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The Impact of Local Revenue and Capital Expenditure on Economic Growth of Indonesia: Spatial Econometric Analysis

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Abstract

This statistical model investigates the influence of two distinct types of physical capital, local revenue and capital expenditure, as independent factors that impact Indonesia's economic growth with the aid of spatial econometric models and panel data analysis. The study particularly focuses on analysing the dynamics of fiscal policy and its implications for regional economic growth, which is a critical aspect for developing economies like Indonesia. The applied spatial econometric methods allow the nuanced exploration of spatial patterns and their implication on economic growth. Utilizing secondary financial data sourced from the Central Bureau Statistics of Indonesia, spanning from 2012 to 2021, encompasses all provinces in Indonesia. Using growth rate data, this research utilizes a spatial econometric panel data model employing the Ordinary Least Squares (OLS) regression method. It is found that for every 1% increase in the ratio of local revenue and capital expenditure, Indonesia's GDP will grow by 0.0147% and 0.0123%, respectively. All variables considered are identified to be stationary and they enhance the robustness and credibility of the findings. The statistical significance of local revenue and capital expenditures on economic growth has been established.

Keywords: Spatial econometrics, panel data, economic growth, predictability.

JEL: C21, C33, E62

1. Introduction

Spatial econometrics is a specialized field of study that recognizes the inherent spatial dimension of economic development (Fu & Almuslamani, 2023; Wang et al., 2020; Liu et al., 2022; Wang, 2015). In the context of Indonesia, economic growth is deeply intertwined with the dynamics of local revenue and capital expenditure, which are subject to both stable and volatile periods. Understanding how these periods of chaotic (e.g., global financial crises) and non-chaotic (e.g., stable economic growth) revenue

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dynamics influence capital expenditure and, consequently, economic growth, is crucial for developing effective fiscal policies.

During periods of economic stability, characterized by predictable revenue flows, local governments in Indonesia are better positioned to allocate capital expenditure towards long-term infrastructure projects, education, and health (Sawitri et al., 2020; Widilestariningtyas, 2020). These investments typically yield positive returns, contributing to sustainable economic growth (Waweru, 2021). However, during periods of economic instability or chaotic revenue dynamics, such as global financial crises or domestic economic downturns (International Monetary Fund, 2023), the ability of local governments to maintain consistent capital expenditure is often compromised (Hariono et al., 2020). This unpredictability can lead to short-term, reactionary spending that may not contribute to long-term growth, and in some cases, may exacerbate economic instability (Zhao et al., 2019).

Spatial panel data models are applied across a range of research fields, including public economics (Egger et al., 2005), agricultural economics (Druska & Horrace, 2004), demand analysis (Baltagi & Li, 2006), economic growth (Akpan, 2005; Romer, 1990), and transportation studies (Frazier & Kockelman, 2005). However, most of the literature pertaining to spatial econometrics focus on applying spatial econometric methods to analyze the spatial patterns and models, as well as the influence of these patterns and models on regional economic growth and revenue (Liu et al., 2021; Wang, 2015; Yang et al., 2013; Zayats, 2020). Several researchers conducted a considerable number of investigations on Gross Domestic Product (GDP) for various purposes, one such application is to comprehend the economic growth of a region or nation. To understand the economic growth and its causes, many researchers analyze GDP because it is a crucial gauge of economic activity that aids to understand how the economy is performing over time (Hausmann & Stuzenegger, 2006; Mankiw et al., 1992).

According to the Word Bank's report on Economic Prospects, it was anticipated that the global economy would grow by 5.6% in 2021, marking the quickest post-recession pace in 80 years, primarily due to robust recoveries in several major economies. (The World Bank, 2023). The October 2021 release of the International Monetary Fund (IMF) World Economic Outlook Database provides a comprehensive analysis and predictions of global economic trends, in key country groups, and in several individual nations. The IMF revised down its 2021 forecast from July to July's somewhat lower estimate of 5.9% global economic advance in 2021 and 4.9% global economic increase in 2022. (International Monetary Fund, 2023).

The East Asia and Pacific region are forecasted to experience an acceleration in growth, reaching 7.7% in 2021 and 5.3% in 2022. Indonesia is anticipated to witness a rebound in growth to 4.4% in 2021, followed by a further strengthening to 5% in 2022, positioning it among the world's fastest-growing economies. (The World Bank, 2023).

Located amidst the Pacific and Indian oceans, Indonesia is an archipelagic country stretching across Southeast Asia and Oceania. Positioned strategically, it lies along key maritime routes connecting Oceania, East Asia, and South Asia. Indonesia is the longest archipelago in the world (Shvili, 2021) spanning approximately 5,120 kilometers (3,181 miles) from east to west and 1,760

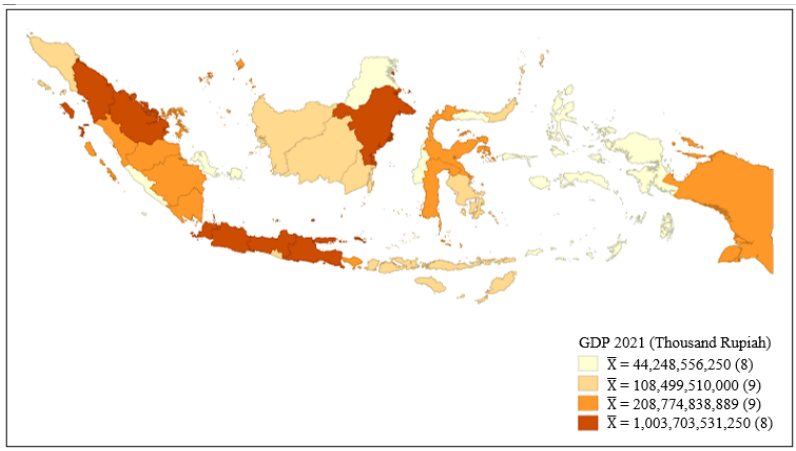

Figure 1. Indonesia's GDP Distribution in 2021 (Unit: Thousand Rupiah).
Source: own presentation.

kilometers (1,094 miles) from north to south. (Frederick & Worden, 1993). The Indonesian government has estimated that there are 8,844, identified islands, 922 of which are permanent.

It comprises the five main islands of Sumatra, Java, Borneo (referred to as Kalimantan in Indonesia), Sulawesi, and Papua. In addition, two primary island clusters, namely Nusa Tenggara and the Maluku Islands, along with sixty smaller island clusters. Presently, Indonesia has 38 provinces since there were only 34 provinces in the past and 4 new provinces were added in the recent past. Community aspirations and the desire to enhance welfare and public services in particular areas led to the province's expansion. Due to the availability of limited data from the new added provinces, this study solely includes information from the 34 Indonesian provinces which have the long tradition and financial data.

Figure 1 depicts a map which describes the distribution of GDP for each province of Indonesia in 2021 and the pattern of geographic grouping of GDP at the provincial level.

