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REGIONAL FINANCIAL ACCOUNTABILITY AS MODERATOR OF INTERGOVERNMENTAL TRANSFERS' IMPACT ON ECONOMIC GROWTH AND INCOME INEQUALITY

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ABSTRACT

Fiscal decentralization in the form of intergovernmental transfers is one of the key instruments in supporting inclusive and sustainable economic development. However, the government still faces two major challenges: promoting economic growth and reducing income inequality. This study aims to analyze the impact of intergovernmental transfers—including General Allocation Funds (DAU), Special Allocation Funds (DAK), and Revenue Sharing Funds (DBH)—on economic growth and income inequality in Indonesia, while considering the moderating role of regional financial accountability. The data used covers intergovernmental transfers across all regencies/cities in Indonesia from 2013 to 2023, with the audit opinions of the Audit Board of Indonesia (BPK) serving as the moderating variable. The results show that: (1) intergovernmental transfers have a positive and significant effect on economic growth; (2) intergovernmental transfers have a negative and significant effect on income inequality; (3) regional financial accountability does not moderate the relationship between intergovernmental transfers and economic growth; and (4) regional financial accountability weakens the negative effect of intergovernmental transfers on income inequality. These findings indicate that fiscal decentralization policies need to be optimized to support economic development, while transparency and regional financial accountability remain crucial factors in ensuring the effectiveness and efficiency of government spending.

Desentralisasi fiskal dalam bentuk transfer ke daerah merupakan salah satu instrumen dalam mendukung pembangunan ekonomi yang inklusif dan berkelanjutan. Namun, pemerintah masih dihadapkan pada dua tantangan utama, yaitu meningkatkan pertumbuhan ekonomi dan mengurangi ketimpangan pendapatan. Penelitian ini bertujuan untuk menganalisis pengaruh belanja transfer ke daerah meliputi Dana Alokasi Umum (DAU), Dana Alokasi Khusus (DAK), dan Dana Bagi Hasil (DBH) terhadap pertumbuhan ekonomi dan ketimpangan pendapatan di Indonesia, dengan mempertimbangkan peran moderasi akuntabilitas keuangan daerah. Data yang digunakan mencakup belanja transfer ke daerah di seluruh kabupaten/kota di Indonesia selama periode 2013-2023, dengan opini laporan keuangan dari Badan Pemeriksa Keuangan (BPK) sebagai variabel moderasi. Hasil penelitian menunjukkan bahwa: (1) belanja transfer ke daerah berpengaruh positif dan signifikan terhadap pertumbuhan ekonomi; (2) belanja transfer ke daerah berpengaruh negatif dan signifikan terhadap ketimpangan pendapatan; (3) akuntabilitas keuangan daerah tidak memoderasi hubungan antara belanja transfer ke daerah dan pertumbuhan ekonomi; (4) akuntabilitas keuangan daerah memperlemah pengaruh negatif belanja transfer ke daerah terhadap ketimpangan pendapatan. Temuan ini mengindikasikan bahwa kebijakan desentralisasi fiskal perlu dioptimalkan untuk mendukung pembangunan ekonomi, sementara transparansi dan akuntabilitas keuangan daerah tetap menjadi faktor krusial dalam memastikan efektivitas dan efisiensi belanja pemerintah.

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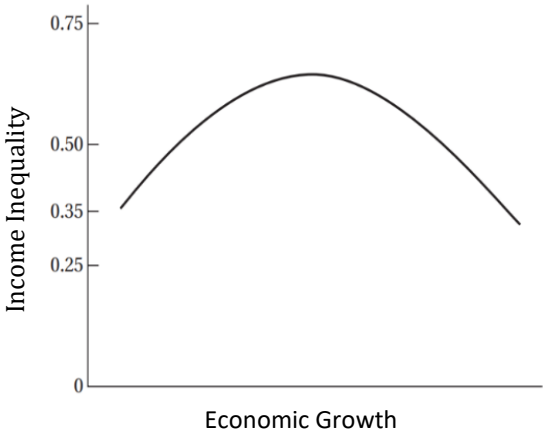
1. INTRODUCTION

The primary objective of every nation is to enhance the welfare of its citizens through economic development (Istiqamah et al., 2018). Economic development does not merely focus on increasing economic growth, but also encompasses improving quality of life, increasing people's purchasing power, and reducing income inequality (Todaro & Stephen C. Smith, 2011). An effective development strategy enables a country to create more employment opportunities, enhance access to health and education services, and reduce social disparities across regions and populations.

In Indonesia, economic development faces numerous challenges, notably poverty and income inequality (Istiqamah et al., 2018). Barirah (2015) emphasizes that three interrelated issues must be addressed in economic development: poverty, unemployment, and income inequality. These elements are closely intertwined—high poverty levels often result from high unemployment rates, which in turn exacerbate inequality across sectors. Disruptions in any of these aspects tend to affect the others.

The relationship between economic growth and inequality is a key concern in sustainable development (Maryati, 2015). Kuznets' Inverted-U hypothesis posits that in the early stages of economic growth, income inequality tends to rise due to structural transitions from the agricultural to industrial sectors. However, in later stages, income inequality is expected to decline as average incomes rise, urbanization spreads more evenly, and economic distribution becomes more equitable (Kuznets, 2019). Graphically, this relationship forms an inverted-U curve.

Figure 1. Inverted-U Curve Kuznets



Source: Todaro & Stephen C. Smith (2011)

Empirical literature in the Indonesian context reveals that high levels of inequality can undermine the pace and sustainability of economic growth (Doumbia & Kinda, 2019). Significant inequality can constrain investments in education and healthcare, weakening human capital and reducing productivity. Moreover, it can erode support for growth-oriented economic reforms and increase the risk of populist policies and political instability (Jain-Chandra et al., 2016). Hence, a holistic development strategy is essential—one that not only accelerates economic growth but also ensures that its benefits are equitably shared.

Sustainable economic growth remains a national priority, yet Indonesia's growth performance over the last decade has been inconsistent (Hartati, 2021). From 2014 to 2019, average annual growth was approximately 5%, followed by a sharp contraction of -2.1% in 2020 due to the COVID-19 pandemic. Although growth gradually recovered—reaching 5.01% in the third quarter of 2024—it still falls short of the 7% annual growth target set by the National Development Planning Agency (Bappenas) to achieve high-income country status by 2041.

Income inequality, both among individuals and across regions, continues to challenge Indonesia's development agenda (Sukwika, 2018). According to Statistics Indonesia (BPS), the Gini Index—a measure of income inequality—was 0.414 in March 2014, declining to 0.381 by March 2024. While this decrease reflects governmental efforts to reduce disparities through social programs and improved access to health and education, inequality between urban and rural areas remains evident. As of March 2024, the Gini Index stood at 0.399 in urban areas compared to 0.306 in rural regions.

To address inequality and promote welfare, the Indonesian government utilizes the State Budget (APBN) as a key fiscal instrument (Putri et al., 2024). In accordance with the 1945 Constitution, the APBN is allocated annually to support development in infrastructure, education, healthcare, and other key sectors. The APBN plays a vital role in allocating resources to enhance productivity, human capital, and national competitiveness (Munawir Sazali, 2020). Additionally, fiscal transfers are used to reduce fiscal disparities across regions and ensure equitable public service provision (Purbaningrum & Adinugraha, 2024).

One persistent challenge in achieving equitable development is regional disparity. To address this, the central government provides intergovernmental fiscal transfers through the APBN. These include General Allocation Funds (DAU), Special Allocation Funds (DAK), and Revenue Sharing Funds (DBH), all of which aim to promote fiscal equalization and reduce development gaps (Febriyanti, 2022). According to (Oates, 1993), fiscal decentralization involves delegating

expenditure and revenue authority from central to subnational governments. In 2024, Indonesia allocated approximately IDR 857.59 trillion (25.8% of total APBN spending) to intergovernmental transfers, underscoring the importance of optimizing these funds to promote inclusive development (Setiawan et al., 2021).

Effective fiscal decentralization relies heavily on local government capacity (Canavire-Bacarreza et al., 2020). Transparent and accountable financial management at the regional level is crucial to achieving development goals and ensuring sustainable welfare improvements (Meinarsari & Nursadi, 2022). Accountability in financial reporting, often assessed through audit opinions by the Audit Board of Indonesia (BPK), serves as a key indicator of financial governance (Dona et al., 2022; Soleh et al., 2019). Achieving an unqualified opinion (WTP) is indicative of sound financial practices and can enhance public trust, enabling more effective use of public funds for infrastructure, health, and education.

