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Federal Transfers and Fiscal Capacity in Malaysia:

Evidence on Equalisation Across States

Nor Nazirah Mohamed
Zheng Sheng Lew
Nurul Aqilah Abdul Hadi



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Authors' Profile



Nor Nazirah Mohamed

Nor Nazirah Mohamed is a Manager of Research at IDEAS, where she leads analytical work on public financial management, focusing on intergovernmental fiscal transfers and decentralisation. She previously worked in the Economics Department of a capital market authority, where she led research on investment literacy, retirement readiness, and demographic ageing, informing policy recommendations under Malaysia's National Strategy for Financial Literacy. Her work spans sectoral analysis and broader economic trends across key Malaysian industries and she served as the focal point for engagement with the World Bank on transition risk and sustainability related work, ensuring alignment with regulatory priorities. She holds a Master of Economics (Financial Economics) from the University of Sydney and a Bachelor of Economics (Finance) from IIUM.



Nurul Aqilah Abdul Hadi

Nurul Aqilah binti Abdul Hadi is a final year Economics student at Universiti Putra Malaysia and a Research Intern in the Accountable Governance unit at IDEAS. She has a strong interest in economics and policy analysis, particularly in areas related to fiscal policy and federalism. She was selected for the Young Southeast Asian Leaders Initiative Academic Fellows Programme, a U.S. Department of State-funded initiative and took part in a governance and leadership programme at James Madison University. She also participated in the Erasmus+ student exchange programme at SGH Warsaw School of Economics.



Zheng Sheng Lew

Zheng Sheng is a Research Intern in the Accountable Governance unit at IDEAS and is currently a second-year undergraduate pursuing a Bachelor of Finance and Economics at Taylor's University. He is interested in applied economics and public policy, particularly in areas related to political economy, economic development, social policy, and the circular economy. He was selected for UNIQLO's Global Management Programme in Japan, where he worked with an international team and was awarded Best in Category. He also served as President of the Taylor's AKPK Club, where he leads financial literacy initiatives for the student community.



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Executive Summary

Malaysia's federated fiscal system is under increasing scrutiny for being highly centralised. The Constitution gives the federal government comprehensive revenue-raising powers while heavily restricting states from taxing and borrowing. The federal government's application of these powers further concentrates power in the centre, creating a large financial shortfall between what state governments need to meet their expenditure responsibilities and what they can raise on their own.

Transfers of revenue from federal to state governments are a federation design feature intended to address financial gaps: both revenue and expenditure shortfalls for all states and to reflect differences in circumstances between the states. They should compensate for the legal limits on state revenue-raising powers, while at the same time provide extra support to states that have less ability to raise revenue and have higher economic development needs.

Whether federal transfers in Malaysia perform the second 'equalisation' function - allocating more funds to less developed states with lower revenue-raising capacity - has received little examination. Federal transfers are mostly designed around specific activities (or political and historical reasons) not fiscal capacity or need. Allocations between states in Malaysia have not been empirically assessed against equalisation objectives.

Without effective equalisation, differences in fiscal capacity can translate into persistent disparities in expenditure and unequal access to public services across regions. This goes against the spirit of federation, which aims to pool resources and coordinate regulation to advance the livelihoods of all Malaysians equally. Revenue sharing that neglects equalisation imperatives worsens inequality between states and can undermine democratic functioning.

This paper addresses a critical evidence gap by examining whether the distribution of federal transfers promotes equalisation. It empirically assesses the allocation of transfers per capita by state against various indicators of fiscal capacity and fiscal resources, including economic size, household incomes, and economic structure. For outcomes to be consistent with equalisation, states with lower fiscal capacity should receive a higher share of transfers.

Assessed against these alternative measures, there is no consistent or clear evidence that federal transfers are systematically aligned with differences in fiscal capacity across states. States with weaker underlying revenue-raising potential do not consistently receive higher levels of support. More notably, transfers exhibit a counterintuitive relationship with realised fiscal resources, with higher-revenue states often receiving higher transfers. From an equalisation perspective, this finding is partly driven by how fiscal flows are recorded, where components of federal transfers are embedded within state revenue accounts, which causes the distinction between a state's own fiscal resources and federal support becomes blurred.

Despite little evidence of targeting, federal transfers do reduce overall fiscal disparities across states. The variation in fiscal between states narrows following transfers, indicating that the system does have a moderating effect a broad-based distribution of transfers that does not systematically prioritise states with weaker fiscal capacity. Although the disparities are reduced in aggregate terms, the significant difference in fiscal resources remains across states.

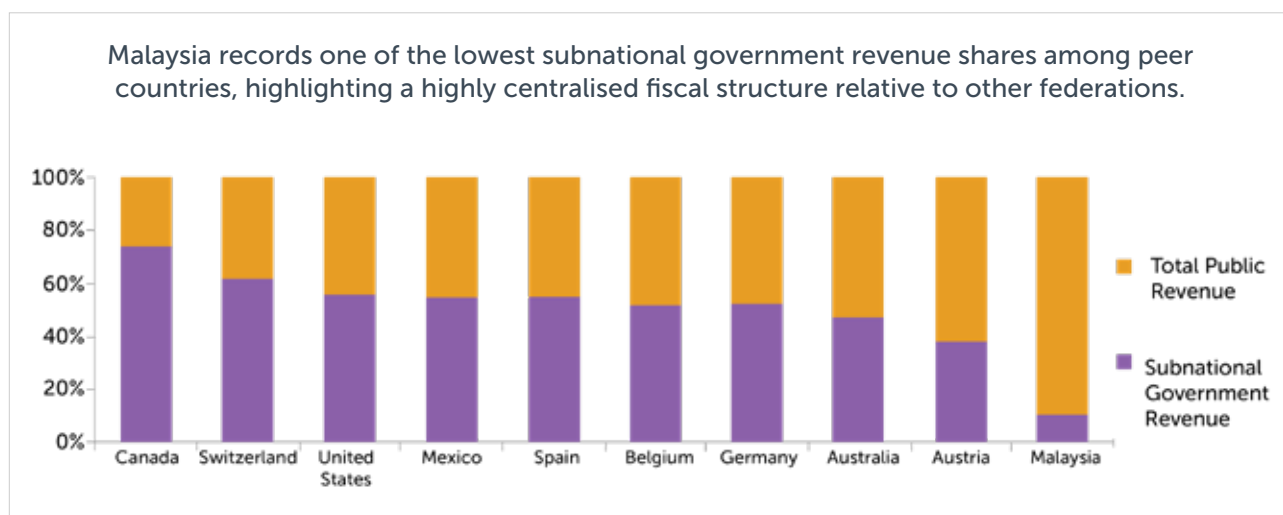
These findings suggest that Malaysia's intergovernmental transfer system functions more as a mechanism of general fiscal support rather than one that targets equalisation objectives. Transfers play a critical role in sustaining state finances, but their current design does not consistently align with differences in fiscal capacity across states. Strengthening the equalisation role of transfers would require clearer alignment with underlying fiscal capacity, alongside greater transparency in how transfers are defined and recorded. A shift towards a more consistent and rules-based allocation framework may be needed to ensure that the system supports more balanced and equitable regional development.

1. Introduction

Malaysia's structural fiscal imbalances

Federalism in Malaysia is underpinned by one of the most paradoxical fiscal structures globally. Though a constitutional federation, Malaysia's concentration of fiscal power with the federal (or central) government renders it functionally closer to a unitary system in fiscal terms. In 2022, Malaysian state governments collectively raised only about 10.4%¹ of total government revenue, a share utterly dwarfed by other subnational government in more decentralised federations such as Canada (73.2%), Switzerland (61.7%) (Figure 1).

Figure 1: Subnational Governments' Share of Total Government Revenue, 2022



Source: Malaysia's Audited State Financial Statement, Malaysia's Federal Revenue Government Estimates, OECD 2024 Edition, Subnational Governments Structure and Finance, Author's calculation.

Note: Latest available harmonised cross-country data refers to 2022. Countries include federal and quasi-federal systems based on OECD classification.

The central government's concentration of fiscal authority is largely rooted in its powers under the Federal Constitution. The Ninth Schedule of Malaysia's Federal Constitution provides for a clear separation of governing responsibilities (under the Federal, States and Concurrent Lists), but in practice, this division is not fully reflected in practice because states have limited capacity to raise revenue independently. State revenue raising capacity is constrained by the Tenth Schedule, which reserves major and more buoyant tax instruments including income, corporate, sales and excise taxes exclusively for the federal government.²

¹ Authors' calculations based on Audited State Financial Statements, Federal Government Revenue Estimates, Ministry of Finance.

² Federal Constitution of Malaysia, Ninth Schedule (Federal List) and Tenth Schedule (State List and Sources of Revenue).

States are left with a narrow set of taxation powers with which to fulfil their constitutional governing mandates. They are limited to fixed revenue sources, such as land revenue, forestry fees and selected mining royalties, which do not automatically expand as the economy grows. This makes them structurally reliant on federal government support – via transfers and direct expenditure – which if insufficient requires them to intensify revenue extraction from land and natural resources or to maintain insufficiently low expenditures on public services amid mounting pressure.

A further constraint on state finances is an inability to borrow. States face stringent borrowing restrictions, including a prohibition on independent access to capital markets unless approved by the federal government, and a requirement that any approved financing be only used for capital expenditures only (Anuar, 2000). Combining narrow tax powers and strict borrowing restrictions, Malaysian states have limited financial autonomy and are legally positioned to be highly dependent on intergovernmental transfers.

Paradoxically, Malaysian states appear to have a lower “on paper” dependency on intergovernmental transfers than many global peers. Transfers accounted for 26.3% to 32.7% of total state government revenue between 2020 and 2024³. Globally, the average share is around 51.5%, and intergovernmental transfers constitute the primary source of revenue for more than half of the 116 countries compared (SNG-WOFI database). Even in the federal systems, where subnational governments generally enjoy greater revenue autonomy, transfers still account for around 44.9% of subnational revenue on average (OECD & UCLG, 2022). The relatively low transfer footprints do not reflect states that are fiscally strong and independent, rather it suggests that funding which needs to change hands is not.

The reality instead is that central authorities are leveraging fiscal dominance to intervene in areas of state responsibility. The federal government maintains control over major expenditures, with what should be transfers often bypassing state budgets entirely. Rather than transferring the funds for democratically-elected and constitutionally-empowered state (and local) governments to exercise their responsibilities, federal agencies directly deliver many state and village level programmes. In some cases states are involved in implementing such programmes but without full autonomy to shape them.

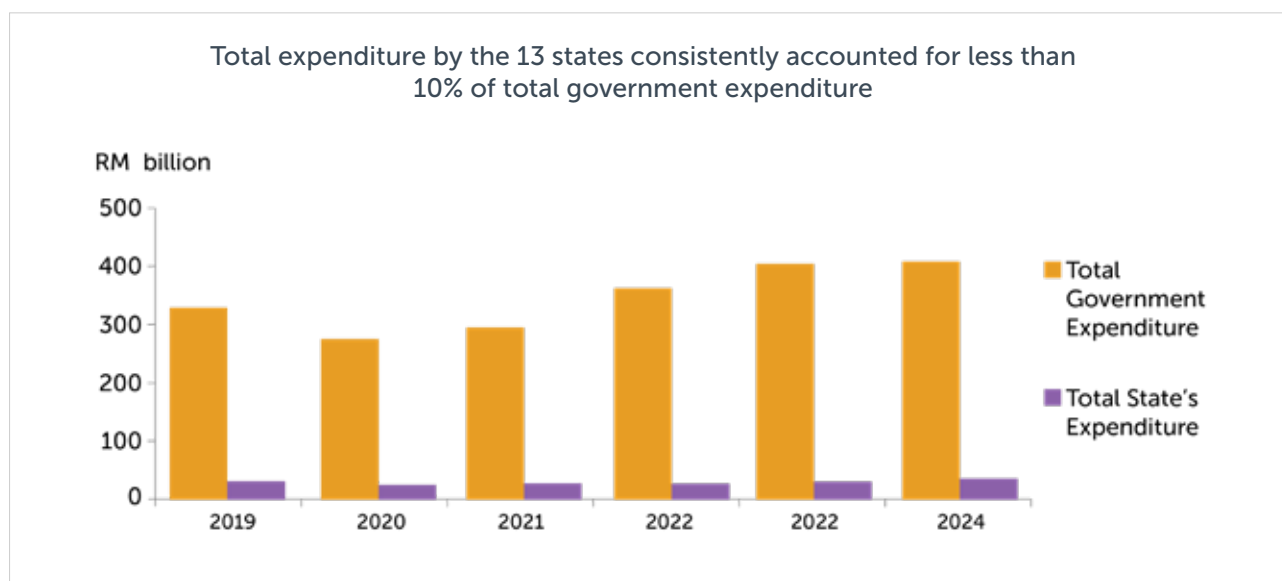
Evidently, subnational expenditures measured as the total expenditure executed by the 13 state governments accounted for approximately 7.5% to 9.2% of total governmental expenditures⁴ between 2019-2024 (Figure 2). This measure combines federal and state spending without netting out intergovernmental transfers from both federal expenditure

³ Authors’ calculations based on federal transfer data reported in Lampiran E of the Estimated Federal Expenditure, Ministry of Finance Malaysia and state government revenue figures from Audited State Financial Statements, 2020-2024.

⁴ Authors’ calculations based on federal and state government expenditure data from the Ministry of Finance Malaysia, Fiscal Outlook and Federal Government Revenue Estimates, 2019 to 2024.

and the financing of state-level spending, which introduces some overlap. However, the impact of this double-counting is negligible, as total transfers typically comprise only 2% to 3% of overall government expenditure and thus do not materially affect the interpretation of the results. The persistently low share of subnational expenditures nonetheless points to a high degree of fiscal centralisation with a substantial portion of spending on local

Figure 2: Subnational Governments' Expenditure as Share of Total Government Expenditure, 2019-2024



Source: States' Audited State Financial Statement, Malaysia's Federal Revenue Government Estimates, Author's calculation.

needs continuing to be undertaken or directed by the federal government. The direct expenditure over transfer approach breeds unhealthy competition between levels of government, with Malaysians ultimately worse off. State governments have diminished capacity to respond to the specific interests of their peoples, especially in states where political alignment with the centre is absent (Ostwald, 2017). Political alignment has also been shown to influence transfer allocation in Malaysia, leaving some states doubly disadvantaged (Box 1). Consequently, states face perverse incentives to favour the subset of economic activity that generates higher fiscal resources for their governments (rather than spending according to strict citizen need), with fiscal centralisation and low transfers weakening the link between economic performance and the fiscal resources available to subnational governments.

Box 1: Political Alignment and Intergovernmental Transfer Allocation-International Evidence and Malaysia's Experience

Global studies across federations have consistently demonstrated that politically- aligned subnational governments often receive significantly higher intergovernmental transfers. While transfers may in part reflect economic and fiscal needs, political considerations play an equally crucial role in determining transfer distributions.

Evidence from a range of countries indicates a strong correlation between transfers and political alignment, especially for discretionary transfers. Italy has "quasi-formula-based" health transfers that are subject to politically motivated targeting, with aligned regions consistently prioritised for higher grants in order to maintain coalition stability (Auteri & Cattel, 2023). In Spain, municipalities aligned with regional governments receive on average 83% higher per capita transfers (Curto-Grau et al., 2012). Similar patterns are observed in Indonesia, where discretionary grants are channelled to politically aligned regions instead of regions with greater fiscal needs (Gonschorek et al., 2018).

Comparable patterns also hold in Commonwealth federations. In Canada, "chequebook Federalism" has been used to describe the strong correlation between provincial transfers and political support for the national governing party (Joanis, 2014). Even Australia's sophisticated equalisation formula administered by an independent statutory body (the Commonwealth Grants Commission (CGC)) attracts. There have been accusations of political considerations being disguised as "specific purpose payments", (Worthington & Dollery, 1998) to bypass the CGC and provide a tool for the centre to intervene in state policy areas (Lecours & Béland, 2013). This mirrors the "bypassing" dynamic in Malaysia described earlier.

Malaysia also has a checkered history of deviating from ostensibly formulaic transfers. A prime example is the 1999 Terengganu transition, where the Statutory Petroleum Royalties were suspended and replaced with a discretionary mechanism (Ostwald, 2017) known as Wang Ehsan. Unlike royalties, which are paid directly to the state treasury, Wang Ehsan is distributed by the federal government (Bakar, 2004), effectively bypassing state government and limiting its fiscal autonomy.

These examples highlight how transfer systems can be influenced by political incentives, weakening the link between fiscal capacity, economic needs and resource distribution. Even formulas and governance designed to support intergovernmental transfers to reduce disparities between states can be undermined if not designed carefully.

... have potentially large consequences for geographic inequality

Alongside the constraints on state fiscal autonomy and the amount of transfers being comparatively small, the distribution of transfers matters to reduce geographic or inter-state fiscal disparities. Less economically developed states tend to have lower fiscal capacity (that is, a limited ability to raise revenue), which creates a vicious cycle in the absence of federal expenditure correcting for these differences. Studies have demonstrated a close link between government spending and a state's own source revenue (Yusof et al., 2020), which in turn influences the varying levels of socio-economic development across Malaysia.

The adequacy and distribution of federal transfers to states is an increasingly consequential political flashpoint, as states that see themselves as disadvantaged by current arrangements challenge the federal government. Prominent examples include Sabah's constitutional claim to a 40% share of federal revenue and ongoing disputes over petroleum royalties in resource-producing states. The political fallout from these issues likely contributed to the Madani Government providing some long overdue increases to certain transfers (including recent parliamentary reforms to the capitation grant formula). These developments point to a growing distributional tension, although rising contention has not spurred an accompanying increase in analysis of whether existing and revised transfer arrangements adequately address disparities in fiscal capacity and economic development.

