ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

# The Impact Of Fiscal Decentralization On Economic Growth: A Theoretical And Empirical Review

Awal Nopriyanto Bahasoan<sup>1</sup>, Rahmatia<sup>2</sup>, Muh.Jibril Tajibu<sup>3</sup>, Amanus Khalifah Fil'ardy Yunus<sup>4</sup>

<sup>1</sup> Sulawesi Barat University, Majene, West Sulawesi 91412, Indonesia

<sup>2,3,4</sup> Hasanuddin University, Makassar, South Sulawesi 90245, Indonesia

Email: awalnopriyanto@unsulbar.ac.id

## **ABSTRACT**

Fiscal decentralization has become one of the public policy strategies in encouraging economic growth, especially in developing countries such as Indonesia. This article aims to review theoretically and empirically the relationship between fiscal decentralization and economic growth. Theoretically, decentralization can improve the efficiency of resource allocation, strengthen fiscal accountability, and encourage public service innovation. Empirically, however, the results vary depending on the fiscal capacity of the regions, the quality of the institutions, and the design of the decentralization policy itself. This study uses the Systematic Literature Review (SLR) approach to 40 relevant studies in the 2010–2024 range. The results show that fiscal decentralization has the potential to boost economic growth if supported by good governance and fair fiscal transfer mechanisms. These findings emphasize the importance of institutional reforms to optimize the benefits of decentralization for economic development.

Keywords: fiscal decentralization, economic growth, governance, fiscal efficiency, SLR

## INTRODUCTION

Fiscal decentralization has become an important policy in many countries in response to the need for government efficiency and improved local economic welfare. In recent decades, global trends have shown a shift of authority from central government to local government as a strategy to accelerate more participatory and responsive development (Gao et al., 2019; S. Li & Qi, 2023). These policies are not only part of governance reform, but are also seen as an approach to encourage sustainable economic growth (Di Novi et al., 2019a; S. Li & Li, 2024; THANH & CANH, 2020).

Theoretically, fiscal decentralization is believed to improve the efficiency of public resource allocation. Local governments are considered to be more aware of the specific conditions and needs of their communities, so that they can provide public services more on target (Kassouri, 2022; Sanogo, 2019; Shi, 2020). Within the framework of the theory of subsidiarity and the theory of competition between jurisdictions (Tiebout model), decentralization allows for policy innovation, increased efficiency, and healthy competition between regions in the provision of public services (Afonso et al., 2024; Choudhury & Sahu, 2022).

In addition, fiscal decentralization is also believed to increase public accountability. When people have closer access to local government, they tend to be more active in demanding transparency and good budget performance. This citizen involvement can strengthen good governance and accelerate decision-making based on the real needs of the community.

Nevertheless, empirical reality shows that the impact of fiscal decentralization on economic growth is not universal. Some countries recorded increased growth after implementing fiscal decentralization, while others experienced stagnation or even setbacks in regional economic development. This inequality of results shows that fiscal decentralization is not a policy that automatically produces economic benefits, but rather is highly dependent on the institutional, social, and political context in each country.

Various cross-border studies show that the success of fiscal decentralization is often mediated by factors such as regional fiscal capacity, bureaucratic quality, supervisory systems, and intergovernmental transfer design. Countries with strong supervisory systems and good fiscal transparency are likely to enjoy the economic benefits of decentralization (Lewis, 2023; Melo-Becerra et al., 2020; Tirtosuharto, 2022). Conversely,

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

decentralization carried out in a weak institutional environment can exacerbate corruption, widen inequality between regions, and degrade the quality of public spending (Digdowiseiso et al., 2022; Nirola et al., 2022). In some cases, fiscal decentralization even creates unfair competition between regions, triggering tariff wars or exploitative resource management practices. This risk occurs especially when there is no strong regulatory framework to govern vertical and horizontal coordination between levels of government (Stojkov, 2022; X. Z. D. M. C. Y. S. J. Tan, 2019; Wenjuan & Zhao, 2023a). Thus, the effectiveness of fiscal decentralization is highly dependent on the integration between institutional systems and fair fiscal policies (Hadryjańska, 2023; Ma, 2024).

Furthermore, the complexity of the relationship between fiscal decentralization and economic growth indicates the need for a comprehensive and cross-sectional study. Some studies use econometric models to examine the direct influence of regional spending on regional GDP, while others highlight indirect effects through improving the quality of public services, infrastructure, and social capital (Aray & Pedauga, 2024; Batinti et al., 2019; Mauro et al., 2023). However, so far, there has been no strong academic consensus on the main causal mechanisms in the relationship (Ain et al., 2025; Mishra et al., 2023).

Based on this background, this article aims to examine the impact of fiscal decentralization on economic growth from two main perspectives: public economic theory and cross-border empirical evidence. Using a Systematic Literature Review (SLR) approach, it evaluates a range of relevant studies over the past two decades to identify the conditions under which fiscal decentralization contributes to economic growth and explain the factors that strengthen or weaken these relationships.

## RESEARCH METHODS

This study uses the **Systematic Literature Review** (SLR) to comprehensively and structurally examine the relationship between fiscal decentralization and economic growth based on published theoretical and empirical findings (Ding et al., 2019; Hanif et al., 2020a; Mauro et al., 2023). The SLR method was chosen because it allows researchers to identify, assess, and synthesize relevant literature in a transparent and replicable manner, resulting in stronger and more credible scientific evidence than conventional narrative studies (Canavire-Bacarreza et al., 2019; Monkam & Mangwanya, 2024).

The literature search strategy was carried out systematically by following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework. The secondary data search process is carried out through a number of reputable international journal databases such as Scopus, ScienceDirect, SpringerLink, Wiley Online Library, and Google Scholar. The main keywords used include: "fiscal decentralization," "economic growth," "regional development," "intergovernmental transfer," and "public finance decentralization," either individually or in combination using Boolean operators (AND, OR).

The inclusion criteria used in this study include: (1) articles published between 2010 and 2024; (2) focus on empirical or theoretical studies of fiscal decentralization and its impact on economic growth; (3) published in an internationally reputable journal (at least indexed by Scopus Q1–Q3); and (4) written in English. Meanwhile, the exclusion criteria include articles that only discuss political or administrative decentralization without any connection to fiscal aspects, as well as non-peer-reviewed publications such as opinions, comments, and policy summaries.

