

Working Paper 26-13

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When Does Fiscal Decentralization Deliver Equity?

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March 2026



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When Does Fiscal Decentralization Deliver Equity?

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March 2026

Abstract

Persistent spatial inequalities in living standards and development outcomes pose significant challenges to countries at all stages of development. Fiscal decentralization stands out as a policy tool that aligns local development needs with financing needs, thereby enhancing both efficiency and equity. This review critically synthesizes quantitative and qualitative literature to improve understanding of the conditions under which fiscal decentralization can foster equitable and inclusive development. It identifies measurement challenges in fiscal decentralization, highlighting global trends, and the design of equitable intergovernmental fiscal transfers. The analysis further explores the complex relationship between fiscal decentralization, income inequality, and poverty reduction, asserting that institutional quality and governance are decisive in realizing the potential benefits of fiscal decentralization. Last, the review examines the literature on the pathways by which fiscal decentralization can mitigate spatial disparities, emphasizing the importance of robust frameworks, strong administrative capacity, and effective local governance to achieve sustainable and equitable development outcomes.

Keywords: fiscal decentralization, intergovernmental transfers, spatial inequity, institutional quality

JEL Codes: H71, H77, H72

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The opinions expressed in this paper are those of the authors and do not necessarily reflect the views of the Inter-American Development Bank, the International Fund for Agricultural Development, the World Bank, their Board of Directors, or the countries they represent. We thank Fabiola Saavedra Caballero for her superb support with the data and comments provided and Deriam Chirinos for his research assistance in previous versions. All remaining errors are our own.

1 Introduction

Persistent spatial inequalities in living standards and development outcomes remain a defining challenge across countries at all stages of development. These disparities, stemming from unequal access to public services, basic infrastructure, and economic opportunities, pose significant structural barriers to inclusive growth. In response, governments deploy various policy interventions, including place-sensitive investments to narrow these gaps, recognizing the critical role of spatially tailored approaches in promoting equity (World Bank, 2009).

The objective is not necessarily to achieve equal living standards across all locations, which can be prohibitively expensive and even inefficient; rather, it is to ensure basic service delivery standards for all regardless of location. By investing in people wherever they are, these added assets can later be mobilized as individuals move on to locations offering better economic opportunities. Among the available approaches, fiscal decentralization has emerged as a prominent policy strategy, empowering and enabling subnational governments to align their development needs with the necessary interventions and financing, thereby enhancing both efficiency and equity.

This paper undertakes a systematic review of the patterns, mechanisms, and impacts of fiscal decentralization on inclusive development, with a particular focus on developing and emerging economies. At its core, the analysis examines whether—and through what channels—fiscal decentralization has a spatial impact: do certain territories or populations benefit disproportionately, or conversely, bear greater fiscal burdens? Furthermore, the study examines how the institutional design of fiscal decentralization — specifically the architecture of intergovernmental transfers, decentralized spending, and local revenue mobilization capacity — can enhance its effectiveness as a tool for mitigating spatial disparities.¹

The paper pursues five interrelated objectives. First, it reviews theoretical frameworks underpinning equity-enhancing intergovernmental fiscal transfers. Second, it synthesizes empirical evidence on the relationship between fiscal decentralization and distributional outcomes, inequality, and living standards. Third, it identifies enabling conditions within decentralized systems and assesses their impact on equity outcomes.² Finally, it draws policy-relevant lessons, highlighting critical considerations for designing decentralized fiscal systems with a strong equity angle that improve development outcomes.³ While this review focuses primarily on fiscal de-

¹Throughout this document, we use the terms *fiscal decentralization* and *decentralization* interchangeably, unless otherwise specified. While decentralization can encompass political, administrative, and fiscal dimensions, our focus is primarily on the fiscal aspects—i.e., the allocation of financial resources and responsibilities across levels of government.

²This review is closely related to, but distinct from, the broader literature on territorial development and spatial inequality. Recent syntheses emphasize a shift from space-blind and narrowly place-based redistribution toward more place-sensitive approaches that recognize institutional capacity, governance, and local development trajectories as central determinants of outcomes (Rodríguez-Pose et al., 2024).

³This paper builds on and extends the existing literature, including Martínez-Vazquez et al. (2016), who provided an extensive synthesis on the field.

centralization, it explicitly recognizes that fiscal arrangements operate within broader systems of administrative and political decentralization. Fiscal autonomy, expenditure discretion, and transfer design interact with political accountability, electoral incentives, administrative capacity, and informal institutions. Consequently, equity outcomes cannot be understood without considering how fiscal rules intersect with governance structures, administrative institutions, and political incentives at the subnational level.

By integrating quantitative and qualitative strands of the literature, this review seeks to advance scholarly and policy understanding of the conditions under which fiscal decentralization can contribute to equitable and inclusive development. In doing so, it provides both conceptual synthesis and actionable insights for policymakers seeking to design decentralization reforms that reduce distributional inequalities and spatial disparities while promoting inclusive growth trajectories.

The paper proceeds as follows. Section 2 synthesizes the literature on fiscal decentralization and distributional outcomes. Section 3 analyzes how decentralization shapes spatial disparities and living standards. Section 4 examines the institutional and design conditions under which decentralization delivers more equitable outcomes. Section 5 concludes with policy implications and directions for future research.

2 Review of the Literature linking Fiscal Decentralization and Distributional Outcomes

The theoretical debate on the distributional consequences of fiscal decentralization is shaped by three principal schools of thought: first-generation, second-generation, and emerging third-generation theories of fiscal federalism. First-generation theorists (e.g., [Musgrave \(1959\)](#); [Oates \(1972\)](#)) emphasize the risks of decentralizing redistributive functions. They argue that such functions should remain centralized to avoid inefficiencies caused by the mobility of tax bases (“voting with their feet”) and to mitigate interregional inequalities through redistribution. Central governments, with broader fiscal capacity and redistribution mandates, are seen as better positioned to ensure macroeconomic stabilization and equity ([Prud’homme \(1995\)](#); [Goerl and Seiferling \(2014\)](#); [Vaillancourt \(2025\)](#)).⁴

By contrast, second-generation theories (e.g., [McKinnon \(1995\)](#); [Qian and Weingast \(1997\)](#); [Weingast \(2013\)](#)) offer a more optimistic view, proposing that well-designed decentralization, especially when subnational entities have sufficient revenue autonomy, can enhance allocative efficiency, responsiveness, and accountability. Proponents argue that subnational entities are better informed about local preferences and needs and can tailor public service delivery accord-

⁴The “voting with their feet” phenomenon can create self-reinforcing regional disparities, where wealthier areas attract more resources. Meanwhile, poorer regions face greater challenges and fewer tools to address them. Without equalization transfers, central oversight, or national standards, decentralization may unintentionally widen regional gaps rather than narrow them.

ingly. Decentralization, in this view, encourages inter-jurisdictional competition and institutional innovation, potentially narrowing regional disparities and fostering economic development (Lessmann (2009); Hanif et al. (2020)). Critics argue that first- and second-generation theories of fiscal decentralization overemphasize its benefits while insufficiently accounting for associated risks, including spatial inequality.

The third generation of fiscal federalism shifts the focus from the efficiency goals of first-generation theory and the incentive alignment of second-generation theory to the institutional, administrative and political conditions that shape the impact of decentralization on inequality. The third-generation literature highlights that distributional outcomes depend on how fiscal arrangements interact with formal institutions (e.g., electoral systems, party integration, oversight bodies) and informal dynamics (e.g., clientelism, ethnic networks). Evidence suggests that strong, integrated national parties (Enikolopov and Zhuravskaya, 2007) and participatory, transparent governance (Lessmann and Markwardt, 2010; Wright et al., 2016) can channel decentralization toward the equitable provision of public goods, whereas weak institutions risk elite capture and widened disparities (Bardhan and Mookherjee, 2006). As Shrestha and Han-kla (2025) argue, third-generation theory reframes the debate: equity effects hinge less on the degree of decentralization itself and more on the surrounding political incentives, accountability mechanisms, and institutional context. Recent contributions further bridge fiscal and political decentralization by demonstrating that the distributional consequences of fiscal arrangements depend critically on local discretion, accountability, and political competition (Yilmaz and Serrano-Berthet, 2010). Taken together, this literature suggests that fiscal decentralization without political accountability is prone to elite capture, while political decentralization without meaningful fiscal discretion limits local responsiveness and equity-enhancing potential.

For developing countries, the question of how to optimally allocate expenditure and revenue responsibilities is particularly salient.⁵ These countries often contend with wide regional disparities, limited administrative and fiscal capacity at the subnational level, and entrenched political economy constraints (Bojanić, 2018; Vollmann and Bohn, 2021). In such settings, decentralization can either exacerbate or mitigate inequality, depending on the interplay between institutional design, fiscal autonomy, and the capacity to implement equitable policies.

A synthesis of theoretical and empirical literature reveals a complex and context-dependent picture. The effectiveness of decentralization in reducing inequality, poverty, and service access disparities is mediated by several factors, including the degree of subnational autonomy, the nature of intergovernmental fiscal transfers, and the quality of governance. The remainder of this section summarizes key research insights and findings under four main themes covering different dimensions of how decentralization may impact inequality: (1) income inequality and

⁵A critical source of divergence in empirical findings stems from how fiscal decentralization is measured. Early indicators—such as expenditure shares or subnational revenue ratios—often capture fiscal size rather than genuine fiscal autonomy (Ebel and Yilmaz, 2003). As a result, studies relying on different datasets and indicators frequently reach contradictory conclusions, even when examining similar country contexts.

regional disparities, (2) poverty reduction, (3) public service delivery and access, and (4) the efficiency-equity trade-off in decentralized governance. Table 1 presents a summary of general findings by type of impact and sample studies supporting these findings.