Experience from other federations suggests that the design of intergovernmental transfer systems has important implications for both fiscal discipline and intergovernmental relations. Poorly designed systems may weaken fiscal discipline or generate persistent political tensions over resource distribution (Rodden, 2006; Ter-Minassian & Craig, 1997). For example, in Brazil and Argentina, expectations of federal bailouts created "soft budget constraints", encouraging subnational governments to overspend or accumulate excessive debt in anticipation of federal support (Rodden, 2006). In Malaysia, with constitutionally narrow revenue sources, states face relatively hard budget constraints. Meaning the bigger risk for federal transfers is whether they are significant enough to perform an equalisation role, especially for economically lagging states with low fiscal capacity. And if they need to increase or be redesigned to support equalisation they must incorporate formulaic rigor to avoid perverse incentives for fiscal profligacy or political dependency.

Does Malaysia's transfer system promote equalisation or entrench disadvantage?

From an analytical perspective, assessments of transfer distributional equity and effectiveness must start with an understanding of federal fiscal imbalances. Fiscal imbalances operate along two dimensions: vertical and horizontal. Vertical fiscal imbalance refers to the gap between revenue-raising authority and expenditure responsibilities across different levels of government. Horizontal fiscal imbalance arises when fiscal capacities differ across equivalent subnational governments; that is, one state government has a greater ability (due to its endowments of land, natural, human, and economic resources) than another state government to generate revenue from its economic base, excluding transfers. Federations commonly use intergovernmental transfers to address one or both of these imbalances, most commonly to bridge the vertical fiscal gap between the federal and subnational levels (Boadway & Shah, 2007; Oates, 1999).

Fiscal imbalances themselves are not inherently problematic. Rather, they become a concern when left unaddressed by transfers. Vertical imbalances are often an intentional feature of fiscal design, as certain taxes can be more efficiently and consistently administered at the federal level. It is often contrary to the interests of the federation to

have differentiated rules and processes that can confuse residents and deter business investment. However, where transfers are withheld, unfairly distributed, heavily restricted, or insufficiently responsive to local needs, they can constrain states' ability to fund public services and invest in long-term development.

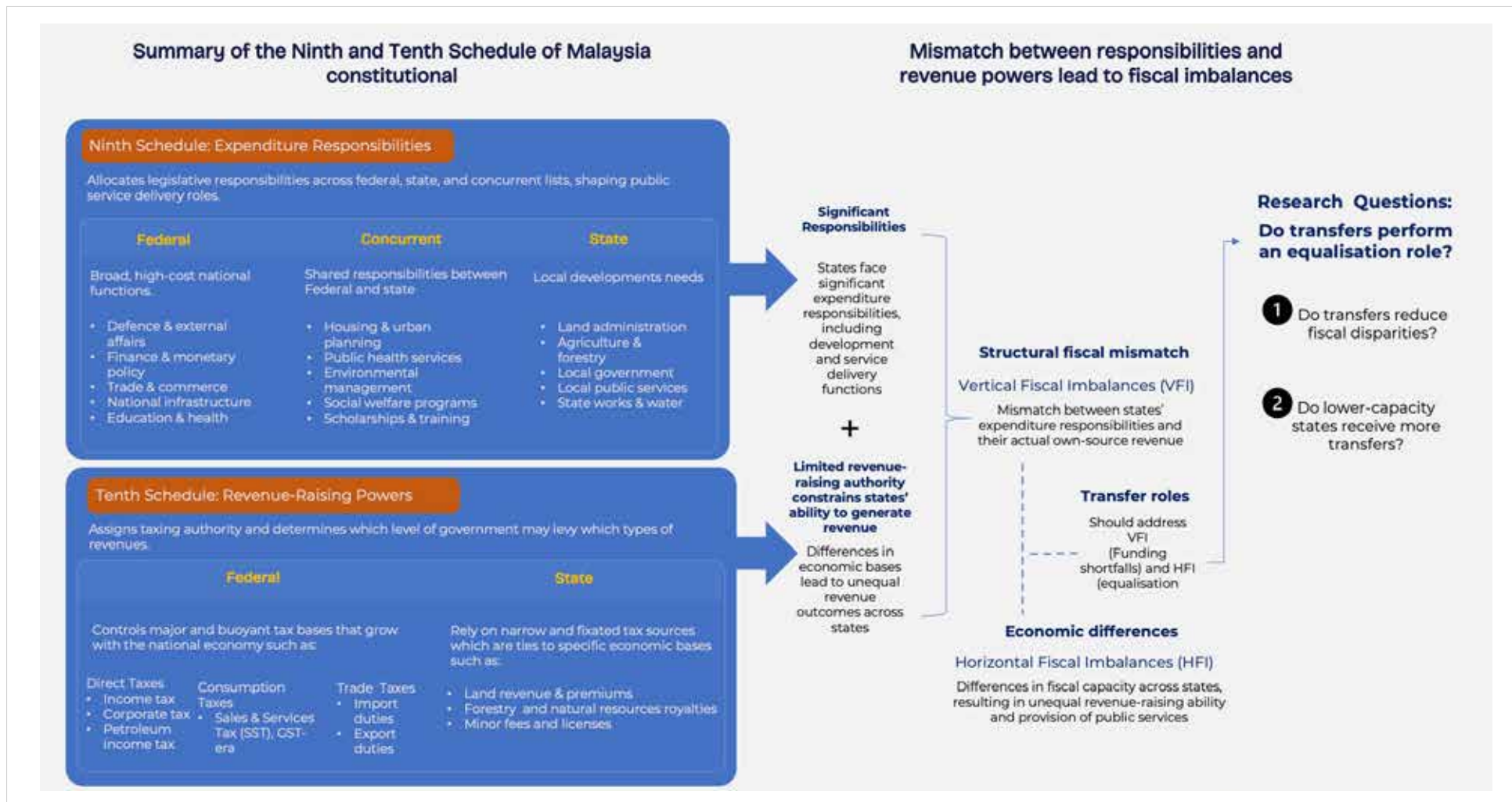
This paper focuses on horizontal fiscal imbalances and how effectively intergovernmental transfers address them. Ideally, transfers should serve an equalisation function by reducing disparities in fiscal capacity across states, whose ability to generate revenue varies significantly. Without such corrective mechanisms, differences in fiscal capacity can translate into persistent disparities in expenditure leading to unequal access to public services across regions (Boadway & Shah, 2007; Oates, 1999). Evidence from Malaysia suggests government expenditures have often failed to equalise regional socioeconomics outcomes, as states' own revenue remains a key determinant of their ability to fund local development (Yusof et al., 2020). Although in principle, equalisation should account for both variations in fiscal capacity and expenditure needs, this paper focuses on measuring the extent to which current transfers offset fiscal capacity disparities across Malaysian states.⁵

Prior examination of whether Malaysia's transfer system performs an equalisation function is limited and mostly dated. Assessments on federal transfers spanning 1970 to 2003 found that economically stronger states often received higher grants, contradicting the intended equalisation role of transfers (Bakar, 2004; Jalil, 2009). An earlier study looked at equalisation impacts on horizontal fiscal imbalances but only covered population-based grants — which by design are not economically-oriented (Anuar, 2000). Jalil (2010) finds significant differences states' ability to raise revenue and their actual revenue performance among Malaysian states. While both are conceptually related, they are distinct questions from fiscal capacity equalisation. The most recent estimate of fiscal capacity used observable revenue outcomes as a proxy (Yusof et al., 2020), which risks conflating realised revenue with underlying revenue potential. No recent empirical studies evaluating the distributive impact of transfer arrangements based on fiscal capacity disparities were identified in preparing this paper.

This paper contributes to addressing this gap by empirically evaluating whether Malaysia's federal transfer system performs a horizontal equalisation function based on recent data capturing the impact of more recent fiscal reforms that prior studies could not observe. It examines whether states with weaker fiscal capacity systematically receive higher per capita transfers and whether the current transfer system results in a more balanced distribution of fiscal resources across the federation. In doing so, it focuses on the fundamental relationship between a state's underlying economic potential and the support it receives.

⁵ It should be noted that IDEAS is currently pursuing complementary research exploring vertical fiscal imbalances and the broader implications of federal-state expenditure patterns in Malaysia.

Figure 3: Constitutional Allocation of Responsibilities and Revenue Powers and Its Implications for Fiscal Imbalances



Author's illustration, synthesised from the literature

2. Conceptual Framework

Fiscal imbalances in federal systems...

This section develops the conceptual framework underpinning the analysis. It begins by defining vertical and horizontal fiscal imbalances to establish why intergovernmental transfers are a necessary feature of federal systems. It then clearly sets out the conceptual definition of fiscal capacity as distinct from fiscal effort and fiscal resources, which underpins the evaluation of whether transfers perform an equalisation function. It also reviews approaches to measuring fiscal capacity, motivating the proxy-based strategy adopted in this paper. Finally, it sets out the equalisation principles and assessment framework that guide the analysis throughout this research.

2.1 Vertical and Horizontal Fiscal Imbalances

Horizontal fiscal imbalances exist because subnational governments differ in their economic structure, population size and natural resource endowments, which affect the ability of jurisdictions to generate revenue even when they apply similar tax policies. These structural differences are not self-correcting, despite the federation framework providing a basis for pursuing shared political, sociocultural and economic goals. Where transfers are inadequate to address vertical imbalances, the scope for equalisation across states narrows further as lower overall transfers leave less room to direct resources and address differences in states' fiscal capacity.

The theoretical rationale of federal fiscal structure is well supported by economic efficiency and governance principles. Major taxes such as income taxes, corporate taxes and value-added taxes are commonly administered at the federal level because centralised tax administration reduces compliance costs, limits tax competition between jurisdictions (Oates, 1999) and enables governments to pursue macroeconomic stabilisation objectives (Ter-Minassian, 1997). In parallel, many public services such as healthcare, education and local infrastructure are more efficiently delivered by subnational governments given their superior information on local needs and preferences under a principle commonly associated with the decentralisation theorem (Oates, 1972) which posits that decentralised provision leads to higher social welfare by better matching policies to local preferences. This gives rise to a structural asymmetry in federal systems; revenues collection authority tends to be more centralised than expenditure responsibilities. The expected benefit of this arrangement includes exploiting economies of scale in tax administration, aligning incentives across jurisdictions and ensuring macroeconomic policy coherence.

In practice, however, the degree of revenue and expenditure decentralisation varies considerably across federations. Some systems remain highly centralised in both revenue and expenditure while others decentralise one or both. Malaysia represents a case of

dual centralisation, where key sectors such as education and healthcare remain largely administered at the federal level. This restricts the ability of subnational governments to align fiscal resources with local economic conditions, thereby increasing reliance on intergovernmental transfers to address regional disparities.

Horizontal fiscal imbalances exist because subnational governments differ in their economic structure, population size and natural resource endowments, which affect the ability of jurisdictions to generate revenue even when they apply similar tax policies. These structural differences are not self-correcting, despite the federation framework providing a basis for pursuing shared political, sociocultural and economic goals. Where transfers are inadequate to address vertical imbalances, the scope for equalisation across states narrows further as lower overall transfers leave less room to direct resources and address differences in state's fiscal capacity.

Vertical and horizontal fiscal imbalances are closely interconnected and addressing one without the other may be insufficient. If transfers focus on vertical imbalances and are thus designed based on the needs of an average state, they will not fully account for differences in fiscal capacity across states, exacerbating horizontal fiscal imbalances rather than mitigating them through targeted equalisation. Effective transfer systems therefore need to account for state differences to ensure that resources are allocated to support equitable development outcomes.

In Malaysia, horizontal fiscal imbalances are well illustrated by disparities in fiscal capacity between highly industrialised states such as Selangor and Penang and less developed states like Kelantan. Selangor and Penang benefit from a strong economic base in manufacturing and services, supporting greater revenue-raising potential. Resource-rich states such as Sabah and Terengganu have access to abundant natural resource endowments, particularly oil and gas, from which revenues such as royalties contribute positively to their fiscal capacity. In contrast, more agriculture-dependent states such as Kedah have more limited revenue potential due to their predominantly agrarian economic base and limited access to tax bases that expand in line with economic growth.

2.2 Conceptualising Fiscal Capacity

Fiscal capacity is a theoretical measure of the potential ability of subnational governments to raise revenue from their underlying taxable bases, assuming tax policies and collection efficacy are the same (more technically, applying a standard or national average level of fiscal effort); (Bahl et al., 2001; Di Liddo et al., 2023). Instead of observing the actual revenue collections, which are inherently skewed by varying policy choices due to differences in tax exemptions, enforcement intensity, and administrative effectiveness, this measure focuses on what could potentially be raised under a uniform policy condition. In this sense, fiscal capacity should provide a consistent estimate of revenue-raising potential by abstracting from discretionary differences that exist across subnational governments. This conceptual framing is useful for comparative analysis of state-level heterogeneity, as it isolates underlying structural differences in taxable bases from variations driven by policy or administrative factors. For analytical clarity, this paper adopts this narrower definition of fiscal capacity by mainly focusing on revenue-raising potential. Despite broader interpretations that may incorporate differences in expenditure needs and administrative or institutional capacity, these dimensions are not explicitly considered and beyond the scope of this paper.

Given that the primary focus of this study is fiscal capacity, it is important to distinguish it from related but distinct concepts including fiscal effort and fiscal resources. Fiscal effort refers to the extent to which a government translates its potential tax and non-tax base into actual collections (Bahl, 1971). These terms are often used interchangeably but conflating them risks obscuring whether transfers respond to underlying revenue-raising potential or to realised fiscal outcomes. Firstly, fiscal capacity mirrors a jurisdiction's "passive" economic potential, that is, the level of revenue that could be generated given its tax base. By contrast, fiscal effort captures the "active" component of revenue generation through policy and administrative decisions (Bahl et al., 2001; Di Liddo et al., 2023). The two are closely related, but not equivalent. Jurisdictions with similar levels of underlying capacity can, and often do, exhibit different fiscal outcomes due to variations in effort. In other words, similar economic conditions do not necessarily guarantee comparable revenue performance.

This distinction is especially relevant in the Malaysian context, where fiscal authority is relatively centralised. With less room for states to diverge through formal tax policy, differences in revenue outcomes are more plausibly linked to variations in underlying fiscal capacity and tax administration, rather than differences in tax policy. In these instances, fiscal capacity serves as a reflection of underlying structural conditions whereas observed outcomes remain largely shaped by discretionary policy and administrative choice (Bahl et al., 2001).

Fiscal resources, meanwhile, refer to the actual revenue realised by a jurisdiction. Unlike fiscal capacity, which functions as a theoretical benchmark, fiscal resources reflect the combined result of underlying capacity, fiscal effort, and broader institutional or political factors (Bahl et al., 2001). Importantly, this definition excludes intergovernmental transfers, as including them would risk conflating revenue outcomes with the transfers

intended to address fiscal disparities. Maintaining this distinction is important to ensure that the fiscal position of each jurisdiction is not misrepresented. In simple terms, fiscal resources reflect how underlying fiscal capacity, shaped by economic endowments, is translated into actual revenue through fiscal effort, alongside broader contextual factors. In practice, the distinction between fiscal capacity and fiscal resources is central to how sophisticated equalisation systems are designed. Australia's Horizontal Fiscal Equalisation system provides a useful real-world illustration of how transfers can be structured to target underlying fiscal capacity rather than realised revenue outcomes (Box 2).

Box 2: Fiscal Capacity vs Fiscal Resources-Lessons from Australia's Horizontal Fiscal Equalisation System

Australia's system of Horizontal Fiscal Equalisation (HFE) provides a useful illustration of the distinction between fiscal capacity and fiscal resources. Under the HFE framework, transfers are designed to equalise states' fiscal capacity: their underlying ability to raise revenue rather than their actual revenue outcomes. This distinction is critical, as observed revenue reflects not only economic capacity but also policy choices, administrative efficiency, and timing effects.

In practice, the Commonwealth Grants Commission (CGC) manages this through an equalisation pool from the Goods and Services Tax (GST) revenue and assigns a "GST Relativity" to each state, which adjusts its share of the GST pool based on differences in revenue-raising capacity and expenditure needs (Department of Treasury and Finance (Tasmania), 2017). Under this framework, states with lower fiscal capacity receive a GST Relativity above 1.0, increasing their share of the GST pool relative to their population and vice versa (Jimenez et al., 2022).

For instance, resource-rich states such as Western Australia (WA) experienced significant increases in mining royalties during the commodity boom in 2010s, leading to substantially higher own-source revenue (Productivity Commission, 2018). However, this did not translate into higher transfer entitlements; instead, their share of federal transfers declined as a reflection of their increased underlying fiscal capacity. Conversely, smaller states with weaker tax bases or higher service delivery costs received larger transfers to compensate for structural disadvantages.

This dynamic has, at times, sparked political tension, prompting various technical fixes. The relativity floor was raised to 0.75 (Jimenez et al., 2022) to prevent sharp declines in allocation. The benchmarking approach was also revised, shifting away from using the single strongest state as the reference point. Instead, fiscal capacity is now equalised to the level of the stronger of New South Wales or Victoria (Jimenez et al., 2022).

Equalisation system design must distinguish between structural changes in underlying capacity and short-term cyclical volatility in observed revenue. Failure to do so can result in transfers that respond to temporary revenue shocks rather than underlying economic conditions, weakening the link between transfer allocation and underlying fiscal capacity

To achieve equalisation, it is essential to embed a mechanism distinguishing state structural revenue-raising capacity from short-term cyclical fluctuations. Conflating structural capacity gaps with temporary shocks risks rewarding or penalising states based on transient conditions, which undermines the purpose of providing a stable foundation for public service provision insulated from economic volatility.