The provinces with high GDP, which can be seen in the above GDP distribution map, are primarily found in Indonesia's western area. Especially in the areas of Java, the island that houses both the government and the economic center of Indonesia, where there are sizable populations and high levels of urbanization (Banten, DKI Jakarta, West Java, Central Java, East Java). The provinces with low GDP distribution regions are primarily found in developing, sparsely populated, and remote areas, particularly in eastern Indonesia in places like Papua, Maluku, and North Maluku. Based on Tobler (1970), economic growth within a region often exhibits spatial spillover effects on neighboring areas, so a necessary spatial econometric model can accommodate the interrelationships between the regions. Spatial dependence has an impact on economic and social policies that control things like regional development, urban planning, health care, and the environment. In this study, the GDP relationships of each Indonesian province will

be used to analyze the regional development via economic strategies.

Spatial panel data models are employed to analyze economic growth and its linkages with other economic variables. However, some studies focused on specific cities and provinces of Indonesia (Mahdawi et al., 2021; Inayati et al., 2020; Sawitri et al., 2020; Widilestariningtyas, 2020; Siami-Namini et al., 2018). The novelty of this paper lies in several key aspects. Based on the comprehensive analysis, unlike previous studies that focus on specific cities of a region, this research examines all 34 provinces of Indonesia, providing a nationwide analysis. This study employs a spatial econometrics panel data model, which allows the consideration of spatial dependencies and heterogeneity. This approach provides a more nuanced understanding of the regional economic growth dynamics. By understanding the impact of local revenue and capital expenditure on economic growth, this research provides valuable insight for policymakers to formulate and implement effective fiscal policies, as fiscal decentralization can lead to better local government performance and improve economic outcomes (Oates, 1999). This study significantly focuses on the effects of local revenue and capital expenditures on economic growth in Indonesia. It also offers new insights into regional economic dynamics through the use of spatial econometric analysis, thereby filling a gap in the existing literature.

An essential aspect of economic development involves establishing the correlation between economic growth, local revenue, and capital expenditure. This study utilizes a spatial panel data model to analyze how capital expenditure and local revenue influence Indonesia's economic growth.

The influence of revenue from local sources and capital expenditure on economic growth is a topic of great interest and importance in regional economy and economic policy-related research (Atichasari & Ristiyana, 2022; Cyril et al., 2019; Eka & Nugraha, 2019). Local revenue is not merely a reflection of economic activity, but also a potential catalyst for regional development and, hence they contribute to national economic prosperity (Hariono et al., 2020). Similarly, capital expenditure that encompass investments in infrastructure, education and health is anticipated to generate a multiplier effect on economic output. (Akhmadi & Januarsi, 2021; Yuxian et al., 2014)

Local revenue includes local taxes, retribution, local assets, and other legal local revenue. Gherghina et al., 2018 have estimated the connection between local income and economic growth in Romania and found that local revenue influences economic growth positively and significantly and its impact is greater in areas with better institutional, infrastructure and educational standards.

Yuliana, 2014 propounded that capital expenditure negatively affects economic growth and locally generated revenue has a positive impact on districts and cities on the island of Sumatra. Waweru (2021) researched the contribution of capital expenditure to economic growth in East African Countries and reported that the investment in capital has a favorable and considerable effect on that region's economic growth.

The primary purpose of this research is to investigate the influence of local revenue and capital expenditure on Indonesia's economic growth using a spatial econometric panel data model. Thus, the objectives of this study are not only to analyse the relationship between local revenue and economic growth, but also

to assess the impact of capital expenditure on economic growth and utilize the spatial econometrics methods to understand the spatial dependency and heterogeneity in the economic growth of Indonesian provinces.

Our goal is to determine the influence of local revenue and capital expenditure on economic growth in Indonesia, with GDP growth rate as the dependent variable built upon the rationale provided so far. Examining the effect of local revenue on GDP is crucial, especially within the framework of fiscal decentralization, which has been demonstrated to impact economic stability in developing nations (Bahl & Linn, 1992). On the other hand, capital expenditures on infrastructure, education and health are pivotal to accomplishing the Sustainable Development Goals (SDGs), as integrated approaches to sustainable development, economic growth, and climate policy are found to be effective (Dagnachew et al., 2021).

The present economic model is a quantitative study that makes use of spatial panel data with secondary data sourced from Central Statistics Indonesia to the period 2012 - 2021. This empirical research tested the following hypotheses:

Hypothesis 1 (H1). Local revenue has a significant positive effect on economic growth.

Hypothesis 2 (H2). Capital expenditure has a significant effect on economic growth.

This research yields findings indicating that regional income significantly impacts economic growth, with a 1% rise in regional income leading to a decrease of 0.0147% in economic growth. Conversely, capital expenditure exhibits a positive, albeit statistically insignificant, effect, with a 1% increase in capital expenditure resulting in a 0.0123% increase in economic growth. This paper is organized as follows: Section 2 examines the pertinent literature related to the research topic, whereas Section 3 outlines the methodology employed in this study, including descriptions of the variables, data sources, and their statistical formulation. Section 4 presents the study's findings in both tabular and graphical formats, accompanied by relevant economic analyses. Finally, Section 5 summarizes the key findings as conclusions of the study and outlines potential avenues for future research.

2. Literature Review

The literature on the relationship between local revenue, capital expenditure, and economic growth has been extensive, particularly in the context of developing economies. However, there remain significant gaps, particularly in understanding how these relationships vary across different regions and over time.

Many studies have examined the role of local revenue in promoting economic growth. For instance, Gherghina et al., (2018) found that local revenue significantly contributes to economic growth, particularly in regions with strong institutional frameworks. However, these studies often focus on specific regions or time periods, leaving a gap in understanding how local revenue impacts growth on a broader scale, particularly across all provinces in Indonesia. This study seeks to address this gap by examining how local revenue influences economic growth in a comprehensive analysis that covers all 34 provinces of Indonesia.

Capital expenditure is widely recognized as a critical factor in fostering economic development, particularly through investments in infrastructure, education, and healthcare

(Atichasari & Ristiyana, 2022; Waweru, 2021). While the positive effects of capital expenditure on growth are well-documented, there is less research on how capital expenditure impacts economic growth when considering spatial dependencies between regions. This study will explore the impact of capital expenditure on economic growth using spatial econometric models, filling a gap in the existing literature by considering interregional effects.

The use of spatial panel data econometric models to analyse economic growth is well-established, with many studies highlighting the importance of spatial dependencies and spillover effects (Baltagi & Deng, 2014; Elhorst, 2014). Panel data refers to the combination of cross-sectional data and time-series data. Our use of spatial econometric models to analyse regional economic growth in Indonesia is supported by the broader literature, which emphasizes the importance of accounting for spatial dependencies.

