FORUM

LOCAL GOVERNMENT EXPENDITURES, INSTITUTIONAL QUALITY AND THE INCLUSIVE ECONOMIC DEVELOPMENT INDEX (IEDI) IN INDONESIA

Baiq Yeyen Mardiyani – Budiono Budiono – Achmad Kemal Hidayat[1]

ABSTRACT: *The purpose of this study was to determine the effect of local government spending and institutional quality on the inclusive economy in Indonesia. To avoid the problems of endogeneity and omitted variable bias, the method used in this study is the system generalized method of moments (GMM). It was found that local government spending on housing and social functions positively and significantly affected the Inclusive Economic Development Index (IEDI). In contrast, government spending on health had a significant negative effect. Spending on education had an insignificant negative effect, while investment had a positive and significant effect on IEDI. The corruption rate as a proxy for the quality of institutional processes had a significant adverse impact on IEDI. This study provides an overview of the role and influence of local government policies and institutional quality that affect the region's development and inclusive economic growth.*

KEYWORDS: *inclusive growth, fiscal policy, institutions, corruption, equality, inequality, Indonesia*

1 *Baiq Yeyen Mardiyani* is PhD candidate at the Padjadjaran University, Indonesia; email address: baiq17001@mail.unpad.ac.id. *Budiono Budiono* is Associate Professor at the Padjadjaran University, Indonesia; email address: budiono2017@unpad.ac.id. *Achmad Kemal Hidayat* is Assistant Professor at the Padjadjaran University, Indonesia; email address: achmad.hidayat@fe.unpad.ac.id.

INTRODUCTION

High economic growth does not always improve welfare and income distribution, especially for groups whose income is below the poverty line. So, ideas regarding "inclusive growth" or "inclusive development" have emerged (Bappenas 2019). Inclusive growth is defined as economic growth that not only prioritizes output growth as the ultimate goal but also the *impact* of economic growth, namely, reducing inequality and poverty levels through increasing employment opportunities and maximizing the participation of all strata of society in supporting economic growth (Ranieri–Ramos 2013).

Inclusive economic growth has been examined by several researchers who identified several factors that influence it, including human capital, infrastructure, institutions, and macroeconomic policies. Research conducted by Mandlebe (2014), Hur (2015), Raheem et al. (2018) and Sabir and Qamar (2019) also stated that within the scope of macroeconomic policy, fiscal policy significantly influences economic growth and equity. Through government spending in the form of the implementation of fiscal policy, programs that contribute to inclusive growth directly benefit people experiencing poverty and redistribute income.

In various studies, it is stated that government spending in the fields of health, education, and public infrastructure, as long as it is managed efficiently, is the key to increasing inclusive growth (Hur 2015). Better access to various social factors, including health and education, can be realized by the government through fiscal policies. Abdon et al. (2014) stated that through government budget designs that are used to create growth and productive employment, inclusive growth can be achieved. Fiscal policy applied through government expenditure instruments plays a very important role in accelerating economic growth and equity. Ali and Son (2007) used the principle of the social welfare function to measure inclusive growth. They argued that economic growth was inclusive if the social opportunity function was improved.

Regarding institutional quality, Charron et al. (2014) argued that institutions have an important function in the economy because they reduce the uncertainty inherent in every economic transaction and provide information so that the behavior of actors in the economy is more predictable. However, Blackburn et al. (2011) stated that the interventions and policies of government institutions in the economy will not significantly impact economic growth if there are still leakages and inefficiencies in government institutions. The World Bank, for example, has identified corruption as the single biggest obstacle to economic and social development. Research on the effect of corruption on economic growth and social welfare has also been carried out by several previous researchers, namely Kolawole (2016) and Anderson et al. (2017).

The importance of taking a more socially inclusive approach to generating economic growth has been recognized around the world. However, a systemic framework has not yet been developed to guide policies and the implementation of inclusive development and growth objectives (World Economic Forum 2018), especially when linked to policies at the regional level. As a developing country, regional governments in Indonesia also do not yet have a framework that can be used as a guide to implementing development and inclusive growth.

Several studies have tried to measure the influence of government spending and institutional quality on inclusive growth, but not many of them have examined it at the regional level, while the emphasis on budget implementation and development is on local governments as the spearhead of development dealing directly with the needs and problems of communities in the regions.

Local governments in Indonesia have a very important role in development because regional autonomy has given them the widest possible authority to formulate and implement policies deemed appropriate for meeting the needs and supporting the potential of their respective regions. However, have the implemented policies impacted the inclusiveness of economic growth? This question is closely related to the quality of local government institutions as executors of fiscal policy through programs and development activities. Does the quality of local government significantly impact the achievement of development goals regarding inclusive growth?