Several studies highlight the moderating role of government quality—particularly financial accountability—in the relationship between fiscal transfers, economic growth, and inequality (Akai & Sakata, 2005; Kyriacou et al., 2015; Liu et al., 2023; Sacchi & Salotti, 2014). Regions with better financial accountability tend to implement more effective development programs. However, research findings remain mixed. While some studies confirm the positive impact of transfers and accountability on economic growth and equity (Canavire-Bacarreza et al., 2020; Ginting et al., 2019), others suggest no significant moderating effect (Chia et al., 2022; Yudha et al., 2016). Thus, further research is needed to explore the interactive effects between intergovernmental transfers, financial accountability, and development outcomes in Indonesia.

This study utilizes fiscal transfer data across Indonesian districts and municipalities for the 2013–2023 period, covering DAU, DAK, DBH, and BPK audit opinions as a moderating variable. The objective is to examine the influence of fiscal transfers on economic growth and income inequality, and assess whether financial accountability strengthens or weakens these relationships. The findings are expected to inform policy recommendations for enhancing the effectiveness of public expenditure and promoting transparent and accountable financial governance at the local level. Furthermore, this study aims to contribute to academic discourse in public finance and fiscal decentralization by providing a more nuanced understanding of how intergovernmental transfers and financial accountability shape economic and social outcomes in a decentralized system.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Intergovermental Cash Transfer

Fiscal decentralization has prompted the Indonesian government to allocate significant intergovernmental fiscal transfers to enhance public service delivery and regional development. These transfers—regulated under Law No. 1 of 2022—consist primarily of General Allocation Funds (DAU), Special Allocation Funds (DAK), and Revenue Sharing Funds (DBH) (Djuuna, 2016; Negara & Khoirunurrofik, 2021).

DAU serves as a block grant aimed at reducing horizontal fiscal disparities and supporting general expenditure responsibilities of local governments (Soepardi, 2022; Uun Ainul Yaqin & Titiek Herwanti, 2019). Although flexible in use, DAU's effectiveness depends on local government capacity and accountability (Mardiasmo, 2021; Purbadharmaja et al., 2019). On the other hand, DAK, as a specific grant, is centrally designated to finance national priorities and region-specific needs, particularly in infrastructure development (Arina et al., 2021; Marheni & Triyanto, 2023). Allocation is guided by general, specific, and technical criteria (PP No. 55/2005), allowing for a targeted approach to service delivery disparities. Last, DBH is distributed to both producing and non-producing regions, aiming to address vertical imbalances and fiscal externalities (Siburian et al., 2021). Its components—tax-based and resource-based—are allocated using weighted formulas that factor in regional output and performance (PMK No. 139/PMK.07/2019).

Despite these mechanisms, concerns persist regarding the optimality of fund usage, regional dependency, and disparities in implementation outcomes. These issues underline the need for improved governance, planning, and evaluation in managing transfer systems.

2.2. Economic Growth

Economic growth is broadly defined as a country's long-term increase in its capacity to supply diverse economic goods to its population, driven by technological advancements, institutional reforms, and adaptive ideologies (Kuznets, 2019). According to Todaro & Stephen C. Smith (2011), three main factors influence economic growth are population growth (which expands the labor force), capital accumulation through investments in infrastructure and human capital, and most importantly, technological progress.

Growth theories are commonly grouped into classical and neo-classical schools. Classical theory emphasizes diminishing marginal returns due to population expansion, predicting a slowdown in per capita income growth over time. In contrast, neo-classical theory posits that sustained growth arises from improvements in capital, labor, and technology (Sukirno, 2016).

At the regional level, economic development goals often focus on increasing the Gross Regional Domestic Product (GRDP) at constant prices, which reflects sustainable per capita output growth (Romhadhoni et al., 2019; Todaro & Stephen C. Smith, 2011). Key growth determinants include natural resources, labor quality and quantity, capital availability, technology, and socio-cultural systems (Sukirno, 2016). Higher regional economic growth generally indicates effective local governance and leads to improvements in infrastructure, public services, and overall societal welfare (Subekti & Yasin, 2023).

2.3. Income Inequality

Income inequality refers to the unequal distribution of income among individuals or groups within a population (Yoertiara, 2022). This disparity can occur across different societal strata, between urban and rural areas, and among regions, such as between the western, central, and eastern parts of Indonesia (Heryanah, 2017). According to Kuncoro (2006), economic inequality is often visible in the divide between the modern sector, typically found in urban areas, and the traditional sector in rural settings, as well as in the regional disparities between eastern and western Indonesia.

A key indicator used to measure income inequality is the Gini ratio (Amali & Syafri, 2023). The Gini coefficient ranges from 0 to 1, with 0 representing perfect equality and 1 representing maximum inequality. Todaro & Stephen C. Smith (2011) classify Gini values as follows: a value above 0.5 indicates high inequality, a value between 0.30 and 0.5 indicates moderate inequality, and a value below 0.3 indicates low inequality. This metric is widely used in assessing the equity of income distribution and guiding policy formulation aimed at reducing disparities.

2.4. Agency Theory

Agency theory arises from the principal-agent relationship, where the principal delegates tasks to the agent (Jensen & Meckling, 1976). The principal expects the agent to perform these tasks in alignment with the principal's best interests (Eisenhardt, 1989). In a corporate setting, the owner (principal) seeks to maximize returns on their investment by providing agents with incentives—both financial and non-financial. Agents, usually professional managers, are responsible for executing operational strategies to ensure maximum profit and cost efficiency (Anggraeni, 2011).

Agency theory is not entirely new; it evolved over time through various conceptual developments (Bendickson et al., 2016). It gained prominence in management studies during the 1960s and 1970s (Eisenhardt, 1989), rooted in economic risk analysis that explored goal misalignment within organizations and its impact on risk-sharing behaviors. According to Atkinson & Feltham (1982), agency theory emphasizes the importance of information for management and accountability purposes. Godfrey et al. (2010) argue that it provides a framework for analyzing contracts and predicting the economic impact of adopted standards, under the assumption that both principals and agents act to maximize their own utility, and therefore, agents cannot always be expected to act solely in the interest of principals.

In Indonesia, fiscal decentralization has shaped a principal-agent relationship in the budget formulation process (Zelmiyanti, 2016). The central government acts as the principal, while local governments function as agents (Rondinelli, 2017). In this context, local governments are responsible for budget planning, implementation, and reporting, whereas the central government oversees these activities. The devolution of authority has increased local spending and government size as more fiscal responsibilities are transferred to regional authorities (Zaki et al., 2023).

Two major agency problems are adverse selection and moral hazard, both stemming from the agent's side (Fayezi et al., 2012). Adverse selection occurs before a contract is signed and reflects opportunism due to hidden information, while moral hazard arises after the contract is made, due to hidden actions. To mitigate these risks, agency models are based on either behavior-based contracts (where principals monitor agent behavior) or outcome-based contracts, which incentivize agents to achieve desired results.

2.5. Previous Study

Recent studies have shown varying results regarding the impact of fiscal decentralization—particularly intergovernmental transfers—on economic growth and income inequality. Intergovernmental transfers, especially Special Allocation Funds (DAK), are found to positively influence regional economic growth (Aziz, 2020; Canavire-Bacarreza et al., 2020; Ginting et al., 2019; Sima et al., 2023). These studies suggest that local governments can manage resources more efficiently, thereby improving economic outcomes. However, some studies within the Indonesian context highlight that the impact varies across types of transfers, with DAU and DBH often showing insignificant results (Yanti, 2022).

Regarding income inequality, findings remain mixed. Kyriacou et al. (2017) and Ahmad et al. (2024) found that fiscal decentralization, especially when combined with good governance, helps reduce inequality. Conversely, Kim & Samudro (2017) argue that transfers may increase inequality in wealthier regions while reducing it in poorer ones. Some Indonesian studies even suggest that transfers could worsen inequality if not properly targeted (Hartono, 2008; Huruta, 2016).