Klevmarken (1989) and Hsiao (2014) asserted that the use of panel data in statistical research offers several advantages, including the ability to control for individual heterogeneity, the availability of additional degrees of freedom, and the capacity to construct and test more complex behavioral equations. These advantages make panel data a preferred approach in econometric analysis compared to models based solely on cross-sectional or time-series data. Consideration of spatial impacts on models is one of the recent developments in econometrics, for example, Elhorst (2003) has focused on writing spatial panels, while Le Gallo & Pirotte (2017) have applied spatial effects to panel data that was also examined by Lesage & Pace (2009) and Anselin et al. (2008).

Rafindadi and Aliyu's (2016) study and the conference paper by Rafindadi (2013) Application of advanced econometric methods across Sub-Saharan Africa highlights the relevance of robust modelling techniques in understanding complex economic relationships. Furthermore, Pesaran & Tosetti (2011) considered models with complex error structures that incorporate spatial error correlations. along with spatial error correlations. Also, Qu et al. (2017) explored a weighted matrix incorporating both temporal variation and an exogenous variable within a spatial panel model. Elhorst (2014) investigated models with added temporal and spatial impacts.

Su & Yang (2015) utilized a spatial panel data model with random and fixed effects to mitigate the restrictive distributions of the quasi-maximum likelihood estimator. Yu et al. (2012) investigated the unstable case of the spatial panel data model and the unit root is generated by spatial and temporal correlation. Kukenova & Monteiro (2008) explored the spatial dynamic model of panel data, while Kapoor et al. (2007) applied a spatial panel data model with spatially correlated error components. Mutl & Pfaffermayr (2011) utilized a spatial model incorporating both fixed effects and random effects to assess the degree of heterogeneity and spatial correlation among the lagged spatial units. Baltagi & Deng (2014) applied the estimation method for solving the simultaneous equations resulting from the spatial autoregressive panel data with random effect.

Asteriou et al. (2021) developed a spatial panel data model to examine the connection between public debt and economic growth, notably in Asian nations. Amidi et al. (2020) investigated the spatial dependence of labor resources on economic growth in several

Asian countries through panel models. Peng et al. (2021) analyzed the influence of green innovation on the quality of China's economic development. In case of a relationship between renewable energy consumption, Chica-Olmo et al. (2020) employed spatial econometric techniques to analyze the impact of spatial factors on economic growth.

The existence of spatial effects in the correlation between local revenue and economic growth is widely acknowledged in economic research. Spatial econometric analysis, applied to examine this correlation, often unveils a negative correlation between local revenue and economic growth. (Resende, 2013). This suggests that regions with higher local revenue may experience slower economic growth, possibly due to factors such as higher taxes or limited incentives for business expansion (Karabacak & Meçik, 2022; Zimmermannova et al., 2016). However, it is crucial to acknowledge that the characteristics and magnitude of this correlation may vary depending on various factors such as the types of local revenue sources, regional economic characteristics, and policy interventions (Zhao et al., 2019; Zhang et al., 2021;).

Spatial econometric analysis has also been used to examine the contribution of capital expenditure to economic growth. The results of these studies indicate a favorable spatial correlation between capital expenditure and economic growth (Cyril et al., 2019; Nguyen, 2019). This suggests that regions that invest more in capital projects tend to experience higher rates of economic growth. Overall, spatial econometric models provide a valuable framework for understanding the spatial correlation, spillover effects, and heterogeneity in economic phenomena (Yao et al., 2019).

A. Rafindadi and Yusof's, (2014) study investigates the role of financial development in Nigeria's economic growth, revealing complex interdependencies. This research is particularly relevant as it emphasizes the importance of robust financial systems, similar to the role of local revenue and capital expenditure in Indonesia's growth.

The study by Batrancea et al., (2022), which spans from 1990 to 2019, focuses on key macroeconomic variables such as bank capital to assets ratio, bank liquid reserves to bank assets ratio, inflation, and interest rate spread. The findings indicate that bank capital to assets ratio is a significant determinant of economic growth, suggesting that stronger financial foundations in banks contribute positively to overall economic performance. This research is particularly relevant to our present study as it highlights the importance of financial stability and its implications for economic growth, providing a comparative basis for analysing how local revenue and capital expenditure might similarly influence economic outcomes in Indonesia.

The studies by A. A. Rafindadi and Yusof, (2013, 2014) focus on the financial development-growth nexus in Kenya and Northern Sudan, respectively. Both studies provide empirical evidence on how financial systems drive economic performance in developing regions, offering comparative insights for our analysis of Indonesia.

The articles by Batrancea et al., (2021) and Batrancea, (2021b) focus on the role of financial development for economic stability, particularly in emerging markets. This aligns with our research as it highlights the significance of robust financial systems alongside fiscal policies in driving economic growth. These studies provide a comparative perspective on how financial systems

influence economic outcomes in different contexts.

The research by A. A. Rafindadi and Ozturk (2016) examines the impact of renewable energy on economic growth, highlighting the environmental considerations that accompany economic development. Although focused on energy, its methodology and insights into growth dynamics provide a complementary perspective to our analysis of fiscal policies.

The research by Batrancea, (2021a) explores how financial liquidity and solvency affect company performance metrics such as Return on Assets (ROA), Gross Margin Ratio (GMR), Operating Margin Ratio (OMR) and EBITDA in publicly listed healthcare companies on the NYSE. Using econometric models including two-stage least squares (2SLS) and generalized method of moments (GMM), the study finds significant impacts of liquidity and solvency on financial performance. Although the sectoral focus is different, the methodological approach and the emphasis on financial health influencing performance provide valuable insights applicable to our investigation on how local revenue and capital expenditure impact economic growth in Indonesia, particularly through similar econometric modelling techniques.

Batrancea et al., (2023) utilized panel data analysis to study the determinants of economic growth across 50 countries spanning five continents from 1971 to 2020. The study focuses on a wide range of economic variables including nitrous oxide emissions, gross capital formation, and total labor force participation. The results highlight the significant influence of environmental and human capital factors on economic growth. This extensive analysis provides a broad comparative framework for understanding the multiple dimensions affecting economic growth. Thus, the outcomes of this study motivate to pursue the present study as it underscores the importance of considering various economic indicators, such as local revenue and capital expenditure, in analysing regional economic performance in Indonesia.

A. Rafindadi and Yusof (2013) investigate the role of financial development in driving economic growth in South Africa. This research is relevant to our study as it explores the significance of financial systems in enhancing economic performance, similar to how local revenue and capital expenditure impact growth in Indonesia. It provides a comparative perspective, highlighting the broader implications of financial development in emerging economies.

The study by Batrancea (2021c) investigates the impact of financial development and economic growth on environmental degradation in ASEAN countries. This study stimulates interest for pursuing the present study, since it provides insights into the broader impacts of economic growth policies, particularly regarding sustainable development. Moreover, it complements our focus on fiscal policies in Indonesia by emphasizing the importance of considering environmental outcomes in economic planning.