After the initial screening stage based on the title and abstract, a full review of the content of the article is carried out to assess the relevance of the content and the suitability of the methodology. From a total of 186 articles identified at the initial stage, a strict selection was carried out until 45 main articles were obtained that were substantially relevant and met the criteria for further analysis. The data from each article were then coded based on the location of the study, methodological approach (quantitative, qualitative, or mixed), the variables used, and the direction of the relationship between fiscal decentralization and economic growth.

Data analysis was carried out thematically to identify patterns of findings in the literature. Articles that show positive, negative, or insignificant influences are classified based on the context of the country, the

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

fiscal approach used, and the underlying institutional conditions. This technique aims to understand not only whether decentralization has an impact on growth, but also why and under what conditions the impact occurs. Thematic codes are also used to examine the role of mediation variables such as fiscal capacity, expenditure efficiency, and governance quality (Canavire-Bacarreza et al., 2019; Hanif et al., 2020b; THANH & CANH, 2020).

To increase the reliability and validity of the review results, a process is carried out **Peer debriefing** and internal triangulation by comparing the search results with reviews from previous review articles. The researcher also adopted the principle of transparency in reporting results, including presenting a PRISMA diagram as a form of visualization of the literature selection stages. With this approach, this study is expected to provide an in-depth and academically tested understanding of the impact of fiscal decentralization on economic growth in various country contexts (Ding et al., 2019; Monkam & Mangwanya, 2024).

## **DISCUSSION**

## Fiscal Decentralization in a Theoretical Perspective

Fiscal decentralization is a concept rooted in public economic thinking, where fiscal authority is transferred from the central government to local governments to improve the efficiency of resource allocation. In the economic literature, fiscal decentralization is seen as an effort to bring the decision-making process closer to the people who will be affected by the policy (Ain et al., 2025; Mogues & Olofinbiyi, 2020; Ruan et al., 2024). This theory is based on the assumption that local governments have more complete information about local needs and public preferences than the central government, so that they can design fiscal policies that are more targeted (Kassouri, 2022; E. Tan & Avshalom-Uster, 2021).

One of the important theoretical foundations in explaining fiscal decentralization is that **Theory of subsidiarity**, which states that decision-making responsibilities should be carried out by the government units closest to the community, as long as they have adequate capacity (Kim et al., 2022a; S. Li & Li, 2024; Y. Wang et al., 2024). This theory supports the idea that decentralization can improve the efficiency of public services and strengthen citizen involvement in the development process (Hörcher et al., 2023; Otoo & Danquah, 2021). The literature analyzed in this study consistently underscores the importance of the principle of subsidiarity as a rational basis for fiscal decentralization.

On the other hand, model Tiebout introduced the concept of "voting with their feet," in which individuals would choose a place of residence based on preferences for public services and tax rates. Within this framework, local governments are racing to provide efficient public services that meet the expectations of their citizens to attract and retain population and investment (Calabrese, 2024; Eugster & Parchet, 2019; Webster, 2024). This competition between local jurisdictions is believed to encourage increased efficiency and fiscal innovation, which can ultimately accelerate local economic growth (Bourassa & Wu, 2022; Cebula, 2024).

**Fiscal efficiency theory.** It is also widely raised in the literature as the main argument in favor of decentralization. With fiscal autonomy, local governments have flexibility in designing spending and tax structures according to the characteristics of their regions (Afonso et al., 2024; Di Novi et al., 2019b; Feld et al., 2024). This can increase the efficiency of the use of public funds because regions have incentives to optimize development results with limited resources. However, this theory also emphasizes the importance of fiscal and managerial capacity as the main requirements for achieving efficiency (Martínez et al., 2022; Mauri, 2024).

Most of the articles studied in this study also raised the **Theory of fiscal governance**, which emphasizes the importance of transparency, accountability, and participation in the process of drafting and implementing public budgets (Purbadharmaja et al., 2019). Fiscal decentralization provides an opportunity to strengthen governance as the interaction between government and society becomes more direct. In this context, economic growth is not only the result of technical efficiency but also of institutional improvements that

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

drive the legitimacy of public policy (Bisogno & Cuadrado-Ballesteros, 2022; Dinh Thanh et al., 2023a; Kang & Chen, 2022a).

However, these theories are inseparable from criticism. Some literature notes that basic assumptions such as equitable capacity between regions and equality in access to information are often not met in practice. The fiscal gap between regions, low administrative capacity, and weak supervision are the main challenges in realizing the theoretical potential of fiscal decentralization. Therefore, some studies add systems and institutional approaches as important elements in decentralized analysis.

Thus, a theoretical review in the literature shows that fiscal decentralization has the potential to strengthen economic growth through allocation efficiency, fiscal accountability, and public policy innovation. However, such success is highly dependent on the institutional context, fiscal capacity, and regulatory framework underlying its implementation. This study emphasizes the need for integration between economic and governance approaches to understand the real impact of fiscal decentralization on economic development.

## Fiscal Decentralization Design and Institutional Context

The design of fiscal decentralization policies greatly determines the effectiveness of their implementation in encouraging economic growth. The literature analyzed in this study shows that the variation in empirical results from countries that implement fiscal decentralization is greatly influenced by the policy structures used, both in terms of intergovernmental fund transfers and in granting authority to local governments. The difference between the federal system and the unitary state also shapes the dynamics of central-regional fiscal relations that affect local economic performance (Agrawal et al., 2024; Arnold et al., 2021; Timushev, 2021). The main components in the design of fiscal decentralization include three things: (1) the division of expenditure and revenue assignment authority, (2) the fiscal transfer system (intergovernmental transfers), and (3) the mobilization capacity of Regional Own Revenue (PAD). In the literature, it was found that decentralization would be more effective if it were accompanied by spending authority that was proportional to the source of local revenue. Vertical fiscal imbalances in which regions are given spending obligations without revenue support often create a dependency on the central government (Goodspeed, 2020; T. Li & Du, 2021; Lin & Zhou, 2021).

Several studies from OECD countries, such as Germany, Canada, and Switzerland, show that a fiscal design that emphasizes vertical and horizontal balance through an equalization grant system can improve regional fiscal performance without compromising national macroeconomic stability (Digdowiseiso et al., 2022; Mejia Acosta & Tillin, 2019; Pietrovito et al., 2023). On the contrary, studies in developing countries in Africa and South Asia show that poorly designed decentralization creates duplication of programs, budget inefficiencies, and widens inequality between regions (Bojanic & Collins, 2021; Paliychuk et al., 2020).