Table 1: Summary of the literature on the distributional impact of fiscal decentralization

Impact on . . .	Findings	Sample Studies
Inequality and Regional Disparities	Highly contested. Some studies suggest a positive association (i.e., decentralization reduces inequality); other studies find that fiscal decentralization can exacerbate income inequality or have mixed effects.	Siburian (2019); Goerl and Seiferling (2014); Sow and Razafimahefa (2017)
Poverty Reduction	Mixed, with some studies highlighting direct and indirect pathways.	Digdowiseiso (2022); Hiktaop et al. (2020); Mukherjee (2023); Sepulveda and Martinez-Vazquez (2011); Martinez-Vazquez et al. (2016)
Public Service Delivery and Access	Mixed, with numerous studies concluding significant effects in improved access and service delivery outcomes.	Caldeira et al. (2012); Faguet (2004); Otero Bahamón (2019); Nakatani et al. (2022); United Cities and Local Governments (2022); Jin and Jakovljevic (2023)
Regional Development and Inclusive Growth	Positive impact on broader regional development and inclusive growth.	Shenoy (2018); Katuka and Mudzingiri (2023); Nguyen et al. (2019).

Source: Authors based on the inventory of literature developed for this study.

Fiscal Decentralization and Income Inequality

The literature on the relationship between fiscal decentralization and income inequality in developing countries reveals substantial conceptual and empirical divergence, underscoring the importance of context, measurement, and institutional design. A central contradiction arises in the direction of impact: while some studies find decentralization to be equity-enhancing, others report the opposite. For example, Siburian (2019), using a simultaneous equation model on Indonesian provinces for the period 2001–2014, finds that greater subnational expenditure shares reduce regional income inequality, attributing this effect to local program responsiveness and institutional innovations such as direct elections. In contrast, Ashfahany et al. (2020), analyzing a different period and measure of decentralization in Indonesia for the period 2008–2017, conclude that fiscal decentralization increased inequality, particularly due to local governments' fiscal dependence and unequal interregional competition. These contradictory findings—also reflected in Bojanić (2018), who finds decentralization reduces inequality in developed contexts but exacerbates it in developing ones—highlight the sensitivity of results to methodological design and contextual variation.⁶

A key factor underlying these divergent results is the role of intergovernmental transfers

⁶The two studies on Indonesia are not directly comparable as they differ in methodology and measure of inequality. Siburian (2019) uses a simultaneous equation model (SEM) and defines a new measure of inequality. In contrast, Ashfahany et al. (2020) employ a two-step system generalized method of moments (GMM) and measure inequality by the Williamson Index. Moreover, they control for spatial dependence and regional imbalances.

versus own-source revenue. [Goerl and Seiferling \(2014\)](#) argue that fiscal autonomy, rather than decentralization, is the critical determinant of distributional outcomes. Their global study finds that countries with high transfer dependency tend to exhibit greater inequality, while those with more autonomous subnational fiscal systems show improved equity. [Ashfahany et al. \(2020\)](#) reach similar conclusions for Indonesia, where reliance on transfers undermined redistributive capacity. Nevertheless, [Siburian \(2019\)](#) interprets Indonesia’s intergovernmental fiscal framework as mitigating inequality, pointing to the importance of transfer design and conditionality. Supporting this, [Bartolini et al. \(2016\)](#) emphasize that in OECD countries, own-source tax revenues (particularly from property taxation) are more effective than fiscal transfers in reducing regional disparities, as they provide an incentive to utilize local resources more efficiently and implement policies that favor local economic development.⁷ Yet, in a country context with stark differences in the tax base across regions, tax autonomy without equalization will lead to significant spatial disparities in service delivery, and higher efficiency will undermine equity.

On the other hand, in contrast, [Bargain et al. \(2023\)](#) show that in Burkina Faso, only communes with strong capacity to generate their own-source revenue benefited from decentralization, as reflected in higher night-time light intensity. The study highlights that fiscal autonomy was key to translating decentralization into local economic development but with a potential cost of leaving less well-off communities behind, which ultimately increases regional inequalities. In the same vein, [Xiaobo \(2006\)](#) shows that fiscal decentralization in China promoted growth but widened the regional gap, as more affluent localities with stronger capacity benefited more, while poorer regions lagged due to limited resources and weak redistribution from the center.

The effects of fiscal decentralization on inequality may also follow non-linear trajectories. [Jin and Jakovljevic \(2023\)](#) argue that decentralization can boost economic development, while at the same time, fiscal constraints might hinder the optimal use of innovation for improving human development outcomes. Like [Digdowiseiso \(2022\)](#), they find that the relationship between decentralization and poverty or human development is U- or inverted-U-shaped, respectively, suggesting that moderate levels of decentralization are most conducive to positive outcomes. These findings indicate that high levels (“excessive”) decentralization, particularly without adequate institutional capacity, can erode initial equity gains. [Caldeira et al. \(2012\)](#) also find an inverted U-shape in Benin, where local revenue autonomy improved access to basic services up to a point, beyond which returns diminished.

Methodologically these past studies vary in robustness and generalizability. While panel data techniques such as GMM used by ([Digdowiseiso, 2022](#); [Hanif et al., 2020](#); [Mukherjee, 2023](#)) allow for more rigorous causal inference by addressing endogeneity and unobserved heterogeneity, others rely on case studies or fixed-effects models, which provide more contextual detail but less generalizability. Even the most frequently used available fiscal datasets, such as the IMF’s Fiscal Decentralization Dataset ([Lledó et al., 2022](#)), primarily track fiscal attribution rather

⁷In most OECD countries, the property tax is mainly a sub-central government tax, which represents a substantial contribution to the local budgets.

than genuine fiscal autonomy, which limits the precision of cross-country comparisons.⁸

Fiscal Decentralization and Poverty Reduction

The evidence on the poverty-reducing effects of fiscal decentralization is equally complex, shaped by nonlinear relationships and mediated by governance quality. [Digdowiseiso \(2022\)](#), in a panel study of 53 developing countries over two decades, finds that decentralization is negatively associated with poverty, suggesting a beneficial effect—but also identifies a potential U-shaped relationship. At lower levels, decentralization appears to reduce poverty, but beyond a certain threshold, its benefits decline, potentially due to fragmentation and administrative inefficiencies. This aligns with the findings of [Hui and Martinez-Vazquez \(2021\)](#), who document a hump-shaped relationship between decentralization and human development, supporting the idea that an “optimal” level of decentralization may exist.

However, studies like [Hiktaop et al. \(2020\)](#) challenge the notion of a direct poverty-alleviating effect. In Papua, Indonesia, decentralization was found to stimulate economic growth and public welfare but had an insignificant impact on poverty reduction. The growth it produced was capital-intensive and largely exclusive, suggesting that without inclusive policy design, decentralization may bypass the poorest. Similarly, [Sepulveda and Martinez-Vazquez \(2011\)](#) find that decentralization reduces inequality only under the conditions of a large, capable central government. In contexts where subnational entities manage significant expenditure responsibilities without matching resources or institutional support, decentralization may exacerbate poverty by leading to the under-provision of essential services.

These findings are echoed in the comprehensive review by [Martinez-Vazquez et al. \(2016\)](#), who underscore that institutional quality, intergovernmental transfer mechanisms, and political frameworks are decisive for translating decentralization into poverty reduction. [Mukherjee \(2023\)](#) reinforces this by showing that fiscal decentralization contributed to the reduction of absolute poverty in India and China, but only when accompanied by sufficient national capacity and coherent governance systems.

From a methodological standpoint, studies employ a variety of techniques to parse out these effects. GMM estimators, panel fixed-effects models, and interaction terms with institutional quality are commonly used to capture the non-linear and conditional effects of decentralization. However, consistent with the broader literature, data limitations, especially at the subnational level, continue to constrain empirical depth, particularly in low-income countries ([Nguyen et al., 2019](#); [Hiktaop et al., 2020](#)).

Fiscal Decentralization and Public Service Delivery

⁸While many empirical studies are based on the IMF’s Fiscal Decentralization Dataset, critics argue that data set like the Regional Authority Index (RAI), the Local Authority Index (LAI) and the OECD data sets offer better information to track fiscal and revenue autonomy.

Decentralization theory posits that bringing fiscal authority closer to citizens should improve public service delivery by aligning services with local preferences and needs. Empirical findings are generally supportive, however, this promise is often unevenly realized, with likely non-linear effects on the level of decentralization, and as should be expected, also mediated by other dimensions, such as institutional quality or administrative capacity. In the case of developing countries [Caldeira et al. \(2012\)](#) find that in Benin, local revenue autonomy improved access to services like drinking water and sanitation, but with an inverted U-shaped effect—with benefits eventually declining at higher levels of decentralization; they also report that poorer communes sometimes experienced adverse outcomes, particularly in education. This suggests that high levels of revenue decentralization may lead to spatial inequalities, especially without adequate equalization transfers. That richer communes in Benin benefited more than poorer ones, may also underscore, as expected, that governance quality and institutional capacity can condition the success of decentralization.

Similar concerns are echoed in [Otero-Bahamón \(2020\)](#)'s analysis of Colombia's decentralized healthcare system. This study finds that Colombia made strides to increase equitable health outcomes across regions. However, a place-blind, market-based policy framework ended worsening maternal and infant health outcomes in rural municipalities, highlighting how decentralization can reinforce preexisting service disparities when not accompanied by territorial sensitivity and capacity-building measures. [Galiani et al. \(2008\)](#) find that school decentralization in Argentina improved education outcomes overall. However, it also widened inequalities, as larger gains were concentrated in wealthier areas with stronger local capacity.⁹ The study highlights that while decentralization can enhance service delivery, it may deepen disparities without mechanisms, such as capacity building or equalization measures, to support poorer regions.

From a cross-country perspective, [Jin and Jakovljevic \(2023\)](#), analyzing three decades of data across 50 countries, show that human development outcomes tend to be maximized at moderate levels of decentralization. Too little or too much decentralization, in contrast, can be unfavorable, again supporting the hypothesis of a non-linear relationship. [Nakatani et al. \(2022\)](#) further nuance this view by showing that decentralization alone may not improve social outcomes; when paired with good governance—strong accountability, regulatory quality, and anti-corruption institutions—it significantly enhances education and health metrics. In the same general vein, [Jin and Martinez-Vazquez \(2021\)](#) empirically investigate the effect of expenditure decentralization on sustainable development, using the National Sustainable Development Index (NSDI) across a panel of 52 countries from 1991 to 2016. Their findings reveal a hump-shaped relationship, signifying that moderate levels of decentralization are optimal for sustainability.

⁹Across the literature, local capacity is a decisive factor in determining whether fiscal decentralization reduces or exacerbates inequality and spatial disparities. Constraints in technical, managerial, fiduciary, and data capacity limit subnational governments' ability to translate fiscal resources into effective and equitable outcomes, a finding consistent with World Bank operational experience in municipal development programs (World Bank, 2023).