Lastly, the study by Batrancea, (2021a) examines the dynamic interactions between financial development and economic growth. This study also motivates the pursuance of the present study as it provides empirical evidence relevant to our analysis, offering a comparative perspective on the impact of financial systems in different regional contexts, which is directly applicable to our study of Indonesia's economic development.

3. Data And Methodology

Data Specification

Dependent variable: Let the dependent variable *Yi, i = 1,2,...n* donate the Gross Domestic Product (GDP) of the provinces of Indonesia. Gross Domestic Product (GDP) is calculated annually and represents the combined value of all goods and services produced within a country. The GDP growth rate was employed in this study as a proxy for economic growth, hence:

$$GDPGR = \frac{(GDPn_t - GDPn_{t-1})}{GDPn_{t-1}} \quad (1)$$

where:

$GDPGR$ = Growth rate of Gross Domestic Product

$GDPn_t$ = The current year of Gross Domestic Product

$GDPn_{t-1}$ = The previous year of Gross Domestic Product

Independent variables: The independent variables of this study include two kinds of physical capital that affect GDP. The amount of local revenue can be used to describe physical capital in terms of regional income. In this study, local revenue is gathered in compliance with local regulations and legislation to finance various activities. It encompasses local taxes, fees, revenue from local government enterprises, management of local assets, and other legitimate sources of local income (BPS-Statistics Indonesia, 2021). Additionally, the amount of capital expenditure can be used to estimate physical capital in terms of regional spending. Capital expenditure refers to the expenditure made by the government or public sector for the acquisition or procurement of tangible fixed assets with a useful life of more than one year, typically durable goods (BPS-Statistics Indonesia, 2021).

Control variables: There are four control variables in this study, the first one is consumption data (Chica-Olmo et al., 2020) which is taken from the average per capita consumption of each province in Indonesia. The second one is productivity (Bai et al., 2012), which is the data of the productive age population who are working (Amidi et al., 2020; Bai et al., 2012; Peng et al., 2021). And the other two control variables are export and import data.

The selection of variables in this study—local revenue, capital expenditure, productivity, consumption, exports, and imports—is grounded in key economic theories that explain their relevance to economic growth. Endogenous Growth Theory (Romer, 1990) supports the inclusion of local revenue and capital expenditure as drivers of growth through government policies. Fiscal Federalism Theory (Oates, 1999) justifies the use of local revenue, emphasizing the role of local governments in economic development.

Figure 2 depicts the growth rate data of Gross Domestic Product (GDP), Local revenue (LSR), Capital expenditure (CE), Productivity (P), Consumption (C), Export (X), and Import (I) of Indonesia in 2012 – 2021. The growth rate of gross domestic product (GDP), local revenue, capital expenditure, productivity, consumption, and exports has increased. However, the growth rate of imports showed a persistent trend over the period 2012–2021.

Gross domestic product had increased on average by 4.26%. On the other hand, imports experienced an average fall of 2.01%, while local revenue, capital expenditure, productivity, consumption, and exports had an average increase of 8.81%, 10.47%, 1.88%, 7.70%, and 3.32%, respectively. One might recall that the Covid-19 pandemic, which began in early 2020, affected the entire

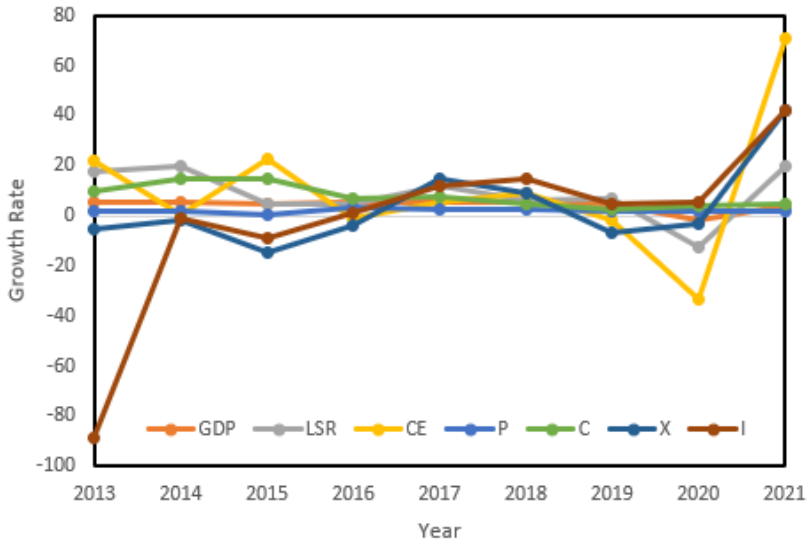

Figure 2. The growth rate of gross domestic product (GDP), local revenue (LR), capital expenditure (CE), productivity (P), consumption (C), exports (E), and imports (I) of Indonesia in 2012-2021.
Source: own presentation

Table 1. Data description.

Variable	Description	Unit	Source
GDP	Gross domestic product at constant price	Billion Rupiahs	BPS Indonesia
LR	Local own-source revenue	Thousand Rupiahs	BPS Catalogue: 7203002
CE	Capital expenditure	Thousand Rupiahs	BPS Catalogue: 7203002
P	Productivity: Indonesian population 15 years of age and over who are working	People	BPS Catalogue: 2301030
C	Average of per capita consumption	Rupiah	BPS Catalogue: 3201005
X	Export	Million US$	BPS Catalogue: 8202019
I	Import	Million US$	BPS Catalogue: 8202006

world, signaling a general fall in economic performance, particularly in Indonesia as one of the developing countries. Despite remaining positive on average, the variables appear to have fallen significantly as a result.

This research adopts an annual data of local revenue and capital expenditure to a gross domestic product (GDP) through a balanced panel dataset and chooses relevant data from 34 provinces in Indonesia, spanning from 2012 to 2021. The data utilized in this research consists of secondary data obtained from the financial statistics of provincial governments and data from the

Central Bureau of Statistics of Indonesia. All variables were transformed using the natural logarithm. The potential estimation bias resulting from the wide range of data values can be mitigated by applying a logarithmic scale. A detailed information description of all variables considered in this study is provided in the following table.

Methodology

This study analyzes Indonesia's economic development using a spatial econometric model. Several researchers created a spatial econometric model of panel data that include model specifications and estimation techniques (Anselin, 2005; B. H. Baltagi, 2005; Elhorst, 2003, 2010, 2014). Zhao et al. (2019) formulated a spatial econometric model to examine the correlation between local revenue and economic growth. Using these models, researchers have been able to identify the spatial correlation and spillover effects that exist between local revenue and economic growth. These findings suggest that the revenue generated by local governments has a significant contribution on regional economic growth (Feng et al., 2018). Where we have observations on provinces (i) across years (t), let

$$Yit = Xit\,\beta + \varepsilon it \qquad (2)$$

be the econometric model, where Y is assumed to be a dependent variable, it is assumed that X and ε are independent of each other, with a mean of zero and a finite variance (Petersen, 2009). When estimating panel data with fixed effects, the data include time-invariant unobserved effects; thus, the residual consists of a province-specific component and an idiosyncratic error term for each observation (Wooldridge, 2010).