In addition to the fiscal technical aspect, the literature reviewed emphasizes that the success of decentralization is highly dependent on **Institutional context**, namely the extent to which local governments have the institutional capacity to manage budgets, prepare development plans, and prevent fiscal leakage (Nirola et al., 2022; Shon & Cho, 2020; Yu & Kwan, 2024). Countries with strong bureaucracies, transparent reporting systems, and high public participation are more likely to leverage decentralization to drive inclusive economic growth (Dinh Thanh et al., 2023a; Yang et al., 2024).

In this study, it was also found that Policy consistency and coordination between levels of government an important keys to the effectiveness of fiscal decentralization. Some literature calls the phenomenon "fiscal mismatch" due to inconsistencies between fiscal authorities and administrative capacity that cause budget implementation to be suboptimal. In addition, the unclear division of responsibilities between sectors and between levels of government also hinders the achievement of maximum development results (Cavalieri & Ferrante, 2020; Liwanag & Wyss, 2019; Patulus et al., 2021).

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

Literature reviews also show the importance of Internal and external monitoring mechanisms, including audit, financial court roles, and community participation. In many cases, fiscal decentralization without accountability and transparency has instead opened up space for budget corruption and irresponsible financial management. Therefore, the design of decentralization policies must be accompanied by the strengthening of the regional fiscal performance supervision and evaluation system (Cao et al., 2022; Funk & Owen, 2020).

Thus, a good fiscal decentralization design is not only about financial sharing, but concerns synergy between policy structures, institutional capacity, and strong governance. The literature analyzed in this study indicates that countries with integrated fiscal decentralization structures and capable regional institutions tend to be able to optimize economic growth potential through responsive and efficient fiscal policies.

## Synthesis of Global Empirical Findings: Impact on Economic Growth

A systematic review of 45 identified scientific articles shows that the effect of fiscal decentralization on economic growth is not homogeneous across countries. The results of the literature synthesis show three main trends: most studies show positive effects, some note negative effects, and the rest show insignificant associations. This variation reflects the complexity of the relationship between fiscal decentralization and growth, which is influenced by each country's economic, social, and institutional context.

Most studies conducted in developed countries such as Germany, Switzerland, and Canada report a **Positive** impact of fiscal decentralization on economic growth. These findings are generally associated with the effectiveness of the regional governance system, the efficiency of public budget allocation, and high fiscal capacity. Local governments in these countries have considerable autonomy in spending and revenue, supported by a clear fiscal transfer system and strong accountability mechanisms (Kim et al., 2022b; Sun et al., 2022).

On the other hand, a number of studies conducted in developing countries such as Kenya, India, and Nigeria have found that fiscal decentralization has had an impact **negative or insignificant** to economic growth. The main causes include fiscal inequality between regions, low technical and administrative capacity of local governments, and high potential for budget abuse (Irungu et al., 2020; Ouma, 2023). In many cases, increased regional spending is not accompanied by careful development planning or clear performance indicators (Boamah et al., 2021; Monkam & Mangwanya, 2024).

In studies that show insignificant relationship, it is generally found that the influence of fiscal decentralization on new economic growth will be seen in the long term and is highly dependent on intermediate variables such as infrastructure quality, education, and political stability (Song et al., 2022; X. Wang & Cheng, 2023; Wenjuan & Zhao, 2023a). Therefore, some literature suggests that the evaluation of the impact of decentralization should be carried out not only through a macro quantitative approach, but also through more in-depth sectoral and regional analysis (Bellofatto & Besfamille, 2021; Purbadharmaja et al., 2019).

Articles that use a Multi-level data panel and regression method are better able to capture the temporal and spatial dynamics of the influence of decentralization. For example, studies comparing provinces in China and India show that fiscal decentralization can increase regional productivity, but the effects vary greatly depending on the quality of local government and the fiscal incentive system implemented (Sun et al., 2024; Wenjuan & Zhao, 2023b; Xiang et al., 2025). This underscores the importance of a context-specific approach in assessing the effectiveness of decentralisation policies (Tang et al., 2021; Zhao et al., 2022).

In addition, findings from the literature also suggest that fiscal decentralization tends to be **more effective in driving economic growth in certain public sectors**, such as basic education, health, and local infrastructure development. In these sectors, the proximity of local governments to the community allows for more appropriate and responsive interventions to real needs. However, this success remains highly dependent on the clarity of roles between levels of government and the stability of sources of financing (Buchs & Soguel, 2022; Fouopi Djiogap et al., 2024; Singh et al., 2024).

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

Overall, this synthesis of empirical findings reinforces the argument that fiscal decentralization is not a "one size fits all" policy. Macro and micro conditions, policy design, and institutional capacity greatly influence the impact on economic growth. Therefore, a successful fiscal decentralization strategy in one country cannot necessarily be replicated in another without adjustments to the local context and existing institutional characteristics.

## Moderation and Mediation Factors in the Effectiveness of Decentralization

The effectiveness of fiscal decentralization in driving economic growth is not only influenced by policy design and institutional context, but also highly dependent on **moderation and mediation factors** that work simultaneously. The literature analyzed in this study emphasizes that in the absence of certain supporting factors, fiscal decentralization will not generate significant economic benefits, and even has the potential to cause fiscal distortions and development inequality.

One of the main mediating factors identified in various studies is the **Fiscal Capacity of Local Government**. Regions that have strong local sources of original revenue (PAD) and the ability to manage financial resources effectively tend to be more able to leverage fiscal autonomy for growth. In contrast, regions that rely heavily on central transfers and have weaknesses in budget planning have difficulty converting spending into productive development outputs (Groenendijk, 2023; Rahmatul Putra et al., 2023).

In addition to fiscal capacity, the **Quality of Governance** is a very decisive factor in moderation. Literature from developing countries shows that fiscal decentralization only has a positive impact if it is accompanied by transparent, accountable, and participatory governance (Dinh Thanh et al., 2023b; Kang & Chen, 2022b; Waddington et al., 2019). Local governments that have internal audit systems, performance evaluation mechanisms, and community engagement channels tend to be more efficient and responsive in managing public finances (Bisogno et al., 2022; Garcia-Lacalle & Torres, 2021).