The important mediating role of governance quality is also emphasized by the general review in [United Cities and Local Governments \(2022\)](#), which argues that local and regional governments must be equipped not only fiscally, but also institutionally, to implement “local transformation strategies” that address territorial inequalities and contribute to the Sustainable Development Goals. These strategies, grounded in participation and redistribution, require not only fiscal authority but also political legitimacy to be effective.

Fiscal Decentralization, Regional Development, and Inclusive Growth

Beyond its direct distributional effects, fiscal decentralization has broader implications for regional development and inclusive growth. One of compelling example comes from [Shenoy \(2018\)](#), who evaluates a large-scale, place-based policy in Uttarakhand, India, combining tax incentives and infrastructure investment. The study finds sustained increases in regional economic activity and living standards, measured using nighttime light intensity, supporting the argument that well-designed, territorially targeted policies can spur localized development.

Empirical evidence from Africa by [Katuka and Mudzingiri \(2023\)](#) shows that fiscal space (i.e., de facto fiscal capacity) and governance quality jointly promote inclusive growth, as measured through a composite index integrating poverty, income inequality, economic participation, and per capita income (i.e., across individuals). This study suggests that decentralization yields the most significant developmental benefits when subnational governments possess both financial flexibility and institutional strength, underscoring an important lesson for addressing spatial inequality: to ensure that decentralized governance supports equitable development across places, lagging regions must be empowered not only with fiscal transfers but also with governance capacity enhancements and targeted redistributive mechanisms. In the same vein, [Nguyen et al. \(2019\)](#), examining Vietnamese provinces, find that fiscal autonomy (measured as the share of own revenue in local spending) positively influences provincial economic growth. However, broader decentralization measures—such as a province’s share of national public spending—had a negative effect, which they attribute to capacity constraints and misalignment between fiscal responsibilities and administrative capability.

Beyond these empirical findings, a theoretical debate persists over whether place-based interventions should prioritize equity or efficiency. [Fajgelbaum and Gaubert \(2025\)](#) argue that resource allocation to high-productivity regions may maximize overall output, even if it reinforces regional disparities. In contrast, [McCann \(2023\)](#) and [Moretti \(2024\)](#) advocate for place-based policies not only for equity and cohesion but also for correcting market failures, such as those arising from agglomeration dynamics. [Gaubert et al. \(2025\)](#) propose that location-based redistribution can serve as a credible “tagging” mechanism to address spatial inequality.

Building on this debate, the literature has increasingly distinguished between traditional place-based policies and more recent place-sensitive approaches. Place-based policies, dominant

in earlier regional development frameworks such as the EU Cohesion Policy, often assumed that all lagging regions required similar interventions and large-scale redistributive transfers to reduce disparities. While these policies aimed at equity, critics argue they sometimes lacked efficiency, failed to account for local conditions, and risked locking regions into dependency (Rodríguez-Pose, 2018).

In contrast, place-sensitive policies emphasize tailoring interventions to the specific institutional, social, and economic contexts of regions (Barca et al., 2012; McCann, 2023). This shift recognizes that different types of investments serve various purposes; thus, for example, movable assets and redistributive transfers are best directed toward equity in lagging areas. In contrast, significant productivity-enhancing investments should leverage agglomeration effects in competitive regions. By comparison, institutional investments—strengthening governance, administrative capacity, and service delivery—are universally relevant, since they support both equity and efficiency. The rise of place-sensitive policy thus reframes the equity–efficiency trade-off, moving away from “one-size-fits-all” transfers and toward context-specific strategies that promote both cohesion and economic dynamism.

These findings collectively suggest that while fiscal decentralization holds potential for inclusive growth and regional development, its effectiveness depends heavily upon the quality of governance, institutional capacity, territorial targeting, and the coherence of intergovernmental fiscal frameworks. Case studies such as Shenoy (2018) illustrate that territorially targeted, well-designed policies—combining fiscal incentives with infrastructure investment—can stimulate sustained local development. However, comparative studies, such as Nguyen et al. (2019), show that decentralization without corresponding administrative capacity may lead to inefficiencies or even adverse outcomes.

3 Fiscal Decentralization and Spatial Disparities: Advancing Equitable Living Standards

Spatial disparities, reflected in uneven economic opportunities, unequal access to public services, and varying welfare outcomes across territories, both stem from and contribute to poverty and inequality. By shifting how public resources are allocated and where decisions are made fiscal decentralization can play a significant role in narrowing (or widening) these gaps. Assessing its effects calls for clear definitions of “spatial disparities” and “living standards,” thoughtful choices about spatial units and indicators, and measurement strategies that capture the economic and social dimensions of territorial welfare differences.¹⁰

When measuring spatial disparities, income remains a key metric. However, a comprehensive

¹⁰Urban areas often tend to benefit more from fiscal decentralization, not only due to policy bias but also because they typically start with stronger administrative capacity, revenue bases, and human capital. Ongoing urbanization and migration further reinforce these advantages, making observed urban–rural differentials partly endogenous rather than just structural.

assessment must also consider non-monetary dimensions such as access to quality education, healthcare, infrastructure, environmental conditions, and other basic public services. Spatial units of analysis may range from neighborhoods and municipalities to broader administrative regions, with the choice determined mainly by analytical objectives and data availability. Key indicators encompass socioeconomic outcomes (income, poverty, employment, and education), health and well-being measures (life expectancy, infant mortality, and access to healthcare), and service and infrastructure accessibility (transportation, clean water, and digital connectivity).

Transmission Channels

The literature on fiscal decentralization and spatial disparities suggests that the decentralization process can operate through multiple transmission channels. On the positive side, proximity to constituents allows local governments to better tailor spending to local needs, improve allocation efficiency, enhance accountability, and stimulate innovation in service delivery. Inter-jurisdictional competition can also incentivize better governance and economic development in lagging areas. However, decentralization can also weaken central redistributive capacity, exacerbate fiscal capacity gaps between richer and poorer regions, encourage “race-to-the-bottom” subnational government competition dynamics in taxation and regulation, and magnify governance challenges in low-capacity settings. Loss of economies of scale, along with weak coordination and cooperation among subnational entities, may further undermine public service provision in smaller jurisdictions.

These effects are strongly mediated by governance quality, fiscal structure, and levels of economic development and intergovernmental cooperation. High-quality institutions and effective control of corruption are associated with more equitable outcomes, while imbalances between local revenue generation and spending responsibilities can entrench disparities. In higher-income country contexts, decentralization has been more often linked to regional convergence, whereas in lower-income country contexts, it may widen gaps in the absence of compensatory policies.

A conceptual framework for analyzing the impact of fiscal decentralization on spatial disparities distinguishes between direct and indirect transmission mechanisms. Direct mechanisms include shifts in public expenditure composition toward pro-poor services—such as in Indonesia, where decentralized regions prioritized education and health spending (Arze del Granado et al., 2005)—and enhanced responsiveness in budgeting for disadvantaged groups. On the revenue side, subnational tax policies can impact overall progressivity, while well-designed intergovernmental transfers can offset vertical and horizontal fiscal imbalances and promote territorial equity. Indirect mechanisms operate through broader effects on economic growth, regional convergence, institutional quality, and macroeconomic stability (See Table 2).

Table 2: Transmission Mechanisms of the Distributional Impact of Fiscal Decentralization

	Mechanism	Description	Key References
Direct Effects	Public Expenditure Composition	Decentralization allows tailored, pro-poor spending on health and education.	Arze del Granado et al. (2005)
	Tax and Expenditure Incidence	Localized spending can be pro-poor (i.e., health, education, and social protection). Changes in tax structures affect progressivity and disposable income, and equity implications of local taxes.	Pietrovito et al. (2023); Furtado (2018); Chernick (2005); Kesselman and Cheung (2004); Siregar (2025).
	Public Employment	Used as a redistributive tool, especially in lagging regions.	Alesina et al. (2001)
	Interjurisdictional Mobility	Migration responses to tax/service bundles affect efficiency and equity.	Tiebout (1956); Pauly (1973)
	Tax and Expenditure Competition	It can lead to a “race to the bottom” or efficiency gains in public service and “race to the top.”	Stigler (1957); Oates and Schwab (1988); Wilson (1989)
Indirect Effects	Intergovernmental Transfers	Transfers can help offset fiscal disparities when well-designed, or otherwise, increase them.	Lago et al. (2024) and see also section on intergovernmental fiscal transfers.
	Economic Growth	Locally responsive policies may enhance development and income.	Oates (1993); Martinez-Vazquez and McNab (2003)
	Macroeconomic Stability	Debated effect; may support or hinder national stability.	Rodden (2002); Shah (2014); Treisman (2000)
	Regional Economic Convergence	Supports income equalization if poorer regions catch up over time.	Barro and Sala-i Martin (1991); Rodriguez-Pose and Ezcurra (2010)
	Size of Government	Affects redistributive capacity and service provision.	Feld et al. (2010)
	Institutional Development	Enhances governance quality, transparency, and social accountability.	Implied throughout, decentralization itself is an institutional reform.

Source: Adapted from Sepulveda and Martinez-Vazquez (2011).

Subnational Fiscal Incidence and Equity Outcomes

Examples of these transmission mechanisms through which fiscal decentralization can contribute to more effective approaches for addressing spatial disparities in living standards and development outcomes drawn from empirical studies across diverse country contexts, highlight the pathways by which decentralization can influence the allocation of public resources, the responsiveness of service delivery, and the targeting of development interventions. By examining these mechanisms in practice, the analysis highlights the conditions under which fiscal decentralization can foster spatial equity, as well as the contextual factors that can either constrain or enhance its distributive impact. A useful distinction in analyzing distributional impacts is between people-based effects (changes in household income, poverty, and access to services) and place-based effects (territorial convergence, spatial inequality, and regional development). Fis-

cal decentralization operates through both channels, but policy implications differ depending on whether the objective is redistributing across individuals or strengthening lagging places.