The quality of government institutions has recently been the subject of several studies, which found that the latter was the main determinant of many variables related to the welfare of individuals in a country. How to implement policies effectively and impartially is very important, both in terms of quality and quantity and by the government without corruption (Charron et al. 2014). In Indonesia, a decentralization system that gives the widest possible authority and autonomy to regional governments in the implementation of development and drafting budgets exists. Regional autonomy gives local governments the freedom to determine measures and policies by considering the needs, potential, and characteristics of the regions. Regional autonomy is the ability to manage issues, especially general administration and development, which were previously managed by the central government. For this reason, besides the need for financial capacity, quality human resources, natural resources, capital, and technology are also needed.

Various studies and expert opinions have found that inclusive growth may be achieved through fiscal policy and government budget designs used to create growth and productive employment. So, this study defines a quality government institution as one that can plan, manage, and carry out its spending efficiently and on target to achieve inclusive growth. However, the interventions and policies of

government institutions in the economy will not significantly impact economic growth if there are still leakages and inefficiencies in government institutions, and corruption is identified as the single biggest obstacle to economic and social development.

Because of these reasons, the authors feel that it is important to empirically research and show how local government policies and the quality of local government institutions affect inclusive development and growth in Indonesia.

LITERATURE REVIEW

The focus on inclusive growth has become the main agenda for Indonesia's economic development, as stipulated in the five-year *National Medium-Term Development Plan* (RPJMN 2015–2019) in *Presidential Regulation No. 2* of 2015. The definition of inclusive economic growth referred to in this study is the definition from the National Development Planning Agency (Bappenas) of the Republic of Indonesia, which states that inclusive growth is economic growth that all levels of society can benefit from. An economy is inclusive if its growth is accompanied by a reduction in poverty and inequality and if it expands access and opportunity and, in the process, involves all levels of society in a non-discriminatory manner.

Recognizing that each region has its own development constraints, The National Development Planning Agency of the Republic of Indonesia initiated a national strategy by establishing an Inclusive Economic Development Index, which is disaggregated at the provincial and regency/city levels throughout Indonesia. The purpose of establishing the index is that inclusiveness between regions can be compared, and the appropriate policy directions can be determined for each region according to the respective development focus, which is also in line with the national development agenda. This index aims to measure the progress of inclusive economic development in Indonesia.

Barro (1990) introduced a model showing the relationship between economic growth and fiscal policy. Broadly speaking, the government has three main functions, namely: (1) increasing efficiency, (2) promoting equity or justice, and (3) spurring macroeconomic growth and maintaining economic stability (Samuelson–Nordhaus 2004). Observations about the effect of fiscal policy on equity have also emerged from research (Woolard et al. 2015) by estimating equations with variables that represent fiscal policy. The results showed that progressive taxes, social assistance, and subsidies could reduce income inequality. Several other studies, namely research by Hur (2015) and Martínez-

Vázquez et al. (2012), which focused on fiscal policy, found that certain types of expenditure had a greater effect on reducing income inequality, namely expenditure in education, health, housing, and transfers or subsidies.

As stated by Mathai et al. (eds. 2020), government spending on health, education, subsidies, and social transfers significantly and positively affects economic growth, while the effect on income inequality is not significant. Kolawole (2016) argued that in the long run, the variables of government spending in the health sector and economic freedom are associated with a positive and significant effect on inclusive growth. However, in the short term, these variables may have no significant effect.

Government spending plays an important role in inclusive growth because it can encourage economic growth by increasing production capacity and creating jobs that will increase income (Samuelson–Nordhaus 2004). The government can also reduce inequality through spending on capital formation, which is then used in the production process to create jobs and increase income (Huang et al. 2009). In this case, government spending through education and health spending will improve the quality of education and health so that human capital will be more productive in production processes, increasing individual incomes and economic growth. With qualified human capital, innovation, and technology will also be created, which are requirements for economic development. For housing and social spending, the transmission of the increase in inclusiveness involves housing assistance and social transfers to lower middle income that help improve the quality of life, one indicator of inclusiveness. However, it should also be noted that the relationship between government spending and income inequality is complex, and the actual effect and impact of spending will depend on several factors, including the spending sector, targets, period of analysis, etc. (Anderson et al. 2018). It is generally agreed that greater spending on health, education, and public infrastructure, as long as it is managed efficiently, is the key to more inclusive growth (Hur 2015). As stated by Lopez (2004), macroeconomic stability, low inflation rates, and appropriate policies related to education and infrastructure have a positive effect on growth and reduce inequality. Therefore, fiscal policy is a very important tool in this context. This study seeks to identify the contribution of the fiscal function that can maintain inclusive growth. This is because inaccurate planning for reducing inequality can be counterproductive (Berg–Ostry 2017).

Abdullah et al. (2008) stated that fiscal policy affects GDP per capita indirectly through institutions or government institutions. It is said that the lower economic growth rate in Asian countries is due to inappropriate use of government spending and weak government institutions. Sabir and Qamar (2019) stated that most developing countries lack the income needed to carry out public spending.