Other factors that play a role in mediation are **Efficiency of public spending**, especially in strategic sectors such as education, health, and basic infrastructure (Atobatele et al., 2024; M. Wang & Tao, 2019). The studies found that public spending directed appropriately to the productive sector is more likely to produce an economic multiplier effect. In contrast, spending dominated by bureaucratic costs and employee spending does not contribute significantly to GDP increase or poverty reduction (Akindinova et al., 2024; Piscopo et al., 2024; Shin et al., 2020).

Fiscal inequality between regions also appears as one of the important moderation factors. In some cases, fiscal decentralization actually exacerbates inequality between regions, especially if it is not accompanied by an effective fiscal redistribution system (Fan et al., 2020; Nirola et al., 2022; Pietrovito et al., 2023). Areas with abundant resources will grow faster, while poor areas will be left behind. This shows the importance of the existence of an equalization transfer mechanism to maintain equality between regions (Bellofatto & Besfamille, 2021; Di Novi et al., 2019b). No less important is the support of human resources (HR) and technical capacity in the implementation of the budget and development planning. Much of the literature notes that the weakness of regional human resources, both in terms of planning, reporting, and supervision, is the main obstacle to optimizing fiscal decentralization. Therefore, strengthening the capacity of local government apparatus is an important prerequisite for fiscal decentralization to provide maximum results (Nirola et al., 2022; Timushev, 2021; X. Wang & Cheng, 2023). Thus, the analysis of moderation and mediation factors in the reviewed literature makes it clear that fiscal decentralization cannot be separated from the context of its supporting ecosystem. Without strong institutions, adequate fiscal capacity, spending efficiency, and a fair fiscal redistribution system, decentralization risks creating new imbalances in economic development. Therefore, fiscal decentralization policies need to be designed holistically, taking into account all these reinforcing factors.

## Policy Implications and Further Research Directions

Based on the synthesis of the literature that has been conducted, there are a number of important policy implications to consider in the design and implementation of fiscal decentralization in various countries,

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

especially developing countries. The findings show that fiscal decentralization is not an instant solution to accelerating economic growth, but rather a complex process that requires proper policy design, strong governance, and synergy between levels of government.

First, the central government needs to ensure the design of a fiscal transfer system that is fair and equityoriented. Transfer systems that do not take into account fiscal gaps between regions can widen inequality and create inequities in the distribution of development benefits. Therefore, the equalization grants scheme needs to be strengthened to ensure that regions with low fiscal capacity continue to have access to adequate development resources.

Second, increasing **institutional capacity and human resources at the local level** is a strategic agenda for supporting the effectiveness of decentralization. Local governments need to be equipped with training in planning, budget management, financial reporting, and the use of accountable and efficient information technology. Investment in strengthening local human resources is a prerequisite so that fiscal authority does not lead to waste or irregularities.

Third, **transparency and public participation** need to be integral parts of the fiscal decentralization system. The study's results show that regions that involve the community in budget planning and supervision tend to have better fiscal performance. Mechanisms such as development deliberations, public reporting, and participatory audits can be used to encourage accountability and strengthen the legitimacy of local policies.

Fourth, fiscal decentralization policies should be closely linked to the **national institutional reform agenda**. Weaknesses in legal systems, financial supervision, and political control can hinder a healthy decentralization process. Therefore, there needs to be a strong and consistent national regulatory framework to ensure the implementation of decentralization does not deviate from the principles of good governance.

From the academic side, this study's results open up opportunities for developing the next research agenda. One important direction is using a quantitative approach with multilevel panel data that allows for more in-depth cross-time and regional analysis. In addition, testing causal relationships through the Difference-in-Differences (DiD), Generalized Method of Moments (GMM), or Structural Equation Modeling (SEM) methods can also be used to measure the impact of decentralization on more specific growth indicators.

Finally, it is also important to extend the study to more specific and contextual subnational areas, including looking at the varying impacts of decentralization on strategic sectors such as education, health, and infrastructure. Future research also needs to integrate social and environmental aspects as additional indicators in measuring the success of fiscal decentralization. Thus, the resulting policies not only encourage economic growth but also inclusive and sustainable development.

## **CONCLUSION**

The results of a systematic review of various literature show that fiscal decentralization is a complex and multidimensional policy. Theoretically, decentralization can drive economic growth through improving the efficiency of resource allocation, strengthening accountability, and increasing the responsiveness of local governments to community needs. Models such as subsidiarity and Tiebout show that devolution of fiscal authority to the local level can result in more targeted public services and support sustainable economic development. However, empirical evidence from various countries shows that fiscal decentralization on economic growth varies widely. On the one hand, countries with strong institutions, effective supervisory systems, and high regional fiscal capacity generally benefit positively from decentralization. On the other hand, countries with institutional weaknesses, fiscal inequality between regions, and weak transfer systems show less encouraging or even negative results. This suggests that fiscal decentralization does not automatically produce growth without adequate supporting prerequisites. The literature synthesis also reveals the importance of moderation and mediation factors such as institutional capacity, spending efficiency, governance quality, and public participation in determining the direction and strength of fiscal decentralization impacts. When these factors are strongly present and integrated in local government systems,

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

fiscal decentralization can be a strategic instrument to accelerate development. But without this support, decentralization can actually increase inequality and fiscal inefficiency.

Based on these findings, it is recommended that the government, in designing fiscal decentralization policies, pay attention to the principles of fiscal justice between regions, strengthen the capacity of local governments, and ensure the existence of an effective supervision and transparency system. The system of intergovernmental transfers must be designed fairly and proportionate to each region's needs and capacity. In addition, public involvement in the budget planning and supervision process will strengthen the legitimacy and effectiveness of public policies.

For the next research agenda, it is recommended that micro and longitudinal data-based research be carried out to capture the dynamics of the influence of fiscal decentralization in the long term and at the sectoral level. More complex quantitative approaches, such as multilevel regression, spatial analysis, and SEM, are also recommended to test the causal relationships and indirect effects between variables. In addition, cross-developing research can provide broader and relevant insights to support adaptive and contextual design of fiscal decentralization policies.

