fiscal decentralization ratio, defined as the ratio of locally generated revenue to total regional revenue. This study also includes control variables in the form of intergovernmental transfers and village funds, as well as regional expenditure, to capture the effects of central government fiscal intervention and the spending capacity of local governments on inclusive

economic growth. The variables of intergovernmental transfers and village funds, as well as regional expenditure, are transformed into natural logarithms (ln) to reduce potential heteroskedasticity and improve data distribution. The operational definitions of variables are presented in Table 1.

Table 1.
Operational Definition of Variables

Variable	Operational Definition	Unit	Source
Inclusive Economic Growth	Composite index reflecting the quality of economic growth based on HDI, Gini ratio, and poverty rate	Index	BPS
Fiscal Decentralization	Ratio of locally generated revenue to total regional revenue	Percent (%)	DJPK
Intergovernmental Transfers and Village Funds	Total transfer funds from the central government to regions	Rupiah	DJPK
Regional Expenditure	Total local government expenditure within one fiscal year	Rupiah	DJPK

The analytical method used is panel data regression with three estimation approaches: the Common Effects Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM) (Baltagi, 2021). The selection of the best model is conducted using the Chow test to determine the choice between CEM and FEM, the Hausman test to choose between FEM and REM, and the Lagrange Multiplier test as an additional test. Based on these tests, the Fixed Effects Model (FEM) is selected as the most appropriate model because it accommodates unobserved heterogeneity across provinces (Imai & Kim, 2021) (see Table 2).

Hypothesis testing is conducted simultaneously using the F-test to assess the overall significance of the model and partially using the t-test to examine the effect of each independent variable on the dependent variable. All analytical processes are carried out using EViews version 13 software. The empirical model in this study is formulated as follows:

$$IEG_{(it)} = \beta_0 + \beta_1 FD_{(it)} + \beta_2 \ln (ITVF)_{(it)} + \beta_3 \ln (RE)_{(it)} + \varepsilon_{(it)} \tag{1}$$

Description of Equation (1):

$IEG_{(it)}$: Inclusive economic growth of province i in year t

$FD_{(it)}$: Fiscal decentralization of province i in year t

$ITVF_{(it)}$: Intergovernmental transfers and village funds of province i in year t

$RE_{(it)}$: Regional expenditure of province i in year t

β_0 : Constant

$\beta_1, \beta_2, \beta_3$: Regression coefficients

$\varepsilon_{(it)}$: Error term

i : Province

t : Year of observation

RESULTS AND DISCUSSION

This section presents the results of panel data regression estimation using the Common Effects Model (CEM), Fixed Effects Model (FEM), and Random Effects Model (REM), along with the results of the model selection tests summarized in Table 2.

Table 2.
Panel Data Regression Estimation Results (CEM, FEM, REM) and Model Selection Tests

IEG: Inclusive Economic Growth			
Variable	Regression Coefficient		
	CEM	FEM	REM
Constant (C)	1.183	-2.734	-0.182
FD	0.395	-0.026	-0.029
ln(ITVF)	-0.091	-0.006	-0.014
ln(RE)	0.025	0.339	0.093
R ²	0.176	0.949	0.045
Adjusted R ²	0.164	0.938	0.030
F-statistic	13.842	86.631	3.057
F Probability	0.000	0.000	0.029
Model Selection Tests:			
Chow Test: Cross-section F (32, 162) = 77.154; Prob. F (32, 162) = 0.000			
Hausman Test: Cross-section random $\chi^2(3) = 52.926$; Prob. $\chi^2 = 0.000$			

Source: Data processed using EViews 13 (2026).

After conducting estimations using the three approaches, the next step is to perform model selection tests to determine the most appropriate model for the analysis. The tests include the Chow Test to choose between CEM and FEM, and the Hausman Test to choose between FEM and REM.

Based on Table 2, the Chow Test yields a Cross-section F value of 77.154 with a probability of 0.000 (< 0.05). This result indicates that FEM is more appropriate than CEM, which assumes homogeneity across all cross-sectional units. The findings suggest significant differences in characteristics across provinces in explaining variations in inclusive economic growth during the study period.

The Hausman Test is then used to determine the best model between FEM and REM. The test results show a chi-square (χ^2) statistic value of 52.926 with a probability of 0.000 (< 0.05). This indicates that individual effects across provinces are correlated with the independent variables, meaning the assumptions of REM are not satisfied. Therefore, FEM is again selected as the most appropriate model.