In most developing countries, budget deficits and the inappropriate use of public goods or public spending result in underproductive investment into areas that would otherwise be essential for promoting sustainable development. This is mainly due to the weak institutions in these developing countries, which impede the optimization of fiscal policy.

Dzhumashev (2014) stated that weak and inefficient government institutions lead to a small government contribution to productivity. Even Hessami (2014) stated that the condition of government having a negative influence on social welfare tended to be when corruption in the institution was high. Many other studies strengthen this statement, claiming that corruption reduces the level of effectiveness of public spending, including Blackburn et al. (2011), Mauro (1995), and Devarajan et al. (1993). Sabir and Qamar (2019) also stated that fiscal policy could work more efficiently with quality institutions.

Tanzi and Davoodi (1997), Shleifer and Vishny (2018) and Mauro (1995) stated that corruption is a crime that may increase income inequality and economic costs and reduce economic growth. Gupta et al. (2002) argued that corruption has a positive effect on income inequality. Gyimah-Brempong (2002) stated that corruption positively influences income inequality in African countries, and corruption lowers the level of income per capita through a decrease in the level of productivity. Dincer–Gunalp (2008) found that corruption has a positive effect on income inequality in America.

Investment in the economy is also very important because, as a component of large expenditures, investment leads to changes in overall demand and affects the business cycle. In addition, investment leads to capital accumulation, increasing the country's potential output and encouraging long-term economic growth, which means increasing production capacity and creating jobs (Samuelson–Nordhaus 2004).

RESEARCH DESIGN/METHODOLOGY

This study used panel data to analyze inclusive growth and the factors that influence it, namely fiscal policy, institutions, and investment. Inclusive growth was proxied by the Inclusive Economic Development Index (IEDI). Fiscal policy used government spending on health (G_he), government spending on education (G_ed), government spending on housing (G_ho), and government spending on social protection (G_sos) as proxies. All spending is in the form of the percentage of Gross Regional Domestic Product (GRDP). The factor of institutional quality used the magnitude of corruption based on the audit

results of regional financial reports (Corr) as a percentage of GRDP as a proxy. Investment (Inv) used domestic and foreign investment data (PMDN-PMTA). Also, the lag of IEDI and investment were included to see the effect of the previous year and overcome autocorrelation.

The basis proposed in the framework for compiling the Inclusive Economic Development Index (IEDI) as the dependent variable prioritized identifying indicators that represent high-level, sustainable economic development achievements, which are divided into three pillars and eight main sub-pillars as well as 21 indicators, forming an inclusive economic development index. To determine the weights for the pillars, sub-pillars, and indicators, Bappenas used the method from the Asian Development Bank (ADB), the equal weight method for the sub-pillars, and the analytical hierarchy process (AHP) method for the indicators. These are the pillars, sub-pillars, and indicators with their respective weights:

Table 1. *Weights of the pillars, sub-pillars, and indicators*

Pillar 1 Economic Growth and Development (Weight 0.50)
Sub-pillar 1.1 Economic Growth (Weight 0.33)
Indicators:
Real GRDP Growth per Capita (Weight 0.50)
Manufacturing Share of GRDP (Weight 0.25)
Ratio of Banking Credit to Nominal GRDP (Weight 0.25)
Sub-pillar 1.2 Employment Opportunities (Weight 0.33)
Indicators:
Employment Opportunity Level (Weight 0.33)
Percentage of Fully Employed Population (Weight 0.33)
Percentage of Labor with Middle and High Education Levels (Weight 0.33)
Sub-pillar 1.3 Economic Infrastructure (Weight 0.33)
Indicators:
Percentage of Households Using Electricity/PLN (Weight 0.41)
Percentage of Population Having Mobile Phones (Weight 0.26)
Percentage of Roads with Good and Moderate Conditions in the total area (Weight 0.33)
Pillar 2. Equal Income and Poverty Reduction (Weight 0.25)
Sub-pillar 2.1 Inequality (Weight 0.50)
Indicators:
Gini Ratio (Weight 0.41)
Women's Income Contribution (Weight 0.26)
Ratio of Average Village and City Household Expenditure (Weight 0.33)

Sub-pillar 2.2 Poverty (Weight 0.50)
Indicators:
Percentage of very Low-income Population (Weight 0.50)
Average Protein Consumption per capita per day (Weight 0.50)
Pillar 3 Access and Opportunity Expansion (Weight 0.25)
Sub-pillar 3.1 Human Capability (Weight 0.33)
Indicators:
Expected Years of Schooling (Weight 0.40)
Percentage of Toddlers that receive Complete Basic Immunization (Weight 0.30)
Percentage of Population Having Health Insurance (Weight 0.30)
Sub-pillar 3.2 Basic Infrastructure (Weight 0.33)
Indicators:
Percentage of Households with Adequate Drinking Water Sources (Weight 0.50)
Percentage of Households with Private Toilet Facilities (Weight 0.50)
Sub-pillar 3.3 Inclusive Finance (Weight 0.33)
Indicators:
Ratio of Number of Savings Accounts to the Total Population of Productive Age (Weight 0.40)
Ratio of the Total Credit of Micro, Small and Medium Enterprises to the Total Credit Extended by Banks (Weight 0.60)