Subnational Fiscal Incidence and Equity Outcomes

One key transmission mechanism through which fiscal decentralization can address spatial disparities in living standards is the reallocation of public expenditure towards pro-poor services, such as health, education, and basic infrastructure. By shifting decision-making authority closer to citizens, decentralization can enhance subnational entities' responsiveness to the needs of disadvantaged groups, enabling budgetary priorities to better reflect local socio-economic conditions. Empirical evidence from [Arze del Granado et al. \(2016\)](#) demonstrates that fiscal decentralization is associated with a higher share of subnational budgets allocated to health and education, two sectors crucial to enhancing long-term human capital and reducing poverty.

In Indonesia, for instance, decentralized regions have consistently allocated a greater share of resources to education and health services. This pattern has been strongly linked to poverty reduction and the narrowing of regional welfare disparities. This suggests that, under conducive institutional conditions, fiscal decentralization can serve as a powerful instrument for directing public spending toward equity-enhancing investments, thereby promoting more inclusive and spatially balanced development outcomes.

A second important transmission mechanism through which fiscal decentralization can influence spatial disparities in living standards is the distributional incidence of taxation and public expenditure at the subnational level. Local fiscal policy choices—particularly the mix of tax instruments and the allocation of expenditure—shape the overall progressivity or regressivity of the fiscal system and, consequently, its impact on equity. Decentralized governments determine the extent to which revenue is raised through progressive taxes, such as personal income taxes, versus other instruments, including consumption taxes or user fees, and whether expenditure is directed toward broadly accessible public goods or services that disproportionately benefit certain groups. These decisions have direct implications for regional patterns of inequality and poverty.

While fiscal decentralization can strengthen equity through the incidence of expenditure assigned at the subnational level, especially in sectors like health, education, and basic services, the perspective from the revenue side of the budgets is more nuanced and generally less encouraging. The taxes and other revenue sources assigned to subnational governments typically are not very progressive or can be regressive; for example, the property tax is the most common tax source assigned at the local level and depending on how it is structured can be regressive. However, personal income taxes assigned at the regional level can certainly be more progressive. Consequently, fiscal decentralization has not generally been associated with greater equity in revenue generation; the conventional view has been that redistribution on the revenue side of the budget is more effectively achieved through central taxes, while some of that progressivity can be transmitted down through well-designed intergovernmental transfer systems, especially through

equalization grants. Nevertheless, the distributional impact of subnational budgets should be interpreted from the combined perspective of net fiscal incidence that includes the benefit incidence of public services and the tax incidence of the local revenue sources (Martinez-Vazquez, 1982; Ihlanfeldt and Rodgers, 2024).

Evidence from multiple countries' studies shows that the distributional or equity effects of subnational government budgets are highly context dependent. In Canada, Kesselman and Cheung (2004) find that while provincial income taxes are progressive, local property and consumption taxes exert regressive effects, disproportionately burdening lower-income households. However, the existing literature also points in the other direction. In the United States, Martinez-Vazquez (1982) and Ihlanfeldt and Rodgers (2024) find the net fiscal incidence (benefit incidence from local services versus local tax incidence) of local budgets in the states of Missouri and Florida to be mostly progressive or pro-poor. On the other hand, Chernick (2005) highlights that political ideology and tax exporting opportunities can significantly influence state-level tax progressivity, with implications for interregional disparities.

More specific subnational expenditure incidence studies similarly reveal both the potential and limitations of decentralization in addressing spatial inequities. In Nigeria, Takeshima et al. (2022) find that higher shares of agricultural, health, and social welfare spending at the state and local levels increased household consumption, reduced poverty, and enhanced economic resilience, particularly through improved dietary diversity and flexibility in income sources.¹¹ In Indonesia, Suparmi et al. (2018) document substantial inter- and intra-provincial disparities in the Public Health Development Index, despite increased health sector funding following decentralization, indicating the persistence of service quality gaps without targeted allocation.

Benefit incidence analyses offer further nuance, revealing that in favorable settings, subnational spending can have a larger marginal impact on inequality than the same amount spent centrally — but this is not guaranteed and depends heavily on design, targeting, and capacity. Amakom (2013) shows that in Nigeria, primary education spending is pro-poor; however, secondary and tertiary education benefits are skewed toward wealthier households. Similarly, health spending disproportionately benefits wealthier households, reflecting inequities in access to services. Crucially, Amakom disaggregates spending across federal, state, and local levels and examines whether benefit incidence differs by that level, finding that the benefits from federal public expenditure do not vary significantly by household group. In contrast, subnational levels (state and local) show greater heterogeneity in benefit distribution. However, even at the subnational level, the more redistributive impact is limited to basic services, where more advanced or higher-cost services tend to be captured more by higher-income households.

In Indonesia, Sambodo et al. (2021) conduct a benefit incidence analysis of Indonesia's health

¹¹Their findings suggest that decentralization mattered not only through the amount of spending but also through its composition and targeting—subnational governments were better able to channel resources into sectors and programs with immediate impacts on household welfare. This highlights that the relevant counterfactual is not just higher overall spending, but also how central allocation choices might have differed in ways that could have limited the observed welfare and resilience gains.

insurance and public health spending and find that the incidence of health service benefits is tilted toward wealthier groups, and that regional variation in unit costs means that standard analyses using national unit costs underestimate inequality in benefit incidence. More advanced urban or affluent provinces tend to receive more from hospitals or higher-level care. At the same time, rural or remote districts are relatively disadvantaged in both access and service intensity. This implies that if central spending is channeled broadly (without accounting for regional cost and capacity differences), it may inadvertently favor richer areas. Subnational governments, being closer to local conditions, might do better in adjusting for such differences, but only if local governments have capacity and political will. Hence, Indonesia provides a cautionary counterexample: decentralization does not automatically yield better equity; local context matters (supply, cost, service capacity). [Cheng et al. \(2022\)](#) also highlight for Indonesia that the reliance on out-of-pocket payments in health services is highly regressive, entrenching regional disparities in health financing equity, despite that general subnational taxation is mildly progressive.

[Kharel and Rodríguez-Pose \(2025\)](#) find that fiscal devolution can enhance economic resilience in lagging regions by enabling more locally tailored expenditure decisions and targeted inter-governmental transfers, contributing to partial regional convergence. Improvements are driven primarily by the design and allocation of transfers rather than by revenue autonomy per se. However, convergence effects are uneven and constrained where subnational administrative and institutional capacity is weak. The evidence suggests that fiscal decentralization supports regional catch-up only when transfer systems are well-designed and backed by sufficient local governance capacity, highlighting the conditional nature of convergence under decentralization.

Territorial Heterogeneity, Governance and Compensatory Mechanisms

Public spending on basic public services, such as primary education and health, is almost universally pro-poor. However, higher-level services tend to disproportionately benefit wealthier groups unless access constraints are addressed, as in the case of higher education. A third insight is that the design of intergovernmental transfers—particularly their targeting toward fiscal capacity equalization—can significantly amplify or undermine the redistributive potential of subnational fiscal policy. However, ultimately, local administrative and fiscal capacity remain crucial determinants of whether decentralization leads to the spatial convergence in living standards or lets perpetuate existing spatial disparities.

Fiscal decentralization to spatial disparities in living standards concerns the rural–urban dynamics of resource allocation and service delivery. Decentralization reforms often interact with pre-existing geographic inequalities, influencing the distribution of benefits between urban centers and rural peripheries. Theoretically, decentralization can enable tailored investments that address local needs; however, in practice, fiscal resources and administrative capacity are often

concentrated in urban jurisdictions, potentially widening disparities unless deliberate equalization and capacity building measures are implemented.

Empirical evidence underscores these divergent spatial impacts. [Akita and Miyata \(2017\)](#) show that while urban areas in Indonesia tend to benefit from concentrated investments in infrastructure and services, rural communities frequently remain underserved. This spatial bias reflects both the fiscal capacity advantage of urban jurisdictions and their more substantial political leverage in securing public funds. The authors argue for more targeted investments in rural infrastructure as a necessary condition for decentralization to enhance equity rather than exacerbate existing divides. Similarly, [Ahmed et al. \(2022\)](#) find in Pakistan that fiscal decentralization improved human development outcomes—including education, health, and welfare—across districts; however, gains were uneven, with spatial proximity to administrative centers playing a significant role in determining the scale of improvements.

The Indonesian experience further illustrates this heterogeneity. In East Java, poorer districts lagged in sectoral transformation, despite receiving similar fiscal transfers to wealthier districts, highlighting the importance of local absorptive capacity and structural economic differences. [Sugiyarto et al. \(2025\)](#) identify a similar pattern nationwide, where more urbanized and literate districts captured greater benefits from decentralization reforms than remote or less-educated areas.

These disparities suggest that fiscal decentralization alone does not guarantee spatial equity and it must be complemented by compensatory mechanisms that address the potential structural disadvantages of lagging regions. Without such measures, decentralization risks reinforcing, rather than reducing, existing spatial inequalities. Key mechanisms include redistributive targeting to channel greater resources to rural, remote, and disadvantaged areas; spatially sensitive allocation formulas that account for higher service delivery costs, weak infrastructure, and remoteness; and sustained investments in governance capacity building, institutional quality, and local administrative skills to ensure that resources are effectively absorbed and translated into development outcomes. These studies highlight the rural–urban divide as central to understanding the equity effects of fiscal decentralization. Urban areas often exploit fiscal autonomy more effectively due to concentrated economic activity, stronger administrative capacity, and greater political influence, whereas rural regions face structural disadvantages—higher service costs, weaker infrastructure, and limited institutional capacity—requiring targeted policies to ensure equitable benefits.

The wider relevant issue is that the quality of local governance and institutional capacity critically mediates the effectiveness of fiscal decentralization in addressing spatial disparities. Strong administrative systems, transparency, and effective accountability structures increase the likelihood that fiscal autonomy will lead to improved service delivery and equitable development outcomes. In settings where governance quality is weak, decentralization may instead exacerbate (or fail to effectively address) spatial disparities.

These issues are well illustrated in [Kyriacou et al. \(2015\)](#), who analyzed 24 OECD countries from 1984 to 2006 and found that fiscal decentralization promoted regional convergence only in countries with high government quality. In contrast, in countries with weak governance, it widened disparities. Similarly, [Ayala et al. \(2020\)](#) emphasize governance quality as a central determinant of whether decentralization reduces spatial inequality, while [Panori et al. \(2017\)](#) illustrate, through a spatial microsimulation model for Athens, that detailed demographic and economic data can be used to design highly targeted anti-poverty interventions—though the success of such targeting hinges on capable local institutions.

