Analysis of the Impact of Fiscal Decentralization Policies on Indonesia's Economic Growth During the Covid-19 Pandemic

Muhammad Eko Purnomo¹, Agus Suman², Susilo³
Universitas Brawijaya, Indonesia¹,²,³
Jl. MT. Haryono No. 165, Malang, 65145, Indonesia
Correspondence Email: muhekopurnomo@student.ub.ac.id
ORCID ID: 0000-0001-5097-379X

ABSTRACT

The Covid-19 pandemic has put pressure on the global economy and Indonesia. The impact of Covid-19 is the largest since the 2008 Global Financial Crisis. This study aims to describe the fiscal policies pursued by the Indonesian government in response to the crisis during the pandemic, as well as to examine the influence of balancing funds and capital expenditures on local own-source revenues and their impact on the economic growth rate in 34 provinces in Indonesia. The results of this study showed Indonesian government's success in implementing a flexible fiscal policy with various fiscal stimulus has had a positive impact on the handling of the Covid-19 pandemic in Indonesia both from a health and economic perspective. Based on the results of the path analysis, the balancing funds and local own-source revenue variables have a significant influence on the economic growth rate, while the capital expenditure variable does not have a significant influence on the economic growth rate.

Keywords: Balancing Funds, Capital Expenditures, Economic Growth Rate, Local Own-Source Revenues, Path Analysis
INTRODUCTION

At the end of December 2019, the first case of Covid-19 appeared in Wuhan and spread to many cities throughout China. The difficulty in controlling covid-19 at the time was that like other diseases caused by viruses, it took a long time to find the right vaccine. During this long period, it turned out that covid-19 spread rapidly and uncontrollably. The spread of this virus continues to increase globally to all corners of the world in early 2020 and until November 2021. During this period, 254 million cases were confirmed and the number of deaths was up to 5.1 million. The first case in Indonesia is thought to have originated from transmission by a foreign national from Japan who entered Indonesian territory. Since then, the Covid-19 virus has spread very quickly to all provinces in Indonesia.

Various steps have been taken to suppress the spread of the Covid-19 virus, including starting at the end of 2020 several types of vaccines have been developed in various countries. As of March 23, 2021, it was recorded that the Covid-19 vaccination had been carried out in 135 countries with a total of 468 million vaccine doses given. In Indonesia, the vaccination rate is still very small, with only 8.23 million doses or only about three percent of the total population. Of course, this is a concern for the Indonesian government to increase covid-19 vaccinations for the entire population so that the impact does not get worse.

The Covid-19 pandemic is not only having an impact on health but also on the economy. In 2020, many countries in the world are experiencing a recession due to the pandemic. Over a decade since Global Financial Crisis (GFC) in 2018, global economic growth has yet to return to pre-GFC levels. This condition was exacerbated by the Covid-19 pandemic, where global GDP growth slumped to -3.5% yoy.

Figure 1. Global GDP Growth (% yoy) and World Trade Vol Growth (% yoy) recent years

Source: International Monetary Fund (2020)

The economic recession that occurred in the end also had a domino effect on employment conditions and population welfare. In 2020, the unemployment rate also increased in all countries compared to 2019. The pandemic has had a negative impact on economic actors, so many have downsized or even closed their businesses. The fact
that many people lose their jobs can have a direct impact on their level of well-being. A significant increase in unemployment rates is directly proportional to an increase in poverty rates in the affected countries.

**Figure 2.** Percentage of Unemployment Rates in Several Countries (2019-2020)

![Percentage of Unemployment Rates in Several Countries (2019-2020)](image)

Source: Macrotrends (n.d.)

The Manufacturing Purchasing Managers' Index (PMI) is another economic indicator for assessing the state of a country’s economy. The Manufacturing PMI is calculated by surveying a number of purchasing managers in various industries. In Indonesia, the manufacturing industry is still the leading sector to support the economy of its population. The manufacturing industry is a sector that generates the largest added value and is a fairly high labor absorber as well. The performance of the manufacturing industry as a leading sector can also reflect the performance of the economy in Indonesia as a whole. When viewed from the Manufacturing PMI as a proxy in measuring the prospects or performance of the manufacturing sector, in the period 2019 to early 2020 it still shows a fairly good trend. However, since the discovery of the first covid-19 case in Indonesia, namely in March until the end of the first semester of 2020, the Manufacturing PMI index has shown a very significant decline. Of course, this is a dangerous signal considering that manufacturing is one of the government’s mainstay sectors to support the economy of its population.

**Figure 3.** Indonesian Manufacturing Purchasing Manager Index (PMI)

![Indonesian Manufacturing Purchasing Manager Index (PMI)](image)

Source: Lokadata (2020)

Various extraordinary policies have been taken by a country to get out of the pandemic and restore the economy. Policies that can be taken by the government can generally
be divided into two, namely policies in the fiscal sector and monetary sector. According to the IMF, if policies are only focused on one side, such as monetary, it will have a complicated impact on the country’s financial stability.