Source: Ministry of National Development Planning/ Bappenas

Calculating the sub-pillar index and the Inclusive Economic Development Index pillar was done using the interaction of the three pillars. So, before calculating the Inclusive Economic Development Index, there were two calculation steps: the calculation of the sub-pillar index and the pillar index. The value of the Inclusive Economic Development Sub-pillar Index was obtained from the sum of all indicators according to their respective weights. The sub-pillar index calculation formula is:

$$\mathrm{i}_{ij} = \sum_{k=1}^{n} \mathrm{w}_{ijk} \mathrm{X}_{ijk} \quad (1)$$

Where: i_{ij} : index of the -*j* sub-pillar on the *i*-th pillar;
X_{ijk} : indicator of the -*k* on the *i*-th pillar sub-pillar *j*-th;
w_{ijk} : weight/weight indicator of the -*k* on the *i*-th pillar sub-pillar *j*-th.
The total number of indicators are 21, so the *k* value is 1–21.

After getting a value of eight for the index of the pillar, the pillar of the Inclusive Economic Development Index was constructed to include the formulas:

$$ip_i = \prod_{j=1}^{n} i_{ij}^{\,Wij} \quad (2)$$

Where: ip_i: the *i*-th pillar index (*i* is 1–3);
w_{ij}: weight/weight of the *j*-th sub-pillar on the *i*-th pillar.

After obtaining the values of the sub-pillar index and pillar index, the last step was to determine the value of the Inclusive Economic Development Index with the formula:

$$Index = \prod_{i=1}^{n} ip_i{}^{wi} \quad (3)$$

Where: *Index*: Economic Development Index Inclusive;
w_i: weight/weight of the *i*-th pillar.

The Inclusive Economic Development Index score has a range of 1–10, with the following criteria:

1–3: conditions of inclusive development are unsatisfactory;
4–7: conditions of inclusive development are satisfactory;
8–10: conditions of inclusive development are very satisfactory.

This inclusive economic development index will be used as a proxy for the dependent variable in this study. This index is a good proxy for inclusive growth because it is compiled by state institutions with complete data and experts with the best understanding of the definitions in accordance with the conditions of the regions in Indonesia.

Corruption is an indicator that can be used to measure institutional efficiency and as a proxy for institutions (Mauro 1995). In this study, the corruption variable is measured from the value of regional losses based on the Supreme Audit Agency of the Republic of Indonesia (BPK) findings as a percentage of GRDP. The data used is the value of Non-compliance with Provisions of Legislation Causing Regional Losses in 33 provinces listed in the Summary of Examination Results conducted by the Supreme Audit Agency on Regional Government Financial Reports for 2011–2020. The value of these losses can illustrate the behavior of government officials and the lack of supervision and control over the implementation of the government institutions' Standard Operational Procedure (SOP). This is certainly one measure of the quality and efficiency of local government institutions.

Baltagi (2005) stated that the dynamic relationship in the model could be characterized by adding the dependent variable lag as a regressor. However, adding the dependent variable lag in this model might cause estimates using fixed and random effect approaches to be biased and inconsistent. The dynamic panel data model can be used to overcome this problem by estimating using the generalized

method of moments (GMM) approach. In this study, the authors applied dynamic panel data regression analysis with the GMM system to identify the effect of government spending and institutional quality on inclusive economic growth.

GMM is a parameter estimation method that was first introduced by Hansen (2017) as a parameter estimation that minimizes the squared form of weighted sample moment conditions. The advantage of using GMM is that it does not require distribution conditions such as the assumption of normality; any form of heteroscedasticity that occurs in the model can still be applied; GMM can estimate parameters even if the model cannot be solved analytically in the first derivative; and the set of instrument variables (Z_i) can be adjusted (Effendi–Setiawan 2014).

The first-difference generalized method of moments (FD-GMM) approach, which can produce unbiased, consistent, and efficient estimators, was developed by Arellano and Bond (1991). Meanwhile, Blundell and Bond (1998) stated that it is important to use initial conditions to produce efficient estimators from dynamic panel data models when T is small. Meanwhile, the system generalized method of moments (SYS-GMM) approach may be used to estimate a system of equations by combining first-difference conditions and level conditions.

In small samples, the FD-GMM estimator may produce bias and inaccuracy. The lagged level instrument in the first-difference equation is also a weak instrument in FD-GMM. To overcome this, initial conditions can be used to produce efficient estimators from dynamic panel data models when they have short time series (Blundell–Bond 1998). It is also recommended to use the generalized method of moments system (Blundell–Bond GMM-System Estimator), which is claimed to be more efficient than the previous estimator. This is due to the use of additional level information, namely conditional moments and level instrument variable matrices, in addition to the first difference by combining conditional moments and instrument variable matrices (first-difference and level).