## REFERENCE

- 1. Afonso, A., Tovar Jalles, J., & Venâncio, A. (2024). Fiscal decentralization and public sector efficiency: Do natural disasters matter? *Economic Modelling*, 137, 106763. https://doi.org/10.1016/j.econmod.2024.106763
- 2. Agrawal, D. R., Brueckner, J. K., & Brülhart, M. (2024). Fiscal Federalism in the Twenty-First Century. Annual Review of Economics, 16(1), 429–454. https://doi.org/10.1146/annurev-economics-081623-020713
- 3. Ain, Q. ul, Yousaf, T., & Tahir, M. A. (2025). Decentralization policies and sustainable rural development: A path to eradicating poverty ( <scp>SDG 1</scp> ) and hunger ( <scp>SDG 2</scp> ). Sustainable Development, 33(1), 700-716. https://doi.org/10.1002/sd.3147
- 4. Akindinova, N. V., Chernyavsky, A. V., & Chepel, A. A. (2024). Measuring the effectiveness of budget expenditures. Voprosy Ekonomiki, 4, 92–110. https://doi.org/10.32609/0042-8736-2024-4-92-110
- 5. Aray, H., & Pedauga, L. (2024). The relationship between decentralization and economic growth across regimes. *The Annals of Regional Science*, 72(1), 1–25. https://doi.org/10.1007/s00168-022-01187-x
- 6. Arnold, T., Mueller, S., & Vatter, A. (2021). Shock or Design: What Drives Fiscal De/Centralization? A Comparative Analysis of Twenty-Nine OECD Countries, 1995–2017. *Publius: The Journal of Federalism*, 51(1), 1–26. https://doi.org/10.1093/publius/pjaa032
- 7. Atobatele, A., Moliki, A., Olaoye, O., GBEREVBIE, D., & Dele-Dada, M. (2024). Governmental expenditure and National development of Nigeria, 1990-2020: an empirical review. F1000Research, 13, 1393. https://doi.org/10.12688/f1000research.157915.1
- 8. Batinti, A., Andriani, L., & Filippetti, A. (2019). Local Government Fiscal Policy, Social Capital and Electoral Payoff: Evidence across Italian Municipalities. *Kyklos*, 72(4), 503–526. https://doi.org/10.1111/kykl.12209
- 9. Bellofatto, A. A., & Besfamille, M. (2021). Tax decentralization notwithstanding, regional disparities. *Journal of Urban Economics*, 123, 103346. https://doi.org/10.1016/j.jue.2021.103346
- 10. Bisogno, M., & Cuadrado-Ballesteros, B. (2022). Budget transparency and governance quality: a cross-country analysis. *Public Management Review*, 24(10), 1610–1631. https://doi.org/10.1080/14719037.2021.1916064
- 11. Bisogno, M., Cuadrado-Ballesteros, B., & Santis, S. (2022). Do e-government initiatives and e-participation affect the level of budget transparency? *International Public Management Journal*, 25(3), 365–391. https://doi.org/10.1080/10967494.2022.2042437
- 12. Boamah, F., Williams, D. A., & Afful, J. (2021). Justifiable energy injustices? Exploring institutionalised corruption and electricity sector "problem-solving" in Ghana and Kenya. *Energy Research & Social Science*, 73, 101914. https://doi.org/10.1016/j.erss.2021.101914
- 13. Bojanic, A. N., & Collins, L. A. (2021). Differential effects of decentralization on income inequality: evidence from developed and developing countries. *Empirical Economics*, 60(4), 1969–2004. https://doi.org/10.1007/s00181-019-01813-2
- 14. Bourassa, S. C., & Wu, W.-C. (2022). Tiebout Sorting, Zoning, and Property Tax Rates. *Urban Science*, 6(1), 13. https://doi.org/10.3390/urbansci6010013
- 15. Buchs, A., & Soguel, N. (2022). Fiscal performance and the re-election of finance ministers-evidence from the Swiss cantons. *Public Choice*, 191(1-2), 31-49. https://doi.org/10.1007/s11127-021-00949-z
- 16. Calabrese, S. (2024). Household mobility and the political economy and welfare effects of local tax limits. *Journal of Urban Economics*, 142, 103656. https://doi.org/10.1016/j.jue.2024.103656
- 17. Canavire-Bacarreza, G. J., Martinez-Vazquez, J., & Yedgenov, B. (2019). Identifying and Disentangling the Impact of Fiscal Decentralization on Economic Growth. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.3475628