The role of accountability is increasingly emphasized. Rodríguez-Pose & Ezcurra (2010) and Enikolopov & Zhuravskaya (2003) indicated that the success of decentralization depends on institutional capacity and political accountability. Later, Hadiwibowo et al. (2023) affirmed that financial accountability enhances the effectiveness of fiscal policy in promoting local growth. However, Yudha et al. (2016) found no moderating effect of financial accountability on the relationship between transfers and growth. Furthermore, (Kyriacou et al., 2015, 2017) stressed that decentralization only reduces inequality in countries with strong governance, while weak governance may worsen regional disparities. Other studies (e.g., Berggren & Bjørnskov, 2020; Chia et al., 2022; Demirguc-Kunt & Levine, 2009; Isabel Crabtree-Condor et al., 2016) present differing views on whether transparency and accountability can effectively reduce inequality.

2.6. Hypothesis

As regards to the above-mentioned subject, there is a pressing need to examine the impact of intergovernmental transfers on economic growth and income inequality, along with the moderating role of financial accountability. Previous studies present varied findings. It is likely that intergovernmental transfers positively correlate with economic growth by enhancing public spending efficiency at the local level. However, the effect on income inequality is more nuanced, as fiscal decentralization may reduce inequality if accompanied by targeted redistribution and strong

governance. Moreover, the effectiveness of these transfers is expected to be significantly influenced by the degree of local financial accountability. Higher accountability may strengthen the positive effect of transfers on economic growth and reinforce their role in reducing inequality. The hypothesis in this research are stated as follows:

H1 : Intergovernmental transfers have a positive and significant effect on economic growth

H2 : Intergovernmental transfers have a negative and significant effect on income inequality

H3 : Local financial accountability strengthens the positive effect of intergovernmental transfers on economic growth

H4 : Local financial accountability strengthens the negative effect of intergovernmental transfers on income inequality.

3. METHODS

This study analyzes all regencies and cities in Indonesia over the period 2013–2023, using secondary data sourced from the Indonesian Ministry of Finance, the Audit Board of the Republic of Indonesia (BPK RI), and Statistics Center Board of Indonesia (BPS). The scope includes regional transfer expenditures such as the General Allocation Fund (DAU), Special Allocation Fund (DAK), Revenue Sharing Fund (DBH), local government audit opinions (LKPD), Regional Own-Source Revenue (PAD), Human Development Index (HDI), regional assets, economic growth, and income inequality (Gini ratio).

The research applies a quantitative approach, which systematically investigates measurable phenomena using statistical, mathematical, or computational methods (Sekaran & Bougie, 2016). The aim is to build mathematical models and test relationships among variables within the population through descriptive or experimental designs (Rustamana et al., 2024). This approach is chosen to identify causal links between regional transfer spending and both economic growth and income inequality, while also examining the moderating role of financial accountability.

3.1. Data and Sample

According to Sekaran & Bougie (2016), a research sample is a subset of a population. This study applies the purposive sampling method, which involves selecting samples based on specific characteristics deemed to strongly represent the defined population. The sampling criteria for this research are outlined as follows:

Table 1. Sampling Criteria

No	Criteria	Number
1	All regencies/cities in Indonesia in 2023, excluding those within DKI Jakarta Province	508
2	Regencies/cities lacking complete LKPD audit opinions by BPK RI for 2013–2023 (including new administrative regions)	(17)
	Total sample for Model 1	**491**
3	Regencies/cities without Gini ratio data available on BPS or regional government websites for 2013–2023	(215)
	Total sample for Model 2	**276**

Source: Processed by Author (2025)

3.2. Research Model

The research model employed in this study refers to frameworks developed by previous studies, including Hadiwibowo et al. (2023), Wardhana et al. (2013), Yanti (2022), and Yudha et al. (2016), by combining several variables. These prior studies analyzed the effects of government spending and control variables on economic growth and income inequality, while also incorporating moderation effects within their models (Hadiwibowo et al., 2023; Yudha et al., 2016). Based on this foundation, the research models used to address the study's questions are formulated as follows:

Model 1

$$\boldsymbol{PDRB_{it} = \alpha_{it} + \beta_1 TKD_{it} + \beta_2 TKD.iOPINI_{it} + \beta_3 PAD_{it} + \beta_3 ASET_{it} + \beta_4 IPM_{it} + \varepsilon_{it}}$$

Model 2

$$\boldsymbol{GINI_{it} = \alpha_{it} + \beta_1 TKD_{it} + \beta_2 PAD_{it} + \beta_3 ASET_{it} + \beta_4 IPM_{it} + \beta_6 TKD.iOPINI_{it} + \varepsilon_{it}}$$

Where:

$PDRB_{it}$: Economic growth of regency/city i in year t

$GINI_{it}$: Income inequality of regency/city i in year t

TKD_{it} : Regional transfer spending of regency/city i in year t

PAD_{it} :Regional Own-Source Revenue of regency/city i in year t

$ASET_{it}$: Regional assets of regency/city i in year t

IPM_{it} : Human Development Index of regency/city i in year t

$OPINI_{it}$: BPK audit opinion of regency/city i in year t
α : Constant
β1,β2…. : Regression coefficients (slopes)
ε : Error term
i : Cross-sectional unit
t : Time period (2013–2023)

3.3. Variables

This study involves several variables categorized as dependent, independent, control, and moderating variables. The dependent variables include economic growth, measured by the log of Gross Regional Domestic Product (GRDP) per capita (Hadiwibowo et al., 2023; Noviatamara et al., 2019), and income inequality, assessed using the Gini ratio index (Todaro & Stephen C. Smith, 2011). The independent variable is regional transfer spending, which consists of the total allocation from the General Allocation Fund (DAU), Special Allocation Fund (DAK), and Revenue Sharing Fund (DBH), measured in log per capita terms (Aziz, 2020; Pasaribu et al., 2021). Then, the control variables in this study include regional revenue, proxied by Regional Own-Source Revenue (PAD) measured in log per capita (Hadiwibowo et al., 2023; Korkmaz et al., 2022), the Human Development Index (HDI) expressed as an index (Suprapto et al., 2022), and total regional assets, also measured in log per capita (Hadiwibowo et al., 2023; Song et al., 2020). Last, the moderating variable is financial accountability at the regional level, measured through audit opinions on local government financial reports (LKPD), using a categorical scale where TMP (Disclaimer) = 1, TW (Adverse Opinion) = 2, WDP (Qualified Opinion) = 3, and WTP (Unqualified Opinion) = 4 (Dharma, 2022).

3.4. Methods

This study employed inferential statistical analysis to answer the proposed research questions. Inferential statistics are useful for generating scientific estimates and conclusions based on sample data drawn from a population. In this case, correlation analysis was performed using panel data regression to assess the effects of intergovernmental transfers (as independent variables), regional financial accountability (as a moderating variable), and several control variables on the dependent variables, namely economic growth and income inequality. Panel regression was chosen because it is more effective in capturing dynamic changes over time and detecting causal effects compared to models based solely on time-series or cross-sectional data. Moreover, panel data models tend to offer greater accuracy, reduce multicollinearity, and improve estimation efficiency (Gujarati & Porter, 2012).

The regression model selection process involved several statistical tests. Three panel regression approaches were considered: the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM). CEM estimates pooled data using the Ordinary Least Squares (OLS) method, whereas FEM introduces dummy variables to control for individual-specific effects. REM, in contrast, assumes that individual effects are random and uncorrelated with explanatory variables, and thus employs the Generalized Least Squares (GLS) technique for estimation. To determine the most appropriate model, the Chow test was first applied to compare CEM and FEM. If FEM was preferred, the Hausman test was then used to decide between FEM and REM. Lastly, the Breusch-Pagan Lagrange Multiplier (LM) test was used to compare REM and CEM, unless the previous tests had already confirmed FEM as the most suitable model.

To ensure the validity of the regression models, classical assumption tests were performed, including normality, multicollinearity, heteroskedasticity, and autocorrelation tests. The normality of the residuals was tested using the Shapiro-Wilk method, with a significance level above 0.05 indicating a normally distributed dataset (Sumodiningrat, 2012). Multicollinearity was assessed using Pearson correlation coefficients, where values exceeding 0.80 signal strong correlations among independent variables (Sumodiningrat, 2012). Heteroskedasticity, or the presence of non-constant error variances, was tested through the Breusch-Pagan method; a p-value above 0.05 suggests that the assumption of homoscedasticity is met (A. Widarjono, 2017). Finally, the Wooldridge test was conducted to detect autocorrelation in panel data, where a p-value greater than 0.05 indicates the absence of serial correlation among residuals (Gujarati & Porter, 2012).