DATA COLLECTION PROCEDURES

The population of this study is local governments in Indonesia, consisting of city/regency and provincial government data throughout Indonesia. The sample in this study was selected using a purposive sampling technique. The aim of using the purposive sampling approach, according to Kerlinger (1986), is to obtain a representative sample. Based on the definition above, the sample in this study was adjusted to the research objectives and the availability of access to the selected sample. Therefore, the researchers determined the sample criteria using

purposive sampling, namely areas with the data needed to create proxies for the variables in this study for the period 2011–2020.

Of the 34 provinces, the data used included city/regency data from only 33 provinces because one province, namely North Kalimantan Province, was only formed in 2014, so the data were incomplete. The total sample data covered 418 cities/regencies in 33 provinces, summed up into 33 groups based on each province. The data used for all the variables studied are secondary data obtained by accessing the websites of Indonesian state institutions, namely the National Development Planning Agency (Bappenas), the Audit Board of the Republic of Indonesia (BPK), the Central Bureau of Statistics (BPS), Bank Indonesia (BI), and the Directorate General of Fiscal Balance at the Ministry of Finance (DJPK). The sampling criteria were that the selected cities/regencies and provinces throughout Indonesia have complete data that could be used, namely IEDI, government spending per function (education, health, housing, and social functions), BPK Findings Data on local government financial reports, and domestic and foreign investment data (PMDN-PMTA) for the period 2011–2020.

RESULTS AND DISCUSSIONS

The dynamic panel data regression model specification test was carried out using the Arellano–Bond and Sargan tests. The Arellano–Bond test (AB test) was conducted to determine the correlation between one residual component and other residual components in the FD-GMM and SYS-GMM models. The results of the specification test show that the approaches with FD-GMM and SYS-GMM met the specification test, but the results with SYS-GMM provided a smaller standard error, so the more efficient SYS-GMM approach was used. This is in accordance with Blundell and Bond's (1998) statement that the estimator in FD-GMM is biased and has parameters that lack precision. So, in this study, SYS-GMM, which was proven to have less bias and higher efficiency than the FD-GMM estimator, according to the findings of Soto (2009), was used.

The Inclusive Economic Development Index (IEDI) equation with the SYS-GMM approach shows that the consistent estimator criteria are met. This is indicated by the results of the Arellano–Bond (AB) statistical value of m^2 of –0.4673 and a probability value of 0.6403, which is not significant at the 5% significance level. The dynamic model perfection criteria can be seen from Sargan's estimation, with a statistical value of 31.8668 and a probability of 0.8943, which is not significant at the 5% significance level. Thus, the conditions for being a valid instrument are met (Table 2.).

The estimation was carried out in the dynamic panel data regression model with the GMM two-step estimator system approach. The intercept and slope values for each independent variable with the SYS-GMM approach are shown in Table 3.

Table 2. *Criteria test results*

Name	Criteria test results	
Sargan test		
Statistical value		31.8668
P value		0.8943
Arellano–Bond test		
Order	*z*	*Prob > z*
1	–3.6082	0.0003
2	–0.4673	0.6403

Source: Processed data.

Table 3. *Dependent variables (IEDI)*

IEDI	Coef.	Std. Error	P > |z|
IEDI (–1)	0.5406***	0.0091	0.000
G_ed	–0.0016	0.0073	0.822
G_he	–0.0181***	0.0040	0.000
G_ho	0.1059***	0.0080	0.000
G_soc	0.4020***	0.0224	0.000
Inv.	0.1114***	0.0197	0.000
Corr.	–0.3053223***	0.0289	0.000
Inv. (–1)	0.0032785	0.0240	0.892
Constant	5.1194370	5.7779	0.376

Source: Processed data.
*Notes: *, **, ***: significant at 10, 5, and 1% levels, respectively.*

The next stage is the interpretation of the variables that significantly influence the Inclusive Economic Development Index for provinces in Indonesia. The estimation results show that government spending on housing and social affairs has a positive and statistically significant effect on the inclusiveness index. However, health spending has a negative and significant effect on IEDI, while spending on education has a negative but not significant effect on IEDI.

The results show that an increase in housing spending can increase IEDI, which aligns with some previous findings (Johansson 2016; Kneller et al. 1999; Cevik – Correa-Caro 2020; Anderson et al. 2018). Increased social expenditure has a positive and significant effect on increasing IEDI, in accordance with several previous findings (Gnangoin et al. 2019; Kneller et al. 1999; Anderson et al. 2018; Cevik – Correa-Caro 2020). An increase in health spending actually has a significant negative effect on IEDI. Likewise, education spending has a negative effect, but this is not significant. This is in accordance with previous findings (Hur 2015; Anderson et al. 2018; Gnangoin et al. 2019; Cevik – Correa-Caro 2020).