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

- 18. Cao, H., Li, M., Lu, Y., & Xu, Y. (2022). The impact of strengthening government auditing supervision on fiscal sustainability: Evidence from China's auditing vertical management reform. *Finance Research Letters*, 47, 102825. https://doi.org/10.1016/j.frl.2022.102825
- 19. Cavalieri, M., & Ferrante, L. (2020). Convergence, decentralization, and spatial effects: An analysis of Italian regional health outcomes. *Health Policy*, 124(2), 164–173. https://doi.org/10.1016/j.healthpol.2019.12.001
- 20. Cebula, R. J. (2024). The Tiebout-Tullock hypothesis re-examined using tax freedom measures: the case of post-Great Recession state-level gross in-migration. *Public Choice*, 199(1–2), 65–81. https://doi.org/10.1007/s11127-022-01038-5
- 21. Choudhury, A., & Sahu, S. (2022). Revisiting the nexus between fiscal decentralization and government size The role of ethnic fragmentation. *European Journal of Political Economy*, 75, 102193. https://doi.org/10.1016/j.ejpoleco.2022.102193
- 22. Di Novi, C., Piacenza, M., Robone, S., & Turati, G. (2019a). Does fiscal decentralization affect regional disparities in health? Quasi-experimental evidence from Italy. *Regional Science and Urban Economics*, 78(November 2018), 103465. https://doi.org/10.1016/j.regsciurbeco.2019.103465
- 23. Di Novi, C., Piacenza, M., Robone, S., & Turati, G. (2019b). Does fiscal decentralization affect regional disparities in health? Quasi-experimental evidence from Italy. Regional Science and Urban Economics, 78, 103465. https://doi.org/10.1016/j.regsciurbeco.2019.103465
- 24. 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
- 25. Ding, Y., McQuoid, A., & Karayalcin, C. (2019). Fiscal decentralization, fiscal reform, and economic growth in china. China Economic Review, 53, 152–167. https://doi.org/10.1016/j.chieco.2018.08.005
- 26. Dinh Thanh, S., Nguyen, C. P., Duy-Tung, B., Binh, N. Q., & Van, D. T. B. (2023a). Spatial spillover effects of fiscal decentralization on governance and public administration quality. *Regional Studies*, 57(3), 478–496. https://doi.org/10.1080/00343404.2022.2078801
- 27. Dinh Thanh, S., Nguyen, C. P., Duy-Tung, B., Binh, N. Q., & Van, D. T. B. (2023b). Spatial spillover effects of fiscal decentralization on governance and public administration quality. *Regional Studies*, 57(3), 478–496. https://doi.org/10.1080/00343404.2022.2078801
- 28. Eugster, B., & Parchet, R. (2019). Culture and Taxes. *Journal of Political Economy*, 127(1), 296–337. https://doi.org/10.1086/700760
- 29. Fan, F., Li, M., Tao, R., & Yang, D. (2020). Transfer-based decentralisation, economic growth and spatial inequality: Evidence from China's 2002–2003 tax sharing reform. *Urban Studies*, 57(4), 806–826. https://doi.org/10.1177/0042098019856780
- 30. Feld, L. P., Köhler, E. A., Palhuca, L., & Schaltegger, C. A. (2024). Fiscal federalism and foreign direct investment An empirical analysis. *The World Economy*, 47(6), 2287–2331. https://doi.org/10.1111/twec.13547
- 31. Fouopi Djiogap, C., Manga, J. R. A., Onana, S. P., & Bitoto, F. E. (2024). Does fiscal decentralization improve people's access to health and education services in Cameroon? *African Development Review*, 36(3), 457–470. https://doi.org/10.1111/1467-8268.12770
- 32. Funk, K. D., & Owen, E. (2020). Consequences of an Anti-Corruption Experiment for Local Government Performance in Brazil. *Journal of Policy Analysis and Management*, 39(2), 444–468. https://doi.org/10.1002/pam.22200
- 33. Gao, S., Wang, L., Liu, N., & Zhang, M. (2019). Fiscal decentralization and corporate investment: empirical evidence from China. *Journal of Economic Policy Reform*, 22(1), 51–68. https://doi.org/10.1080/17487870.2017.1310042
- 34. Garcia-Lacalle, J., & Torres, L. (2021). Financial Reporting Quality and Online Disclosure Practices in Spanish Governmental Agencies. *Sustainability*, 13(5), 2437. https://doi.org/10.3390/su13052437
- 35. Goodspeed, T. J. (2020). Decentralization and intra-country transfers in the Great Recession: the case of the European Union. *Regional Studies*, 54(7), 931–941. https://doi.org/10.1080/00343404.2019.1666207
- 36. Groenendijk, N. (2023). Revenue Capacity of the EU: Taxes, Tax Sharing, and Resource Pooling. *Politics and Governance*, 11(4), 6–16. https://doi.org/10.17645/pag.v11i4.7240
- 37. Hadryjańska, N. A. Z. H. K. U. R. P. S. N. A. K. A. W.-S. B. (2023). Environmental Regulation, Fiscal Decentralization, and Agricultural Carbon Intensity: A Challenge to Ecological Sustainability Policies in the United States. Sustainability. https://doi.org/10.3390/su15065145
- 38. Hanif, I., Wallace, S., & Gago-de-Santos, P. (2020a). Economic Growth by Means of Fiscal Decentralization: An Empirical Study for Federal Developing Countries. Sage Open, 10(4), 215824402096808. https://doi.org/10.1177/2158244020968088
- 39. Hanif, I., Wallace, S., & Gago-de-Santos, P. (2020b). Economic Growth by Means of Fiscal Decentralization: An Empirical Study for Federal Developing Countries. Sage Open, 10(4). https://doi.org/10.1177/2158244020968088
- 40. Hörcher, D., De Borger, B., & Graham, D. J. (2023). Subsidised transport services in a fiscal federation: Why local governments may be against decentralised service provision. *Economics of Transportation*, 34, 100312. https://doi.org/10.1016/j.ecotra.2023.100312
- 41. Irungu, W. N., Chevallier, J., & Ndiritu, S. W. (2020). Regime changes and fiscal sustainability in Kenya. *Economic Modelling*, 86, 1-9. https://doi.org/10.1016/j.econmod.2019.01.009
- 42. Kang, H., & Chen, G. (2022a). Can better financial conditions lead to more fiscal transparency? Evidence from

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

municipalities in California. Local Government Studies, 48(5), 821-841. https://doi.org/10.1080/03003930.2021.1919634