2.3 Approaches to Measuring Fiscal Capacity

In the literature, several approaches are used to approximate fiscal capacity, indicating the inherent complexity of measuring an unobservable concept. Broadly, these approaches can be grouped into three categories, each with distinct strengths and limitations. The following subsections outline these approaches.

2.3.1 Potential vs Actual Revenue

The first approach relies on historical or actual revenue collections as a proxy for fiscal capacity. While straightforward, this approach conflates fiscal resources with fiscal capacity, which as defined above mixes underlying capacity with fiscal effort, administrative capability, and institutional factors, and therefore does not isolate a jurisdiction's true revenue-raising potential (Bahl et al., 2001; Canavire-Bacarreza et al., 2012).

From an equalisation perspective, trying to correct for underlying economic disparities between states, federal government transfers should not be responsive to a state raising a resource rent tax from 10% to 20% (for example). The rate of the tax has no bearing on a state's revenue base potential and a transfer formula responsive to policy changes could have a perverting influence on state policymaking.

2.3.2 The Representative Tax System

The second and often referred to as the "ideal" approach, is the representative tax system (RTS), which estimates the revenue that each jurisdiction would generate if it applied a uniform set of tax rates (fiscal effort) to a common set of tax bases. Despite being conceptually the most appropriate, the implementation of RTS requires granular tax base information such as property values, income level and consumption patterns and natural resource output alongside effective tax rates. Such data are typically unavailable or incomplete at the subnational level.

Under this method, fiscal capacity is calculated as the sum of a state's various tax bases (like property, minerals, or sales) each multiplied by the national average tax rate for each base (Bosch et al., 2013; Chernick & Reschovsky, 2006). The formula is expressed as:

$$Fiscal\ Capacity_i = \sum_{j=1}^n (Tax\ Base_{ij}) \times (Average\ Rate_j)$$

Here, *Fiscal Capacity* represents the total potential revenue for a specific state or jurisdiction i , such as Kedah or Selangor. The subscript j denotes different types of tax bases or revenue categories. Accordingly, *Tax Base_{ij}* refers to the size of the tax base j in state i , for example the property tax base or mineral resource base within that state. Each of these tax bases is then multiplied by *Average Rate_j*, representing the national average tax rate for that specific category. The calculation is then repeated for all n possible revenue sources and then summed to derive the total fiscal capacity for state.

Although the resulting measure is hypothetical, estimating the revenue a jurisdiction *could* raise under a standardised tax structure rather than what it actually collects, the RTS framework has been widely implemented in practice, most notably in Canada.

By holding tax rates constant across jurisdictions, the RTS creates a “level playing field” for comparing states with very different economic structures, allowing differences in revenue to reflect underlying fiscal capacity rather than actual collection outcomes driven by policy choices or administrative factors. It is highly relevant in centralised fiscal systems such as Malaysia.

2.3.3 Economic Determinants

The third approach uses proxy indicators of the economic base, such as per capita income or GDP, to approximate the size of the underlying tax base. These measures avoid the confounding effect of fiscal effort and are therefore more consistent with the economic potential conception of fiscal capacity. This method is widely used when detailed tax data are unavailable, providing a practical alternative for assessing potential revenue generation (Boadway & Shah, 2007). However, using an overall economic measure like GDP is a blunt instrument that oversimplifies the complex interplay of tax bases and economic structures, potentially leading to partial approximation of true fiscal capacity, especially across heterogeneous jurisdictions. It lacks the nuance of the RTS, as it does not disaggregate the underlying tax potential (that is, the relative concentration of economic value in labour, land and capital or in income versus wealth could significantly influence fiscal capacity’s representativeness of economic disparity). [1.1] [1.2]

2.3.4 Summary

These approaches each present distinct methodological challenges and implications, shaping how policymakers design and evaluate intergovernmental fiscal transfer systems aimed at addressing horizontal fiscal disparities. The distinctions across these approaches are summarised in Figure 4.

They provide the conceptual basis for measuring fiscal capacity, but their empirical implementation requires adapting to data availability and institutional context. Accordingly, this study adopts a proxy-based approach, inspired by these methods but tailored to the Malaysian context, [2.1] [2.2] as detailed in Section 3.

Figure 4: Key Differences in Approaches to Measuring Fiscal Capacity

Approaches to Measuring Fiscal Capacity			
Dimension	Actual Revenue	Representative Tax System (RTS)	Economic Proxies (e.g., GDP per capita)
Underlying measure	Observed revenue collected by states	Potential revenue using standardised tax rates across tax bases	Size of underlying economic base
Strength	Simple and observable	Conceptually robust, isolates fiscal capacity	Practical and widely available
Limitation	Confounds fiscal capacity with effort and policy choices	Practical and widely available	Oversimplifies tax structure and ignores composition effects

Source: Author's illustration, synthesised from the literature

2.4 Equalisation Principles and Assessment Framework

To address disparities in fiscal capacity across subnational governments, many federations employ an intergovernmental transfers system with equalisation objectives. Assessing whether such systems function as intended requires examining whether transfers are systematically aligned with underlying fiscal capacity rather than realised fiscal outcomes.

Fiscal equalisation frameworks are commonly classified along several dimensions, including the direction of transfers, their underlying objectives, and the methodology used to determine allocations (Blöchliger et al., 2007; Esteller-Moré et al., 2016). Among these, two distinctions are particularly relevant for assessing whether transfer systems address disparities in fiscal capacity.

2.4.1 Direction: Vertical vs. Horizontal

First, equalisation may take the form of vertical or horizontal arrangements. Vertical equalisation involves transfers from the central government to subnational jurisdictions and is typically used to address vertical fiscal imbalances arising from mismatches between revenue powers and expenditure responsibilities (Boadway & Shah, 2007).

In contrast, horizontal equalisation focuses on reducing disparities across jurisdictions at the same level of government, ensuring that regions with weaker fiscal capacity are not systematically disadvantaged in their ability to provide public services.

2.4.2 Objective: Revenue or Cost

Second, equalisation systems can be distinguished by whether they target revenue capacity or expenditure needs. Revenue equalisation seeks to equalise the ability of jurisdictions to raise revenue, typically by assessing states' underlying taxation potential (Boadway & Shah, 2007).

Cost equalisation, by contrast, accounts for differences in expenditure needs arising from factors such as demographic composition, geographic conditions or service delivery costs (Bahl et al., 2001; Primorac et al., 2022).

2.4.3 Calculation Methodology

Equalisation systems also differ in how transfers are calculated. Under the **gap-filling approach**, the transfer amount is determined by the specific fiscal gap of a jurisdiction, calculated as the difference between its estimated expenditure needs and its fiscal capacity (Primorac et al., 2022). Countries like Australia and Italy utilise variations of this approach (Dougherty & Forman, 2021).

By contrast, the **capacity-based approach** estimates potential revenue, often using a method such as the RTS. Countries such as Canada adopt variations of this approach, where fiscal capacity is assessed based on underlying revenue potential rather than actual collections. In practice, this involves estimating the revenue a jurisdiction could raise by applying standardised tax rates to its existing tax bases, thereby abstracting from differences in policy choices or administrative performance (Dougherty & Forman, 2021; Ma, 1997).

2.4.4 Evaluating Equalisation Outcomes

Assessing the effectiveness of equalisation systems requires evaluating whether transfers reduce disparities in fiscal capacity and translate into more comparable levels of public service provision at comparable tax effort. This is a core objective for federations worldwide. Assessment involves examining both the design of transfer mechanisms, such as revenue or cost equalisation and gap-filling versus capacity-based approaches, and their realised outcomes on horizontal fiscal imbalances (Dougherty & Forman, 2021). In particular, equalisation frameworks aim to address horizontal fiscal imbalances arising from differences in underlying tax bases, while also accounting for variations in expenditure needs across jurisdictions due to demographic, geographic, or socioeconomic factors.

This paper assesses the effectiveness of equalisation transfers according to whether they reduce the horizontal disparities in fiscal capacity across jurisdictions. If equalisation is functioning as intended, jurisdictions with weaker revenue bases should receive proportionally larger transfers than those with stronger economic bases (Bird & Tarasov, 2002).

The analysis focuses on equalising fiscal capacity in a contemporaneous sense, though transfers can also address longer-term development disparities. Recognising that intergovernmental transfers may also play an important role in addressing such structural imbalances, this analysis focuses on their role in equalising fiscal capacity across states.

Assessing equalisation through a fiscal capacity lens is not the only, nor necessarily optimal choice, but it provides a meaningful reference point for understanding and correcting fiscal imbalances. It is acknowledged that regional disparities often extend beyond variations in fiscal capacity. Less developed regions typically face both weaker revenue bases and greater expenditure needs, reflecting lower income levels and higher development pressures.

Equalisation transfers, based solely on fiscal capacity may not fully address underlying disparities. The objective is not to eliminate all regional differences, but to ensure that governments can deliver reasonably comparable levels of public services (Boadway & Shah, 2007). In this regard, identifying opportunities for transfers to contribute more to equalisation remains beneficial, even without being sufficient to resolve overall development disparities.

Accordingly, this analysis therefore abstracts from longer-term structural disparities to focus on the equalisation of fiscal capacity across jurisdictions. Transfers only function as equalisation mechanisms when they align with fiscal capacity and reduce disparities across states.

3. Data and Measurement Strategy

Building on the conceptual framework outlined in Section 2, this section discusses how fiscal capacity, fiscal resources, and federal transfers are defined and measured to support empirical analysis. It applies these concepts as truthfully and consistently as permitted by available data. The analysis draws on a panel of 13 Malaysian states over the period 2019 to 2024, using publicly available data from federal budget documents, audited state financial statements, and national accounts.

Consistent with the discussion in Section 2.3, fiscal capacity is not directly observable and must be approximated using measures that capture underlying revenue potential while remaining distinct from realised fiscal outcomes and fiscal effort. The empirical strategy therefore adopts a proxy-based approach as the primary method, complemented by a composite fiscal capacity index used for triangulation. This distinction is central to assessing whether transfer allocation reflects underlying economic capacity as proxied by different measures rather than observed fiscal outcomes.

3.1 Constructing Measures of Fiscal Capacity

As previously noted, fiscal capacity is a theoretical measure of a subnational government's ability to raise revenue from its underlying tax base, assuming a common level of fiscal effort. It is ideally measured as per the aforementioned RTS approach, as the sum of tax bases multiplied by standardised tax rates, thereby abstracting from differences in policy choices and administrative practices across jurisdictions. In practice, however, implementing the RTS requires detailed and consistent data on tax bases and effective tax rates, which are not readily available at the subnational level in Malaysia.

In light of this constraint, the analysis adopts a proxy-based approach to estimate fiscal capacity. A small set of complementary indicators is used to capture different dimensions of the underlying economic base, enabling key structural differences across states to be examined more transparently.

Specifically, GDP per capita is used as a baseline proxy for overall economic scale, gross mean household income captures income generating capacity, and the share of services and manufacturing in state GDP is used to approximate structural taxability. This disaggregated approach enables a more transparent assessment of how distinct aspects of fiscal capacity, including differential sectoral taxability, relate to federal transfer allocation.

The use of sectoral composition as a proxy for fiscal capacity is grounded in the economic determinants approach, which recognises not all economic activity translates equally into revenue potential. Different sectors exhibit varying degrees of taxability, indicating differences in formality, value-added, and the ease of monitoring and enforcement. In general, agriculture tends to be more subsistence-based, non-monetised, or informal, rendering it costly to tax (Beach, 2018), whereas manufacturing and services are more

formalised and characterised by higher value-added, traceable transactions. As a result, states with a larger share of services and manufacturing sectors generate broader and more accessible revenue bases, while primary sectors tend to exhibit lower fiscal yield.

These proxies do not map directly to legally assigned state revenue instruments in Malaysia's centralised fiscal system, but they provide a consistent approximation of differences in underlying economic capacity across states.

3.2 Measuring Fiscal Resources

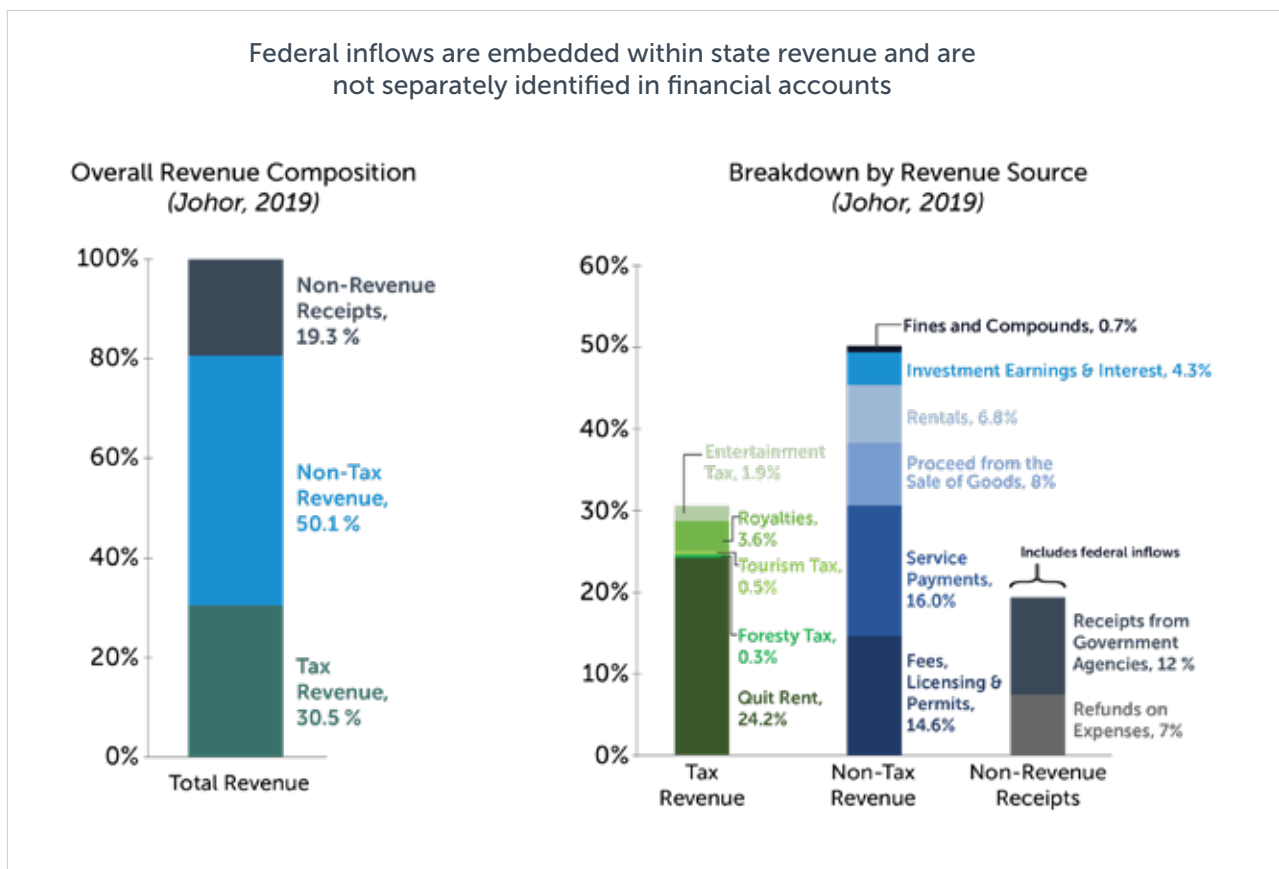
Fiscal resources in this study are measured using realised state government revenue, based on audited annual financial statements, with identifiable federal transfers excluded. The idea is to get as close as possible to the revenue that states generate on their own, while recognising that this still reflects a mix of fiscal capacity, fiscal effort, and contextual factors.

In practice, drawing a clean line between own-source revenue and federal transfers is not straightforward in the Malaysian context. State revenue accounts do not cleanly distinguish internally-generated resources from intergovernmental inflows, with the reporting category "receipts from government" unhelpfully including both. Using the reported revenue unadjusted would collapse the distinction between fiscal capacity and fiscal support which creates a fundamental empirical identification problem, as it risks double counting transfers and obscuring whether observed fiscal outcomes reflect underlying revenue-raising potential or federal redistribution.

This issue is further complicated by inconsistencies in fiscal reporting. Some federal-derived revenues, including payments recorded as receipts from government agencies or statutory bodies, appear in state accounts but are not consistently classified as transfers in federal expenditure data. Where possible, these items are identified and excluded to improve comparability across states. Even so, the classification is not perfectly consistent, so some residual differences are likely to remain.

As reported in audited state financial statements, revenue is presented as the sum of tax revenue, non-tax revenue, and non-revenue receipts (Figure 5, left panel). The structure of state revenue accounts, illustrated using Johor for the calendar year 2019, shows that "receipts from government" are embedded within non-revenue receipts and are not separately identified in reported aggregates. This implies that federal-derived inflows are incorporated within total state revenue, obscuring the distinction between own-source revenue and transfers.