Interjurisdictional competition further shapes the equity implications of fiscal decentralization. While such competition may incentivize efficiency (through a “race-to-the-top”), it can also trigger “race-to-the-bottom” dynamics, eroding progressive taxation and social spending. [Sacchi and Salotti \(2013\)](#) examined 23 OECD countries between 1971 and 2000 and found that higher tax decentralization was associated with increased household income inequality, particularly when subnational entities had significant autonomy over the design of decentralized taxes (tax base and rates) and use of these taxes. This effect was less pronounced and statistically weaker for expenditure decentralization, possibly reflecting the more limited discretion subnational entities often have around spending decisions. The findings suggest that while tax decentralization may yield efficiency gains, it can undermine redistribution unless mitigated by targeted transfers design and policy coordination or central oversight.

Well-designed intergovernmental transfers are essential for counteracting fiscal disparities among subnational units. Without compensatory redistribution, decentralization, especially on the revenue side, can exacerbate inequalities. [Sacchi and Salotti \(2013\)](#) highlight that tax decentralization in OECD countries, absent robust equalization, tends to increase household income inequality. [Martín-Román et al. \(2017\)](#) further demonstrate that much of the inequality occurs within rather than between regions, highlighting the need for national frameworks that promote intraregional equity. Case evidence from [Moon \(2003\)](#) in Korea shows that equalization grants can effectively reduce horizontal disparities, even if they do not significantly enhance local fiscal autonomy. This highlights the importance of striking a balance between redistribution and incentives for revenue mobilization.

Fiscal decentralization can also produce spatial spillovers, whereby development in one jurisdiction benefits neighboring regions through increased economic activity, knowledge diffusion, or shared infrastructure. In the context of China, [Chen and Yang \(2024\)](#) demonstrate that decentralization has improved the efficiency of the green economy not only in implementing regions but also in adjacent areas, suggesting that local development initiatives under decentralization can have positive externalities. These spillover effects suggest that the impact of decentralization on spatial disparities should be assessed at both local and interregional levels.

Measurement, data and Monitoring Spatial Inequality

The capacity to measure and monitor subnational disparities is fundamental to designing effective equitable decentralization policies. In this regard, for example [Hosseinpoor et al. \(2016\)](#) advocate for using dissimilarity and Theil indices to capture spatial health inequalities across four low and middle-income countries (Bangladesh, Egypt, Ghana, and Zimbabwe), enabling policymakers to target interventions to the most disadvantaged areas. To further illustrate this point, Appendix 6 presents a comparative reference table that not only summarizes each inequality measure but also highlights its strengths, limitations, and practical relevance for policymaking—for example, whether a measure is sensitive to a variable such as population size, decomposable across regions, or easily interpretable for policy design.

Also interestingly, [Panori et al. \(2017\)](#) demonstrate that spatial microsimulation methods can project the distributional effects of fiscal reforms at a granular geographic scale, providing local governments with powerful tools for evidence-based decision-making. Accurate and disaggregated data, therefore, serve as a critical enabling condition for decentralization to effectively reduce spatial inequality.

Summarizing our discussion and findings in this section, the transmission mechanisms reviewed above reveal that a complex interplay of policy design, institutional capacity, local fiscal behavior, and the presence of redistributive safeguards shapes the distributional spatial effects of fiscal decentralization. Beginning with public expenditure composition, evidence shows that decentralization can reallocate spending toward pro-poor services, thereby improving living standards when local priorities align with equity goals. The tax and expenditure incidence literature highlights that the structure and progressivity of local taxation and spending critically influence whether decentralization narrows or widens income gaps.

Rural–urban dynamics research underscores the need for administrative structures that integrate differences in dynamics, for example, by targeting investment and capacity building in underserved regions to prevent decentralization from disproportionately benefiting urban centers. Institutional capacity and governance quality emerge as overarching determinants of success, conditioning the effectiveness of all other mechanisms. Local government competition can either foster efficiency or exacerbate inequality, depending on the regulatory and redistributive frameworks in place. Spatial spillovers suggest that decentralization benefits can extend beyond jurisdictional boundaries, though not uniformly. Redistribution through transfers and equalization is crucial in mitigating disparities arising from uneven fiscal capacity, while data-informed targeting enhances the precision and responsiveness of local policy interventions. Cumulative evidence indicates that decentralization alone does not guarantee equitable spatial development; instead, it requires coordinated strategies that integrate these mechanisms into a coherent, context-specific policy framework.

4 Conditions and Mechanisms of Decentralized Systems that Shape Equity Outcomes

Building on the literature reviewed in the preceding sections, an important conclusion is that the effectiveness of fiscal decentralization in promoting equitable and inclusive development outcomes is shaped by a complex framework of interrelated structural, institutional, and policy design factors. These include the quality of governance, the specific dimension (fiscal, administrative, political), degree (expenditure and/or revenue autonomy), and intensity of decentralization (self-rule versus shared-rule), the developmental stage and administrative capacity of subnational entities, the spatial sensitivity of local policy design, and the design and incentive structure of intergovernmental fiscal transfers. None of these factors operate in isolation; instead, they interact with each other to determine whether decentralization reduces spatial disparities or reinforces them. Within this broader configuration, intergovernmental fiscal transfers are not only a separate pillar but also a core transmission mechanism and critical design variable that conditions how the benefits—or risks—of decentralization materialize across space regarding equity outcomes.

Institutional quality emerges as a decisive moderating variable in the empirical literature. In the absence of strong governance—transparency, accountability, and bureaucratic integrity—fiscal autonomy may fail to reduce and may even worsen distributional outcomes (Nakatani et al., 2022; Digdowiseiso, 2022; Digdowiseiso et al., 2022). In addition, Hanif et al. (2020) find growth effects of decentralization only in high-quality governance settings; Kyriacou et al. (2015) similarly finds that decentralization promotes regional convergence only in countries with strong government quality. Where governance is weak, decentralization may become a political instrument of control rather than the empowerment of local residents, as Vollmann and Bohn (2021) document in neo-patrimonial regimes. Recent empirical evidence also suggests that the impact of subnational autonomy on inclusive growth is significantly conditioned by institutional quality (Kang et al. (2026)).

The design and dimension of decentralization—particularly distinctions between revenue and expenditure responsibilities and between fiscal autonomy and shared rule—are equally crucial. Evidence from Faridi et al. (2019) suggests that while revenue decentralization promotes growth in South Asia, expenditure decentralization may have adverse long-term effects, highlighting potential inefficiencies in the allocation of local spending in certain settings. Bojanić (2018) finds that in developing countries, both revenue and expenditure decentralization may exacerbate inequality, underscoring the complexity of transferring fiscal responsibilities in low-capacity settings.

Fiscal autonomy—defined as the ability of subnational entities to raise and control their own revenues—tends to produce more favorable outcomes than decentralization measures based solely on budget size. Thus, Nguyen et al. (2019) find that fiscal autonomy promotes provincial growth

in Vietnam, whereas broader decentralization indicators lacking genuine local discretion can hinder development. [Digdowiseiso et al. \(2022\)](#) further distinguish between “self-rule” and “shared-rule,” finding that self-rule increases vertical inequality in the absence of strong checks and balances, while shared-rule—especially when combined with robust legal institutions—supports both vertical and horizontal equity.¹²

But perhaps it is the design of intergovernmental fiscal transfers that constitutes the most dominant channel through which decentralization policy interacts with territorial inequality — either correcting or amplifying it. Transfer dependency has often been associated with greater spatial inequality ([Goerl and Seiferling, 2014](#)); however, this is not a result inherent to transfers, but it is contingent on transfers’ allocation formula design and their incentive compatibility properties. Where transfer design rewards tax effort, aligns sectoral allocations with social need, uses transparent, rules-based formulas, and integrates both fiscal capacity and expenditure need variables, transfers become an equity-enhancing instrument ([Siburian, 2019](#); [Bartolini et al., 2016](#)). Equalization transfers in countries such as Brazil, South Africa, Sweden, Australia, and Canada illustrate this point. In this sense, the design of intergovernmental fiscal transfers is an institutional condition that determines whether decentralization ultimately delivers inclusive outcomes.

Administrative and developmental capacity further conditions their impact. Thus, in low-capacity environments, decentralization may reinforce inequalities ([Lessmann, 2009](#); [Ezcurra and Pascual, 2008](#)). Evidence from Vietnam ([Nguyen et al., 2019](#)), Benin ([Caldeira et al., 2012](#)) and Colombia ([Otero-Bahamón, 2020](#)) underscores the territorial sensitivity problem: uniform decentralization may end producing non-uniform outcomes. Rural-urban disparities, differences in administrative capacities, heterogeneous starting points, and uneven cost structures generally demand spatially differentiated policy design ([Akita and Miyata, 2017](#); [Ahmed et al., 2022](#); [Sugiyarto et al., 2025](#)).

Accordingly, the literature positions spatially targeted policy design — including fiscal transfer formulas — as a key mechanism through which decentralization drives spatial equity outcomes. Evidence from India ([Shenoy, 2018](#)) and emerging theoretical results ([Fajgelbaum and Gaubert, 2025](#); [Gaubert et al., 2025](#)) show that place-based interventions combining transfers, incentives and investment can improve spatial equity. Importantly, place-sensitive approaches have been shown to be more effective than solely people-based ones ([McCann, 2023](#); [Solé-Ollé, 2023](#); [Moretti, 2024](#)).

Availability of high-quality, spatially disaggregated fiscal and socioeconomic data is also a necessary enabling condition ([Hosseinpoor et al., 2016](#); [Panori et al., 2017](#)). Without adequate data granularity, equalization design cannot discriminate need, and therefore capture, leakage

¹²The devolution of fiscal powers is not limited to the preference-matching mechanism through which subnational governments independently exercise authority over taxation, borrowing, revenue collection, and expenditure assignments (self-rule). Equally important is the extent to which subnational governments can co-determine central government decision-making, particularly in areas related to redistribution (shared-rule).

or misallocation at subnational levels are more likely. Thus, fiscal decentralization improves inclusive development when these conditions co-exist: robust institutional quality, meaningful fiscal autonomy, adequate local capacity, spatial sensitivity in policy design, high-quality data systems, and, critically, intergovernmental transfer systems whose formulas embed multidimensional equity principles and incentive compatibility. This is indeed quite a tall order.