Based on these two tests, the Fixed Effects Model (FEM) is established as the main model in the analysis. This model is capable of capturing differences in fiscal characteristics across provinces in explaining inclusive economic growth in Indonesia. The use of FEM produces more representative estimates in describing the impact of fiscal decentralization policies. The FEM estimation results are presented in Table 3.

Table 3.
Panel Data Regression Estimation Results Using the Fixed Effects Model (FEM)

$IEG_{(it)} = -2.734 - 0.026FD_{(it)} - 0.006ln(ITVF)_{(it)} + 0.339ln(RE)_{(it)}$ <p style="text-align: center;">(0.483) (0.693) (0.000)*</p>
$R^2 = 0.949; F\text{-statistic} = 86.631; Prob(F) = 0.000$

Source: Data processed using EViews 13 (2026).

Note: * significant at α (0.01) level.

Based on the FEM estimation results in Table 3, the coefficient of determination (R^2) is 0.949, the F-statistic is 86.631, and the Prob. F-statistic is 0.000. A probability value smaller than 0.05 indicates that fiscal decentralization, intergovernmental transfers and village funds, and regional expenditure simultaneously have a significant effect on inclusive economic growth in Indonesia.

The R^2 value of 0.949 indicates that 94.9 percent of the variation in inclusive economic growth can be explained by fiscal decentralization, intergovernmental transfers and village funds, and regional expenditure. The remaining 5.1 percent is explained by other factors outside the model. This value reflects the model’s very strong explanatory power in capturing relationships among variables. Moreover, the FEM approach is able to account for heterogeneity across provinces, resulting in more accurate estimates in describing the dynamics of regional economic development. The results of the hypothesis testing (t-test) using the FEM approach are presented in Table 4.

Table 4.
Hypothesis Testing Results (t-test) Using the Fixed Effects Model (FEM)

Variable	Coefficient	Sig. (t)	Description
FD	-0.026	0.483	FD has no significant effect on IEG.
ln(ITVF)	-0.006	0.693	ln(ITVF) has no significant effect on IEG.
ln(RE)	0.339	0.000	ln(RE) has a positive effect on IEG.

Source: Data processed using EViews 13 (2026).

The hypothesis testing results in Table 4 show that fiscal decentralization and intergovernmental transfers along with village funds do not have a significant effect on inclusive economic growth in Indonesia, whereas regional expenditure has a positive effect. The coefficient of the regional expenditure variable is positive at 0.339 with a significance level of 0.000 (< 0.05). This indicates that a 1 percent increase in regional expenditure is estimated to increase inclusive economic growth by 0.339 percent. These results suggest that regional expenditure plays an important role in promoting a more equitable distribution of the benefits of economic development.

Discussion

The research results indicate that fiscal decentralization does not have a significant effect on inclusive economic growth in Indonesia; therefore, H_1 is rejected. This finding suggests that an increase in the degree of fiscal decentralization has not yet been able to directly promote a more equitable distribution of the benefits of economic growth. Within the framework of fiscal federalism, fiscal decentralization as proposed by Wallace E. Oates emphasizes that the delegation of fiscal authority to local governments can enhance the efficiency of resource allocation due to their closer access to information regarding community needs (Plaček et al., 2020).

However, the empirical results reveal a discrepancy between the theoretical framework and its implementation. The insignificant effect of fiscal decentralization is associated with the low fiscal capacity of local governments, as reflected in the relatively small contribution of locally generated revenue to total regional income. This condition indicates a high dependence of local governments on central government transfers, thereby limiting their fiscal space. These findings are consistent with Sakti et al. (2024), who emphasize the importance of fiscal capacity and fiscal elasticity in promoting inclusive growth. Hung and Thanh (2022) also demonstrate that the effectiveness of fiscal decentralization is influenced by the quality of productive spending and the human resource capacity in budget management. Fiscal decentralization is not only about the extent of authority but also about the ability to manage it effectively.

This study is also in line with Aritenang et al. (2023), which highlights disparities in capacity among regions in Indonesia. Differences in fiscal and institutional capacity lead to uneven benefits from decentralization. This indicates that fiscal decentralization in Indonesia is still at the stage of incomplete decentralization, where the transfer of authority has not been accompanied by strengthening local fiscal and institutional capacity.