Figure 5: Structure of State Revenue Accounts

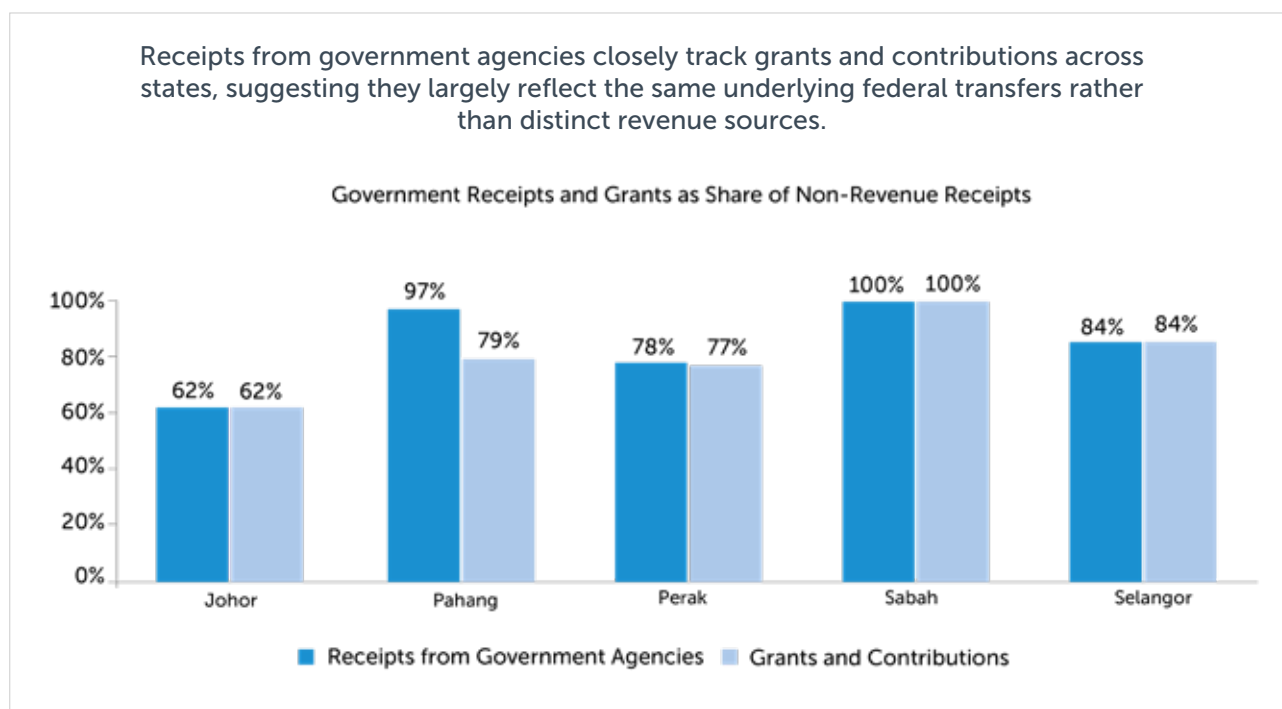


Source: Audited State Financial Statements (Johor)

It therefore motivates the construction of an adjusted revenue measure that excludes receipts from government to approximate state-generated fiscal resources prior to federal transfers. Further details on the composition of non-revenue receipts across states is provided in Appendix Figure 1A.

A comparison of available data for selected states (in 2019) further supports the interpretation that receipts from government agencies largely reflect federal transfers. Figure 6 demonstrates how closely receipts and transfers track each other. Detailed breakdowns from *BelanjawanKu* offer further evidence, with receipts from government agencies closely corresponding to reported grant components. Grant composition data also shows that receipts from government agencies largely consist of identifiable federal grant components (see Table A1 in Appendix).

Figure 6: Comparison of Government Receipts and Grants as Share of Non-Revenue Receipts, 2019



Source: Audited State Financial Statement, State's Belanjawanku document

Accordingly, receipts from government agencies are treated as a proxy for federal transfers and excluded from reported state revenue to construct an adjusted measure of fiscal resources. While this provides a practical approximation of state generated revenue, it should be interpreted with caution, as some federal inflows may still be captured due to differences in reporting and classification across states.

Additionally, all fiscal variables are expressed on a per capita basis to allow for meaningful comparisons across states of different sizes. This measure is then used alongside proxy-based estimates of fiscal capacity to assess whether federal transfers are more closely aligned with realised revenue outcomes or with underlying economic potential.

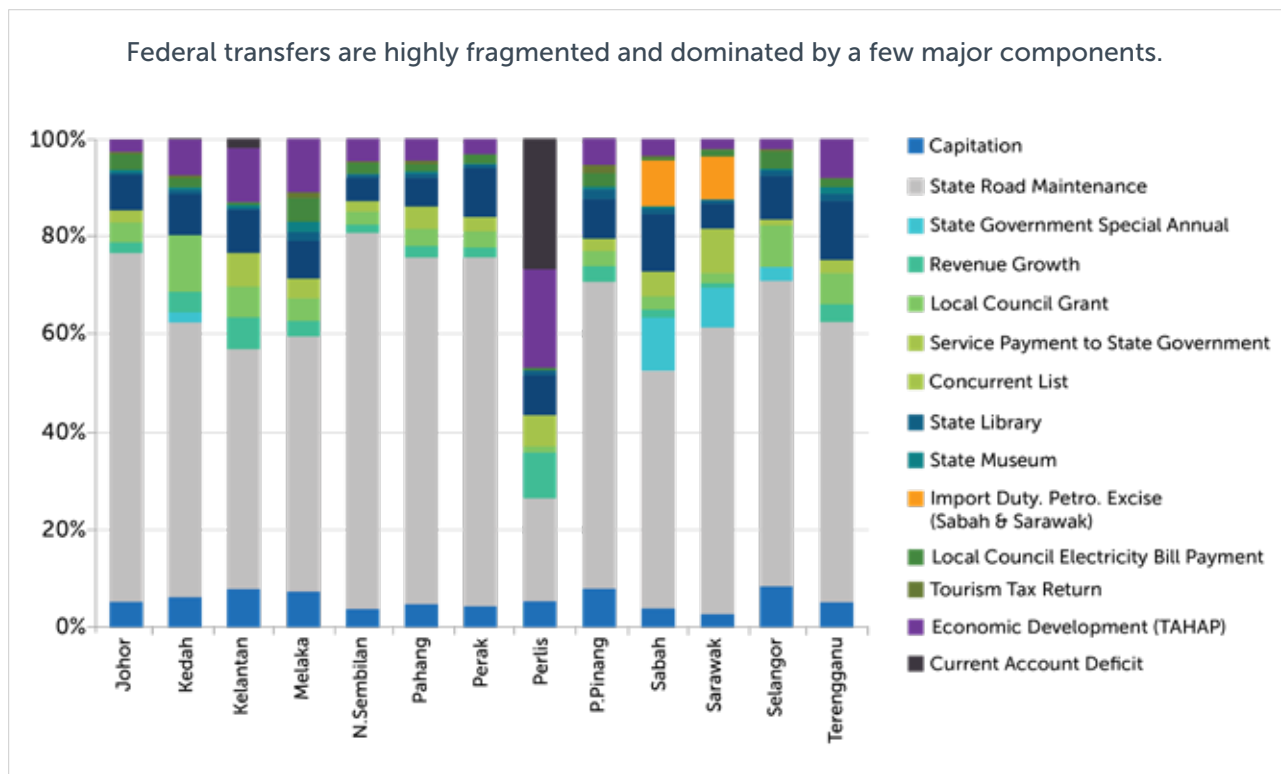
3.3 Measuring Federal Transfers

Federal transfers are measured using data from the Federal Government's annual expenditure estimates (*Lampiran E*), which report allocations to state governments across different grant categories. These transfers represent the primary channel through which fiscal resources are redistributed from the federal government to the states. To ensure comparability across states, transfers are expressed on a per capita basis. This allows the analysis to focus on relative allocation across states rather than absolute transfer amounts.

Malaysia's transfer system comprises a range of grant types, including statutory grants, development-related transfers, and discretionary allocations. Some transfers follow

formula-based rules, others are determined administratively, reflecting policy priorities and institutional considerations. Figure 7 illustrates the composition of transfers and grants to states over the period 2019 to 2024, highlighting the fragmented structure of the system across multiple grant categories.

Figure 7: Composition of Federal Transfers to States (Average, 2019-2024)



Source: Audited State Financial Statement, State’s Belanjawanku document, Author’s calculation

While a detailed account of federal transfer characteristics is beyond the scope of this paper⁶, a primary motive for this analysis is that, for the most part, prevailing formula-based allocations are not explicitly linked to fiscal capacity or socio-economic need. Instead, they are assigned for a particular activity with proportionality across states determined by expenditure requirements. This is not an approach conducive to equalisation.

A primary example is the State Road Grant, which represents the largest federal transfer for all states (except Perlis, where the Current Account Deficit is marginally larger), typically accounting for over 50% of total transfers. Under the Tenth Schedule of the Federal Constitution, this grant is allocated based on the total mileage of registered state roads and the average cost of maintenance.

⁶ A forthcoming paper by the IDEAS examines the structure of federal transfer allocations in Malaysia in greater detail, including their underlying design and distributional implications.

Consequently, states with extensive pre-existing infrastructure networks (typically industrialised and urbanised hubs such as Selangor and Penang) secure a larger share of these transfers because of their existing economic strength. States are rewarded for their road density, urbanisation, and to a lesser extent their geographic size. While these allocations are functionally justified to cover the high costs of maintaining urban and industrial corridors, they introduce a structural feature into the transfer system that contradicts equalisation objectives. Because the grant rewards historical infrastructure accumulation, it creates a “virtuous cycle” for developed states while potentially disadvantaging less developed states with limited road networks, such as Perlis or Kelantan, which receive a smaller share because they have weaker fiscal capacity to build new infrastructure.

This feature of the allocation highlights how certain transfer components are designed around expenditure responsibilities (the cost of maintaining existing public assets) rather than differences in revenue-raising capacity. By prioritising the maintenance of existing assets over the redistribution of resources to infrastructure-poor regions, the transfer system seemingly weakens its own equalising potential. This limits the relationship between transfer allocations and differences in fiscal capacity across states and undermines the shared development mission of federated governance.

An important caveat is that not all federal fiscal flows to states are fully captured in *Lampiran E*. Some flows may be recorded through alternative channels, including entries in state revenue accounts or other off-budget arrangements. As discussed in Section 3.2, certain federal-derived revenues are embedded within state accounts and are not consistently classified as transfers in federal expenditure data. As a result, the transfer measure used in this study reflects officially recorded transfers and may understate the total extent of federal fiscal support. A case study in Section 4 further illustrates these issues, particularly in the context of Kelantan and Terengganu.

3.4 Alternative Measure: Composite Fiscal Capacity Index [3.1] [3.2]

As a secondary measure, a composite Fiscal Capacity Index (FCI) is constructed to provide an aggregated approximation of underlying revenue-raising potential across states. The index is employed as a complementary proxy to verify the consistency of findings derived from individual economic measures. By consolidating multiple economic dimensions, the FCI allows for a cross-examination of revenue-raising potential that might be obscured when looking at individual proxies in isolation.

The index combines three structural dimensions of fiscal capacity: overall economic scale, household income capacity, and the degree of economic formalisation. These are proxied using state GDP per capita, gross mean household income and the share of services and manufacturing in state GDP respectively. Each component is expressed in standardised (z-score) form within each year, t , in states i , and aggregated using equal weights. FCI is formalised as follows:

$$FCI_{it} = \frac{1}{3} (Z(GDPpc_{it}) + Z(Income_{it}) + Z(Economic\ Structure_{it}))$$

The selection of variables is intended to capture different but complementary aspects of the underlying economic base, as no single proxy is sufficient on its own. GDP per capita is used as a baseline proxy for overall productive capacity but may overstate fiscal capacity in states where output is concentrated in capital-intensive or resource-based sectors that do not provide a proportionate expansion of household income. Sarawak illustrates this clearly with a relatively high GDP per capita due to oil and gas extraction coupled with a comparatively modest mean gross household income.

Gross mean household income addresses this limitation by capturing what households actually earn (i.e. the income base from which personal tax liabilities are derived). In a progressive tax system such as Malaysia's, states with higher average incomes generate disproportionately larger tax revenues as more households cross higher income tax rate thresholds. This widens the effective revenue base beyond what aggregate output alone would suggest. Additionally, since gross household income captures the pre-tax economic base from which revenue-raising capacity is derived, it is conceptually consistent with the RTS framework applied elsewhere in this analysis.

Due to the periodic nature of the Household Income Survey (HIS), this paper adopts a cross-sectional rather than time series approach. The latest survey results for 2024 are employed in the construction of the FCI. A cross-sectional approach is justifiable and representative of sustained trends because state-level income rankings in Malaysia exhibit structural stability over the medium to long term.⁷

The share of services and manufacturing in state GDP capture the degree of economic formalisation and structural taxability. Not all economic activity translates equally into revenue potential. Agriculture tends to be more subsistence-based, non-monetised, or informal, rendering it difficult to tax, whereas manufacturing and services are more formalised and characterised by higher value-added and traceable transactions. States with a larger share of these sectors therefore present more "legible" and accessible revenue bases.

An equal weighting is used to combine the three components of the FCI. This provides a transparent and neutral aggregation approach in the absence of strong theoretical reasons to assign greater weight to one proxy over others. If the weak negative relationship between transfers and fiscal capacity holds consistently across all three individual proxies and the composite index, that convergence strengthens confidence that the finding is not an artefact of any particular measurement choice.

⁷ In 2022 and 2024, Selangor's average gross household income was roughly 2.5 times that of Kelantan, while rankings remained largely stable across all 16 states during this time, indicating persistent variations in industrial structure and urbanisation characteristics.

Regression Analysis

The relationships between federal transfers and fiscal indicators are further examined using cross-sectional regression models, to more rigorously test the statistical associations between federal transfers per capita and multiple proxies for fiscal capacity, including GDP per capita, mean household income, economic structure, and a composite Fiscal Capacity Index. These models directly evaluate the equalisation hypothesis – whereby lower-capacity states should receive substantially higher transfers per capita – with results interpreted as indicative of associations rather than causality given the limited number of states (n=13).

4. Results and Discussions

This section examines whether federal transfers in Malaysia are aligned with differences in underlying fiscal capacity or with realised fiscal outcomes. The analysis proceeds in three steps. First, the relationship between transfers per capita and proxy-based measures of fiscal capacity is examined. Under an equalisation framework, states with weaker fiscal capacity would be expected to receive higher transfers on a per capita basis.

Second, the relationship between transfers and fiscal resources, measured using realised state revenue, is analysed. A stronger association with realised revenue would suggest that transfer allocation reflects observed fiscal conditions rather than underlying economic potential.

Third, the extent to which transfers reduce disparities across states is evaluated by comparing dispersion measures before and after transfers. Specifically, the coefficient of variation is used to assess whether the distribution of fiscal resources becomes more equal once transfers are considered. The findings are discussed in the sections that follow. The descriptive relationships are further complemented by regression analysis to assess their statistical significance and robustness.

4.1 Fiscal Dependence and Vertical Fiscal Imbalance in Malaysia States

To set the scene for analysing equalisation impacts, it is first necessary to understand the importance of federal transfers to states in Malaysia and their ability to meet expenditure needs. Because Malaysian subnational governments' taxing powers are constitutionally restricted, their own-source revenue often falls short of covering local development expenditure requirements. This gap between own-source revenue and state spending defines the Vertical Fiscal Imbalance (VFI), which federal transfers should be designed to bridge.

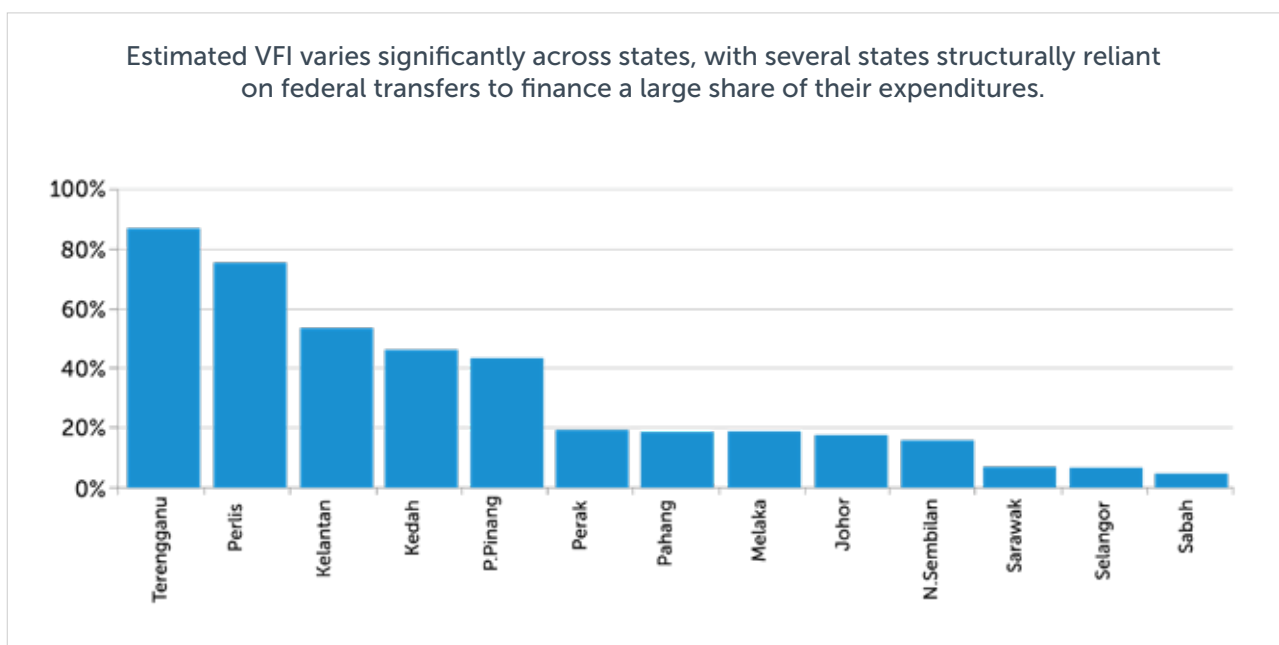
In its simplest form, the vertical imbalance for sub-national governments can be defined as a ratio of the difference between own revenue and total expenditures. Mathematically, this translates to:

$$VFI = \frac{\text{Total Expenditures} - \text{Own Source Revenue}}{\text{Total Expenditures}} = 1 - \left(\frac{\text{Own Source Revenue}}{\text{Total Expenditures}} \right)$$

This produces a number between 0 and 100 that represents the share of state expenditure that cannot be covered by its own generated revenue. A value approaching 100% indicates that a state is extremely reliant on federal transfers to meet its expenses.