In this study, a level model comprises the dependent variable which is GDP growth, and the local revenue and capital expenditure as the independent variables, the panel model to be estimated is specified using the growth rate data and thus the economic model of this study is defined as below:

$$\mathrm{GDPGR} = f(\mathrm{LR}, \mathrm{CE}, \mathrm{P}, \mathrm{C}, \mathrm{X}, \mathrm{I}) \qquad (3)$$

The econometric model is mathematically, (Amidi et al., 2020; Inayati et al., 2020; Mahdawi et al., 2021) is defined as below:

$$GDP_{GR_{it}} = \beta_1 \mathrm{LR}_{GR_{it}} + \beta_2 \mathrm{CE}_{GR_{it}} + \beta_3 \mathrm{P}_{GR_{it}} + \beta_4 \mathrm{C}_{GR_{it}} + \beta_5 \mathrm{X}_{GR_{it}} + \beta_6 \mathrm{I}_{GR_{it}} + \mathrm{c} \qquad (4)$$

where LRGR is the growth rate of local revenue; CEGR is the growth rate of capital expenditure; PGR is the growth rate of productivity; CGR is the growth rate of consumption; XGR is the growth rate of Export; IGR is the growth rate of Import; and c is the constant term, β_i, with i =1,2,3,4,5,6 are the parameters to be estimated. In the model, index i stands for the cross-sectional dimension (spatial units), while the index t stands for the time dimension.

Estimation techniques

This study starts with a cross-sectional dependence (CD) test. Considering residuals from estimations using generally observed elements have the potential to produce deceptive conclusions in the event that the common factors are not observed, the CD test is applicable to these residuals (Pesaran, 2021). Ignoring the strong dependence on explanatory and dependent variables during an estimation might result in an omitted-variable bias and incorrect OLS regressions. The Lagrange Multiplier (LM) test is applied for the cross-sectional dependence (CD) test. Bera and Yoon (1993) argue that the maximum

likelihood estimation required for the LM test related to the conditional hypothesis might pose computational challenges, while the LM test associated with the marginal hypothesis could encounter size distortion due to local misspecification of specific nuisance parameters. To prevent flawed regression, a unit root test must be performed. The stationary nature of the regression variables is confirmed by differences and stationary processes (Raihan et al., 2022; Raihan & Tuspekova, 2022). We employed three tests: the Augmented Dickey-Fuller (ADF) test, which was presented by Dickey and Fuller (1979), the Phillips-Perron (P-P) test, which was advised by Phillips and Perron (1988), and the Dickey-Fuller Generalization Least Square (DF-GLS) test, which was recommended by Elliott et al., (1992). This unit root test ensures that none of the variables surpass the integration order.

To examine the panel data, the Ordinary Least Squares (OLS) regression model will be used to determine each independent variable's statistical significance. The null hypothesis that local revenue and capital expenditures have a significant positive relation on economic growth in Indonesia will be examined using the t-statistics significance level. If the t-statistic for local revenue and capital expenditures is statistically significant at a predetermined level, we can reject the null hypothesis and infer that there is a significant positive effect of local revenue and capital expenditures on economic growth in Indonesia. In today's swiftly evolving world, the importance of precise predictions and forecasting techniques is crucial for making informed decisions and taking proactive measures (Faisol et al., 2020; Mirzanov, 2018). It allows businesses and policymakers to adapt to changing market conditions, identify potential risks and opportunities, and optimize resource allocation (Hitt et al., 1998). Without accurate predictions and forecasting techniques, decision-makers might depend on outdated or incomplete information, resulting in suboptimal outcomes and missed opportunities (Devarajan et al., 1996). Last, this study utilized the robustness test to validate the stability of the OLS result (Raihan et al., 2023).

4. Result and Analysis

Preliminary tests

A quantitative approach is adopted to analyze the findings of this research and discuss their implications and applications. The secondary data regarding GDP, local revenue, and capital expenditure is gathered from the financial statistics of provincial governments and the Central Bureau of Statistics of Indonesia. Due to the of data availability, we examine the impact of local revenue and capital expenditure on the nation's economic growth over the period 2012 – 2021. The unbalances in panel data includes 34 provinces of Indonesia. In the first stage, several preliminary tests are conducted to validate the findings. Table 2 presents the descriptive statistics of the data. The results demonstrate that the mean and median of the logarithmic rates for the research variables do not significantly differ from one other. Additionally, they have a low standard deviation. Consequently, it may be said that almost all provinces of Indonesia have similar levels of economic development.

This study employed the Jarque-Bera normality test to determine whether the regression model's residuals are normally distributed. The skewness and kurtosis of the residuals are compared to those of a normal distribution using this test. The regression

Table 2. Descriptive statistics of the data.

	GDP	LR	CE	P	C	X	I
Mean	25.661	21.281	20.583	14.492	16.293	23.295	20.247
Median	25.521	21.229	20.540	14.491	16.323	23.554	20.913
Maximum	28.250	24.672	23.371	16.921	17.171	27.516	27.538
Minimum	23.564	16.286	18.724	12.495	14.123	14.629	8.7558
Std. Dev.	1.1542	1.2460	0.8041	1.0173	0.3321	2.2765	3.7513
Skewness	0.4573	0.2661	0.5716	0.5643	-0.8046	-0.7085	-0.5090
Kurtosis	2.5439	3.4771	4.0332	3.0984	7.7131	3.4466	2.6438
Jarque-Bera	14.752	7.1935	33.440	18.024	348.27	30.355	10.565
Probability	0.6262	0.2741	0.0827	0.1223	0.0346	0.0628	0.5080
Observations	339	338	338	337	337	330	218

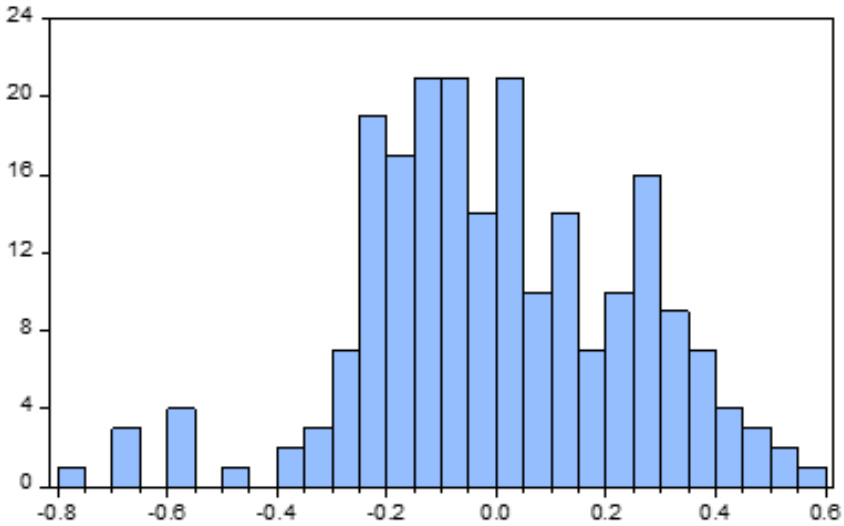

Figure 3. The regression model's residual histogram.