The effect of health and education spending is not in accordance with the hypothesis or pre-existing theories that education and health spending should positively affect inclusive growth. This has also been found by several previous researchers who found a negative relationship between health and education spending and growth rates. Eggoh et al. (2015) found that health and education spending related to human capital development negatively and significantly affected growth in African countries. This was also found by Devarajan et al. (1996). Maitra and Mukhopadhyay (2013) also found that education and health spending in the Philippines had a negative effect on GDP. This can occur due to inefficiencies in forming human capital, which is the goal of these health and education expenditures. This conclusion is in accordance with Eggoh's research, which adhered to Grossman's theory (1972) that expenditure in the health and education sectors should be viewed as input for the formation of human capital so that if there is a negative influence of these expenditures, it could be caused by inefficiencies in the formation of human capital process related to structural and institutional factors. Meanwhile, the lag coefficient of the IEDI indicator has a positive and significant effect on the IEDI of regions in Indonesia. Thus, it can be concluded that the IEDI in year *t* was influenced by the IEDI level of the area in the previous year, which can be interpreted as meaning that inclusive conditions in the previous year could increase IEDI in the following year.

The relationship between investment and inclusive development is positive and significant. Investment, which in this case refers to the domestic and foreign investment proxy as a share (%) of GRDP, has a positive influence because it is able to create job opportunities and increase income in the community's economy, thereby reducing the gap between the poor and the rich (Eggoh et al. 2015). According to theory, institutional quality represented by the corruption variable has an effect. Institutional quality is a strong catalyst for facilitating and promoting inclusiveness at various stages of economic development, given the remarkable differences among income groups that were uncovered. Corruption has a significant negative effect on inclusive development (Adeleye et al. 2023).

In addition, it is revealed that the performance of small and medium-sized businesses is negatively associated with corruption. Furthermore, corruption in public service exacerbates political instability (Abdissa et al. 2022). Good quality institutions increase the trust and incentive of investors related to investing in projects in the region, reducing economic costs due to the lack of bribes and the existence of legal certainty about invested funds (Beltrán 2016).

CONCLUSIONS

The results of this study indicate that most government expenditure has a positive and significant influence on the inclusive development of regions in Indonesia. Expenditures that have a positive effect include spending on housing functions and social functions. Health expenditure has a significant negative effect, and education expenditure has a negative but not significant effect. The study of institutional factors indicates that corruption, which was a proxy for the quality of institutions, had a negative and significant impact on inclusive economic development in regions in Indonesia. This is in accordance with research by (Sabir–Qamar 2019) which stated that public policy accompanied by the existence of good institutions has a positive and significant influence on inclusive growth.

However, inclusive growth is not a result that can be achieved easily. This is a long process that requires the effective cooperation of many elements and stakeholders in the development of an area, leading to the implementation of the steps that directly reduce inequality and increase economic growth, labor productivity, employment, and job creation.

The government must take steps to increase spending that has a positive and direct effect on increasing inclusiveness, namely housing and social spending. While education and health expenditure needs to be continuously increased, there is also a need for supervision of implementation to avoid leakages and inefficiencies and promote optimal human capital development. This requires a healthy business and investment climate that incentivizes investors to increase their investment in the region, which will increase the production of goods and services, requiring hiring new workers and increasing employment that increases regional income levels. The steps in such a fiscal policy must also be accompanied by continuous efforts to improve the quality of government institutions to reduce corruption and create government institutions that can work effectively, efficiently, and transparently.

REFERENCES

Abdissa, G. – A. Ayalew – A. Dunay – C. B. Illés (2022) Determinants of sustainable growth of SMEs in developing countries: The case of Ethiopia. *Economies*, Vol. 10, No. 8, pp. 1–16, DOI: 10.3390/economies10080189.

Abdon, A. M. – G. B. Estrada – M. Lee – D. Park (2014) *Fiscal Policy and Growth in Developing Asia*. Asian Development Bank Economics Working Paper Series No. 412, DOI: 10.2139/ssrn.2515779.

Abdullah, H. – M. S. Habibullah – A. Z. Baharumshah (2008) Fiscal policy, institutions, and economic growth in Asian economies: Evidence from the Pedroni's Cointegration approach. *International Journal of Business and Management*, Vol. 3, No. 4., pp. 117–135, DOI: 10.5539/ijbm.v3n4p107.

Adeleye, B. N. – S. Arogundade – B. Mduduzi (2023) Empirical analysis of inclusive growth, information and communication technology adoption, and institutional quality. *Economies*, Vol. 11, No. 4., DOI: 10.3390/economies 11040124.

Ali, I. – H. H. Son (2007) Measuring inclusive growth. *Asian Development Review (Manila)*, Vol. 24, No. 1., pp. 11–31.