Calculating this formula reveals substantial divergence between Malaysia's states. Estimates for the VFI formula by state, averaged over the period between 2019 to 2024 to improve representativeness, are presented in Figure 8. The results show stark interstate differences, with Terengganu, Perlis, and Kelantan registering the greatest imbalances at over 50% of expenditures. While this highlights the extent of fiscal need across states (expenditure-revenue mismatch), it does not indicate whether federal transfers are actually distributed in line with these imbalances.

Figure 8: Comparison of Vertical Fiscal Imbalances Across States (Average 2019-2024)



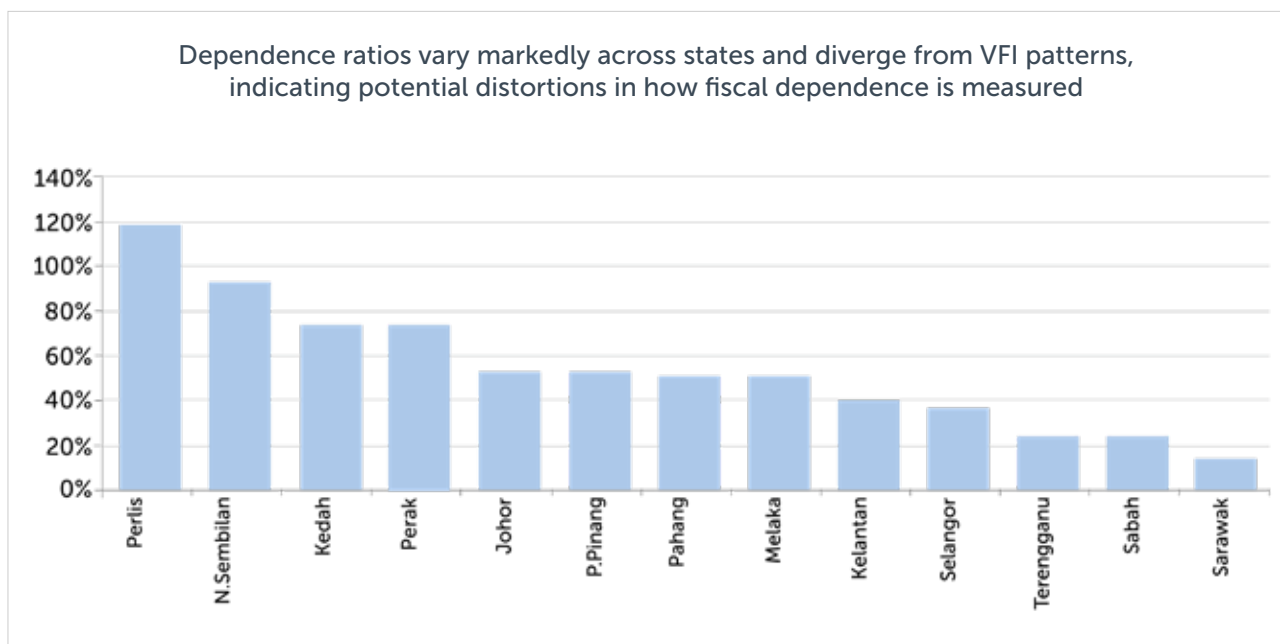
Source: Audited State Financial Statement, State's Belanjawanku document, Author's calculation

To assess the distribution of federal transfers to address this imbalance, the dependence ratio is used to measure the extent to which state governments rely on federal transfers to finance their fiscal operations. As federal transfers are included in the denominator, this measure reflects the composition of state revenue rather than a direct measure of fiscal dependence. The formula as follows:

$$\textit{Dependence Ratio} = \frac{\textit{Federal Transfers}}{\textit{Total State Revenue}}$$

As with the VFI measure, values are averaged over the period 2019 to 2024 to reflect medium-term structural patterns rather than year-specific fluctuations. It should be noted that certain intergovernmental flows, particularly petroleum-related revenues in states such as Terengganu, may not be fully captured in *Lampiran E*, which records federal transfers to states. Instead, these flows may be recorded under state revenue categories, which may affect the measured share of federal support in total state revenue.

The dependence ratio across states reveals notable divergence from the pattern observed in VFI (Figure 9). Terengganu, despite exhibiting one of the highest VFI levels, records among the lowest dependence ratios. This apparent contradiction reflects measurement distortions arising from the classification of intergovernmental flows, particularly petroleum-related revenues, which are not fully captured within standard transfer accounts (see Box 3). At the other end of the spectrum, Perlis exhibits one of the highest dependence ratios, indicating a substantial reliance on federal transfers as a share of total revenue.

Figure 9: Comparison of Dependence Ratio Across States (Average 2019-2024)

Source: Audited State Financial Statement, State's Belanjawanku document, Author's calculation

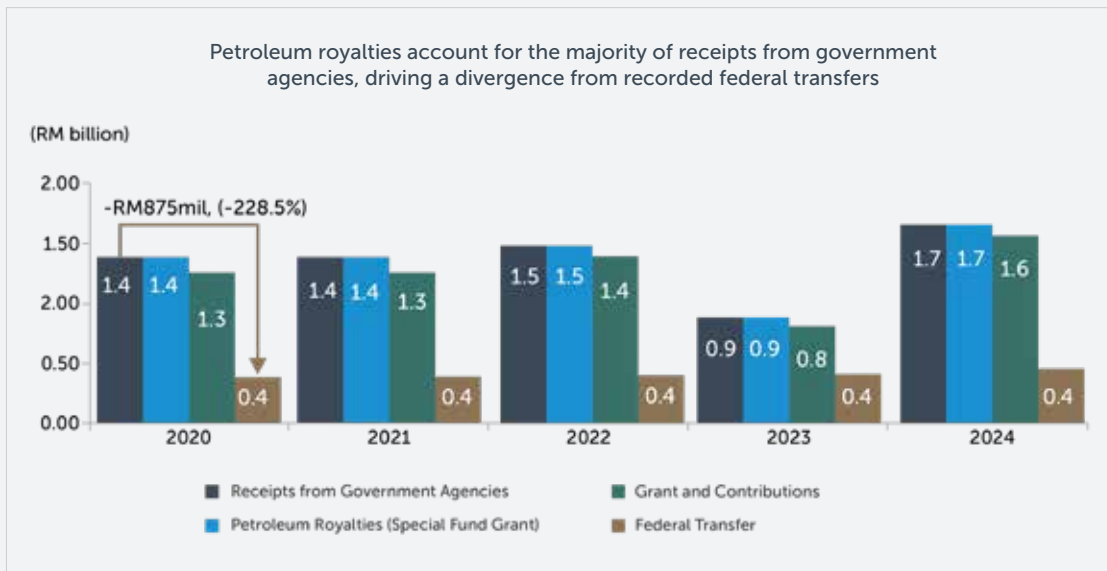
More broadly, the relationship between VFI and dependence ratios is not always aligned, though this could be due to data irregularities alongside transfer misallocation. For instance, Kelantan records a lower dependence ratio than Pulau Pinang despite having a significantly higher VFI. Unlike Terengganu, this divergence does not primarily arise from misclassification within state accounts, but rather from incomplete coverage of transfers in federal reporting. In particular, Kelantan records substantial receipts from government agencies, including discretionary payments such as *pemberian wang ehsan*, which are not systematically captured in *Lampiran E* (see Box 3). This contributes to the observed divergence between recorded transfers and actual fiscal inflows. These discrepancies mean the dependence ratios should be interpreted with caution, as existing transfer data may not fully capture the extent of intergovernmental fiscal support across states.

Box 3: Outliers in Fiscal Data: Terengganu and Kelantan

Terengganu and Kelantan illustrate two distinct sources of measurement distortion in state-level fiscal data, both of which complicate the interpretation of fiscal capacity.

A closer look at Terengganu illustrates the scale of this distortion. In 2020, receipts from government agencies amounted to RM1.4 billion, compared to RM383 million in recorded federal transfers, translating a staggering capture ratio⁸ of 362%. This gap is largely driven by petroleum royalty payments, which account for approximately 91% to 94% of receipts from government agencies over 2020-2024 (Figure B1).

Figure B1: Receipts from Government Agencies and Federal Transfers in Terengganu



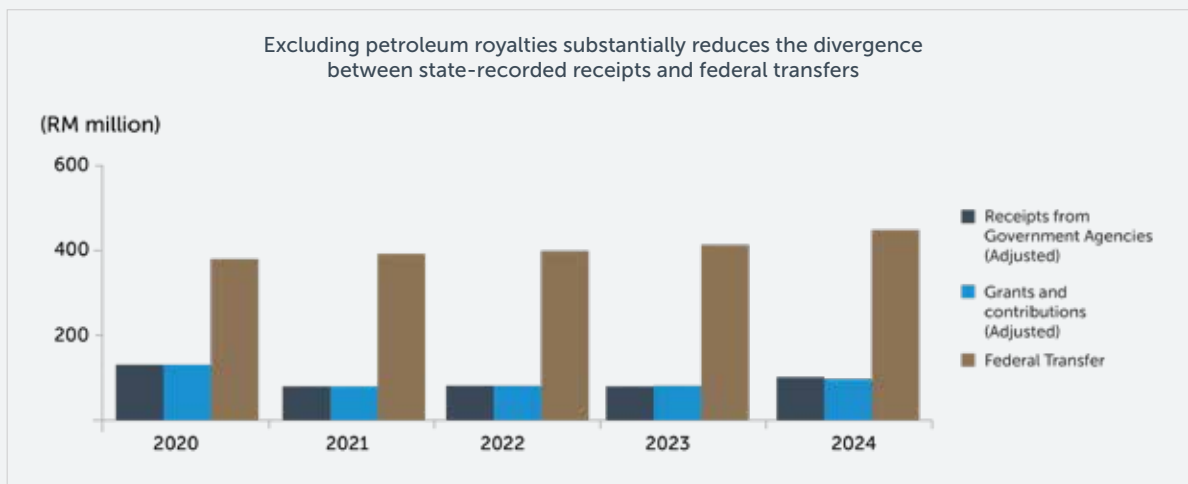
Source: Audited State Financial Statements, *BelanjawanKu* (state budget documents), Lampiran E, Federal Expenditure Estimates; and Author's calculations.

Note: Grants and contributions for Terengganu in 2019 are recorded as not available (N/A), as the *BelanjawanKu* document for that year could not be accessed from the State Treasury website.

When petroleum-related inflows are excluded, the divergence between receipts and recorded transfers narrows substantially, indicating that the outlier is largely driven by the treatment of resource-based revenues rather than unusually high transfer dependence. The remaining gap reflects the fact that receipts from government agencies may still include inflows that do not map directly to recorded federal transfers (Figure B2).

⁸ Capture ratio is defined as receipts from government agencies relative to federal transfers reported in Lampiran E

Figure B2: Adjusted Receipts and Federal Transfers in Terengganu (Excluding Petroleum Royalties' Payments)

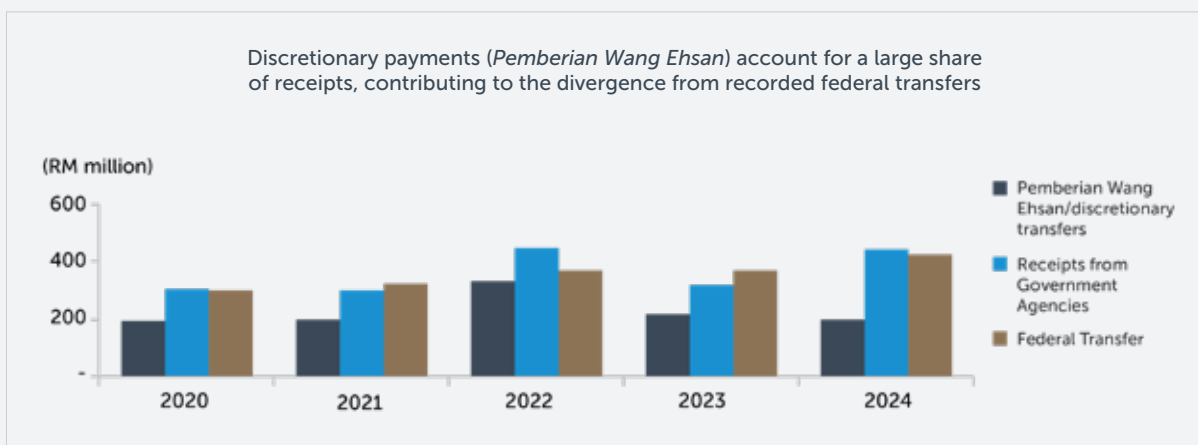


Source: Audited State Financial Statements, *BelanjawanKu* (state budget documents), Lampiran E, Federal Expenditure Estimates; and Author's calculations.

Note: Grants and contributions for Terengganu in 2019 are recorded as not available (N/A), as the *BelanjawanKu* document for that year could not be accessed from the State Treasury website.

However, even after this adjustment, Kelantan remains an outlier (Figure 16, (4.4)). Unlike Terengganu, this does not arise from misclassification within state accounts, but from incomplete coverage of transfers in federal reporting. Specifically, Kelantan records substantial receipts from government that include discretionary payments such as *pemberian wang ehsan*, which are not systematically captured in Lampiran E. A closer examination shows that these payments account for approximately 45% to 68% of receipts, explaining persistent divergence from federal transfer data for 2020–2024 (Figure B3).

Figure B3: Receipts, Federal Transfers, and *Pemberian Wang Ehsan/ Discretionary* in Kelantan



Source: Audited State Financial Statements, *BelanjawanKu* (state budget documents), Lampiran E, Federal Expenditure Estimates; and Author's calculations.

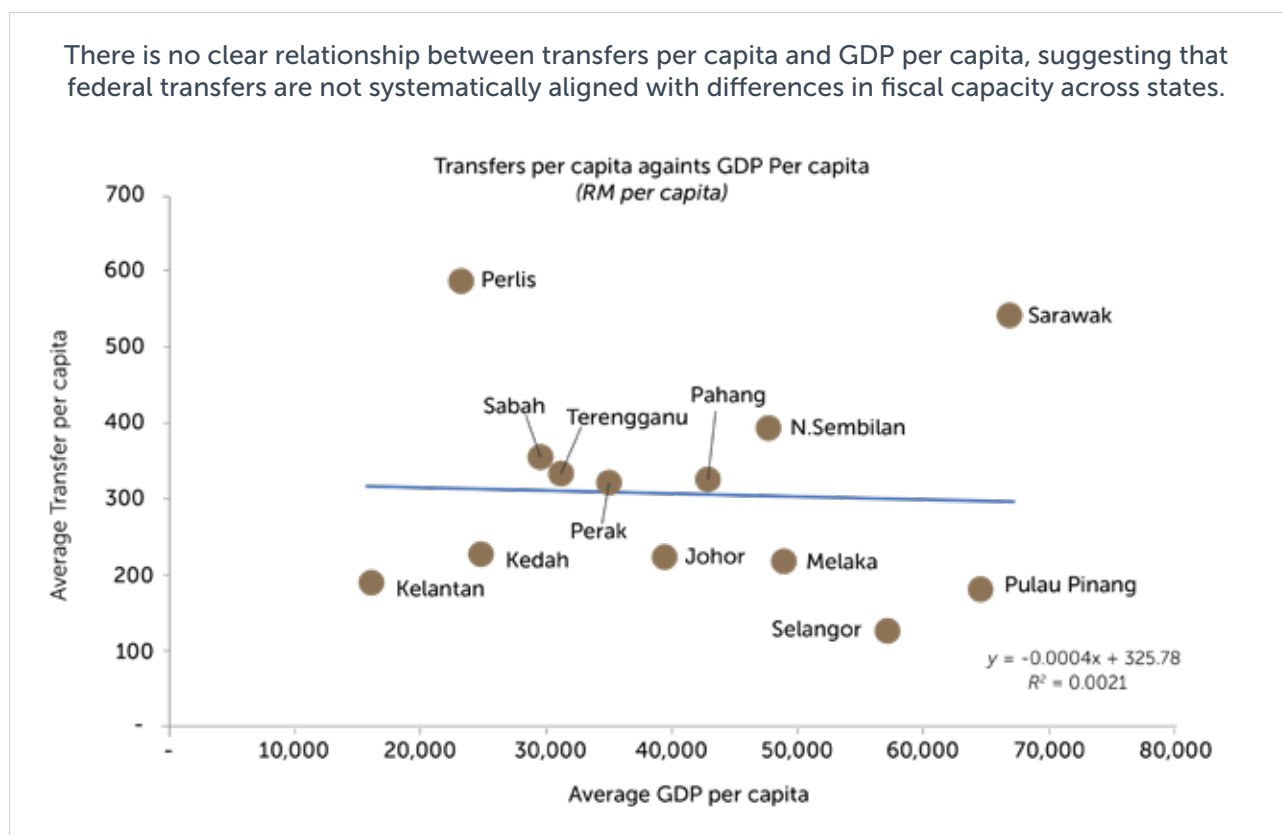
These cases highlight that inconsistencies arise from both sides of the measurement framework: how states record revenues, and how federal transfers are reported. This has important implications for empirical analysis. As such, subnational fiscal indicators should be interpreted with caution, particularly when comparing states with structurally different revenue compositions or institutional arrangements governing transfers.

4.2 Do Transfers Reflect Fiscal Capacity?

The dependence ratio captures the degree of reliance on federal transfers, but it does not reveal whether transfer allocation is guided by differences in fiscal capacity or other (less justifiable) reasons. Examining whether transfer distribution is aligned with differences in fiscal capacity across states provides a better approach to assessing the adequacy and fairness of state shares consistent with the spirit of federation. The following analysis examines whether federal transfer distributions reflect underlying revenue-raising capacity.