Furthermore, the results show that intergovernmental transfers and village funds do not have a significant effect on inclusive economic growth; thus, H_2 is rejected. This finding suggests that increased transfer allocations have not been effective in improving equitable development. In the context of fiscal decentralization, intergovernmental transfers function to reduce disparities in fiscal capacity and ensure the provision of public services (Buettner & Krause, 2021).

The effectiveness of fiscal transfers is highly influenced by the quality of governance and local institutions. Increased funding allocations are not always accompanied by improvements in planning quality and budget management, thereby limiting their impact on inclusive growth. These findings are supported by Digdowiseiso et al. (2022) and Mesfin and Teka (2023), who show that the impact of fiscal decentralization on inclusive growth is influenced by institutional quality and local government performance. Al-Saadi and Khudari (2024) and Katuka et al. (2024) also emphasize the importance of governance quality and fiscal performance in enhancing inclusive economic growth at the regional level.

In addition, the phenomenon of fiscal dependency helps explain these results. Nugroho and Candrawati (2025) show that a high dependence on central transfers can reduce incentives for regions to improve fiscal independence. This condition may lead to moral hazard, reflected in a lack of innovation in exploring local economic potential. Therefore, intergovernmental transfers and village funds have not yet been effective in promoting inclusive economic growth, as they still face challenges related to governance, allocation effectiveness, and fiscal incentives.

In contrast to the previous variables, the results show that regional government expenditure has a positive effect on inclusive economic growth; therefore, H_3 is accepted. This finding indicates that public expenditure is the most direct fiscal instrument in promoting inclusive development. In public finance theory, Richard Musgrave explains that government spending serves allocation, distribution, and stabilization functions (Putra et al., 2023).

Increased regional expenditure, particularly in productive sectors such as infrastructure, education, and healthcare, can expand public access to economic opportunities. This not only promotes economic growth but also improves the distribution of development benefits. These findings are consistent with Ambya (2020) and Arnan et al. (2024), who show that public spending in productive sectors has a positive effect on regional economic growth. Ofoeda et al. (2024) also demonstrate that the quality of regional financial management contributes to inclusive growth through improved access to public services.

Simanjuntak et al. (2025) find that regional expenditure directed toward development and public service delivery can foster more inclusive economic growth in Indonesia. This indicates that the effectiveness of fiscal policy is determined not only by the size of the budget but also by the quality of its allocation and implementation. Therefore, regional expenditure serves as the main channel of local fiscal policy that directly affects public welfare. Improving the quality of planning, performance-based budgeting, and expenditure oversight are crucial factors in ensuring inclusive economic growth.

CONCLUSION

This study aims to analyze the effect of the synergy between fiscal decentralization and regional government spending on inclusive economic growth in Indonesia during the 2017–2022 period. The results of the analysis indicate that fiscal decentralization, as well as intergovernmental transfers and village funds, do not have a significant effect on inclusive economic growth. In contrast, regional government spending has a positive effect, suggesting that increased public expenditure can promote a more equitable distribution of the benefits of economic development.

Based on these findings, the government needs to strengthen the quality of regional spending by directing budget allocations toward productive sectors such as infrastructure, education, and healthcare, which have a direct impact on improving public welfare. In addition, enhancing the effectiveness of fiscal decentralization should be pursued through strengthening regional fiscal capacity, optimizing locally generated revenue, and improving transparent and accountable regional financial governance. Reforms in transfer policies to regions and village funds should focus on improving the quality of budget planning and oversight to ensure their optimal utilization in supporting inclusive and equitable development across regions.

This study has several limitations. First, the observation period is relatively short—only six years—thus it does not fully capture the long-term dynamics of the relationship between fiscal decentralization and inclusive economic growth. Second, the variables used are limited to fiscal decentralization, intergovernmental transfers and village funds, and regional spending, and therefore do not encompass other factors such as institutional quality, investment, economic structure, and spatial aspects across regions. Future research is recommended to use a longer observation period, include more comprehensive variables, and apply more advanced methodological approaches such as dynamic panel models or spatial econometric models to better capture interregional interactions and long-term effects.

This study confirms that the success of inclusive economic development in Indonesia is not solely determined by the magnitude of fiscal authority or central government transfers, but also by the quality of public spending and the effectiveness of regional fiscal governance. Therefore, strengthening institutional capacity, optimizing budget allocation, and enhancing fiscal accountability are key factors in promoting inclusive and sustainable economic growth in Indonesia.