Anderson, E. – M. A. J. d'Orey – M. Duvendack – L. Esposito (2017) Does government spending affect income inequality? A meta-regression analysis. *Journal of Economic Surveys*, Vol. 31, No. 4., pp. 961–987, DOI: 10.1111/ joes.12173.

Anderson, E. – M. A. J. d'Orey – M. Duvendack – L. Esposito (2018) Does government spending affect income poverty? A meta-regression analysis. *World Development*, Vol. 103., pp. 60–71, DOI: 10.1016/j.worlddev.2017.10.006.

Arellano, M. – S. Bond (1991) Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies*, Vol. 58, No. 2., pp. 277–297. DOI: 10.2307/2297968.

Baltagi, B. H. (2005) *Econometric Analysis of Panel Data.* (3rd Edition). Hoboken (NJ, US), John Wiley & Sons, Ltd.

Bappenas / Kementerian. PPN [Ministry of National Development Planning/ National Development Planning Agency] (2019) *Buku Manual Indeks Pembangunan Ekonomi Inklusif.* [Inclusive Economic Development Index Manual.] Available at: https://inklusif.bappenas.go.id/indeks.

Barro, R. J. (1990) Government spending in a simple model of endogenous growth. *Journal of Political Economy*, Vol. 98, No. 5., S103–S126.

Beltrán, A. (2016) Does corruption increase or decrease employment in firms? *Applied Economics Letters*, Vol. 23, No. 5., pp. 361–364, DOI: 10.1080/ 13504851.2015.1076137.

Berg, A. G. – J. D. Ostry (2017) Inequality and unsustainable growth: Two sides of the same coin? *IMF Economic Review*, Vol. 65, No. 4., pp. 792–815. DOI: 10.1057/s41308-017-0030-8.

Blackburn, K. – N. Bose – M. E. Haque (2011) Public expenditures, bureaucratic corruption and economic development. *The Manchester School*, Vol. 79, No. 3., pp. 405–428, DOI: 10.1111/j.1467-9957.2009.02168.x.

Blundell, R. – S. Bond (1998) Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, Vol. 87, No. 1., pp. 115–143, DOI: 10.1016/S0304-4076(98)00009-8.

Cevik, S. – C. Correa-Caro (2020) Growing (un)equal: Fiscal policy and income inequality in China and BRIC+. *Journal of the Asia Pacific Economy*, Vol. 25, No. 4., pp. 634–653, DOI: 10.1080/13547860.2019.1699985.

Charron, N. – L. Dijkstra – V. Lapuente (2014) Regional governance matters: Quality of government within European Union Member States. *Regional Studies*, Vol. 48, No. 1., pp. 68–90, DOI: 10.1080/00343404.2013.770141.

Devarajan, S. – V. Swaroop – H-F. Zou (1993) *What Do Governments Buy? The Composition of Public Spending and Economic Performance*. Policy Research Working Paper Series, No. 1082., Washington D.C. (US), World Bank.

Devarajan, S. – V. Swaroop – H-F. Zou (1996) The composition of public expenditure and economic growth. *Journal Monetary Economics*, Vol. 37, No. 2–3., pp. 313–344.

Dincer, O. C. – B. Gunalp (2008) *Corruption, Income Inequality, and Poverty in the United States*. FEEM Working Paper No. 54. DOI: http://dx.doi.org/10.2139/ssrn.1158446.

Dzhumashev, R. (2014) The two-way relationship between government spending and corruption and its effects on economic growth. *Contemporary Economic Policy*, Vol. 32, No. 2., pp. 403–419, DOI: 10.1111/coep.12025.

Effendi, N. – M. Setiawan (2014) *Ekonometrika. Pendekatan Teori dan Terapan*. [Econometrics. Theoretical and Applied Approaches]. Jakarta (Indonesia), Salemba Empat Publishers.

Eggoh, J. – H. Houeninvo – G-A. Sossou (2015) Education, health and economic growth in African countries. *Journal of Economic Development*, Vol. 40, No. 1., pp. 93–111, DOI:10.35866/caujed.2015.40.1.004.

Gnangoin, Y. T. B. – L. Du – G. R. Assamoi – A. J-R. Edjoukou – D. F. Kassi (2019) Public spending, income inequality and economic growth in Asian countries: A panel GMM approach. *Economies*, Vol. 7, No. 4, Art. No. 115, DOI: 10.3390/economies7040115.

Grossman, M. (1972) On the concept of health capital and the demand for health. *The Journal of Political Economy*, Vol. 80, No. 2., pp. 223–225.

Gupta, S. – M. Verhoeven – E. R. Tiongson (2002) The effectiveness of government spending on education and health care in developing and transition economies. *European Journal of Political Economy*, Vol. 18, No. 4., pp. 717–737.

Gyimah-Brempong, K. (2002) Corruption, economic growth, and income inequality in Africa. *Economics of Governance*, Vol. 3., pp. 183–209, DOI: 10.1007/s101010200045.