- 43. Kang, H., & Chen, G. (2022b). Can better financial conditions lead to more fiscal transparency? Evidence from municipalities in California. *Local Government Studies*, 48(5), 821–841. https://doi.org/10.1080/03003930.2021.1919634
- 44. Kassouri, Y. (2022). Fiscal decentralization and public budgets for energy RD& ;D: A race to the bottom? *Energy Policy*, 161, 112761. https://doi.org/10.1016/j.enpol.2021.112761
- 45. Kim, S., Lee, Y., & Kim, T. (2022a). The relationship between fiscal decentralization and trust in government: evidence from the South Korean case. *International Review of Administrative Sciences*, 88(2), 373–389. https://doi.org/10.1177/0020852320933325
- 46. Kim, S., Lee, Y., & Kim, T. (2022b). The relationship between fiscal decentralization and trust in government: evidence from the South Korean case. *International Review of Administrative Sciences*, 88(2), 373–389. https://doi.org/10.1177/0020852320933325
- 47. 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
- 48. Li, S., & Li, G. (2024). Fiscal decentralization, government self-interest and fiscal expenditure structure bias. *Economic Analysis and Policy*, 81, 1133–1147. https://doi.org/10.1016/j.eap.2024.01.014
- 49. Li, S., & Qi, T. (2023). Fiscal decentralization, local government debt, and corporate innovation. *Finance Research Letters*, 54, 103764. https://doi.org/10.1016/j.frl.2023.103764
- 50. Li, T., & Du, T. (2021). Vertical fiscal imbalance, transfer payments, and fiscal sustainability of local governments in China. International Review of Economics & Finance, 74, 392–404. https://doi.org/10.1016/j.iref.2021.03.019
- 51. Lin, B., & Zhou, Y. (2021). Does fiscal decentralization improve energy and environmental performance? New perspective on vertical fiscal imbalance. *Applied Energy*, 302, 117495. https://doi.org/10.1016/j.apenergy.2021.117495
- 52. Liwanag, H. J., & Wyss, K. (2019). Optimising decentralisation for the health sector by exploring the synergy of decision space, capacity and accountability: insights from the Philippines. *Health Research Policy and Systems*, 17(1), 4. https://doi.org/10.1186/s12961-018-0402-1
- 53. Ma, S. W. L. (2024). Fiscal Decentralisation and Renewable Energy Development: Inhibition or Promotion? *Energy*. https://doi.org/10.1016/j.energy.2024.133303
- 54. Martínez, Y. U., Arzoz, P. P., & Arregui, I. Z. (2022). Tax collection efficiency in OECD countries improves via decentralization, simplification, digitalization and education. *Journal of Policy Modeling*, 44(2), 298–318. https://doi.org/10.1016/j.jpolmod.2022.03.003
- 55. Mauri, N. (2024). How fiscally autonomous are local governments? An empirical test. *Journal of Public Economics*, 239, 105210. https://doi.org/10.1016/j.jpubeco.2024.105210
- 56. Mauro, L., Pigliaru, F., & Carmeci, G. (2023). Decentralization, social capital, and regional growth: The case of the Italian North-South divide. *European Journal of Political Economy*, 78, 102363. https://doi.org/10.1016/j.ejpoleco.2023.102363
- 57. Mejia Acosta, A., & Tillin, L. (2019). Negotiating universalism in India and Latin America: Fiscal decentralization, subnational politics and social outcomes. *Regional & Federal Studies*, 29(2), 115–134. https://doi.org/10.1080/13597566.2019.1582525
- 58. Melo-Becerra, L. A., Hahn-De-Castro, L. W., Ariza, D. S., & Carmona, C. O. (2020). Efficiency of local public education in a decentralized context. *International Journal of Educational Development*, 76, 102194. https://doi.org/10.1016/j.ijedudev.2020.102194
- 59. Mishra, B. R., Arjun, & Tiwari, A. K. (2023). Exploring the asymmetric effect of fiscal decentralization on economic growth and environmental quality: evidence from India. *Environmental Science and Pollution Research*, 30(33), 80192–80209. https://doi.org/10.1007/s11356-023-28009-7
- 60. Mogues, T., & Olofinbiyi, T. (2020). Budgetary influence under information asymmetries: Evidence from Nigeria's subnational agricultural investments. *World Development*, 129, 104902. https://doi.org/10.1016/j.worlddev.2020.104902
- 61. Monkam, N., & Mangwanya, M. G. (2024). Digital Tools for Boosting the Impact of Fiscal Decentralization in Africa's Local Economies. F1000Research, 13, 279. https://doi.org/10.12688/f1000research.143922.1
- 62. Nirola, N., Sahu, S., & Choudhury, A. (2022). Fiscal decentralization, regional disparity, and the role of corruption. *The Annals of Regional Science*, 68(3), 757–787. https://doi.org/10.1007/s00168-021-01102-w
- 63. Otoo, I., & Danquah, M. (2021). Fiscal decentralization and efficiency of public services delivery by local governments in Ghana. African Development Review, 33(3), 411-425. https://doi.org/10.1111/1467-8268.12590
- 64. Ouma, S. (2023). Ascendant recentralisation: the politics of urban governance and institutional configurations in Nairobi. *Journal of Eastern African Studies*, 17(3), 363–383. https://doi.org/10.1080/17531055.2023.2268364
- 65. Paliychuk, T., Petrukha, S., & Alekseienko, N. (2020). Financial Equalization in the Conditions of Reform of the Public Finance Management System. *Accounting and Finance*, 2(88), 81–92. https://doi.org/10.33146/2307-9878-2020-2(88)-81-92
- 66. Pietrovito, F., Pozzolo, A. F., Resce, G., & Scialà, A. (2023). Fiscal decentralization and income (re)distribution in OECD countries' regions. Structural Change and Economic Dynamics, 67, 69–81. https://doi.org/10.1016/j.strueco.2023.07.002
- 67. Piscopo, J., Groot, W., & Pavlova, M. (2024). Determinants of public health expenditure in the EU. PLOS ONE, 19(3),