After fulfilling the classical assumptions, model significance testing was conducted through several steps. The F-test was used to evaluate whether all independent variables jointly exert a significant influence on the dependent variables (Gujarati & Porter, 2012). This was followed by examining the coefficient of determination (R^2), which measures the proportion of variance in the dependent variable explained by the independent variables. A higher R^2 indicates a stronger explanatory power of the model (Gujarati & Porter, 2012). Finally, the t-test was applied to assess the significance of each independent variable individually. Variables with t-values exceeding the critical threshold at a 5% significance level were considered to have a statistically significant effect on the dependent variable.

4. RESULTS

4.1. Descriptive Statistics

Table 2. Descriptive Statistics Model 1

Variable	*Mean*	*Std.dev.*	*Min*	*Max*	Observation
logpdrb	7,375977	0,301508	6,373559	8,743809	N = 5401
logtkd	6,367744	0,289049	5,674179	7,388442	N = 5401
opini	3,671172	0,64693	1	4	N = 5401
ipm	68,71537	6,771156	24,42	88,28	N = 5401
logpad	5,490258	0,310875	4,067191	7,081585	N = 5401
logaset	6,874129	0,322597	5,338284	8,792489	N = 5401

Source: Processed by Author (2025)

Model 1 comprises 5,401 observations with six key variables: log of regional GDP per capita (logpdrb), intergovernmental transfers (logtkd), audit opinion (opini), Human Development Index (ipm), regional own-source revenue (logpad), and regional assets (logaset). The average log of GRDP per capita is 7.38, approximately equal to IDR 23.77 million, with values ranging from IDR 2.36 million to over IDR 554 million. This variation, despite being log-transformed, reflects the wide economic disparity among regions. The average transfer to regions (TKD) per capita is 6.37, equivalent to IDR 2.33 million, with values ranging from IDR 472 thousand to IDR 24.46 million, and a relatively low standard deviation, indicating consistent distribution.

The audit opinion variable, based on BPK's scoring from TMP (1) to WTP (4), has an average of 3.67. Notably, 96.45% of regional governments received WTP or WDP ratings, suggesting generally high financial reporting quality. The Human Development Index (HDI) averages at 68.72, with extreme disparities between regions, as indicated by values ranging from 24.42 to 88.28. Regional revenue (PAD) per capita averages at 5.49 (or around IDR 309 thousand), while assets per capita average at 6.87 (about IDR 7.48 million), again revealing significant interregional variation.

Table 3. Descriptive Statistics Model 2

Variable	Mean	Std.dev.	Min	Max	Observation
logpdrb	0,313121	0,04753	0,135	0,486	N = 3036
logtkd	6,448368	0,271411	5,720007	7,221576	N = 3036
opini	3,645586	0,698469	1	4	N = 3036
ipm	67,86085	7,394441	24,42	86,69	N = 3036
logpad	5,458166	0,332022	4,067191	7,081585	N = 3036
logaset	6,934466	0,299154	5,479895	8,792489	N = 3036

Source: Processed by Author (2025)

Model 2 consists of 3,036 observations, incorporating the same six variables but focuses on income inequality, represented by the Gini coefficient. The average Gini value is 0.313, with a relatively narrow standard deviation of 0.0475, suggesting that income inequality is moderately consistent across regions, although notable extremes are still present (from 0.135 to 0.486).

The average per capita transfer (logtkd) is slightly higher than in Model 1, at 6.45 or roughly IDR 2.8 million, and remains stable across observations. Audit opinions average at 3.65, with 95.35% of regions receiving favorable WTP or WDP ratings, reinforcing the pattern seen in Model 1. The HDI ranges from 24.42 to 86.69, with a mean of 67.86, showing significant disparities in human development levels among regions. PAD per capita averages IDR 287 thousand, and regional assets average IDR 8.6 million, further illustrating regional imbalances in financial capacity.

4.2. Regression Analysis

To identify the most appropriate panel regression model, three types of tests were conducted: the Chow test, the Hausman test, and the LM test. The Chow test, comparing the common effect model and the fixed effect model, yielded a probability value of 0.0000 for both Model 1 and Model 2, indicating that the fixed effect model (FEM) is more suitable. Similarly, the Hausman test, used to compare the fixed effect and random effect models, also produced p-values below 0.05, reaffirming FEM as the preferred model for both datasets. Consequently, the LM test was not performed, as both Chow and Hausman tests confirmed FEM as the best specification.

To ensure the validity of the regression estimators, a series of classical assumption tests were conducted, including normality, multicollinearity, heteroskedasticity, and autocorrelation assessments. First, the normality test, based on the Skewness-Kurtosis test, showed p-values of 0.0000 for both models, indicating that residuals are not normally distributed. However, following the Central Limit Theorem (Gujarati & Porter, 2012), normality is not a critical concern in large samples, such as in this study with over 5,000 and 3,000 observations respectively for Models 1 and 2. Second, the multicollinearity test, using Pearson correlation coefficients, revealed no correlation above 0.80 among

independent variables in either model. Thus, both Model 1 and Model 2 are free from multicollinearity problems. Third, the heteroskedasticity test, conducted via the Breusch–Pagan/Cook–Weisberg method, showed a significant issue in Model 1 (p = 0.0000), while Model 2 appeared free from heteroskedasticity (p = 0.0709). To address this issue in Model 1, cluster-robust standard errors were applied, ensuring unbiased estimation despite variance instability (Hoechle, 2007; Huber & Ronchetti, 2009). Fourth, the autocorrelation test, performed using the Wooldridge test, found evidence of serial correlation in both models (p = 0.0000). Similar to the treatment for heteroskedasticity, cluster-robust standard errors were applied, considering 491 clusters in Model 1 and 276 in Model 2. As Hansen (2007) and Petersen (2009) suggested, clustering is statistically robust when the number of clusters is in the hundreds, which holds true in this study.

The F-test was used to assess the joint significance of all independent variables. Results showed that both models are statistically significant, with F-values of 285.11 (Model 1) and 5.26 (Model 2), and p-values of 0.0000, indicating that all predictors together significantly explain the variance in the dependent variables. Then, the adjusted R-squared for Model 1 is 0.9894, suggesting that over 98% of the variance in regional economic growth is explained by the model, which includes intergovernmental transfers, HDI, PAD, regional assets, and financial accountability. This high explanatory power exceeds previous studies, such as Hadiwibowo et al. (2023), likely due to the application of high-dimensional fixed effects (HDFE) modeling, which captures unobserved regional heterogeneity effectively (Correia, 2023). Meanwhile, Model 2 has an adjusted R-squared of 0.5921, indicating that around 59% of the variation in income inequality is accounted for by the same set of explanatory variables. Although this is moderate, it is still reasonable when compared with studies such as Doumbia & Kinda (2019), who reported slightly higher R-squared values due to more extensive variable inclusion.

Table 4. Regression Results Model 1

Variables	Arah	*Coef.*	*Std.err*	*P>t Two-tailed*	*P>t One-tailed*	*Sig*
logtkd	+	0.04609	0.02436	0.059	0.030	**
2.opini#c.logtkd	-	-0.04339	0.03815	0.256	0.128	
3.opini#c.logtkd	-	-0.00844	0.01112	0.448	0.224	
4.opini#c.logtkd	+	0.00353	0.01543	0.819	0.410	
ipm	+	0.01838	0.00093	0.000	0.000	***
logpad	+	0.07214	0.01914	0.000	0.000	***
logaset	+	0.01997	0.00563	0.000	0.000	***
constant		5.28097	0.15247	0.000	0.000	
Observations		5.401				
R-*squared*		0, 9894				

*** p<0.01, ** p<0.05, * p<0.1
Source: Processed by Author (2025)

The partial regression test for Model 1 presents a summary of the influence of each independent, control, and moderating variable on regional economic growth (PDRB per capita). The regression results show that the intergovernmental transfer (logTKD) variable has a positive and statistically significant effect on PDRB, with a coefficient of 0.04609 and a p-value of 0.030 (p < 0.05). This suggests that a 1% increase in transfer per capita leads to a 0.046% increase in PDRB per capita.