Hansen, L. P. (2017) Generalized Method of Moments Estimation. In: Vernengo, M. – E. Perez Caldentey – B. J. Rosser Jr. (eds.): *The New Palgrave Dictionary of Economics*. London (UK), Palgrave Macmillan, pp. 1–10, DOI: 10.1057/978-1-349-95121-5_2486-2.

Hessami, Z. (2014) Political corruption, public procurement, and budget composition : Theory and evidence from OECD countries. *European Journal of Political Economy*, Vol. 34., pp. 372–389, DOI: 10.1016/j.ejpoleco.2014.02.005.

Huang, H.–C. (River) – Lin, Y.–C. – Yeh, C.–C. (2009). Joint determinations of inequality and growth. *Economics Letters*, Vol. 103, No. 3., pp. 163–166. DOI: 10.1016/j.econlet.2009.03.010.

Hur, S-K. (2015) *Government Spending and Inclusive Growth in Developing Asia*. Asian Development Bank Economics Working Paper Series No. 415, DOI: 10.2139/ssrn.2558893.

Johansson, Å. (2016) *Public Finance, Economic Growth and Inequality: A Survey of the Evidence*. OECD Economics Department Working Paper No. 1346, OECD Publishing, DOI: 10.1787/094bdaa5-en.

Kerlinger, F. N. (1986) *Foundations of Behavioral Research.* (3rd Edition). New York (US), Holt, Rinehart and Winston.

Kneller, R. – M. F. Bleaney – N. Gemmell (1999) Fiscal policy and growth: Evidence from OECD countries. *Journal of Public Economics*, Vol. 74, No. 2., pp. 171–190, DOI: 10.1016/S0047-2727(99)00022-5.

Kolawole, B. O. (2016) Government spending and inclusive-growth relationship in Nigeria: An empirical investigation. *Zagreb International Review of Economics and Business*, Vol. 19, No. 2., pp. 33–56, DOI: 10.1515/zireb-2016-0007.

Lopez, J. H. (2004) Pro-poor growth: A review of what we know (and of what we don't). World Bank's PREM Poverty Group. Washington D.C. (US), World Bank.

Maitra, B. – C. K. Mukhopadhyay (2013) Public spending on education, health care and economic growth in selected countries of Asia and the Pacific. *Asia–Pacific Development Journal*, Vol. 19, No. 2., pp. 19–48, DOI: 10.18356/e7c7bcb7-en.

Mandlebe, W. (2014) *Human Capital and Inclusive Growth: A Case Study of Botswana*. Ph D Thesis. Minneapolis (US), Walden University.

Martínez-Vázquez, J. – V. Vulovic – B. Moreno-Dodson (2012) The impact of tax and expenditure policies on income distribution: Evidence from a large panel of countries. *Hacienda Pública Española* [Review of Public Economics], Vol. 200, No. 1., pp. 95–130.

Mathai, K. – C. Duenwald – A. Guscina (eds. 2020) *Social Spending for Inclusive Growth in the Middle East and Central Asia*. IMF Departmental Papers No. 2020/012, Washington D.C., International Monetary Fund.

Mauro, P. (1995) Corruption and Growth. *The Quarterly Journal of Economics*, Vol. 110, No. 8., pp. 681–712.

Raheem, I. D. – K. O. Isah – A .A. Adedeji (2018) Inclusive growth, human capital development and natural resource rent in SSA. *Economic Change and Restructuring*, Vol. 51., pp. 29–48, DOI: 10.1007/s10644-016-9193-y.

Ranieri, R. – R. A. Ramos (2013) *Inclusive Growth: Building up a Concept*. Working Papers 104., Brasília (Brazil), International Policy Centre for Inclusive Growth.

Sabir, S. – M. Qamar (2019) Fiscal policy, institutions and inclusive growth: Evidence from the developing Asian countries. *International Journal of Social Economics*, Vol. 46, No. 6., pp. 822–837, DOI: 10.1108/IJSE-08-2018-0419.

Samuelson, P. – W. Nordhaus (2004) *Ilmu Makroekonomi*. [Macroeconomics]. Jakarta (PT), Media Global Edukasi.

Shleifer, A. – R. W. Vishny (2018) Corruption. *The Quarterly Journal of Economics*, Vol. 108, No. 3., pp. 599–617.

Tanzi, V. – H. Davoodi (1997) *Corruption, Public Investment and Growth*. IMF Working Paper, No. 139., Washington D.C., International Monetary Fund.

Woolard, I. – R. Metz – G. Inchauste – N. Lustig – M. Maboshe et al. (2015) How much is inequality reduced by progressive taxation and government spending? *Econ 3x3*, Available at: http://www.econ3x3.org/article/how-much-inequality-reduced-progressive-taxation-and-government-spending.

World Economic Forum (2018) *The Inclusive Development Index 2018. Summary and Data Highlights*. Cologny/Geneva (Switzerland), World Economic Forum.