Accordingly, Table 3 provides a general analytical framework to guide policymakers in selecting and combining transfer instruments in a manner consistent with country-specific constraints and objectives, with a particular focus on advancing subnational fiscal equity in a transparent, sustainable, and incentive-compatible way. Intergovernmental fiscal transfers encompass a wide range of instruments through which central governments allocate resources to subnational governments to pursue devolution, equity, efficiency, and accountability objectives. Common transfer types include revenue sharing, unconditional (general-purpose) grants, equalization grants, conditional (specific-earmarked and block) grants, and performance-based grants. Table 3 also provides two illustrative categories of conditional grants: sector-specific conditional grants for health and education, and capital grants, to provide further insight into their design and policy relevance. Each of these instruments contributes to (or detracts from) subnational fiscal equity in different, sometimes complementary, other times conflicting, ways. Revenue sharing, often allocated on a derivation or “where it is collected” basis, and unconditional general-purpose grants are typically used to address vertical fiscal imbalances and provide predictable resources that support subnational autonomy, but on their own, they tend to perform weakly in reducing horizontal disparities. Equalization grants, by contrast, are explicitly designed to reduce differences in fiscal capacity and expenditure needs across jurisdictions and therefore constitute the core redistributive instrument in most mature transfer systems. Conditional specific and block grants, either with particular or more general conditionalities in support of subnational service provision, such as those for health and education, are often used to ensure minimum national standards and address spillovers in priority sectors. Capital grants focus on correcting infrastructure backlogs and spatial inequalities in access to basic services, and more generally helping subnational governments finance needed infrastructure that cannot be fully financed through their own borrowing. Performance-based grants introduce incentives for improved governance and service delivery through ex-post conditions on actual performance, though their equity impact depends critically on whether lower-capacity jurisdictions are supported to fairly participate.

There is, however, no single type of transfer that is universally superior or capable of achieving subnational fiscal equity on its own. Each instrument involves clear trade-offs between equity, local autonomy, administrative simplicity, incentives, and central oversight. Where a country chooses to position itself along these trade-offs depends on binding constraints and policy priorities, including the strength of horizontal accountability mechanisms, the ambition of equity and redistribution goals, the administrative and technical capacity of subnational governments,

and the degree of institutional fiscal autonomy embedded in the intergovernmental system. International experience documented by institutions such as the World Bank and leading fiscal decentralization scholars shows that effective systems rely on carefully designed combinations of transfer instruments, rather than on any single grant type.

Indeed, once the multiple dimensions along which transfers can vary—such as funding source, allocation formula, degree of earmarking, matching requirements, performance conditions, and ex-ante versus ex-post controls—are considered, the universe of possible transfer designs easily exceeds several dozen distinct variants. This rich diversity of practice underscores that transfer design is fundamentally a matter of fit-for-purpose institutional choice, not replication of a single model.

Table 3: Equity-Focused Design of Intergovernmental Fiscal Transfer Instruments

Transfer Instrument	Primary objective(s)	Key Design Features	Equity/Redistribution performance	Compensating factors / Reinforce equity focus
Revenue sharing	Devolution; predictability; closing of vertical fiscal gaps	Shared yield of national taxes or “assigned” shares; vertical share + horizontal distribution rules; often “derivation/origin” or simple population shares; usually non-earmarked	Often weak for redistribution , when based on derivation/origin or uniform shares; tends to mirror underlying tax-base disparities across regions	(1) Include shared revenues in equalization formulas (treat as part of fiscal capacity); (2) add explicit equalization top-ups; (3) use differentiated shares/weights favoring poorer areas
Unconditional general funding grants	Local autonomy; flexibility; reduce vertical imbalance	Formula-based, non-earmarked; can be population/need-based; may have basic reporting/accountability requirements	Variable , can support equity if formula uses need/poverty/cost factors; can be weak if allocated uniformly or politically	Combine with equalization and/or sector conditional grants; embed explicit need/poverty/cost adjusters in formula
Equalization grants	Equity; reduce horizontal fiscal disparities (fiscal capacity and/or expenditure needs) to achieve comparable services at tax effort	Explicit equalization standard; measures of fiscal capacity (tax bases/yields) and/or expenditure needs (demography, costs); can be formula-based; partial or full equalization	Strong , when well-designed (targets disparities directly); but can create incentive concerns if poorly specified (e.g., weak tax effort incentives) by using actual revenues/expenditures in formula	(1) Add tax effort factors or “representative tax system” approaches; (2) use partial equalization; (3) separate equalization from ad hoc grants; (4) stabilize with hold-harmless or transition rules
Conditional (specific earmarked) grants	Ensure minimum national standards; address spillovers/merit goods; align local spending with national priorities; pursue specific national sectoral objectives	Block (more local autonomy) or specific (less autonomy); typically on a “capitation basis” (e.g., per student or per inhabitant); basis modified for costs or needs differences; common conditions include matching requirements	Mixed , can promote equitable service delivery if allocated by need, but can lock in inequities if based on existing inputs or supply (e.g., existing staff/facilities). Tend to limit autonomy, especially with specific grants	(1) Allocate using needs-based indicators (population served, poverty, cost); (2) avoid pure historical cost allocations; (3) consolidate fragmented specific grants into block grants; (4) design equalization and conditional grants jointly

Source: Authors' elaboration.

Table 3 (continued)

Transfer Instrument	Primary objective(s)	Key Design Features	Equity/Redistribution performance	Compensating factors / Reinforce equity focus
Sector conditional grants (health, education)	Improve general access and service equity; enforce national norms/standards; protect national priority spending	Sector earmarking; block-conditional (sector spending with local discretion) or tightly earmarked; allocation should reflect need (school-age population, morbidity, poverty, remoteness)	Can be strong if needs-based; can be regressive if input-based (teachers/hospitals already concentrated in richer areas)	(1) Move from input-based to client needs-based allocation; (2) complement with equalization; (3) allow block-conditional design with more autonomy to fit local context while meeting national goals
Capital / Infrastructure equalization grants	Reduce infrastructure backlogs; equalize access to basic infrastructure and services across jurisdictions	Capital-focused formulas based on backlogs, poverty, or asset condition; project menus; appraisal rules; often conditional and monitored; may be multi-year	Potentially strong for spatial equity if backlog or need-driven; risk of unequal uptake and regressive outcomes if poorer jurisdictions cannot meet planning or co-financing requirements	(1) Pair with capacity-building grants and technical support; (2) simplify access for low-capacity areas; (3) use differentiated co-financing rates; (4) allow multi-year predictable envelopes
Performance-based grants	Improve governance and service delivery performance; strengthen accountability; incentivize reforms	Funding linked to minimum conditions and performance scores; may include sector windows; annual assessments	Risk of inequity if low-capacity jurisdictions systematically fail conditions; may become pro-rich unless designed with support mechanisms	(1) Separate minimum conditions from performance bonuses; (2) provide capacity-building support; (3) introduce developmental pathways with graduated requirements; (4) protect a basic allocation for lagging areas

Source: Authors' elaboration.

Several clear lessons emerge from international experience in designing equity-focused inter-governmental fiscal transfer systems. First, *equity objectives must be made explicit in the design of transfer instruments*, rather than assumed as an automatic outcome of decentralization or higher levels of funding. Instruments such as revenue sharing and unconditional general funding grants are effective at supporting devolution, predictability, and vertical fiscal balance, but they do not, on their own, generally correct horizontal disparities in fiscal capacity or service delivery, but in fact they may worsen those disparities unless they are offset with other dedicated instruments, such as equalization grants. Countries that perform well on subnational fiscal equity, therefore, rely on *explicit equalization mechanisms*, grounded in transparent formulas that measure differences in revenue-raising capacity and expenditure needs. Other transfers are then designed and calibrated to be consistent with this equalization objective, often by including their funding (such as in the case of revenue sharing) in the equalization base formula (such as in fiscal capacity calculations) so that better-off jurisdictions do not receive disproportionate net benefits.

A second critical takeaway is the principle of “*one primary objective per instrument.*” Transfer systems tend to underperform when a single grant is expected to simultaneously achieve devolution, redistribution, sectoral prioritization, infrastructure development, and performance incentives. International experience shows that clearer results are achieved when each transfer instrument is assigned a dominant function—such as revenue sharing for devolution, equalization grants for redistribution, conditional grants for national service standards, capital grants for infrastructure gaps, and performance-based grants for accountability and incentives. While instruments may have secondary effects, attempting to load multiple, and sometimes competing, objectives onto a single transfer typically weakens transparency, dilutes incentives, and complicates administration. Coherent systems instead rely on a *portfolio approach*, in which different instruments work together to achieve the full set of policy goals.

Finally, equity-oriented transfer design must remain attentive to *incentives, administrative feasibility, and institutional sequencing*. Highly sophisticated equalization formulas or tightly controlled conditional grants can, in theory, improve precision, but in practice, it may be difficult to implement in low-capacity environments. Successful systems, therefore, balance accuracy with simplicity, often through partial equalization, proxy indicators of need, and phased implementation. Sector-specific grants for education, health, and capital investment are most effective when they shift from historical or input-based allocations to measures that reflect demand factors such as population, poverty, cost differentials, and service gaps. Performance-based grants can reinforce equity objectives when used as a complementary instrument—rewarding progress without excluding structurally disadvantaged jurisdictions—particularly when paired with capacity-building support. Taken together, these lessons underscore that intergovernmental fiscal transfers are most effective when designed as an integrated system, with clearly assigned roles for each instrument and deliberate choices about how equity, autonomy, and accountability

are jointly advanced.

5 Discussion and Lessons Learned

This study examines the relationship between fiscal decentralization and inclusive growth, drawing on both conceptual frameworks and an extensive review of empirical evidence from diverse countries' contexts. The analysis encompasses four key areas: the conceptual and theoretical underpinnings of fiscal decentralization; transmission mechanisms linking decentralization to inequality and spatial disparities; evidence from case studies and comparative literature; and the conditions and determinants of success and failure. Together, these sections offer critical insights into how fiscal decentralization can either drive equitable and inclusive development or entrench inequality.