The moderating effect of regional financial accountability (measured by audit opinions) on TKD is represented through interaction terms. However, none of the interaction terms (categories 2, 3, or 4) show significant results, with p-values above 0.10, indicating that the audit opinion does not significantly moderate the relationship between TKD and economic growth.

Control variables display significant effects. The Human Development Index (IPM) has a coefficient of 0.01838 (p = 0.000), implying that higher human development contributes positively to economic growth. Similarly, regional own-source revenue (PAD) significantly affects PDRB with a coefficient of 0.07214 (p = 0.000), highlighting the strong role of fiscal capacity in stimulating local economies. Regional assets also show a significant positive effect, with a coefficient of 0.01997 (p = 0.000).

The constant term is 5.28097 and is statistically significant, indicating the baseline level of PDRB when all predictors are held at zero. Based on these findings, the regression equation for Model 1 can be written as:

logPDRB = 5.28097 + 0.04609logTKD - 0.0483logTKD.iOPINI + 0.01838IPM + 0.07214logPAD + 0.01997logASET + ε

Table 5. Regression Results Model 2

Variables	Arah	*Coef*	*Std. err*	*P>t Two-tailed*	*P>t One-tailed*	*Sig*
logtkd	-	-0.07625	0.02292	0.001	0.001	***
2.opini#c.logtkd	+	0.03868	0.06369	0.544	0.272	
3.opini#c.logtkd	+	0.03352	0.01707	0.051	0.026	**
4.opini#c.logtkd	+	0.04458	0.01713	0.010	0.005	***
ipm	-	-0.00064	0.00103	0.538	0.269	
logpad	-	-0.01832	0.00671	0.007	0.004	***
logaset	-	-0.00296	0.00658	0.654	0.327	
constant		0.95235	0.14311	0.000	0.000	
Observations		3,036				
R-*squared*		0.5921				

*** p<0.01, ** p<0.05, * p<0.1
Source: Processed by Author (2025)

Model 2 focuses on the determinants of income inequality, as measured by the Gini coefficient. The main independent variable, intergovernmental transfers (logTKD), is found to have a statistically significant and negative effect on inequality, with a coefficient of -0.07625 and a p-value of 0.001. This indicates that a 1% increase in transfer per capita leads to a reduction in the Gini index by approximately 0.076 points, suggesting that fiscal transfers help reduce income inequality.

The moderating role of financial accountability produces mixed results. While the interaction term for audit opinion category 2 is not significant, categories 3 and 4 yield positive and statistically significant coefficients (0.03352 and 0.04458, respectively), with p-values of 0.026 and 0.005. These findings imply that in areas with better audit opinions, the inequality-reducing effect of TKD becomes weaker. Thus, higher financial accountability appears to dilute the redistributive impact of intergovernmental transfers.

Among control variables, PAD has a significant negative effect on inequality, with a coefficient of -0.01832 (p = 0.004), meaning that higher local revenue correlates with lower income inequality. However, the effects of IPM and regional assets are statistically insignificant, with p-values well above the 5% threshold.

The constant in Model 2 is 0.95235 and statistically significant (p = 0.000), denoting the expected Gini coefficient when all predictors are zero. The regression equation for Model 2 is as follows:

GINI = 0.95235 - 0.07625logTKD + 0.11678TKD.iOPINI - 0.00064IPM - 0.01832logPAD - 0.00296logASET + ε

4.3. Hypothesis Analysis

H1: Intergovernmental transfers have a positive and significant effect on economic growth.

The regression results support this hypothesis. The coefficient for intergovernmental transfers (logTKD) is positive at 0.04609, and statistically significant with a p-value of 0.030 (p < 0.05). This implies that a 1% increase in per capita TKD results in a 0.046% increase in regional economic growth. These findings align with the results of Canavire-Bacarreza et al. (2020), Ginting et al. (2019), Sima et al. (2023), Yanti (2022), and Zhang & Zou (1998), who emphasize that fiscal decentralization—particularly through transfer mechanisms—can promote economic growth.

The positive and significant impact of TKD on economic growth confirms the efficiency hypothesis in fiscal federalism. Decentralization allows local governments to better understand and respond to community needs, increasing the effectiveness of public spending (Brothaler & Getzner, 2010; Zhang & Zou, 1998). Todaro & Stephen C. Smith (2011) emphasized that decentralization plays a crucial role in poverty reduction, inclusive development, and economic empowerment through improved public service delivery, greater participation, and targeted investments. This study supports the idea that well-managed transfers can promote sustainable and equitable economic development.

H2: Intergovernmental transfers have a negative and significant effect on income inequality.

The second hypothesis is also supported. The TKD variable in Model 2 has a negative coefficient of -0.07625 with a p-value of 0.001, confirming its significant effect in reducing income inequality. These results are consistent with Kyriacou et al. (2017), Sepulveda & Martinez-Vazquez (2011), and Wardhana et al. (2013), who found that well-designed intergovernmental transfers contribute to narrowing income disparities.

The negative effect of TKD on income inequality suggests that fiscal transfers serve as a redistributive tool, especially in underdeveloped regions. Oates (1993) and Sepulveda & Martinez-Vazquez (2011) highlighted that decentralization allows for more precise, locally-informed policies and ensures better-targeted development spending. Properly designed fiscal transfer formulas that consider regional disparities, poverty levels, and fiscal capacity can effectively reduce inequality, provided that accountability and governance frameworks are in place to prevent misallocation or misuse of funds.

H3: Local financial accountability strengthens the positive effect of intergovernmental transfers on economic growth.

This hypothesis is rejected. The moderating effect of audit opinion (used as a proxy for accountability) on the relationship between TKD and economic growth is statistically insignificant across all categories ($p > 0.05$). According to Sugiono (2004), this condition is classified as a "predictor moderator," meaning that financial accountability acts merely as a predictor, not a true moderator. This finding supports the conclusions of Yudha et al. (2016), who also found no moderating effect of accountability on the fiscal decentralization-growth nexus.

The lack of a significant moderating effect of financial accountability may be due to the limitations of audit opinions in capturing actual fiscal performance. As Bastida & Benito (2007) noted, financial statements reflect formal compliance but may not correlate with the quality of public spending. Bird & Smart (2002) emphasized that other non-fiscal factors—such as human capital, infrastructure, and governance—play a more dominant role in influencing local growth. Furthermore, soft budget constraints and inefficient bureaucracy can limit the developmental impact of TKD despite positive audit ratings (Bardhan & Mookherjee, 2006; Boadway & Shah, 2007).

H4: Local financial accountability strengthens the negative effect of intergovernmental transfers on income inequality.

This hypothesis is also rejected. Although the audit opinion variables for categories 3 (WDP) and 4 (WTP) show significant coefficients ($p < 0.05$), the interaction terms have positive signs while TKD itself has a negative sign. This indicates that financial accountability weakens the negative effect of TKD on inequality. Therefore, accountability does not enhance but instead diminishes the redistributive impact of TKD. These results align with Berggren & Bjørnskov (2020), who suggest that accountability may, under certain conditions, correlate positively with inequality.

In Model 2, financial accountability weakens the inequality-reducing effect of TKD. This counterintuitive result may reflect the fact that higher accountability does not guarantee that funds are directed toward pro-poor programs. Bird & Smart (2002) argued that even with high transparency, local governments might prioritize infrastructure or administrative expenditures over redistribution. Additionally, Sepulveda & Martinez-Vazquez (2011) pointed out that while financial accountability improves efficiency, it may not necessarily enhance equity unless accompanied by deliberate policy choices aimed at reducing disparities. Bardhan & Mookherjee (2006) similarly warned that stronger fiscal capacity does not automatically translate into effective inequality-reduction strategies, especially if political priorities are skewed toward growth rather than distribution.