model's residuals histogram is depicted in Figure 3. For visual inspection, the residuals histogram is demonstrated next to the normal distribution curve. Furthermore, the results of diagnostic tests, such as, the Breusch-Pagan-Godfrey, Lagrange Multiplier, and Jarque-Bera tests are presented in Table 3. The residuals' normal distribution is considered as the null hypothesis for the Jarque-Bera test. If the p-value exceeds the statistical significance level of 0.05, we are unwilling to reject the null hypothesis. This case has a low Jarque-Bera statistic, since the p-value is 0.2627, which is greater than 0.05. As a result, we discovered that the residuals refuse to accept the null hypothesis and are normally distributed.

Table 3. Summary of diagnostic test result: evaluation of model performance and assumptions.

Diagnostic tests	Coefficient	p-value	Decision
Jarque-Bera test	2.6734	0.2627	Residuals are normally distributed
Breusch-Pagan-Godfrey test	1.5036	0.2949	No heteroscedasticity exists

Table 4. The preliminary test: correlations and multicollinearity.

	GDPGR	LRGR	CEGR	PGR	CGR	XGR	IGR
GDPGR	1						
LRGR	0.512 [0.000]***	1					
CEGR	0.304 [0.000]***	0.392 [0.000]***	1				
PGR	0.158 [0.031]**	0.192 [0.009]***	-0.025 [0.732]	1			
CGR	0.297 [0.000]***	0.297 [0.000]***	0.325 [0.000]***	0.068 [0.356]	1		
XGR	0.311 [0.000]***	0.383 [0.000]***	0.148 [0.044]**	0.124 [0.092]*	0.065 [0.383]	1	
IGR	0.173 [0.321]	0.117 [0.114]	0.016 [0.827]	0.146 [0.047]**	-0.097 [0.191]	0.112 [0.128]	1
VIF		4.964	2.179	2.792	1.340	1.336	1.151

Note: * p < 0.1; ** p < 0.05; *** p < 0.01. GDPGR - Growth rate of GDP, LRGR - Growth rate of local revenue, CERG - Growth rate of capital expenditure, PGR - Growth rate of productivity, CGR - Growth rate of consumption, XGR - Growth rate of exports, IGR - Growth rate of imports, VIF - Variance Inflation Factors.

Table 4 depicts the partial correlation involving the variables under investigation. Based on the result, all coefficients of correlation are lower than 50%. It means that each variable is independent and passed the correlation test. The higher coefficient of the correlation is observed between local revenue and capital expenditure (39.2%), and between local revenue and exports (38.3%). Furthermore, the multicollinearity test with Variance Inflation Factors (VIF) test verifies that this model passes the multicollinearity issue. The literature in this instance indicates that there would be no risk of multicollinearity if all variables were included in the model (Mamba et al., 2020; Mamba & Balaki, 2021).

To examine weak cross-sectional dependencies for both dependent and independent variables, the Breusch and Pagan (1980) Lagrange Multiplier (LM) test is employed. Under the null hypothesis, error terms are weakly cross-sectionally dependent, making the LM test more suitable. The finding of LM test is reported in Table 5.

The LM test indicates that, apart from per capita consumption, there is sufficient

Table 5. Lagrange multiplier (LM) test, and Ramsey test.

Variables	Chi2	p-value
LR_{GR}	48.7048***	0.0000
CE_{GR}	7.34459***	0.0074
P_{GR}	64.3287***	0.0000
C_{GR}	1.37707	0.2422
X_{GR}	33.9535***	0.0000
I_{GR}	6.11265**	0.0144
Ramsey test	F(1, 177) = 3.557 Prob > F = 0.061	

Note: * p < 0.1; ** p < 0.05; *** p < 0.01. LRGR - Growth rate of local revenue, CERG - Growth rate of capital expenditure, PGR - Growth rate of productivity, CGR - Growth rate of consumption, XGR - Growth rate of exports, IGR - Growth rate of imports, VIF - Variance Inflation Factors.

Table 6. The result of unit root test.

Variables	ADF	DF-GLS	PP
GDP	-18.435***	-18.401***	-18.437***
CE	-25.645***	-5.1939**	-33.084***
LR	-21.457***	-5.0599***	-22.541***
P	-18.260***	-18.211***	-18.259***
C	-6.4368***	-2.2021**	-111.64***
X	-19.148***	-19.076***	-19.441***
I	-17.102***	-15.058***	-21.726***

evidence to strongly reject the null hypothesis of cross-sectional independence. Finally, there is no need to modify or remove any variables because the Ramsey test results indicate that value is larger than 0.05. The Ramsey test result points out that the economic growth equation is correctly specified.

Table 6 reports the outcomes of the unit root test using Augmented Dickey-Fuller (ADF), the Dickey-Fuller Generalization Least Square (DF-GLS), and Philips-Perror (P-P). The result reveals that all variables are stationary at the first difference in all three-unit root tests.

Pedroni (1999) introduced critical values for cointegration tests in heterogeneous panels that involve multiple regressors, addressing the complexities that arise from cross-sectional dependence and heterogeneity across panel units. This framework allows for more accurate testing of long-run relationships in panel data settings, accommodating variations across different cross-sectional units. Further expanding

Table 7. Panel cointegration test: assessing long-run relationship among variables.

	Statistics	p-value	Decision
Augmented Dickey-Fuller	-3.1569	0.0008	Reject the null hypothesis
Dickey-Fuller	-2.5628	0.0052	Reject the null hypothesis
Modified Dickey-Fuller	-2.8954	0.0019	Reject the null hypothesis

Note: null hypothesis is no cointegration, alternatives hypothesis this indicates that a cointegration relationship exists.

on this foundation, Pedroni's (2004) study delved into the asymptotic and finite sample properties of panel cointegration tests.

Kao's panel cointegration tests (Kao, 1999; Westerlund, 2005) are used to determine whether the variables showed non-spurious long-run cointegration or not. A thorough methodology for panel cointegration testing is offered by Kao's cointegration tests. Table 7 illustrates that there is long run co-integration, as presented by three different test statistics and associated probability values. If the p-value is more than a = 0.05 (as the significance level), the null hypothesis states that there is no cointegration between the variables in the panel estimation, while the alternative hypothesis indicates the presence of a cointegrating relationship. This makes the table appropriate for long-run model estimation.