4.2.1 Federal transfers and GDP per capita

The relationship between federal transfers and fiscal capacity is first examined using proxy-based measures of underlying economic potential. Under an equalisation framework, a negative relationship would be expected, with lower-capacity states receiving higher transfers. However, the estimated linear relationship appears largely flat with significant variance, indicating that there is no clear or systematic association between transfers per capita and GDP per capita (Figure 10). The estimated trend is slightly negative, but the explanatory power, evidenced by the negligible coefficient of determination, virtually zero ($R^2 = 0.002$), confirms that differences in fiscal capacity explain none of the variation

Figure 10: Transfers per Capita and Fiscal Capacity Across States (Average 2019-2024)

Source: Audited State Financial Statements, Lampiran E of Federal Expenditure, MOF, DOSM and Author's calculations

This aggregate result is influenced by several notable deviations from the expected pattern. Kelantan and Kedah, both characterised by relatively low GDP per capita, receive comparatively lower transfers per capita than would be expected given their low fiscal capacity. In contrast, Sarawak is a notable outlier at the opposite end of the spectrum, receiving much higher transfers per capita than its economic strength would imply. Sarawak's special treatment is likely attributed to the special fiscal provisions under the Malaysia Agreement 1963 and Article 112C, which outline arrangements channelling federal resources via resource-linked royalties and autonomous revenue rights that override the standard equalisation "formula".

A simple bivariate regression analysis, with federal transfers per capita as the dependant variable and GDP per capita as the independent variable confirms the relationship is statistically insignificant (p -value > 0.05), failing to support the "equalisation hypothesis" that transfer allocations are systematically aligned with fiscal capacity (Table 1, Column 1). This provides further evidence that transfers do little to address horizontal fiscal disparities based on states' revenue-raising potential.

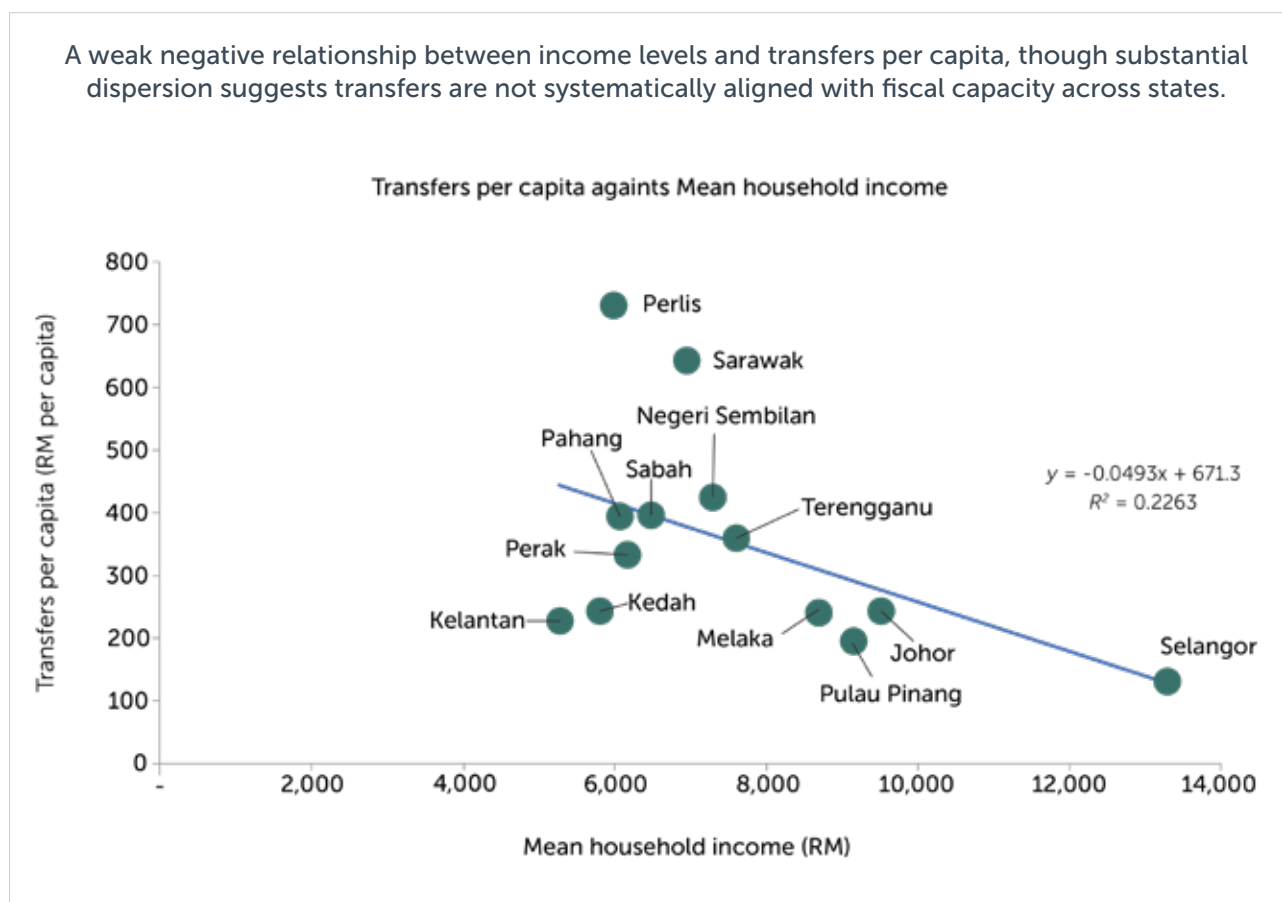
Based on these patterns, it appears that Malaysian federal transfers are driven less by capacity equalisation and more by historical pacts, petroleum entitlements, and possibly opaque intergovernmental accounting. Federal transfers risk perpetuating persistent inequities across states rather than supporting equalisation by this measure.

4.2.2 Federal transfers and mean household income

The relationship between transfers per capita and mean gross household income (as an alternative measure of fiscal capacity) would also be expected to be negative under an equalisation framework. A negative relationship is anticipated because states with higher income levels, and therefore stronger revenue-raising capacity, should receive proportionally lower federal transfers.

The results indicate only a weak negative relationship between transfers per capita and household income levels across states (Figure 11). While this means higher-income states tend to receive lower transfers, the relationship is not strong enough to provide robust statistical evidence of a correlation ($R^2 = 0.23$). The limited explanatory power aligns with earlier studies that suggest Malaysian federal transfers systematically deviate from equalising norms (Jalil, 2009).

Similar anomalies to those identified in the previous section persist. Sarawak records relatively high transfers despite its stronger income base. Perlis has relatively low-to-mid household incomes but receives the highest transfers per capita of any state around RM730 per capita, likely due to transfers that provide deficit support and development-oriented allocations such as the Economic Development (TAHAP) grant. Kelantan records lower than equal transfers despite its low-income levels, but as previously noted this could be a budgetary understatement (see Box 3).

Figure 11: Transfers per Capita and Fiscal Capacity Across States (2024)

Source: Audited State Financial Statements, Lampiran E of Federal Expenditure, MOF, DOSM, and Author's calculations

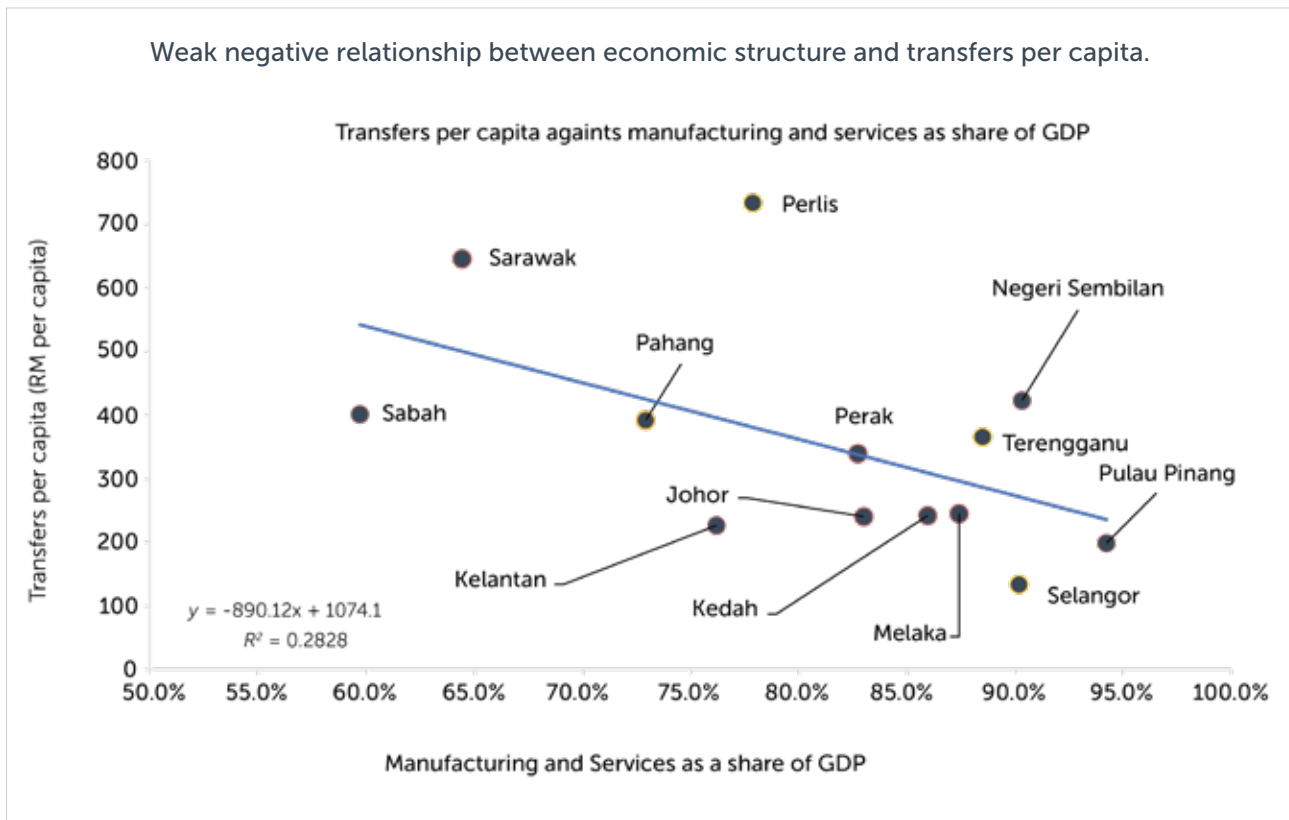
These findings are further supported by regression analysis. A simple bivariate regression of federal transfers per capita as the dependent variable and mean household income as the independent variable yields a statistically insignificant (p -value = 0.09), offering no empirical evidence that fiscal capacity (as proxied by household income) influences federal transfer distribution (Table 1, Column 2).

4.2.3 Federal transfers and economic structure

Similar to the preceding fiscal capacity measures, the results indicate a weaker than ideal negative relationship between economic structure and transfers per capita (Figure 12). Services and manufacturing shares of state GDP as a proxy for fiscal capacity produces a slightly stronger relationship but its explanatory power is still weak ($R^2 = 0.28$). Therefore, this measure also provides insufficient evidence to suggest federal transfers are supporting equalisation.

Regression estimation of federal transfers per capita on the share of services and manufacturing in state GDP further indicates that this relationship is only marginally significant ($p = 0.08$), implying limited empirical evidence of a robust link between economic structure (as a proxy for capacity) and transfer allocation (Table 1, column 3). Although the inverse association is broadly consistent with equalisation principles, its statistical fragility suggests that economic structure is not a reliable determinant of Malaysian transfer pattern.

Figure 12: Transfers per Capita and Fiscal Capacity Across States (2024)



Source: Audited State Financial Statements, Lampiran E of Federal Expenditure, MOF, DOSM, and Author's calculations

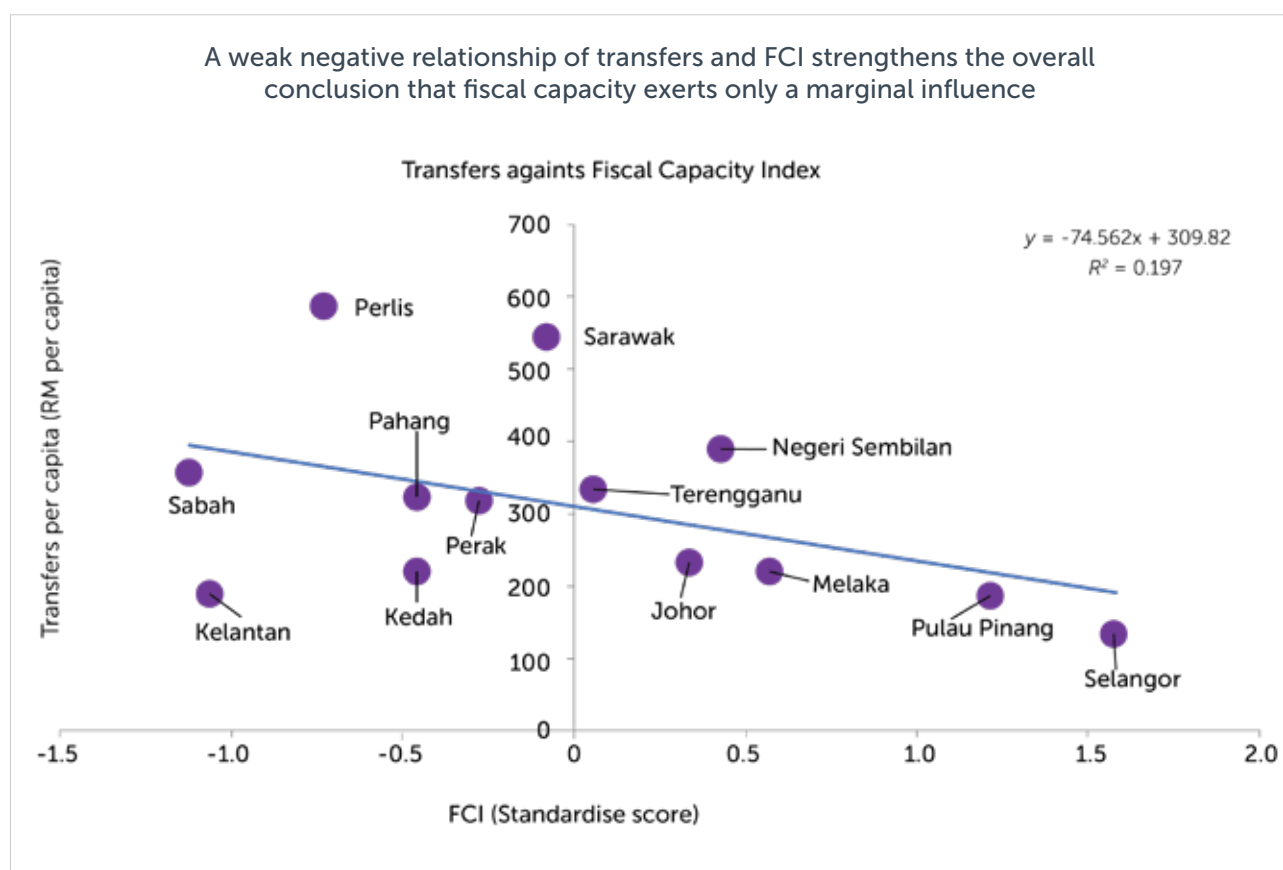
Perlis records among the highest transfers per capita despite having a relatively high share of services and manufacturing in GDP, a proxy for economic formalisation and taxability, whereas Negeri Sembilan receives comparatively high transfers despite a services and manufacturing share approaching 90%. This may be due to Perlis' small economic size, where a high sectoral share does not necessarily reflect a large revenue base. This could also relate to the early observed association between the State Road Grant and economic strength, with highly industrialised and urbanised states receiving higher allocations. These inconsistencies mirror earlier findings using GDP per capita and household income, reinforcing the findings that federal transfers in Malaysia are not systematically aligned with underlying fiscal capacity.

4.2.4 Federal transfers and composite fiscal capacity index

Building on the composite Fiscal Capacity Index (FCI) constructed in Section 3.4, the relationship between transfers and fiscal capacity is re-examined using a multidimensional measure of underlying economic strength. Under an equalisation framework, a negative relationship would be expected, with states exhibiting lower fiscal capacity receiving higher transfers.

The results confirm a weak negative relationship ($R^2 = 0.20$), consistent in both direction and magnitude with the individual proxy regressions (Figure 13). The convergence of findings across all four specifications – which include the GDP per capita, gross household income, sectoral composition, and the composite index – strengthens the overall conclusion that fiscal capacity exerts only a marginal influence on federal transfer allocation in Malaysia. Simple regression estimation confirms that the relationship is not statistically significant ($p = 0.13$), providing no strong evidence that transfers are systematically aligned with underlying fiscal capacity (Table 1, column 4).

Figure 13: Transfers per capita and Fiscal Capacity Index Across States



Source: Audited State Financial Statements, Lampiran E of Federal Expenditure, MOF, DOSM, and Author's calculations

Kelantan and Negeri Sembilan represent the clearest deviations from the expected pattern. Kelantan, despite recording the among the lowest FCI score, receives the lowest transfers per capita when equalisation demands the highest. Negeri Sembilan, despite an above average fiscal capacity score, receives comparatively high transfers; a deviation that is not readily explained by constitutional entitlements or reporting gaps, and may reflect formula-based grant allocations that are insufficiently sensitive to fiscal capacity differences across states. Sarawak's elevated transfers relative to its FCI position on this measure have been explained earlier. Perlis, by contrast, broadly conforms to the equalisation expectation under this measure, recording low fiscal capacity alongside high per capita transfers.