REFERENCES

- Adeosun, O. A., & Tabash, M. I. (2022). Pro-poor and inclusive growth in West Africa. *African Journal of Economic and Management Studies*, 13(1), 105–135. <https://doi.org/10.1108/AJEMS-08-2021-0359>
- Ain, Q. U., Yousaf, T., & Tahir, M. A. (2025). Decentralization policies and sustainable rural development: A path to eradicating poverty (SDG 1) and hunger (SDG 2). *Sustainable Development*, 33(1), 700–716. <https://doi.org/10.1002/sd.3147>
- Al-Saadi, A. S. A., & Khudari, M. (2024). The dynamic relationship between good governance, fiscal policy, and sustainable economic growth in Oman. *Journal of Infrastructure, Policy and Development*, 8(5), 1–20. <https://doi.org/10.24294/jipd.v8i5.3557>
- Ambya, A. (2020). How government spending on public sector affect the economic growth? *JEJAK: Jurnal Ekonomi dan Kebijakan*, 13(1), 218–229. <https://doi.org/10.15294/jejak.v13i1.21943>
- Aritenang, A. F., & Chandramidi, A. N. (2023). The spatial effects of fiscal decentralization on regional convergence: The case of regions in Indonesia. *GeoJournal*, 88(2), 2011–2030. <https://doi.org/10.1007/s10708-022-10724-2>
- Anan, S. G., Asikin, B., & Kusumah, R. W. R. (2024). The effect of regional investment and government spending on economic growth. *Jurnal Ekonomi, Bisnis & Entrepreneurship*, 18(1), 54–63. <https://doi.org/10.55208/cneakm51>
- Bakri, M. R., Bagiada, P. P., Yogantari, N. L. R., & Marlina, L. S. (2024). Accountability and fiscal transfer: The perfect duo for enhancing the regional economy. *Jurnal Tata Kelola dan Akuntabilitas Keuangan Negara*, 10(1), 105–122. <https://doi.org/10.28986/jtaken.v10i1.1639>
- Baltagi, B. H. (2021). *Econometric analysis of panel data (6th ed.)*. Springer. <https://doi.org/10.1007/978-3-030-53953-5>
- Bouakez, H., Rachedi, O., & Santoro, E. (2023). The government spending multiplier in a multisector economy. *American Economic Journal: Macroeconomics*, 15(1), 209–239. <https://doi.org/10.1257/mac.20200213>
- Buettner, T., & Krause, M. (2021). Fiscal equalization as a driver of tax increases: Empirical evidence from Germany. *International Tax and Public Finance*, 28(1), 90–112. <https://doi.org/10.1007/s10797-020-09610-9>
- Clements, B., Gupta, S., & Jalles, J. T. (2025). Public spending and inclusive growth in developing Asia. *Public Finance Review*, 53(2), 139–168. <https://doi.org/10.1177/10911421241296203>
- Desmarais-Tremblay, M., Johnson, M., & Sturn, R. (2023). From public finance to public economics. *The European Journal of the History of Economic Thought*, 30(5), 934–964. <https://doi.org/10.1080/09672567.2023.2248323>