Predictability test results

After confirming co-integration among the variables, this study examines the impact of local revenue and capital expenditure on economic growth. There are five possible outcomes for the spatial econometric analysis, such as, a fixed effect but without the effect of time, an effect of time but no fixed effect, both a fixed effect and a time effect, neither a fixed effect nor a time effect, and random effect. As a result, we determine the five potential situations using the e-views software. Table 8 lists the estimated outcomes for the OLS (Ordinary Least Squares) method for the constant coefficient model, random effect model, the cross-sectional fixed effect model, the period fixed effect model, and the two-way fixed effect model.

After carrying out four different estimates of all variables, the local revenue shows a significant spatial relationship with the GDP unless there is neither a fixed impact nor an effect of time. Otherwise, capital expenditure has a significant impact on GDP when there are no fixed or time effects, but there is a fixed effect without the influence of time. Productivity and GDP are highly correlated when there is a fixed effect but no time effect and when there are fixed and temporal effects. Per capita consumption never has a significant impact on GDP in the four spatial errors that have been estimated. It is inversely proportional to the levels of exports and imports, both of which consistently exert a significant influence on GDP across four estimation models: (1) without fixed or time effects, (2) with fixed effects only, (3) with time effects only, and (4) with both fixed and time effects applied.

From the regression's results, there are distinct discrepancies in the model's predictions in five different scenarios. The constant coefficient model ignores structural

Table 8. Panel Data Regression Results.

	Constant Coefficient Model	Random Effect Model	Cross-Sectional Fixed Effect	Period Fixed Effect	Two-Way Effect Model
LRGR	0.0178 [1.0115]	0.0177 [1.0174]	0.0147 [0.8234]**	-0.0629 [-3.6739]***	-0.0820 [-5.3020]***
CEGR	0.0142 [2.2135]**	0.0142 [2.2399]**	0.0123 [1.8867]*	0.0042 [0.7480]	0.0008 [0.1700]
PGR	0.1123 [1.2810]	0.1141 [1.3183]	0.1617 [1.7110]*	0.1136 [1.4493]	0.1623 [2.2193]**
CGR	-0.0060 [-0.5919]	-0.0061 [-0.6041]	-0.0072 [-0.7132]	-0.0003 [-0.0413]	-0.0004 [-0.0553]
XGR	0.0210 [4.4134]***	0.0210 [4.4766]***	0.0204 [4.0246]***	0.0125 [3.0324]***	0.0088 [2.2905]**
IGR	0.0037 [3.2164]***	0.0037 [3.2587]***	0.0034 [2.9060]***	0.0040 [3.7364]***	0.0036 [3.7880]***
C	0.0338 [9.8558]	0.0338 [9.8928]	0.0332 [9.5959]	0.0399 [13.712]	0.0404 [15.755]

Note: The number in the brackets are t-stat; * p < 0.1; ** p < 0.05; *** p < 0.01. LRGR – Growth rate of local revenue, CERG – Growth rate of capital expenditure, PGR – Growth rate of productivity, CGR – Growth rate of consumption, XGR – Growth rate of exports, IGR – Growth rate of imports.

differences across different geographic regions and changes over time. It might potentially lead to an evaluation's explanatory factors having a rather significant coefficient. The evaluation outcome is poor since, when compared to other models, the coefficient of determination (R2) and log-likelihood has only slightly decreased. The cross-sectional fixed model ignores changes in time while considering structural differences across diverse regions. As a reflection of the importance of time differences in coefficient fixed effect, this may easily lead to a high fixed effect coefficient followed by a low explanatory variable coefficient. Like cross-sectional fixed effects, period fixed effects only take time differences into account and ignore the structural variations among the various regions. The impact of a larger absolute value of the time-effect coefficient on the magnitude of the fixed effects. The two-way effect model effectively lowers the heteroscedasticity produced by the model resulting from fixed effects and temporal effects more accurately representing reality by accounting for both regional and temporal variations.

Baltagi (2008) highlights the importance of choosing the appropriate model specification whether fixed or random effects. To decide between fixed effects (FE) and random effects (RE) models, we applied the Hausman test. Hausman (1978)'s original paper laid the foundation for this test by proposing it as a means to check the consistency of an estimator when compared to a more efficient, but potentially inconsistent estimator. The Hausman test also can be effectively applied to evaluate the level of endogeneity (Rafindadi, 2013). With the null hypothesis of the Hausman

Table 9. The result Hausman and redundancy tests.

	Statistics	Probability	Decision
Hausman Test	13.567	0.0349	Reject the null hypothesis
Redundancy Test:			
Cross-sectional Fixed Effect	77.125	0.0000	Reject the null hypothesis
Period Fixed Effect	0.7383	0.7621	Accepts the null hypothesis
Two-Way Fixed Effect	32.269	0.0000	Reject the null hypothesis

test, the preferred model is the random effects model, and the alternative hypothesis is fixed effect. The result of Hausman test is presented in Table 9. Because the p-value of Hausman test results is 0.0349, which is less than the significance level alpha of 0.05, as a conclusion, we reject the null hypothesis, indicating that the fixed effects model is more appropriate due to potential endogeneity.

After selecting the fixed-effects model, a redundant fixed-effects test is conducted to determine the most appropriate model among the four different spatial error estimation results. Table 9 depicts the result of the redundancy test. With the hypothesis the effects are redundant, only the cross-sectional fixed effect model passed the redundant test with the probability value of F 0.2601. The probability value is bigger than alpha 0.05 as the significance level, so that the model is redundant and accepts the null hypothesis. The redundancy test result of the period fixed effect and two-way effect model shows a probability value of F as 0.0000, which is smaller than the significance level alpha of 0.05. Therefore, the models are not redundant. Based on the explanation before, the cross-sectional fixed effect model is clearly better than those in the other three models.

We used Kao's panel cointegration tests (Kao, 1999; Westerlund, 2005) to determine whether the variables showed non-spurious long-run cointegration. A thorough methodology for panel cointegration testing is offered by Kao's cointegration tests. Table 5 shows that there is long run co-integration, as shown by three different test statistics and associated probability values. This makes the table appropriate for Granger causality testing and long-run model estimation.

The findings indicate that the local revenue significantly enhances GDP. However, the magnitude of the coefficient linked to the variable of interest remains constant, local revenue affects the economic growth at 10% and 5% of significance level. Overall, these findings are in line with the theoretical prediction. These results also match with the research by (Sawitri et al., 2020; Siami-Namini et al., 2018; Widilestariningtyas, 2020), the economic growth is positively and significantly impacted by local revenue. Which is consistent with the results of Gherghina et al., (2018), who emphasized the critical role of efficient local revenue generation in fostering economic growth, particularly in regions with robust institutional frameworks. But it contrasts with the negative effect of local revenue on economic growth highlighted by Inayati et al., (2020). However, unlike previous studies that often focus on static models, our study employs spatial econometrics, which allows for the examination of spillover

effects and regional interdependencies that are particularly relevant in a geographically diverse country like Indonesia. This methodological advancement provides a more nuanced understanding of how local revenue impacts economic growth across different regions, highlighting the importance of considering spatial dependencies in fiscal policy design.