Across all four specifications, the evidence consistently points to the same conclusion: Malaysian federal transfers are not meaningfully calibrated to horizontal fiscal disparities across states, falling short of the equalisation function that an effective intergovernmental transfer system ought to perform. While individual states exhibit some minor (and curious) differences by measure, the overall pattern is consistent that transfers are not aligned with equalisation objectives.

4.2.5 Summary of Fiscal Capacity Assessments

The results across all proxy measures examined in this paper provide no consistent or statistically robust evidence that federal transfers are systematically aligned with fiscal capacity in Malaysia. This finding holds for GDP per capita (p-value > 0.05), mean household income (p-value = 0.09), economic structure (p-value = 0.08), and the composite Fiscal Capacity Index, each of which capture a distinct dimension of underlying revenue-raising potential. While some measures exhibit weak negative associations that are directionally consistent with equalisation principles, these relationships fail to reach conventional levels of statistical significance and are not sufficiently robust to suggest a meaningful policy linkage.

The lack of explanatory power of fiscal capacity as a determinant of federal transfer distribution is evident across all models. Variations in fiscal capacity account for at most 20% to 30% of the observed differences in transfer allocations, which is very low from an equalisation perspective. Transfer variation is driven by factors outside the scope of horizontal fiscal capacity, such as historical constitutional entitlements, expenditure-based reimbursement formulas, and perhaps discretionary political considerations.

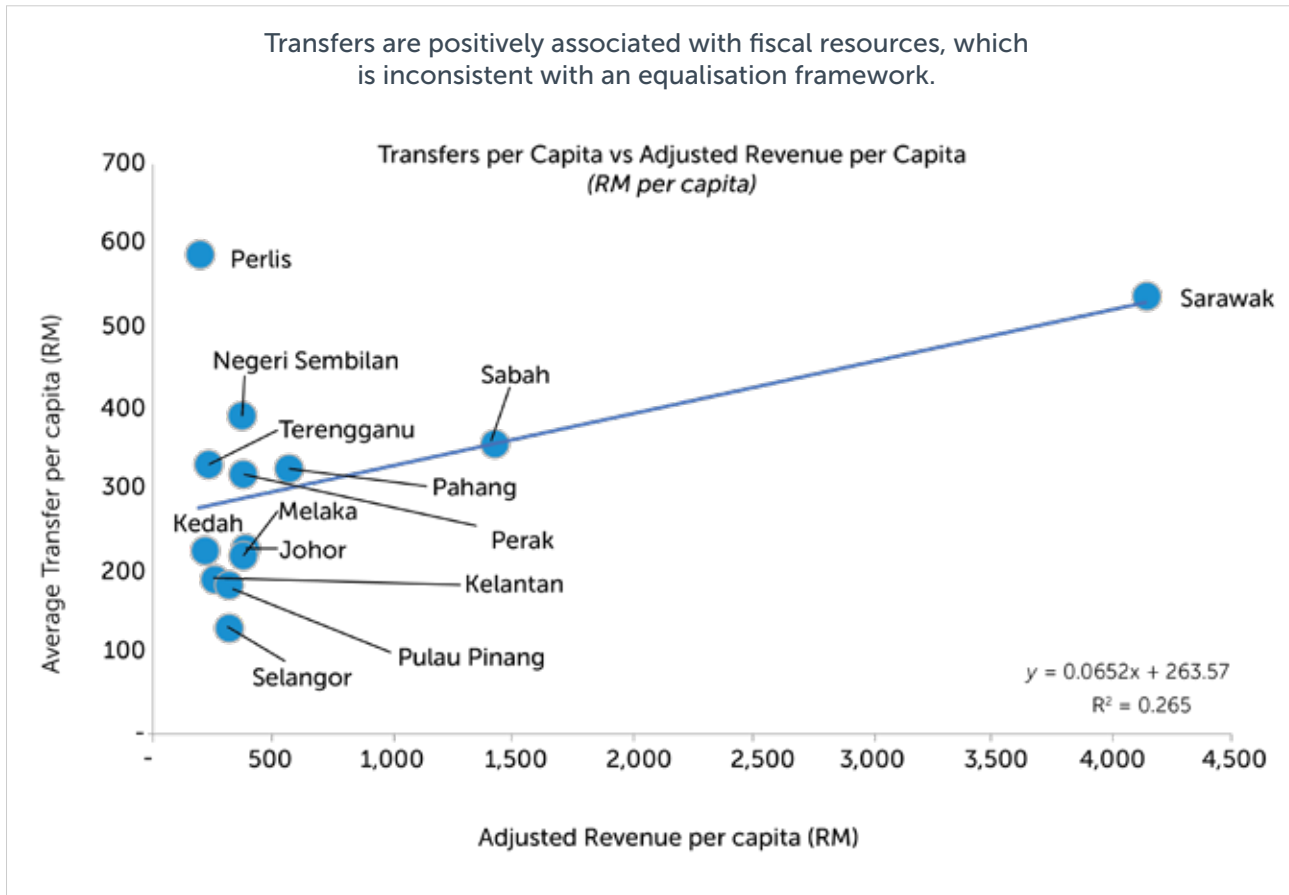
Overall, the empirical evidence provides little support for the equalisation hypothesis. As such the current intergovernmental transfer framework in Malaysia does not operate as a formal equalisation mechanism designed to bridge latent fiscal gaps. Instead, it functions as a broad fiscal support framework that prioritises the maintenance of existing service standards and the fulfilment of historical constitutional pacts over the objective of horizontal fiscal. This raises critical questions regarding the long-term sustainability of the federal system in addressing the divergent economic trajectories and persistent horizontal disparities across the thirteen states. Summary of the regression results are presented in section 4.3, Table 1.

4.3 Do Transfers Reflect Fiscal Resources?

Having established that federal transfers are not systematically aligned with fiscal capacity across proxies such as GDP per capita, household income, economic structure, and the composite Fiscal Capacity Index, the analysis now turns to whether transfers are instead responsive to differences in fiscal resources. While earlier analysis examined simple pairwise relationships, the following regression results assess whether these relationships hold when multiple factors are considered simultaneously. Based on equalisation logic, if transfers respond to observed fiscal conditions, a negative relationship would be expected, with states generating lower revenue receiving higher transfers.

Contrary to this expectation, the relationship appears positive, with states that generate higher levels of revenue also receiving relatively higher transfers (Figure 14). The explanatory power is slightly higher than that for fiscal capacity ($R^2 = 0.27$), indicating a moderate relationship. The relationship is further corroborated by regression analysis. In specifications that include both GDP per capita and adjusted revenue per capita, the analysis assesses whether transfers remain associated with fiscal resources after accounting for differences in underlying fiscal capacity. The results show that adjusted revenue per capita exhibits a statistically significant positive relationship with transfers ($p < 0.05$), whereas measures of fiscal capacity remain statistically insignificant (Table 1, Column 5).

Figure 14: Transfers per capita and Fiscal Resources Across States (2019-2024)



Source: Audited State Financial Statements, Lampiran E of Federal Expenditure, MOF, DOSM, and Author's calculations

Although explanatory power is broadly comparable across models ($R^2 = 0.20-0.26$), the statistical significance of fiscal resources appears to be driven by a small number of resource-rich states, particularly Sarawak, rather than a consistent pattern across all states. These findings suggest that Malaysian intergovernmental transfer allocations are more responsive to observed fiscal conditions than to latent revenue-raising potential. From an equalisation perspective, however, the positive direction of this relationship is counterintuitive, as it suggests that higher-revenue states tend to receive higher per capita transfers, which may not contribute to narrowing horizontal fiscal disparities.

Additionally, accounting for differences in state size does not materially alter this result. When population is included as a control variable, it does not materially alter the findings, with adjusted revenue per capita remains statistically significant while population itself is not statistically significant (Table 1, Column 6). This suggests that the observed relationship is not driven by differences in scale effects between jurisdictions. Similarly, replacing GDP per capita, which serves as the baseline proxy for fiscal capacity in these specifications, with the Composite Fiscal Capacity Index yield consistent findings. Fiscal capacity remains

statistically insignificant while revenue continues to exhibit a positive association with transfers in the full sample (Table 1, Column 7).

On closer examination, this pattern appears to be partly influenced by resource-rich states such as Sabah and Sarawak as both benefit from constitutional entitlements and petroleum-linked revenue rights under the Malaysia Agreement 1963 and Article 112C, which significantly elevate both their realised revenues and their federal transfer receipts. When these states are excluded, the relationship weakens and becomes less pronounced and statistically insignificant (p -value = 0.96), indicating that the observed association is not uniform across all states (Table 1, Column 8). Nevertheless, even after excluding these outliers, there is no strong evidence that transfers systematically compensate for weaker revenue positions.

Table 1 summarises across all regression results, including capacity-based measures, resource-based models, and results excluding Sabah and Sarawak.

Table 1: Summary of Regression Results (Average, 2019-2024)

Variables	(1) GDP	(2) income	(3) Economic Structure	(4) FCI	(5) GDP, Adj. revenue	(6) GDP, Adj. revenue, population	(7) FCI, Adj. Revenue	(8) GDP, Adj. Revenue, (Exlc. Sabah & Sarawak)
GDP per capita	-0.0004 (0.882)				-0.0030 (0.238)	-0.0019 (0.413)		-0.0033 (0.322)
Mean household income		-0.03081 (0.090)						
Economic structure (%)			-672.1539 (0.075)					
Fiscal Capacity Index (FCI)				-74.5621 (0.129)			-32.8499 (0.448)	
Adjusted revenue per capita					0.0859** (0.038)	0.0838** (0.025)	0.0674** (0.043)	0.0256 (0.956)
Population						-0.000037 (0.072)	-0.000034 (0.110)	
R ²	0.002	0.239	0.260	0.197	0.365	0.566	0.561	0.142
Observations	13	13	13	13	13	13	13	11

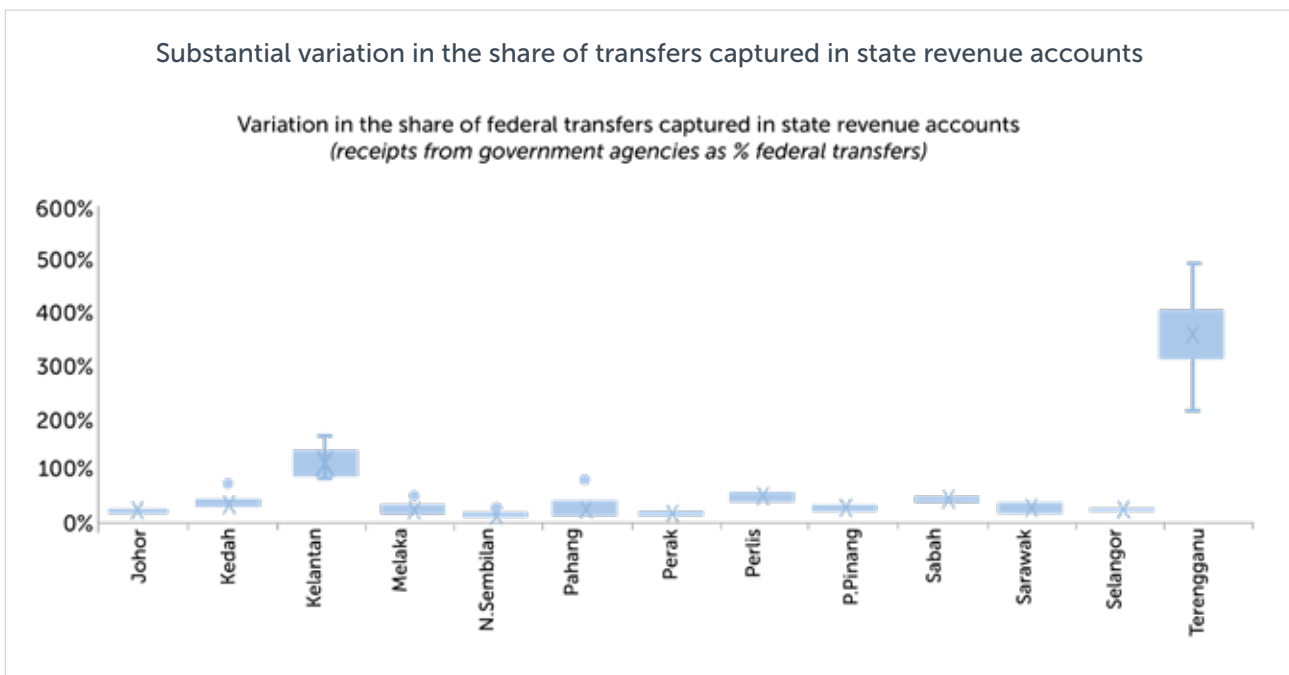
*Notes: standard error in parentheses; significant at 5% level***

4.4 Measurement and Institutional Distortions in Observed Transfer Flows

The interpretation of transfer patterns is complicated not only by measurement limitations, but also by underlying institutional features that shape how fiscal flows are recorded across federal and state accounts. While Section 3 outlines the construction of an adjusted revenue measure, the data itself reveals systematic variation in how federal transfers are captured and reported across states.

One way to illustrate this is through the “capture ratio”, defined as receipts from government agencies relative to federal transfers reported in Lampiran E (Figure 15). If these receipts from government agencies fully reflected federal transfers, this ratio (expressed in percentage terms) would be expected to be close to 100%. Instead, substantial variation is observed across states, with most capturing only a partial share of transfers, while others, exhibit ratios exceeding 100%.

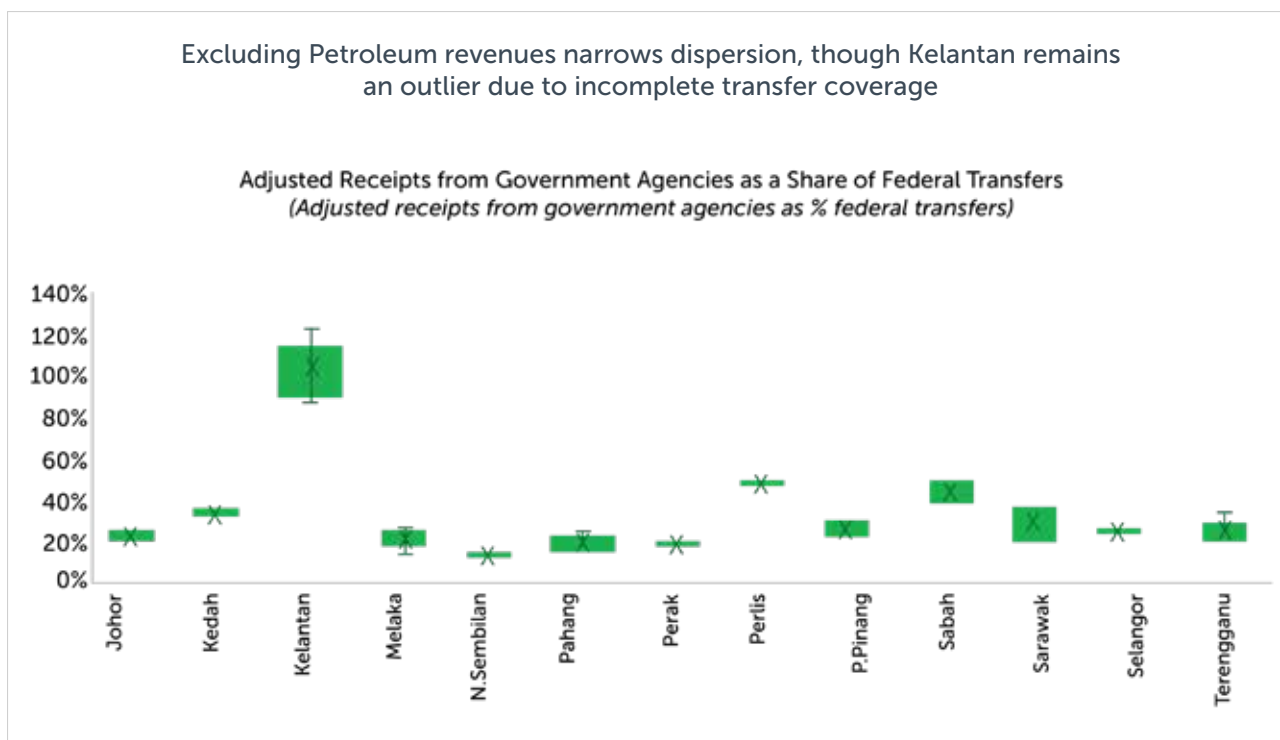
Figure 15: Distribution of the capture ratio across states (2019-2024)



Source: Audited State Financial Statements and Author's calculations

Adjusting for petroleum-related inflows reduces this dispersion (Figure 16), indicating that part of the variation reflects classification differences associated with resource-based revenues. However, some deviations persist, suggesting that additional institutional factors, such as incomplete transfer coverage, continue to affect how fiscal flows are recorded.

Figure 16: Distribution of adjusted capture ratios across states, 2019-2024



Source: Audited State Financial Statements and Author’s calculations

Note: Grants and contributions for Terengganu in 2019 are recorded as not available (N/A), as the BelanjawanKu document for that year could not be accessed from the State Treasury website.

These patterns highlight that observed fiscal outcomes are shaped not only by allocation decisions, but also by how fiscal flows are classified and reported across jurisdictions. This has important implications for the results in Section 4.3. To the extent that components of federal transfers are embedded within state revenue, the distinction between a state’s “own” fiscal resources and transfers becomes blurred, such that the observed revenue may partly reflect federal inflows rather than underlying fiscal capacity. Further supporting evidence is provided in Appendix A.