- Dick-Sagoe, C. (2020). Decentralization for improving the provision of public services in developing countries: A critical review. *Cogent Economics & Finance*, 8(1), 1804036. <https://doi.org/10.1080/23322039.2020.1804036>
- Digdowiseiso, K. (2022). Is fiscal decentralization growth enhancing? A cross-country study in developing countries over the period 1990–2014. *Economies*, 10(3), 62. <https://doi.org/10.3390/economies10030062>
- Digdowiseiso, K., Murshed, S. M., & Bergh, S. I. (2022). How effective is fiscal decentralization for inequality reduction in developing countries? *Sustainability*, 14(1), 505. <https://doi.org/10.3390/su14010505>
- Ditzen, J., Karavias, Y., & Westerlund, J. (2025). Testing and estimating structural breaks in time series and panel data in Stata. *The Stata Journal*, 25(3), 526–560. <https://doi.org/10.1177/1536867X251365449>
- Ghanad, A. (2023). An overview of quantitative research methods. *International Journal of Multidisciplinary Research and Analysis*, 6(8), 3794–3803. <https://doi.org/10.47191/ijmra/v6-i8-52>
- Handraini, H., Frinaldi, A., Asnil, A., & Putri, N. E. (2024). Pengaruh pendapatan asli daerah (PAD) dan dana perimbangan terhadap kemandirian keuangan pemerintahan daerah di Kabupaten Pasaman Barat. *Professional: Jurnal Komunikasi dan Administrasi Publik*, 11(2), 593–600. <https://doi.org/10.37676/professional.v11i2.7225>
- Hanif, I., Wallace, S., & Gago-de-Santos, P. (2020). Economic growth by means of fiscal decentralization: An empirical study for federal developing countries. *SAGE Open*, 10(4), 2158244020968088. <https://doi.org/10.1177/2158244020968088>
- Haryati, D. C., Nurpiji, N., Masitoh, G., Saputra, W., & Subarkah, T. (2025). Analisis efisiensi belanja modal terhadap pertumbuhan ekonomi daerah di Indonesia: Pendekatan data panel. *Gemilang: Jurnal Manajemen dan Akuntansi*, 5(3), 139–153. <https://doi.org/10.56910/gemilang.v5i3.2185>
- Hung, N. T., & Thanh, S. D. (2022). Fiscal decentralization, economic growth, and human development: Empirical evidence. *Cogent Economics & Finance*, 10(1), 2109279. <https://doi.org/10.1080/23322039.2022.2109279>
- Huynh, C. M., Nguyen, T. L., & Lam, T. H. T. (2023). Fiscal decentralization and income inequality in OECD countries: Does shadow economy matter? *Eurasian Economic Review*, 13(3), 515–533. <https://doi.org/10.1007/s40822-023-00241-z>
- Imai, K., & Kim, I. S. (2021). On the use of two-way fixed effects regression models for causal inference with panel data. *Political Analysis*, 29(3), 405–415. <https://doi.org/10.1017/pan.2020.33>
- Isbahi, M. B., Zuana, M. M. M., & Toha, M. (2024). The Multi-Social Relation of the Cattle Industry in the Plaosan Subdistrict Animal Market of Magetan Regency. *Malacca: Journal of Management and Business Development*, 1(1), 31–46. <https://doi.org/10.69965/malacca.v1i1.51>
- Isiaka, A., Mihailov, A., & Razzu, G. (2025). Government spending reallocations and inequality: Evidence from middle-income countries. *Empirical Economics*, 69(3), 1229–1257. <https://doi.org/10.1007/s00181-025-02768-3>
- Kamran, M., Rafique, M. Z., Nadeem, A. M., & Anwar, S. (2023). Does inclusive growth contribute towards sustainable development? Evidence from selected developing

- countries. *Social Indicators Research*, 165(2), 409–429. <https://doi.org/10.1007/s11205-022-03020-6>
- Katuka, B., Mudzingiri, C., & Ozili, P. K. (2024). Fiscal space, governance quality and inclusive growth: Evidence from Africa. *Journal of Financial Economic Policy*, 16(1), 80–101. <https://doi.org/10.1108/JFEP-07-2023-0197>
- Khusaini, K., Mardisentosa, B., & Putro, T. R. (2023). Fiscal transfer policies and road infrastructure reduce income inequality in rural-urban areas. *Etikonomi*, 22(2), 333–356. <https://doi.org/10.15408/etk.v22i2.28618>
- Lewis, B. D. (2023). Indonesia's new fiscal decentralisation law: A critical assessment. *Bulletin of Indonesian Economic Studies*, 59(1), 1–28. <https://doi.org/10.1080/00074918.2023.2180838>
- Mesfin, S., & Teka, T. (2023). The practice of fiscal decentralization at local level in Ethiopia: Evidence from Oromia and Afar regional states. *Cogent Social Sciences*, 9(2), 2241260. <https://doi.org/10.1080/23311886.2023.2241260>
- Mweshi, G., & Muhyila, M. (2024). Determining a statistical analysis for the quantitative study. *Advances in Social Sciences Research Journal*, 7(4), 187–231. <https://doi.org/10.14738/assrj.117.17018>
- Nugroho, A. A., & Candrawati, C. (2025). Desentralisasi fiskal dan kemandirian daerah pemekaran: Studi kasus pada Provinsi Sulawesi Barat. *Dialogue: Jurnal Ilmu Administrasi Publik*, 7(1), 46–57. <https://doi.org/10.14710/dialogue.v7i1.26656>
- Ofoeda, I., Amoah, L., Anarfo, E. B., & Abor, J. Y. (2024). Financial inclusion and economic growth: What roles do institutions and financial regulation play? *International Journal of Finance & Economics*, 29(1), 832–848. <https://doi.org/10.1002/ijfe.2709>
- Onofrei, M., Oprea, F., Iașu, C., Cojocariu, L., & Anton, S. G. (2022). Fiscal decentralization, good governance and regional development—Empirical evidence in the European context. *Sustainability*, 14(12), 7093. <https://doi.org/10.3390/su14127093>
- Plaček, M., Ochrana, F., Půček, M. J., & Nemeč, J. (2020). Fiscal decentralization reforms and local government efficiency: An introduction. In *Fiscal decentralization reforms: The impact on the efficiency of local governments in Central and Eastern Europe* (pp. 1–49). Springer. https://doi.org/10.1007/978-3-030-46758-6_1
- Popova, D. (2023). Impact of equity in social protection spending on income poverty and inequality. *Social Indicators Research*, 169(1), 697–721. <https://doi.org/10.1007/s11205-023-03167-w>
- Prasetyo, N., Fadli, M., Tunggul, S. N., & Safaat, M. (2021). The politics of Indonesia's decentralization law based on regional competency. *Brawijaya Law Journal*, 8(2), 159–184. <https://doi.org/10.21776/ub.blj.2021.008.02.01>
- Putra, S. K., Setiani, W., Astuti, D., & Pangestoeti, W. (2025). Analisis peran pemerintah dalam perekonomian nasional melalui tiga fungsi utama fiskal: Alokasi, distribusi, dan stabilitas. *Jurnal Ilmiah Ekonomi dan Manajemen*, 3(6), 408–416. <https://doi.org/10.61722/jiem.v3i6.5380>
- Rodríguez-Pose, A., & Muštra, V. (2022). The economic returns of decentralisation: Government quality and the role of space. *Environment and Planning A: Economy and Space*, 54(8), 1604–1622. <https://doi.org/10.1177/0308518X221118913>