5. CONCLUSIONS

This study aimed to examine the effect of intergovernmental transfers (TKD) on economic growth and income inequality, as well as the moderating role of local financial accountability in these relationships. Based on the regression results and hypothesis testing, the following conclusions can be drawn:

a. Intergovernmental transfers have a positive and significant effect on economic growth. This finding confirms the initial hypothesis and supports the notion that fiscal decentralization contributes to regional economic development.
b. Intergovernmental transfers have a negative and significant effect on income inequality. This result is consistent with the hypothesis that transfers help reduce income disparities across regions.
c. Local financial accountability does not moderate the relationship between intergovernmental transfers and economic growth. In this model, the moderating variable functions only as a predictor moderator, not as a true interaction effect.
d. Local financial accountability moderates the relationship between intergovernmental transfers and income inequality. The moderation is classified as quasi moderation, which in this context weakens the negative effect of transfers on inequality.

6. RECOMMENDATIONS AND LIMITATIONS

6.1. Policy Recommendations

In light of the finding that intergovernmental transfers significantly boost economic growth, it is recommended that the government continue to enhance the role of TKD in regional development. The International Monetary Fund (IMF) has proposed a comprehensive fiscal-structural reform package to support long-term growth, including increased prioritization of public spending in infrastructure, education, healthcare, and targeted social programs. These reforms, if effectively implemented, could increase Indonesia's medium-term economic growth by up to 1 percentage point, reaching 6.5%.

Income inequality remains a critical challenge in Indonesia. Given the demonstrated negative and significant effect of TKD on inequality, the government should intensify targeted interventions, such as conditional cash transfer programs (PKH), food assistance (RASKIN), direct cash transfers (BLT), and increased access to education and health services (KIP, scholarships). Infrastructure development should prioritize underdeveloped regions to close the development gap, with a focus on facilities that enhance local economic activity (e.g., roads, irrigation, and electricity access).

Although financial accountability does not moderate the effect of TKD on growth, its moderating effect on inequality confirms its importance in policy formulation. Therefore, strengthening local financial accountability remains crucial. This can be done by implementing digital reporting systems that improve transparency and allow real-time

monitoring of regional financial performance, as well as providing training to local government staff to enhance competence in managing public funds transparently and effectively.

6.2. Research Limitations

Despite producing useful insights, this study has several limitations. First, the use of BPK audit opinion as a proxy for financial accountability may not fully capture the multidimensional nature of accountability. Likewise, the Gini index, while widely used, may not comprehensively represent inter-regional inequality. Second, the sample includes 298 districts/cities for the period 2013–2023. Due to data limitations, not all regions and years could be included, potentially restricting the generalizability of findings. Some missing data, particularly on inequality and financial reporting, further constrained the robustness of the analysis

REFERENCES

A. Widarjono. (2017). Ekonometrika :Pengantar dan Aplikasinya Disertai Panduan Eviews. UPP STIM YKPN.

Ahmad, A. C., Effendi, N., Budiono, & Hadiyanto, F. (2024). Fiscal Transfer Redistribution and Regional Inequality between Island and Non-Island Provinces in Indonesia. Indonesian Interdisciplinary Journal of Sharia Economics (IIJSE), 7(2), 2523–2559.

Akai, N., & Sakata, M. (2005). Fiscal Decentralization, Commitment and Regional Inequality: Evidence from State-level Cross-sectional Data for the United States (CIRJE F-Series, Issue CIRJE-F-315). CIRJE, Faculty of Economics, University of Tokyo. https://EconPapers.repec.org/RePEc:tky:fseres:2005cf315

Amali, F. N., & Syafri. (2023). Analisis Faktor-Faktor Yang Mempengaruhi Ketimpangan 33 Provinsi di Indonesia. Jurnal Ekonomi Trisakti, 3(1), 815–820. https://doi.org/10.25105/jet.v3i1.15424

Anggraeni, M. D. (2011). Agency Theory dalam Perspektif Islam. Jurnal Hukum Islam IAIN Pekalongan, 9(2).

Arina, M. M., Koleangan, R. A., & Engka, D. S. (2021). Pengaruh pendapatan asli daerah, dana bagi hasil, dana alokasi umum, dan dana alokasi khusus terhadap pertumbuhan ekonomi kota manado. Jurnal Pembangunan Ekonomi Dan Keuangan Daerah, 20(3), 26–35.

Atkinson, A. A., & Feltham, G. A. (1982). Agency theory research and financial accounting standards. Research to Support Standard Setting in Financial Accounting: A Canadian Perspective, 259–289.

Aziz, A. (2020). The Analysis of Relationship Between Intergovernmental Transfer and Regional Development in Indonesia: Evidence from Municipality and Regency in Indonesia . KDI School of Public Policy and Management.

Bardhan, P., & Mookherjee, D. (2006). The Rise of Local Governments: An Overview. In Decentralization and Local Governance in Developing Countries (pp. 1–52). The MIT Press. https://doi.org/10.7551/mitpress/2297.003.0002

Barirah, P. D. (2015). Analisis Pengaruh Pertumbuhan Ekonomi, Jumlah Tenaga Kerja dan Inflasi Terhadap Kemiskinan di Kota Surakarta Tahun 1995-2013. Universitas Muhammadiyah Surakarta.

Bastida, F., & Benito, B. (2007). Central Government Budget Practices and Transparency: an International Comparison. Public Administration, 85(3), 667–716. https://doi.org/10.1111/j.1467-9299.2007.00664.x

Bendickson, J., Muldoon, J., Liguori, E., & Davis, P. E. (2016). Agency theory: the times, they are a-changin'. Management Decision, 54(1), 174–193. https://doi.org/10.1108/MD-02-2015-0058

Berggren, N., & Bjørnskov, C. (2020). Corruption, judicial accountability and inequality: Unfair procedures may benefit the worst-off. Journal of Economic Behavior & Organization, 170, 341–354. https://doi.org/10.1016/j.jebo.2019.12.010

Bird, R. M., & Smart, M. (2002). Intergovernmental Fiscal Transfers: International Lessons for Developing Countries. World Development, 30(6), 899–912. https://doi.org/10.1016/S0305-750X(02)00016-5

Boadway, R., & Shah, A. (2007). Intergovernmental Fiscal Transfers: Principles and Practice. The World Bank Group. https://EconPapers.repec.org/RePEc:wbk:wbpubs:7171

Brothaler, J., & Getzner, M. (2010). Effects of Fiscal Decentralization on Public Sector Growth in Austria. Public Finance and Management, 10(1), 169–206. https://doi.org/10.1177/152397211001000106

Canavire-Bacarreza, G., Martinez-Vazquez, J., & Yedgenov, B. (2020). Identifying and disentangling the impact of fiscal decentralization on economic growth. World Development, 127, 104742. https://doi.org/10.1016/j.worlddev.2019.104742

Chia, P. S., Law, S. H., Trinugroho, I., Wiwoho, J., Damayanti, S. M., & Sergi, B. S. (2022). Dynamic linkages among transparency, income inequality and economic growth in developing countries: Evidence from panel vector autoregressive (PVAR) model. Research in International Business and Finance, 60, 101599. https://doi.org/10.1016/j.ribaf.2021.101599

Correia, S. (2023). REGHDFE: Stata module to perform linear or instrumental-variable regression absorbing any number of high-dimensional fixed effects. https://EconPapers.repec.org/RePEc:boc:bocode:s457874

Demirguc-Kunt, A., & Levine, R. (2009). Finance and Inequality: Theory and Evidence. https://doi.org/10.3386/w15275

Dharma, F. (2022). Financial accountability on local government and regional economic growth. JPPI (Jurnal Penelitian Pendidikan Indonesia), 8(3), 632. https://doi.org/10.29210/020221472

Djuuna, R. F. (2016). Desentralisasi Fiskal dan Ketimpangan Regional di Indonesia Tahun 2004-2013. Universitas Diponegoro.

Dona, E., Gautama, G., & Muslim, I. (2022). Berpengaruhkah Desentralisasi Fiskal Dan Kinerja Pemerintah Daerah Terhadap Akuntabilitas Pelaporan Keuangan? Jurnal Inovasi Penelitian, 2(12), 4153–4164.

Doumbia, D., & Kinda, T. (2019). Reallocating Public Spending to Reduce Income Inequality: Can It Work? IMF Working Paper WP/19/188.

Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. Academy of Management Review, 14(1), 57–74. https://doi.org/10.5465/amr.1989.4279003

Enikolopov, R., & Zhuravskaya, E. V. (2003). Decentralization and Political Institutions. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.408060

Fayezi, S., O'Loughlin, A., & Zutshi, A. (2012). Agency theory and supply chain management: a structured literature review. Supply Chain Management: An International Journal, 17(5), 556–570. https://doi.org/10.1108/13598541211258618

Febriyanti, E. M. (2022). Pengaruh Pendapatan Asli Daerah, Dana Alokasi Umum, dan Dana Alokasi Khusus Terhadap Kinerja Keuangan Daerah. Jurnal Mirai Management, 7(3), 629–637.