Lessons learned

Section 2 reviews the existing literature on the relationship between fiscal decentralization and distributional outcomes, and its impact across four key areas: inequality and regional disparities, poverty reduction, public service delivery, and regional development. The evidence reveals a complex and context-dependent set of findings. While theoretical arguments suggest that decentralization can enhance allocative efficiency, accountability, and responsiveness to local needs, empirical evidence reveals that its equity effects vary significantly across countries and over time. In high-capacity governance environments, decentralization, particularly when accompanied by robust intergovernmental transfers and local revenue autonomy, has been shown to reduce poverty, improve access to basic services, and narrow regional disparities. However, in low-capacity or highly unequal contexts, decentralization can exacerbate existing inequalities, primarily where fiscal resources and administrative capabilities are concentrated in wealthier regions.

Section 3 reviews the impact of fiscal decentralization on spatial equity, drawing on micro-level household data on disparities, and demonstrates that fiscal decentralization is not inherently equity-enhancing; its distributional effects depend on institutional design, governance quality, and compensatory mechanisms. Decentralization can empower subnational entities to allocate resources more responsively, reorienting spending toward pro-poor services such as education, health, and basic infrastructure. It can also stimulate local accountability and innovation, with potential spillovers that benefit neighboring regions. Nevertheless, without safeguards, decentralization risks exacerbating disparities, particularly between urban and rural jurisdictions, where fiscal and administrative capacity, political leverage, and absorptive ability diverge sharply.

Section 4 outlines key lessons for policy design and implementation. The effectiveness of

fiscal decentralization in promoting equitable and inclusive development hinges on a set of interdependent conditions. Strong institutional quality and good governance consistently emerge as decisive factors. Where accountability and transparency are weak, decentralization often exacerbates disparities; however, in well-governed contexts, it improves service delivery, and leads to poverty reduction and regional convergence. Equally important is the type and degree of decentralization: genuine fiscal autonomy based on own-source revenues tends to produce more equitable outcomes than dependence on central transfers. Success also requires adequate administrative and developmental capacity at the local level, as poorly resourced jurisdictions — predominantly rural and remote — struggle to translate devolved fiscal powers into improved services. Moreover, the design of decentralization policies matters: place-sensitive, spatially targeted strategies, supported by equalization transfers, can mitigate structural disadvantages and ensure that lagging regions benefit from reforms. Finally, high-quality, granular data are essential for diagnosing disparities and informing policy design. Taken together, the evidence makes clear that fiscal decentralization can reduce inequality only under these enabling conditions; absent them, it risks reinforcing territorial divides.

Limitations and Future Research

While growing, current evidence on the distributional effects of decentralization in developing countries faces several limitations. Data availability for granular subnational indicators across long time series remains a challenge, particularly in low-income and fragile contexts (Vollmann and Bohn, 2021; Lledó et al., 2022). The IMF Fiscal Decentralization Dataset, while comprehensive, primarily captures fiscal *attribution* rather than true *fiscal autonomy* or discretionary power (Lledó et al., 2022), which can lead to biased conclusions. Moreover, establishing definitive causality is inherently difficult given the complex, multi-directional relationships and numerous confounding factors (Goerl and Seiferling, 2014). Many studies identify correlations, and even advanced econometric methods may not fully disentangle all causal pathways.

Future research on fiscal decentralization in developing countries should explore optimal levels and mixes of revenue and expenditure decentralization, as well as intergovernmental transfer designs that promote equity and local accountability (Digdowiseiso, 2022; Kim et al., 2020). Micro-level studies are needed to assess how subnational policies—local taxes, social programs, and public investments—affect household income, poverty, and service access across demographic groups (Goerl and Seiferling, 2014; Hlasny, 2021). Understanding political economy and institutional dynamics, including elite capture and capacity constraints, is crucial for shaping effective decentralization in weak institutional contexts (Vollmann and Bohn, 2021). Longitudinal analyses should examine the sustainability and adaptability of decentralization’s effects under changing economic conditions and shocks (Vaillancourt, 2025; United Cities and Local Governments, 2022). Comparative research on place-sensitive policies can identify design features that

maximize distributional outcomes (Shenoy, 2018; Neumark and Simpson, 2015; Solé-Ollé, 2023). Emphasizing local capacity—technical, managerial, fiscal, political, and data-related—and designing transfers and grants to build it over time remain central to improving equity outcomes. Expanding and modernizing property taxation can further enhance local fiscal autonomy and redistribution (Norregaard, 2013; Bahl and Bird, 2018).

6 Conclusions and Policy Implications

The review conducted in this paper reveals that fiscal decentralization in developing countries is a powerful but double-edged sword when it comes to distributional effects. While decentralization holds significant theoretical promise for fostering equitable growth, alleviating poverty, and enhancing public services by bringing governance closer to citizens, its actual impact is profoundly mediated by prevailing institutional quality, the specific design of fiscal powers, and the initial socio-economic conditions of subnational units.

The evidence largely supports the relevance of a focus progressing from first-generation fiscal federalism (emphasizing allocative efficiency) to second-generation theory (emphasizing incentives and accountability) and aligns strongly with third-generation emerging perspectives, which emphasize the political economy of decentralization, governance quality and administrative capacity, and the need for place-sensitive policy design. While first-generation principles still underpin arguments for localized decision-making, it is the governance- and equity-oriented insights of the later generations that better explain why decentralization succeeds in some contexts and fails in others.

The main argument is that decentralization is not inherently pro-equity; rather, its positive distributional outcomes are critically contingent on certain design features and the presence of other institutions. Foremost among these is institutional quality: transparent, accountable, and capable governance is a decisive enabler of reform benefits, whereas weak institutions often dilute or distort the intended outcomes of decentralization. Fiscal autonomy, particularly the ability of subnational entities to raise and control their revenues, can enhance responsiveness to local needs. However, its equity effects depend critically on robust accountability mechanisms that ensure resources are translated into effective service delivery.

Well-designed transfer systems are equally essential. Equalization mechanisms that integrate both fiscal capacity and expenditure need criteria are pivotal in reducing regional disparities and ensuring that all jurisdictions have the means to provide comparable public services. Equally important is the consideration of place sensitivity in policy design; uniform fiscal arrangements frequently fail to account for the structural disadvantages of lagging regions, underscoring the need for targeted, place-based interventions. These interventions, however, require adequate administrative and technical capacity at the subnational level, making sustained capacity building a foundational precondition for successful decentralization. Finally, effective coordination be-

tween central and subnational entities is crucial to prevent inefficiencies, overlapping mandates, and policy fragmentation.

The policy implications are clear. Strengthening governance, institutional and administrative capacity, fiscal autonomy, and accountability frameworks must be a priority to ensure that fiscal autonomy translates into equitable outcomes. Without these enabling conditions, decentralization risks reinforcing structural inequalities rather than reducing them. Transfer systems should be transparent, formula-based, and explicitly account for both fiscal capacity and expenditure needs. Progressive subnational revenue mobilization should be encouraged, particularly the unexploited property tax system in most developing countries. Place-sensitive development strategies—focused on infrastructure, human capital, and economic diversification in disadvantaged areas—can address persistent structural gaps. Investments in data systems and administrative capacity are needed to support evidence-based planning and implementation. Moreover, safeguards against harmful tax competition and cooperation mechanisms to align fiscal policies across government levels can preserve equity while promoting efficiency.

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Appendix 1. Fiscal Decentralization Measurements, Patterns and Trends

Measuring fiscal decentralization across countries poses significant analytical challenges, reflecting both the multidimensional character of decentralization and the diversity of governance structures. Decentralization is not a unidimensional process; it encompasses intertwined political, administrative, and fiscal arrangements that differ markedly across national and regional contexts. Moreover, the institutional and governance attributes of subnational (regional and local) entities—including their legal mandates, institutional frameworks, and budgetary authority—are central to determining whether these bodies function as devolved local governments, deconcentrated administrative units, or other forms of local authority ([Local Public Sector Alliance, 2022](#)).

While fiscal indicators—such as subnational revenue or expenditure shares—are widely used, they are insufficient to capture the functional depth and institutional complexity of decentralized systems on their own. Decentralization literature increasingly supports an integrated approach to measurement, incorporating de jure and de facto dimensions of authority, the various fiscal dimensions of expenditure, revenue, sectoral spending, and transfer dependency, as well as institutional indicators ([Yilmaz and Ebel, 2024](#); [World Bank, 2024](#); [Ponce-Rodríguez et al., 2018](#)).

Drawing on the International Monetary Fund’s Government Finance Statistics (GFS) Fiscal Decentralization Dataset, the analysis examines recent trends and patterns in fiscal decentralization by providing internationally comparable data on subnational shares of revenue, expenditure, and sector-specific spending. This assessment incorporates 17 key indicators from the GFS, further enriched by the University of North Carolina at Chapel Hill’s Regional Authority Index (RAI), which measures the degree of autonomy enjoyed by subnational entities. Together, these sources offer a multidimensional perspective on how fiscal decentralization unfolds across a broad set of countries.

Although the IMF’s Government Finance Statistics (GFS) Fiscal Decentralization Dataset offers a broad and internationally comparable set of fiscal indicators, it has limitations. Coverage is limited to 82 countries, only extends through 2020, and reporting practices vary, resulting in gaps in the time series. To overcome these limitations while maintaining relevance and comparability over time, this analysis employs a cross-sectional approach, averaging data over five years (2016–2020) for the selected fiscal decentralization indicators. The same averaging method is applied to the Regional Authority Index (RAI), which broadens country coverage and ensures consistent measurement of fiscal decentralization and autonomy across the dataset.

A global review of fiscal decentralization shows a consistent pattern: subnational entities are more involved in spending than in collecting revenue (Table 4 in appendix 6). On average, they account for 25 percent of total public spending but only 15 percent of total revenues, a gap that remains consistent across time and regions. North America exhibits the highest level

of decentralization, with subnational entities managing more than half of public expenditure (55 percent) and nearly half of revenues (48 percent), as well as the highest Regional Authority Index (RAI) score worldwide. In contrast, Sub-Saharan Africa illustrates the opposite, with subnational entities heavily reliant on transfers from the central government, sometimes exceeding 600 percent of their own-source revenues. Sectoral decentralization also varies; housing, education, and recreation have the highest levels of subnational spending, while redistributive functions such as subsidies and social protection are largely centralized.