- Sakti, R. K., Bintoro, N. S., Setyanti, A. M., & Agustin, R. A. (2024). Exploring the nexus between regional fiscal capacity and the convergence of inclusive economic development. *Journal of Contemporary Governance and Public Policy*, 5(1), 55–70. <https://doi.org/10.46507/jcgpp.v5i1.261>
- Santoso, F. D. P., & Mukhlis, I. (2021). Ketimpangan pendapatan dan faktor-faktor yang mempengaruhi pada masa sebelum dan pada saat pandemi COVID-19 di Indonesia. *Jurnal Ekonomi, Bisnis dan Pendidikan*, 1(2), 146–162. <https://doi.org/10.17977/um066v1i22021p146-162>
- Simanjuntak, G. Y., Yulika, M., Putri, D. N., & Pangestoeti, W. (2025). Pengaruh belanja pemerintah daerah terhadap pertumbuhan ekonomi di Indonesia. *Jurnal Ilmiah Ekonomi dan Manajemen*, 3(6), 260–273. <https://doi.org/10.61722/jiem.v3i6.5158>
- Sofilda, E., Zilal Hamzah, M., & Kusairi, S. (2023). Analysis of fiscal decentralisation, human development, and regional economic growth in Indonesia. *Cogent Economics & Finance*, 11(1), 2220520. <https://doi.org/10.1080/23322039.2023.2220520>
- Tselios, V. (2023). Does political decentralization affect income inequality? The role of governance quality. *Regional Studies*, 57(5), 829–843. <https://doi.org/10.1080/00343404.2022.2101634>
- Van Niekerk, A. J. (2020). Inclusive economic sustainability: SDGs and global inequality. *Sustainability*, 12(13), 5427. <https://doi.org/10.3390/su12135427>
- Wulandari, M., Mawardani, P., Rohman, Z., & Hayati, S. (2025). Evaluasi penggunaan dana desa dalam pembangunan infrastruktur perdesaan: Studi kasus di Provinsi Lampung. *PENG: Jurnal Ekonomi dan Manajemen*, 2(3), 3752–3763. <https://doi.org/10.62710/5z92ja11>
- Yimenu, B. (2023). Measuring and explaining fiscal de/centralization: Empirical evidence from Ethiopia, 1995–2020. *Public Administration and Development*, 43(3), 245–259. <https://doi.org/10.1002/pad.2020>
- Yurianto, Y., & Akhmad, T. (2021). Pengaruh penerimaan pajak daerah terhadap pertumbuhan ekonomi DKI Jakarta. *JABE (Journal of Applied Business and Economic)*, 7(4), 436–449. <https://doi.org/10.30998/jabe.v7i4.9960>