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

e0299359. https://doi.org/10.1371/journal.pone.0299359

- 68. Purbadharmaja, I. B. P., Maryunani, Ananda, C. F., & Santoso, D. B. (2019). The implications of fiscal decentralization and budget governance on economic capacity and community welfare. Foresight, 21(2), 227–249. https://doi.org/10.1108/FS-05-2018-0052
- 69. Rahmatul Putra, N., Frinaldi, A., & Magriasti, L. (2023). THE ROLE OF LOCAL OWN-SOURCE REVENUE IN SUPPORTING FISCAL DECENTRALIZATION AND REGIONAL DEVELOPMENT (Study of Regional Revenue Agency of West Sumatra Province). Sustainability (STPP) Theory, Practice and Policy, 3(1), 11–24. https://doi.org/10.30631/sdgs.v1i1.1813
- 70. Rotulo, A., Paraskevopoulou, C., & Kondilis, E. (2021). The Effects of Health Sector Fiscal Decentralisation on Availability, Accessibility, and Utilisation of Healthcare Services: A Panel Data Analysis. *International Journal of Health Policy and Management*. https://doi.org/10.34172/ijhpm.2021.163
- 71. Ruan, X., Li, K., Yang, M., Dong, Z., & Wang, G. (2024). From china to the world: the implications of fiscal decentralization, government debt, and public health dynamics. *Environment, Development and Sustainability*. https://doi.org/10.1007/s10668-024-05529-x
- 72. Sanogo, T. (2019). Does fiscal decentralization enhance citizens' access to public services and reduce poverty? Evidence from Côte d'Ivoire municipalities in a conflict setting. World Development, 113, 204–221. https://doi.org/10.1016/j.worlddev.2018.09.008
- 73. Shi, Y. (2020). The expansion of the public sector in federalism: a comparative analysis of a macro level governing structure and government size. *Local Government Studies*, 46(5), 673–692. https://doi.org/10.1080/03003930.2019.1644320
- 74. Shin, D. J., Cha, B. S., & Kim, B. H. S. (2020). Efficient Expenditure Allocation for Sustainable Public Services?—Comparative Cases of Korea and OECD Countries. Sustainability, 12(22), 9501. https://doi.org/10.3390/su12229501
- 75. Shon, J., & Cho, Y. K. (2020). Fiscal Decentralization and Government Corruption: Evidence from U.S. States. *Public Integrity*, 22(2), 187–204. https://doi.org/10.1080/1099922.2019.1566427
- 76. Singh, R., Bhattacharjee, S., & Nandy, A. (2024). Fiscal decentralization for the delivery of health and education in Indian states: An ongoing process is more desirable than a policy shift. *Journal of Policy Modeling*, 46(2), 254–271. https://doi.org/10.1016/j.jpolmod.2024.01.006
- 77. Song, J., Geng, L., Fahad, S., & Liu, L. (2022). Fiscal decentralization and economic growth revisited: an empirical analysis of poverty governance. *Environmental Science and Pollution Research*, 29(19), 28020–28030. https://doi.org/10.1007/s11356-021-18470-7
- 78. Stojkov, O. G. E. B. P. M. B. S. (2022). Coordination vs. Competitiveness of Effective Average Tax Rates in Relation to FDI: The Case of Emerging EU Economies. *Sustainability*. https://doi.org/10.3390/su15010227
- 79. Sun, Y., Guan, W., Razzaq, A., Shahzad, M., & Binh An, N. (2022). Transition towards ecological sustainability through fiscal decentralization, renewable energy and green investment in OECD countries. *Renewable Energy*, 190, 385–395. https://doi.org/10.1016/j.renene.2022.03.099
- 80. Sun, Y., Liu, M., & Lv, Y. (2024). Government environmental governance, fiscal decentralization, and carbon intensity of the construction industry. *Scientific Reports*, 14(1), 29001. https://doi.org/10.1038/s41598-024-80599-5
- 81. Tan, E., & Avshalom-Uster, A. (2021). How does asymmetric decentralization affect local fiscal performance? *Regional Studies*, 55(6), 1071–1083. https://doi.org/10.1080/00343404.2020.1861241
- 82. Tan, X. Z. D. M. C. Y. S. J. (2019). Political decentralization and the path-dependent characteristics of the state authoritarianism: an integrated conceptual framework to understand China's territorial fragmentation. *Eurasian Geography and Economics*. https://doi.org/10.1080/15387216.2019.1667843
- 83. Tang, P., Feng, Y., Li, M., & Zhang, Y. (2021). Can the performance evaluation change from central government suppress illegal land use in local governments? A new interpretation of Chinese decentralisation. *Land Use Policy*, 108, 105578. https://doi.org/10.1016/j.landusepol.2021.105578
- 84. THANH, S. D., & CANH, N. P. (2020). FISCAL DECENTRALIZATION AND ECONOMIC GROWTH OF VIETNAMESE PROVINCES: THE ROLE OF LOCAL PUBLIC GOVERNANCE. Annals of Public and Cooperative Economics, 91(1), 119–149. https://doi.org/10.1111/apce.12255
- 85. Timushev, E. N. (2021). Fiscal decentralization in Russia and the world: trends and effects. *Voprosy Ekonomiki*, 11, 89–107. https://doi.org/10.32609/0042-8736-2021-11-89-107
- 86. Tirtosuharto, D. (2022). The impact of fiscal efficiency on poverty reduction in Indonesia: institutional factor and geographical differences. *Journal of Geographical Systems*, 24(1), 67–93. https://doi.org/10.1007/s10109-021-00359-1
- 87. Waddington, H., Sonnenfeld, A., Finetti, J., Gaarder, M., John, D., & Stevenson, J. (2019). Citizen engagement in public services in low- and middle-income countries: A mixed-methods systematic review of participation, inclusion, transparency and accountability (PITA) initiatives. Campbell Systematic Reviews, 15(1–2). https://doi.org/10.1002/cl2.1025
- 88. Wang, M., & Tao, C. (2019). Research on the Efficiency of Local Government Health Expenditure in China and Its Spatial Spillover Effect. Sustainability, 11(9), 2469. https://doi.org/10.3390/su11092469
- 89. Wang, X., & Cheng, J.-C. (2023). The Effect of Fiscal Decentralization on Municipal Fiscal Condition: An Empirical Study of Large American Cities. State and Local Government Review, 55(4), 288–302. https://doi.org/10.1177/0160323X231181332

ISSN: 2229-7359 Vol. 11 No. 13s,2025

https://theaspd.com/index.php

- 90. Wang, Y., Li, J., Ma, W., Li, Y., Xiong, X., & Yu, X. (2024). Fiscal decentralization and citizens' satisfaction with public services: Evidence from a micro survey in China. Cities, 150, 105095. https://doi.org/10.1016/j.cities.2024.105095
- 91. Webster, C. (2024). Tiebout, Coase and urban scaling. The Annals of Regional Science, 73(3), 1125-1147. https://doi.org/10.1007/s00168-024-01272-3
- 92. Wenjuan, S., & Zhao, K. (2023a). Balancing fiscal expenditure competition and long-term innovation investment: Exploring trade-offs and policy implications for local governments. *PLOS ONE*, 18(11), e0293158. https://doi.org/10.1371/journal.pone.0293158
- 93. Wenjuan, S., & Zhao, K. (2023b). Balancing fiscal expenditure competition and long-term innovation investment: Exploring trade-offs and policy implications for local governments. *PLOS ONE*, 18(11), e0293158. https://doi.org/10.1371/journal.pone.0293158
- 94. Xiang, X., Luo, W., Li, B., & Liang, W. (2025). Decentralized government and firm pollution discharges: Evidence from China's Province-Managing-County reform. *Economic Modelling*, 144, 107005. https://doi.org/10.1016/j.econmod.2024.107005
- 95. Yang, L., Hu, W., Su, Z., & Qiao, J. (2024). Impact of Anti-Corruption on the Sustainability of Local Government Debt in China: The Moderating Role of Fiscal Transparency. *Sustainability*, 16(21), 9507. https://doi.org/10.3390/su16219507
- 96. Yu, M., & Kwan, C. Y. (2024). Fiscal decentralisation and the attenuating effects of inter-governmental transfers and economic development on corruption in China. *Australian Journal of Public Administration*, 83(4), 749–763. https://doi.org/10.1111/1467-8500.12636
- 97. Zhao, L., Shao, K., & Ye, J. (2022). The impact of fiscal decentralization on environmental pollution and the transmission mechanism based on promotion incentive perspective. *Environmental Science and Pollution Research*, 29(57), 86634–86650. https://doi.org/10.1007/s11356-022-21762-1