Patterns of decentralization correlate with a country's income level (Figure 1 in appendix 6). High-income countries consistently report greater subnational authority, with subnational entities overseeing 34 percent of total expenditure and 23 percent of revenue, as well as leading in decentralized sectoral spending and autonomy (average RAI score of 15). Upper-middle-income countries follow with more modest decentralization, while lower-middle- and low-income countries remain highly transfer-dependent, with nearly two-thirds of subnational budgets financed by central transfers. These disparities underscore a structural divide: wealthier countries benefit from stronger institutional frameworks and greater subnational autonomy, whereas poorer countries face constraints associated with fiscal dependence, weaker capacity, and more centralized governance arrangements.

Beyond patterns and trends in fiscal decentralization, it is crucial to consider the specific revenue instruments that underpin subnational fiscal autonomy. Property taxation stands out as both foundational and underutilized. According to IMF data, in 2020, 85 percent of property tax revenue was collected at subnational levels, with local entities alone accounting for 78 percent—underscoring both its fiscal importance and untapped potential to reinforce local autonomy (OECD, 2019). Grounded in immovable assets, property taxes provide a resilient revenue base that is less vulnerable to economic shocks, tax competition, or capital flight. This stability enables consistent financing of local services while shielding local budgets from volatility.

Property taxation also strengthens the local social contract by linking tax collection to local public service delivery, thereby enhancing taxpayer trust, civic accountability, and the legitimacy of local governance (Bird and Slack, 2013). Moreover, when designed with progressive elements—such as value-based assessments that reflect ability to pay—property taxation can advance equity, ensuring wealthier households contribute proportionally more to financing public goods and thereby supporting fairer outcomes within decentralized systems.

Countries can broadly be grouped into three categories of decentralization based on levels of expenditure and revenue authority, transfer dependency, and institutional autonomy (Table 5 in appendix 6). At the high end, some countries exhibit strong subnational authority, with significant shares of spending and revenue managed locally, limited reliance on transfers, and robust institutional autonomy. A second set of countries demonstrates more moderate decentralization, where subnational entities play an intermediate role in fiscal management and institutional support is uneven. At the low end, many countries show limited subnational fiscal authority, heavy

dependence on central transfers, and weak regional autonomy.

High-income countries are most often found in the first category, reflecting stronger institutional frameworks and broader fiscal authority at the subnational level. By contrast, middle- and lower-income countries display greater diversity. Some, such as Nepal, Peru, Mexico, and South Africa, fall into more than one category depending on the dimension assessed, illustrating the variety of fiscal arrangements across contexts and confirming that no single model of decentralization applies universally.

Appendix 2: Measuring Spatial Health Inequality

Monitoring subnational inequalities in health service coverage is crucial for understanding disparities across regions within low- and middle-income countries. This analysis focuses on four countries—Bangladesh, Egypt, Ghana, and Zimbabwe—and evaluates alternative approaches for assessing spatial health inequality. Eleven different metrics are reviewed, encompassing both simple pairwise comparisons and more complex summary indices ([Hosseinpoor et al., 2016](#)).

Simple pairwise measures focus on high–low absolute differences and ratios, as well as population-weighted differences. These metrics are easy to communicate and understand but can underestimate the true extent of disparities. More complex indices provide nuanced, decomposable perspectives. The Index of Dissimilarity estimates the percentage of the population that would need to shift between regions to equalize service coverage, offering an intuitive and policy-friendly interpretation. The Theil Index, a population-weighted relative inequality measure, is particularly sensitive to disparities in larger regions. The Mean Log Deviation (MLD) is another decomposable measure that helps distinguish between within- and between-region inequality. The Index of Disparity calculates the average deviation of each region from the best-performing region, expressed as a percentage, while the Population-Weighted Variance captures variability in service coverage while accounting for regional population sizes.

Key insights from this review indicate that while simple pairwise comparisons are straightforward, they risk underestimating disparities. The Index of Dissimilarity is effective for translating inequality into an interpretable population-share metric. The Theil Index and MLD provide deeper analytical insight by allowing decomposition into within- and between-region components. Importantly, transparent reporting requires presenting both absolute and relative measures, as different metrics can yield divergent conclusions about progress ([Hosseinpoor et al., 2016](#)).

Appendix 3: Tables

Table 4: Select Fiscal Decentralization Indicators, by Region (2016–2020)

Region	# Countries	Subnational Revenue	Local Revenue	Subnational Expenditure	Local Expenditure	Method 1	Method 2	Vertical Fiscal Imbalance	Education	Health	Safety	Social Benefits	Social Protection	Subsidies	Recreation	Housing	Economic Affairs	RAI
East Asia & Pacific	13	0.15	0.13	0.21	0.18	0.55	1.33	0.51	0.74	0.45	0.39	0.04	0.23	0.36	0.57	0.90	0.42	13
Europe & Central Asia	42	0.16	0.12	0.27	0.20	0.45	1.24	0.45	0.59	0.35	0.17	0.09	0.15	0.29	0.55	0.78	0.33	14
Latin America & Caribbean	10	0.10	0.06	0.24	0.14	0.63	2.21	0.59	0.06	0.01	0.05	0.09	0.02	0.22	0.23	0.69	0.30	10
Middle East & North Africa	4	0.47	0.14	0.47	0.13	0.16	0.29	0.16	0.44	0.43	0.42	0.40	0.35	0.99	0.66	1.32	0.46	2
North America	2	0.48	0.12	0.55	0.21	0.19	0.25	0.23	0.94	0.50	0.85	0.23	0.12	0.38	0.91	0.53	0.77	29
South Asia	2	0.07	0.05	0.20	0.15	0.67	2.72	0.54	0.68	0.43	0.09	0.03	0.11	0.40	0.53	0.46	0.20	6
Sub-Saharan Africa	9	0.06	0.04	0.19	0.12	0.74	6.03	0.68	0.24	0.41	0.08	0.23	0.04	0.07	0.39	0.48	0.21	N/A
Total Average	82	0.15	0.10	0.25	0.17	0.52	2.06	0.50	0.57	0.36	0.21	0.11	0.15	0.28	0.54	0.77	0.34	13

Source: Authors' calculations based on the IMF Fiscal Decentralization Dataset and the Regional Authority Index (RAI). Method 1 and Method 2 refer to transfer dependency measured over own spending and own revenue, respectively. Vertical Fiscal Imbalance (VFI) captures the mismatch between own spending and own revenue, or the degree of transfer dependency.

Table 5: Fiscal Decentralization and Country Classification (2016–2020)

	GROUP 1 High (35%)	GROUP 2 Medium (21–34%)	GROUP 3 Low (20%)
1 Level of Subnational Expenditure Decentralization	UAE, Canada, Switzerland, Sweden, Australia, Belgium, South Korea, U.S., South Africa, Spain, Mexico, Brazil, Germany, Russia, Kazakhstan, Nepal, Indonesia, Belarus, Japan, Peru, Uzbekistan	Norway, Somalia, Ukraine, Colombia, Austria, Netherlands, Iceland, Latvia, Croatia, Estonia, Finland, Moldova, Mongolia, U.K., Serbia	Albania, Rwanda, Thailand, Georgia, Kenya, Namibia, North Macedonia, Chile, China, Guatemala, Uganda, Hungary, Israel, Myanmar, Cambodia, Bosnia and Herzegovina, New Zealand, Palau, Kyrgyz Republic, Türkiye, El Salvador, Paraguay, Armenia, Mauritius, Cyprus, Senegal, Azerbaijan, Kiribati, Marshall Islands, Afghanistan
2 Level of Subnational Revenue Decentralization	UAE, Canada, Switzerland, China, U.S., Germany	Sweden, Brazil, Russian Federation, Australia, Belarus, Finland, Spain, Iceland, Japan, Belgium, Uzbekistan	Kazakhstan, Korea Rep., Somalia, Colombia, Latvia, Ukraine, Cyprus, South Africa, Mongolia, Croatia, Indonesia, Italy, Nepal, Serbia, Austria, Bosnia and Herzegovina, Portugal, Israel, Kyrgyz Republic, Mexico, New Zealand, United Kingdom, Chile, Netherlands, Cambodia, Hungary, Moldova, Namibia, Thailand, Georgia, North Macedonia, Palau, Albania, Armenia, Costa Rica, El Salvador, Guatemala, Peru, Cabo Verde, Paraguay, Türkiye, Estonia, Lithuania, Myanmar, Rwanda, Kenya, Afghanistan, Azerbaijan, Kiribati, Mauritius, Senegal, Uganda
3 Transfer Dependency (Method 1)	Up to 35%: Brazil, Uzbekistan, Afghanistan, Sweden, Latvia, Armenia, Russian Federation, Namibia, U.S., Canada, Belarus, Switzerland, New Zealand, Germany, Iceland, Bosnia and Herzegovina, UAE	36–65%: UK, Türkiye, El Salvador, Azerbaijan, Korea Rep., Cambodia, Kazakhstan, Paraguay, Chile, Kiribati, Colombia, Hungary, Belgium, Ukraine, Croatia, Palau, Spain, Somalia, Mongolia, Serbia, Israel, Australia, Japan	65%: Nepal, Marshall Islands, Uganda, Peru, Cabo Verde, Kenya, Mauritius, Estonia, Rwanda, Myanmar, Mexico, Senegal, Moldova, Guatemala, Netherlands, Albania, Indonesia, Georgia, South Africa, Austria, North Macedonia, Thailand
4 Level of Autonomy (Legal and Institutional)	Score 20: Germany, BiH, Spain, Belgium, U.S., Canada, Switzerland, Italy, Australia, Austria, Brazil, France, Russian Federation, Indonesia, Mexico, Peru	Scores 11–20: Japan, Netherlands, China, Colombia, South Korea, Myanmar, Norway, Sweden, Ireland, New Zealand, Poland	Score 10: Portugal, Romania, Türkiye, Iceland, Paraguay, Denmark, Finland, Serbia, Thailand, Ukraine, Nepal, Cambodia, Chile, Mongolia, Latvia, Slovenia, Albania, Bulgaria, El Salvador, Israel, Lithuania, Cyprus, Guatemala, Honduras, Costa Rica, Belarus

Source: Country classifications based on the IMF Fiscal Decentralization Dataset and the Regional Authority Index (RAI).

Figure 1: Key Fiscal Decentralization Indicators, by income level (2016–2020)