On the other hand, although capital expenditure was not very high, the trend was still upward as anticipated. Based on the findings, capital expenditure affects the economic growth in Indonesia at the 10% level of significance. The relationship between capital investment and economic expansion, (Akpan, 2005; Romer, 1990) concludes that the effect of capital expenditure on economic growth is positive. The findings are also in line with the results of Waweru (2021), who documented a significant positive effect of capital expenditure on economic growth in East African countries, contrasts with the findings of Rafindadi & Yusof (2013) in various developing regions, including Sub-Saharan Africa. The discrepancy may be attributed to the different regional contexts and the inclusion of spatial dependencies in our model, which considers the spillover effects between regions. By incorporating spatial econometrics, our study provides a more nuanced understanding of how capital expenditure impacts growth, taking into account the interregional linkages that can influence economic outcomes.

Furthermore, our study's use of spatial econometric models aligns with the approaches advocated by Elhorst (2014) and Baltagi and Deng (2014), who highlighted the importance of spatial dependencies in regional economic growth analyses. This methodology enables us to capture the interconnectedness of Indonesia's provinces and understand how economic activities in one region can affect neighboring areas. Our findings support the notion that economic policies should not be designed in isolation but should consider the broader regional context to maximize their effectiveness.

Additionally, this study contributes to filling the gaps identified in previous research. While earlier studies, such as Yuliana (2014), focused on specific regions or used more traditional econometric approaches, our nationwide analysis using spatial econometrics offers a more comprehensive view of Indonesia's economic landscape. This broader perspective not only enhances the generalizability of our findings, but also provides valuable insights for policymakers seeking to promote balanced and sustainable economic growth across the country.

In summary, our study advances the understanding of the relationship between local revenue, capital expenditure, and economic growth in Indonesia by incorporating spatial econometric techniques that capture the complex regional dynamics. The implications of our findings suggest that while local revenue is a key driver of economic growth, the impact of capital expenditure may vary across regions depending on specific local conditions and spatial interdependencies. Policymakers should take these factors into account when designing fiscal policies to ensure that they effectively promote sustainable economic growth across all regions of Indonesia. This approach not only enhances the effectiveness of fiscal policies, but also contributes to more equitable regional development, aligning with the broader goals of national economic policy.

Figure 4 below shows the percentage of the contribution of local revenue, capital

Figure 4. The percentage of the overall variables' effects on Economic Growth.

expenditure, productivity, consumption, export and import effects on economic growth.

As observed in the accompanying graphic, productivity has a 63.94% influence on economic growth, which is the maximum percentage of contribution among all the factors. According to the findings, local revenue and capital expenditure has an impact of 5.81 and 4.86 percent, respectively contribution. Which is consistent with the significant level of the impact of local revenue and capital expenditure on economic growth. Then, consumption only contributed 2.85% to economic development, while export and import factors each contributed 8.07% and 1.34%, respectively.

Robustness check

To ensure a comprehensive analysis, we conduct a robustness check of our findings as previously outlined. We test the robustness of the findings by conducting a robustness test for both predictability evaluations, with and without control variables.

The robustness estimation reflects the model's goodness of fit, both in model (1) and (2) demonstrating that the independent variables always have a significant effect to economic growth. This result suggests that the observed relationship between the independent variables (possibly control variables) and economic growth is stable and consistent across different model specifications. This finding adds strength to the argument that the observed relationship is not simply a result of confounding variables or omitted variable bias. Robustness in this context means that the observed effect is not highly sensitive to changes in the model specification or inclusion/exclusion of certain variables. This information can be valuable for decision-making, as it suggests that the identified factors play a meaningful and consistent role in influencing economic growth.

5. Concluding Remarks

This study has explored the intricate relationship between local revenue, capital expenditure, and economic growth in Indonesia using a spatial econometric panel data model over a period of 10 years (2012-

Table 10. the result of robustness test.

Variable	Model (1)	Model (2)
LRGR	0.0577 [16.854]***	0.2106 [20.955]***
CEGR	0.0046 [1.5788]**	0.0054 [1.0022]*
PGR		0.6757 [65.005]***
CGR		-0.0111 [-1.3153]
XGR		0.0067 [2.5341]**
IGR		0.0023 [2.4084]**
C	0.0415 [32.989]	0.0113 [4.6230]

2021). Our findings reveal that local revenue and capital expenditure significantly impact economic growth, though the effects vary across regions and time periods. According to the outcome estimation in this study, the obtained key conclusions of the study are summarized as below:

- The study finds that local revenue has a significant effect on economic growth. For every 1% increase in local revenue, there is a 0.0147% increase in economic growth.
- The relationship between capital expenditure and economic growth also has a positive significant effect. Indonesia's GDP will expand by 0.0123% for every 1% increase in the capital expenditure ratio, according to the coefficient value of capital expenditure (CE), which stands at 0.

The use of spatial econometric models in this study highlights the importance of considering spatial dependencies and heterogeneity in economic analysis. The study demonstrates how spatial econometric models can provide a more nuanced understanding of economic phenomena.

Philosophically, our findings underscore the critical role of effective fiscal decentralization in fostering regional development. The results suggest that stable local revenue streams and strategic capital expenditure are crucial for sustainable economic growth, particularly in a geographically diverse and economically stratified country like Indonesia. The optimization of tax policies and revenue generating tactics could be a viable option for policymakers seeking to favorably impact economic growth. Furthermore, the positive impact of capital spending that has been observed highlights the potential contribution of targeted public investments in infrastructure, health, and education to strong and long-term economic growth. However, the positive impact of these fiscal tools is not uniform; it is highly contingent on local governance capacity, infrastructure quality, and regional economic conditions.

This study faces several limitations, including potential issues with data accuracy and completeness, particularly for newly established provinces. The study's focus on the period from 2012 to 2021 may not capture long-term trends or the impact of significant events beyond this timeframe, such as the COVID-19 pandemic. The use of spatial econometric models introduces limitations related to model assumptions, which could influence the results. Additionally, the findings may not be generalizable to other countries, variability in the implementation and efficiency of these expenditures across regions is also not fully accounted for, which could affect the study's conclusions. Additionally, this study particularly encounters data constraints and the varying effectiveness of fiscal policies across regions. To mitigate these weaknesses, we recommend enhancing local data collection efforts and tailoring fiscal policies to the specific needs and capacities of each province.

The paper concludes by suggesting directions for future research, particularly in exploring the causal mechanisms behind the observed relationships and extending the analysis to other regions or countries for comparative studies.

From the aforesaid findings, this study contributes to the broader literature on fiscal policy and economic growth by offering new insights into the regional dynamics of Indonesia's economy. Our findings provide a valuable framework for policymakers aiming to optimize local revenue and capital expenditure strategies to promote balanced and sustainable economic growth across the country.

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