Ginting, A. M., Hamzah, M. Z., & Sofilda, E. (2019). The impact of fiscal decentralization on economic growth in Indonesia. Economic Journal of Emerging Markets, 11(2), 152–160. https://doi.org/10.20885/ejem.vol11.iss2.art3

Godfrey, J., Hodgson, A., Tarca, A., Hamilton, J., & Holmes, S. (2010). Accounting Theory. In The Accounting Review (7th ed., Issue 1). Wiley. http://www.jstor.org/stable/243889

Gujarati, D. N. , & Porter, D. C. (2012). Dasar-Dasar Ekonometrika (5th ed.) (5th ed.). Salemba Empat.

Hadiwibowo, Y., Priharjanto, A., Usman, F., & Rakinaung, E. (2023). Peranan Mediasi Belanja Pemerintah dan Moderasi Akuntabilitas Keuangan Terhadap Perekonomian Daerah. Akurasi : Jurnal Studi Akuntansi Dan Keuangan, 6(2), 481–498. https://doi.org/10.29303/akurasi.v6i2.438

Hansen, C. B. (2007). Asymptotic properties of a robust variance matrix estimator for panel data when is large. Journal of Econometrics, 141(2), 597–620. https://doi.org/10.1016/j.jeconom.2006.10.009

Hartati, Y. S. (2021). Analisis Pertumbuhan Ekonomi Inklusif Di Indonesia. Jurnal Ekonomi Dan Bisnis, 12(1), 79–92. https://doi.org/10.55049/jeb.v12i1.74

Hartono, B. (2008). Analisis Ketimpangan Pembangunan Ekonomi di Provinsi Jawa Tengah. Program Pascasarjana Universitas Diponegoro.

Heryanah, H. (2017). Kesenjangan Pendapatan di Indonesia: Berdasarkan Susenas 2008, 2011 Dan 2013. Jurnal BPPK : Badan Pendidikan Dan Pelatihan Keuangan, 10(2), 16. https://doi.org/10.48108/jurnalbppk.v10i2.26

Hoechle, D. (2007). Robust Standard Errors for Panel Regressions with Cross-Sectional Dependence. The Stata Journal: Promoting Communications on Statistics and Stata, 7(3), 281–312. https://doi.org/10.1177/1536867X0700700301

Huber, P. J., & Ronchetti, E. M. (2009). Robust Statistics (2nd Edition). John Wiley & Sons, Inc., Hoboken.

Huruta, A. D. (2016). Pengaruh Transfer Fiskal Terhadap Ketimpangan Wilayah di Kabupaten Sumba Timur. KRITIS, 24(1), 59–75. https://doi.org/10.24246/kritis.v24i1p59-75

Isabel Crabtree-Condor, Sarah Hall, & Stefan Verwer. (2016). Fiscal Justice Global Track Record: Oxfam's tax, budget and social accountability work. Oxfam Policy&Practice Case Study.

Istiqamah, I., Syaparuddin, S., & Rahmadi, S. (2018). Pengaruh pertumbuhan ekonomi terhadap ketimpangan pendapatan dan kemiskinan (studi provinsi-provinsi di Indonesia). E-Jurnal Perspektif Ekonomi Dan Pembangunan Daerah, 7(3), 111–126. https://doi.org/10.22437/pdpd.v7i3.6903

Jain-Chandra, S., Tidiane Kinda, Kalpana Kochhar, Shi Piao, & Johanna Schauer. (2016). Sharing the Growth Dividend: Analysis of Inequality in Asia. IMF Working Paper No.16/48 (Washington: International Monetary Fund).

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Kim, E., & Samudro, Y. N. (2017). The impact of intergovernmental transfer funds on interregional income disparity in Indonesia. International Journal of Urban Sciences, 21(1), 22–40. https://doi.org/10.1080/12265934.2016.1240626

Korkmaz, S., Bayir, M., & Guvenoglu, H. (2022). The Causal Relationship Between Tax Revenues and Economic Growth in OECD Countries. Gaziantep University Journal of Social Sciences, 21(2), 599–610. https://doi.org/10.21547/jss.982678

Kuncoro, M. (2006). Ekonomi Pembangunan: Teori, Masalah, dan Kebijakan (4th ed.). UPP STIM YKPN.

Kuznets, S. (2019). Economic growth and income inequality. In The gap between rich and poor.

Kyriacou, A. P., Muinelo-Gallo, L., & Roca-Sagalés, O. (2015). Fiscal decentralization and regional disparities: The importance of good governance. Papers in Regional Science, 94(1), 89–108. https://doi.org/10.1111/pirs.12061

Kyriacou, A. P., Muinelo-Gallo, L., & Roca-Sagalés, O. (2017). Regional inequalities, fiscal decentralization and government quality. Regional Studies, 51(6), 945–957. https://doi.org/10.1080/00343404.2016.1150992

Liu, Z., Tong, Z., & Zhang, Z. (2023). Government expenditure structure, technological progress and economic growth. International Journal of Emerging Markets. https://doi.org/10.1108/IJOEM-09-2022-1384

Mardiasmo. (2021). Akuntansi sektor publik-edisi terbaru. Penerbit Andi.

Marheni, R., & Triyanto, E. (2023). Pengaruh Dana Alokasi Umum, Dana Alokasi Khusus dan Dana Bagi Hasil Terhadap Belanja Modal di Kabupaten/Kota Provinsi Jawa Tengah. Jurnal Cakrawala Ilmiah, 2(11), 4223–4240. https://doi.org/10.53625/jcijurnalcakrawalailmiah.v2i11.6130

Maryati, S. (2015). Dinamika Pengangguran Terdidik: Tantangan Menuju Bonus Demografi Di Indonesia. Economica, 3(2), 124–136. https://doi.org/10.22202/economica.2015.v3.i2.249

Meinarsari, A. A., & Nursadi, H. (2022). Arah Baru Hubungan Keuangan Pemerintah Pusat dan Pemerintahan Daerah: Sentralisasi atau Desentralisasi. Journal of Syntax Literate, 7(8).

Munawir Sazali. (2020). Implementasi pengelolaan keuangan negara dalam perspektif ekonomi islam (studi APBN 2009-2017). Al-Intaj: Jurnal Ekonomi Dan Perbankan Syariah , 6(2), 88–107.

Negara, B. P., & Khoirunurrofik, K. (2021). Dampak Desentralisasi Fiskal terhadap Konvergensi Pendapatan Perkapita antar Kabupaten/Kota di Indonesia. Indonesian Treasury Review: Jurnal Perbendaharaan, Keuangan Negara Dan Kebijakan Publik, 6(1), 1–18. https://doi.org/10.33105/itrev.v6i1.185

Noviatamara, A., Ardina, T., & Amalia, N. (2019). Analisis Pengaruh Pertumbuhan Ekonomi dan Tingkat Pengangguran Terbuka di Daerah Istimewa Yogyakarta. Jurnal REP (Riset Ekonomi Pembangunan), 4(1), 53–60. https://doi.org/10.31002/rep.v4i1.1341

Oates, W. E. (1993). Fiscal Decentralization and Economic Development. National Tax Journal, 46(2), 237–243. https://doi.org/10.1086/NTJ41789013

Pasaribu, E., Septriani, S., Benardin, B., & Armelly, A. (2021). The Analysis of Financial Performance of Bengkulu Government: Approach to the Degree of Fiscal Decentralization. Proceedings of the 3rd Beehive International Social Innovation Conference, BISIC 2020, 3-4 October 2020, Bengkulu, Indonesia. https://doi.org/10.4108/eai.3-10-2020.2306593

Petersen, M. A. (2009). Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches. Review of Financial Studies, 22(1), 435–480. https://doi.org/10.1093/rfs/hhn053

Purbadharmaja, I. B. P., Maryunani, Ananda, C. F., & Santoso, D. B. (2019). The implications of fiscal decentralization and budget governance on economic capacity and community welfare. Foresight, 21(2), 227–249. https://doi.org/10.1108/FS-05-2018-0052