4.5 Analysis of Fiscal Disparity Reduction Using Coefficient of Variation

To assess whether federal transfers contribute to reducing fiscal disparities across states, the dispersion of fiscal resources is compared before and after transfers. Specifically, the coefficient of variation (CV) is used to measure the extent of variation in revenue per capita across states. It is calculated as the ratio of the standard deviation to the mean (expressed as a percentage), where values closer to zero indicate greater equality and higher values represent greater inequality.

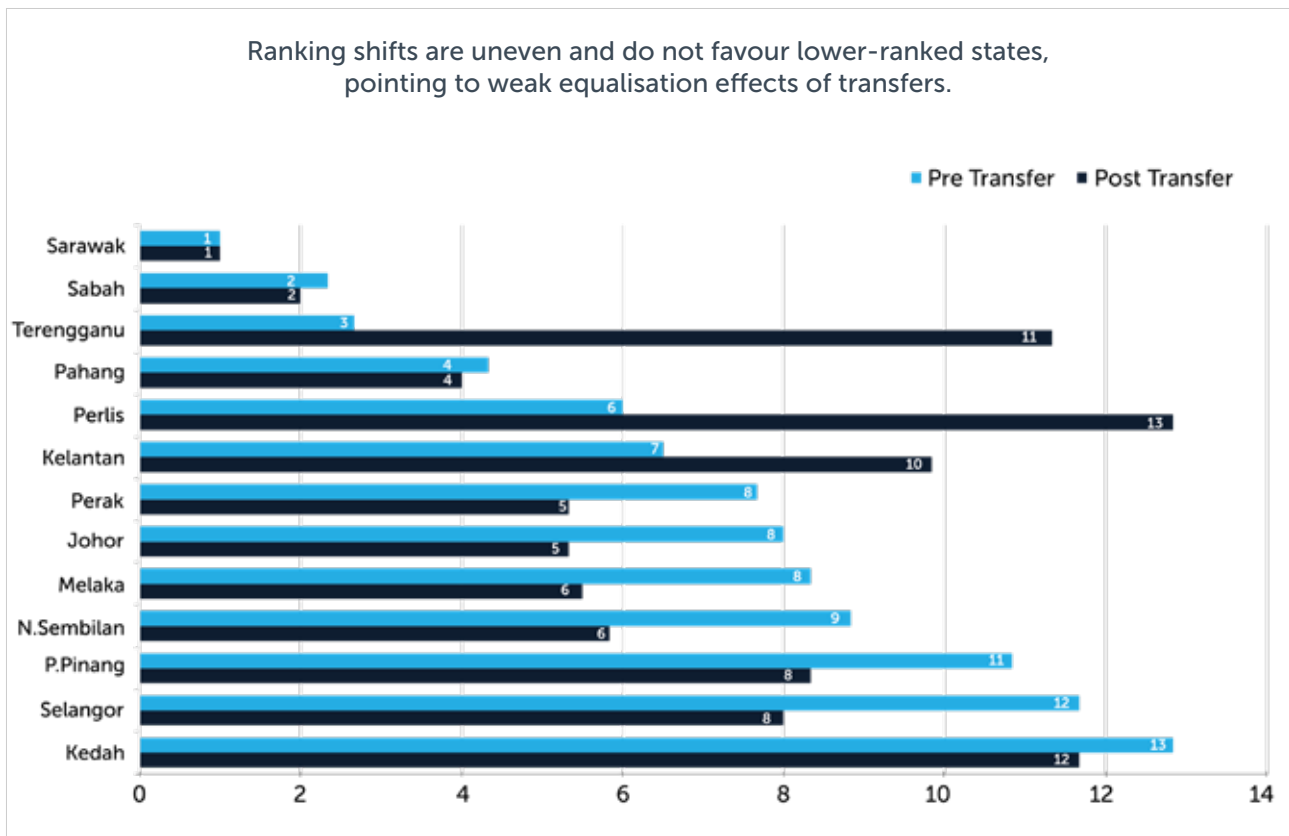
The analysis compares the distribution of adjusted revenue per capita, which reflects states' own fiscal resources (excluding federal-derived inflows), with total revenue per capita after incorporating federal transfers. If transfers perform an equalisation function, a reduction in dispersion would be expected following transfers.

Results show that the CV declines from 154.4% before transfers to 123.9% after transfers, representing around a 20% reduction in dispersion. Intuitively, a higher coefficient of variation indicates greater inequality in fiscal resources across states relative to the national average. Thus, federal transfers do contribute to narrowing fiscal disparities across states. Nonetheless, the post-transfer CV of 123.9% signals substantial differences persist and that transfers somewhat mitigate but do not eliminate (or even reduce) underlying inequalities.

The CV reduction stems from the broad distribution of transfers across states. In simple terms, when most states receive additional funding, overall differences in revenue are compressed, even if transfers are not specifically directed toward lower-capacity states. Consequently, dispersion declines without necessarily improving the relative position of fiscally weaker states.

Figure 17 further illustrates this point by comparing the relative ranking of states before and after transfers. While some movement in rankings is observed, these shifts are neither systematic nor consistently in favour of lower-ranked states. In several cases, states with relatively stronger fiscal positions retain or improve their ranking post-transfer, while lower-capacity states do not exhibit a clear upward shift. This suggests that, although transfers compress overall disparities, they do not meaningfully alter the relative fiscal positioning of states.

Figure 17: Changes in State Rankings Before and After Transfers (2019-2024 Average)



Source: States' Audited Financial Statement, Malaysia's Federal Revenue Government Estimates, Author's calculation.

Accounting for the findings in Sections 4.2 and 4.3, it seems that the reduction in disparities is not driven by transfers being targeted towards states with lower fiscal capacity or weaker revenue positions. Instead, transfers have an inadvertent dispersion reduction effect but do not function as a targeted equalisation mechanism.

5. Conclusion and Policy Implication

5.1 Key Findings and Interpretation

This study finds that Malaysia's intergovernmental transfer system does not appear to operate as a capacity-based equalisation mechanism, but rather as a broad fiscal support framework with limited targeting to reduce underlying economic disparities. Although transfers play a critical role in sustaining subnational fiscal operations, their allocation does not systematically reflect differences in fiscal capacity across states and may instead contribute to persistent inequalities.

Malaysian states face profound vertical fiscal imbalances, reflecting a structural mismatch between expenditure responsibilities and own-source revenue. Several states, including Terengganu, Perlis, and Kelantan, record VFI levels exceeding 50%, indicating that more than half of their expenditures are not covered by internally generated revenue and must be financed through federal support. This heavy dependence on transfers confirms that Malaysia's federal system is characterised by high centralisation of revenue-raising powers, leaving subnational governments constitutionally constrained in their ability to match expenditure needs with own-source resources, exacerbating fiscal gaps.

Federal transfers are not systematically aligned with underlying fiscal capacity. Across multiple proxy measures, including GDP per capita, household income, and economic structure, no consistent relationship is observed between transfer allocations and revenue-raising potential. This absence of correlation indicates that the current transfer system lacks a coherent capacity-based equalisation logic, contrary to the principles of effective fiscal federalism. The weak and inconsistent relationships suggest that allocations are shaped by institutional arrangements, constitutional provisions, and formula-based mechanisms that operate independently of fiscal need assessments.

Transfers exhibit a tenuous positive association with observed fiscal resources. This relationship, however, is largely driven by resource-rich states such as Sabah and Sarawak, whose fiscal positions are shaped by petroleum-linked revenues and constitutional arrangements. Once these states are excluded, the relationship becomes statistically insignificant, indicating that transfers are not systematically aligned with realised fiscal resources across the broader set of states

Federal transfers reduce overall fiscal disparities across states, but the magnitude of equalisation remains limited. The coefficient of variation declines from 154.4% before transfers to 123.9% after transfers, representing a 20% reduction in dispersion. However, substantial differences persist and the reduction appears to be driven by the broad-based distribution of transfers rather than targeted support toward lower capacity states. This reaffirms limited equalisation efficacy in the current systems.

5.2 Policy Implications

The findings point to the need for a more coherent and transparent framework for intergovernmental transfers, particularly in aligning allocation mechanisms with underlying fiscal capacity.

First, establish a clearer capacity-based allocation principle. The absence of a systematic relationship between transfers and fiscal capacity suggests that current allocations are not guided by an explicit equalisation objective. A priority reform would therefore be to define fiscal capacity as a core reference point in transfer design. In practice, this does not require a fully specified Representative Tax System, which may be constrained by data limitations, but could begin with the use of observable proxy measures or composite indicators as a basis for benchmarking relative capacity across states. Establishing a clear equalisation objective, with measurable targets for reducing disparities, would provide a coherent foundation for transfer design and evaluation.

Second, review allocation mechanisms to improve targeting. The finding that transfers are weakly associated with fiscal resources, and only partially reduce disparities, indicates that current allocation mechanisms do not effectively prioritise lower-capacity states. A review of existing transfer formulas could assess the extent to which allocations implicitly favour states with stronger fiscal positions and explore adjustments that improve targeting without fundamentally restructuring the system. This may include incorporating simple capacity-based adjustments within existing grants as an incremental step. It could also include introducing capacity weights into existing grants, such as infrastructure-related transfers, and shifting from purely expenditure-based criteria toward needs-based allocation that accounts for demographic pressures, poverty levels, and service delivery requirements. These adjustments should be implemented incrementally to minimise disruption while improving the targeting of transfers toward lower-capacity states.

Third, strengthen data transparency and fiscal reporting. The discrepancies observed between different measures of fiscal dependence highlight significant gaps in the reporting of intergovernmental fiscal flows. In particular, the inconsistent treatment of petroleum-related revenues and discretionary payments complicates the assessment of both fiscal capacity and transfer dependency. Improving the classification, consistency, and disclosure of these flows is essential for enabling more accurate analysis and for supporting any future move toward a more rules-based allocation framework.

Malaysia's intergovernmental transfer system plays an essential role in maintaining subnational fiscal stability. However, without a shift toward a capacity-based framework, it will continue to function primarily as a mechanism of fiscal support rather than equalisation. Over time, this risks entrenching disparities, particularly as economic structures diverge across states. Strengthening the alignment between transfers and fiscal capacity is therefore critical to ensuring that Malaysia's federal system delivers more equitable and sustainable development outcomes.

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Appendix A: Measurement and Data Considerations

This appendix provides supporting evidence for the measurement considerations discussed in Section 4.4

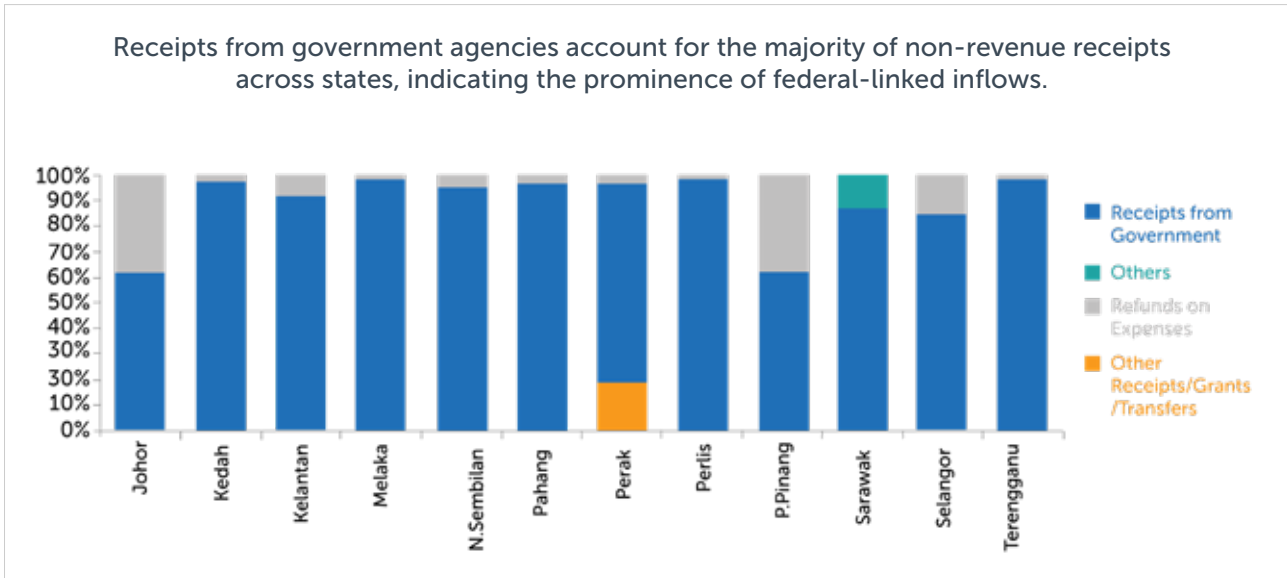
Table A1: Breakdown of Grants and Contributions by State, 2019

Revenue Code	Items	RM (million)			
		Johor	Pahang	Perak	Selangor
80000	Total Non-Revenue Receipts	337.4	366.9	210.1	281.0
81000	Refunds on Expenses	128.5	12.4	6.5	43.8
86000	Other Receipts/Grants/Transfers	0.0	0.0	40.0	0.0
82000	Receipts from Government Agencies	208.9	354.6	163.6	237.2
82300	Total Grants and Contributions	208.9	289.7	161.9	237.2
82307	Capitation Grant	47.4	24.9	34.5	75.2
82308	Revenue Growth Grant	16.4	8.7	10.5	34.7
82309	Grant Under Concurrent List	58.4	26.7	79.3	79.6
82311	Service Payment to State Government	39.2	21.5	31.4	9.9
82331	Tourism Tax Return	0.0	7.9	0.0	0.0
82319	State Road Maintenance Grant	5.0	0.0	0.0	0.0
82323	Special Annual Grant	0.0	0.0	0.0	25.8
82399	Other Grants and Contributions	42.5	200.0	6.2	11.9
80000	Total Non-Revenue Receipts	337.4	366.9	210.1	281.0

Source: Audited State Financial Statements, State's Belanjawanku document

Table A1 shows that receipts from government agencies closely mirror total grants and contributions, indicating that these receipts largely reflect federal-derived inflows rather than independent state revenue sources.

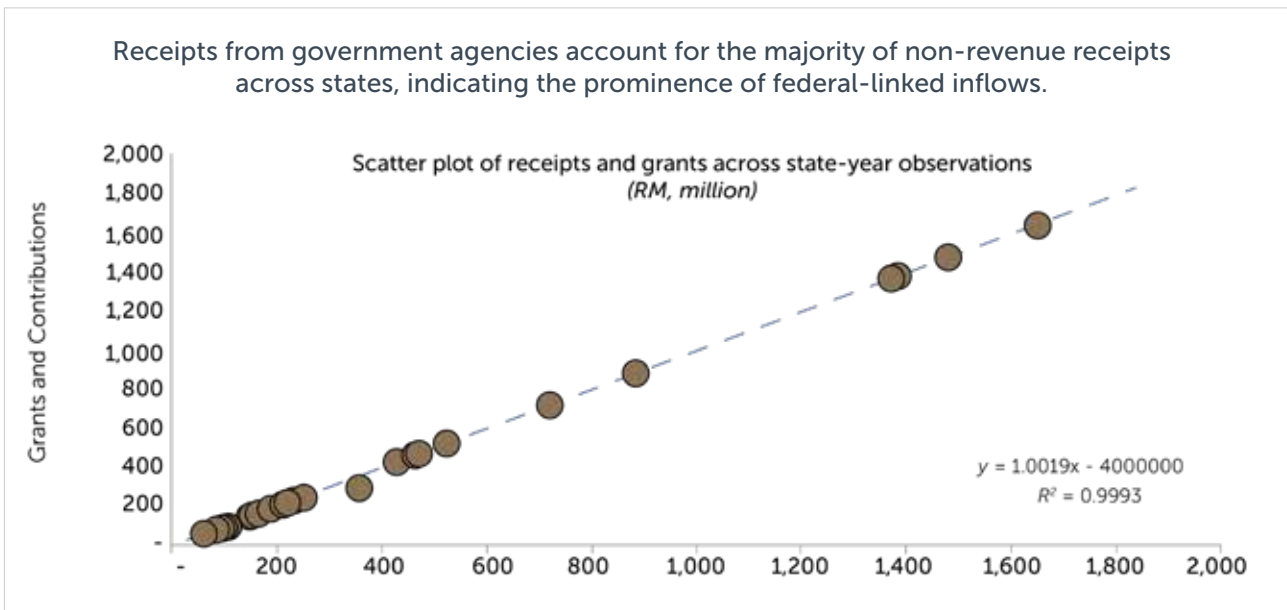
Figure A1: Composition of Non-Revenue Receipts Across States (2019)



Source: Audited State's Financial Statements, Author's Calculation

Receipts from government agencies account for the majority of non-revenue receipts across states, indicating that these receipts largely reflect federal-linked inflows rather than independent state revenue sources.

Figure A2: Relationship between receipts from government agencies and grants and contributions (2019-2024)



Source: Audited State Financial Statements; BelanjawanKu (state budget documents) and Author's calculations

Figure A2 plots the two series across available state-year observations (2019-2024) and shows a near one-to-one relationship, with a slope close to perfect linear and an extremely tight fit. While the sample is limited by data availability, the strength and consistency of this relationship suggest that “receipts from government agencies” closely mirror the structure of grants and contributions. This pattern is inconsistent with treating receipts from government agencies as an independent revenue source and instead suggests that they largely reflect federal transfers. The detailed breakdowns of federal transfers are only available for a subset of states, but aggregate “receipts from government” are consistently reported across all states and years, allowing for a uniform construction of the proxy.

Note

Note

Note



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IDEAS Policy Research Berhad
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Institute for Democracy and Economic Affairs (IDEAS)
Suite 10-02, 10th Floor, Menara Atlan, 161B, Jalan Ampang, 50450
Kuala Lumpur