Purbaningrum, D., & Adinugraha, H. H. (2024). Transformasi Kebijakan Publik Menyiasati Ketidaktepatan Sasaran Bantuan Sosial Di Desa Pringsurat Untuk Kesejahteraan Masyarakat Yang Lebih Baik. Jurnal Pembangunan Dan Kebijakan Publik, 15(2), 31–44. https://doi.org/10.36624/jpkp.v15i2.116

Putri, C. A., Noviantini, E. F., Ramadhani, F. N., & Fadilla, A. (2024). Peran APBN dalam Meningkatkan Infrastruktur dan Pembangunan Wilayah di Indonesia. Journal of Regional Economics and Development, 1(3), 1–9. https://doi.org/10.47134/jred.v1i3.202

Rodríguez-Pose, A., & Ezcurra, R. (2010). Does decentralization matter for regional disparities? A cross-country analysis. Journal of Economic Geography, 10(5), 619–644. https://EconPapers.repec.org/RePEc:oup:jecgeo:v:10:y:2010:i:5:p:619-644

Romhadhoni, P., Faizah, D. Z., & Afifah, N. (2019). Pengaruh Produk Domestik Regional Bruto (PDRB) daerah terhadap pertumbuhan ekonomi dan tingkat pengangguran terbuka di Provinsi DKI Jakarta. Jurnal Matematika Integratif, 14(2), 113.

Rondinelli, D. A. (2017). Decentralization and Development. In International Development Governance (1st ed., pp. 1–14). Routledge.

Rustamana, A., Wahyuningsih, P., Azka, M. F., & Wahyu, P. (2024). Penelitian Metode Kuantitatif. Sindoro: Cendikia Pendidikan, 5(6), 81–90.

Sacchi, A., & Salotti, S. (2014). The Effects of Fiscal Decentralization on Household Income Inequality: Some Empirical Evidence. Spatial Economic Analysis, 9(2), 202–222. https://doi.org/10.1080/17421772.2013.833343

Sekaran, U., & Bougie, R. (2016). Research Methods for Business (7th ed.). Wiley.

Sepulveda, C., & Martinez-Vazquez, J. (2011). The Consequences of Fiscal Decentralization on Poverty and Income Equality. Environment and Planning C, 29(2), 321–343. https://EconPapers.repec.org/RePEc:sae:envirc:v:29:y:2011:i:2:p:321-343

Setiawan, P., Widiyanti, R., Siregar, L. M., Nurhaida, N., & Oktavia, E. (2021). Pengaruh PAD, DAU dan DAK Terhadap Kemandirian Keuangan Daerah Provinsi di Pulau Sumatera Tahun 2010-2016. Jurnal Menara Ekonomi: Penelitian Dan Kajian Ilmiah Bidang Ekonomi, 7(1). https://doi.org/10.31869/me.v7i1.2536

Siburian, M. T., Abdullah, M. A., & Firmansyah, A. (2021). Pengaruh Pendapatan Asli Daerah, Dana Perimbangan, Dan Ukuran Pemerintah Daerah Terhadap Indeks Pembangunan Manusia Di Provinsi Kalimantan Tengah Tahun 2011—2018. Tirtayasa Ekonomika, 16(1), 1. https://doi.org/10.35448/jte.v16i1.11149

Sima, M., Liang, P., & Qingjie, Z. (2023). The impact of fiscal decentralization on economic growth: A comparative analysis of selected African and OECD countries. Heliyon, 9(9), e19520. https://doi.org/10.1016/j.heliyon.2023.e19520

Soepardi, K. (2022). Analisis Penggunaan Dana Alokasi Umum Tambahan Dalam Program Pemberdayaan Masyarakat Di Kelurahan Lapadde Kota Parepare. IAIN Parepare.

Soleh, A., Hidayat, A. M., & Asrini, A. (2019). Pengaruh Efektivitas Pelaksanaan Pengendalian Internal, Asimetri Informasi dan Ketaatan Aturan Akuntansi Terhadap Akuntabilitas Organisasi dengan Kecenderungan Kecurangan Akuntansi Sebagai Variabel Intervening (Studi Empiris pada SKPD di Kabupaten Muara Jambi). J-MAS (Jurnal Manajemen Dan Sains), 4(1), 35. https://doi.org/10.33087/jmas.v4i1.68

Song, M., Ma, X., Shang, Y., & Zhao, X. (2020). Influences of land resource assets on economic growth and fluctuation in China. Resources Policy, 68, 101779. https://doi.org/10.1016/j.resourpol.2020.101779

Subekti, Y., & Yasin, M. (2023). Analisis PDRB Kota Surabaya Tahun 2020-2023 Sebagai Cerminan Pertumbuhan Ekonomi Di Kota Surabaya. Digital Bisnis: Jurnal Publikasi Ilmu Manajemen Dan E-Commerce, 2(2), 124–130. https://doi.org/10.30640/digital.v2i2.1060

Sugiono. (2004). Konsep, Identifikasi, Alat Analisis dan Masalah Penggunaan Variabel Moderator. Jurnal Studi Manajemen Dan Organisasi, Vol. 1, No.2, Pp. 61-70.

Sukirno, S. (2016). Makro Ekonomi Teori Pengantar. Rajawali pers.

Sukwika, T. (2018). Peran Pembangunan Infrastruktur terhadap Ketimpangan Ekonomi Antarwilayah di Indonesia. Jurnal Wilayah Dan Lingkungan, 6(2), 115. https://doi.org/10.14710/jwl.6.2.115-130

Sumodiningrat, G. (2012). Ekonometrika Pengantar. Fakultas Ekonomi dan Bisnis Universitas Gadjah Mada.

Suprapto, H. A., Sumaryoto, & Saleh, S. (2022). The Role Community Consumption, Inflation and Human Development Index On Economic Growth In West Java. International Journal of Multidisciplinary: Applied Business and Education Research, 3(4), 579–584. https://doi.org/10.11594/ijmaber.03.04.10

Todaro, M. P., & Stephen C. Smith. (2011). Pembangunan Ekonomi. Erlangga.

Uun Ainul Yaqin, & Titiek Herwanti. (2019). Analisis Permasalahan Pengelolaan Dana Alokasi Umum dan Dana Alokasi Khusus Pada Pemerintah Daerah. Akurasi : Jurnal Studi Akuntansi Dan Keuangan, 1(2), 123–136. https://doi.org/10.29303/akurasi.v1i2.9

Wardhana, A., Juanda, B., Siregar, H., & Wibowo, K. (2013). Dampak transfer pemerintah pusat terhadap penurunan ketimpangan pendapatan di Indonesia. Sosiohumaniora, 15(2), 111–118.

Yanti, D. (2022). Pengaruh Dana Transfer Pusat ke Daerah Terhadap Pertumbuhan Ekonomi di Kabupaten/Kota Provinsi Lampung. UNIVERSITAS LAMPUNG.

Yoertiara, R. F. (2022). Pengaruh Pertumbuhan Ekonomi, IPM, dan Tingkat Pengangguran Terbuka Terhadap Ketimpangan Pendapatan Provinsi-Provinsi di Pulau Jawa. Universitas Islam Indonesia.

Yudha, D. M. A. K., Wirakusuma, M. G., & Rasmini, N. K. (2016). Pengaruh Desentralisasi Fiskal pada Pertumbuhan Ekonomi dengan Moderasi Akuntabilitas Pelaporan Keuangan. E-Jurnal Ekonomi Dan Bisnis Universitas Udayana, 05.

Zaki, A. N., Oktafiyani, M., & Yovita, L. (2023). Efektivitas Pengelolaan Dana Desa Kecamatan Tuntang: Perspektif Teori Keagenan. Jurnal Ekonomi Dan Bisnis (JEKOBS), 2(1), 23–37.

Zelmiyanti, R. (2016). Pendekatan Teori Keagenan pada Kinerja Keuangan Daerah dan Belanja Modal (Studi pada Provinsi di Indonesia). JRAK: Jurnal Riset Akuntansi & Komputerisasi Akuntansi, 7(01).

Zhang, T., & Zou, H. (1998). Fiscal decentralization, public spending, and economic growth in China. Journal of Public Economics, 67(2), 221–240. https://doi.org/10.1016/S0047-2727(97)00057-1