From this empirical evidence, it encourages researchers to conduct more studies on how the fiscal policy taken by the Indonesian government in overcoming the crisis that occurred during the pandemic. Furthermore, the analysis is also carried out to see the success of fiscal decentralization policies in overcoming problems due to the Covid-19 pandemic.

LITERATURE REVIEW

There are three types of fiscal policy, namely expansionary fiscal policy, contractionary fiscal policy, and balanced fiscal policy. Expansionary fiscal policy is a fiscal policy that increases government spending and/or reduces the tax rate, resulting in a deficit because spending exceeds revenue. Conversely, a contractionary fiscal policy is one that reduces government spending and/or increases the tax rate so as to achieve a surplus, i.e., to ensure that revenues exceed expenditures. A balanced fiscal policy can be achieved by setting the value of government expenditures and revenues at the same level (neither surplus nor deficit).

Fiscal policy is one of the policies in the economic field that aims to improve the economic conditions of a country or region by regulating government revenue and expenditure (Badan Kebijakan Fiskal, 2014). This statement also supported by Kumajas, Rarung, and Malau (2022) who found out that fiscal policy is one of the instruments that can be used to increase economic growth. The benefits or functions of fiscal policy can be divided into three, namely 1) the allocation function, 2) the distribution function, and 3) the stabilization function (Jamil, 2017). The main function of government in fiscal policy is the distribution function (Siregar, 2019). Based on this function, the government is expected to be able to distribute income equally among all groups in society. In this case, the government can use fiscal and monetary policies to improve the macroeconomy.

The implementation of fiscal decentralization is expected to accelerate public services, develop regional potential, and mobilize local communities, so that more effective, efficient and participatory government management is realized. In addition, fiscal decentralization is expected to create macroeconomic stability and improve the economy of a region (Bird & Vaillancourt, 1998).

There are several previous studies related to the research being carried out by the current researcher. Göcen, Bayhanay, and Nülifer (2017) conducted research on the effect of fiscal decentralization on economic growth rates in Organisation for Economic Co-operation and Development (OECD) member countries. By using panel data analysis, it is known that different criteria for measuring decentralization and different empirical methods have different effects on economic growth rates in these countries.

In addition, the impact of fiscal decentralization on the economic growth rate, inflation rate, and Gini coefficient was analyzed in eleven American countries. The results show that revenue decentralization is more effective in preventing inflation and that expenditure decentralization is more likely to have a positive effect on economic growth (Antonio, 2016). Furthermore, according to research conducted by Ginting, Hamzah, and Sofilda (2019), fiscal decentralization has a positive and significant effect on economic growth rates in Indonesia.
RESEARCH METHOD

This research uses secondary data that comes from the Bloomberg, World Bank, OECD, Markit Economics, Macrotrends, Statistic Indonesia, and Directorate General of Fiscal Balance – Ministry of Finance Republic of Indonesia. The descriptive analysis is used to analyze and describe fiscal decentralization policies during the COVID-19 pandemic in Indonesia. The inferential analysis used in this study to analyze the impact of fiscal decentralization policies on economic growth is path analysis.

Through path analysis, it can be seen the direct and indirect influence between balance funds, capital expenditures, and local own-source revenue to the economic growth rate in 34 provinces in Indonesia during the Covid-19 pandemic in 2020. The variables used in this study, both dependent variables, independent variables, and their operational definitions are explained in Table 1 as follows.

Table 1. Dependent Variable, Independent Variables, and Operational Definitions

<table>
<thead>
<tr>
<th>Variables</th>
<th>Operational Definitions</th>
</tr>
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<tbody>
<tr>
<td>Dependent Variable</td>
<td>Economic Growth Rate</td>
</tr>
<tr>
<td>Independent Variable</td>
<td>Balance Funds</td>
</tr>
<tr>
<td></td>
<td>Capital Expenditures</td>
</tr>
<tr>
<td></td>
<td>Local Own-source Revenue</td>
</tr>
</tbody>
</table>

Based on the literature review, the relationship between variables can be described in the path diagram as follows.

Figure 4. Path Diagram (The Relationship Between Variables)

The structural equation model used in this study is as follows:

\[ PAD = p_1 DP + p_2 BM + e_1 \]  
\[ LPE = p_3 DP + p_4 BM + p_5 PAD + e_2 \]

where:

- \( p_1, p_2, \ldots, p_5 \) = Path Coefficients
- \( e_1, e_2 \) = Error Composite
RESULTS

Based on the results of descriptive analysis related to fiscal decentralization policies in Indonesia during the Covid-19 pandemic, it is known that several policies were implemented for ministries, local governments, the health sector, small and micro enterprises, and the poor. According to the Minister of Finance's presentation at the Indonesia Bangkit forum in late 2011, the policies issued by the Indonesian government can be divided into three stages, namely extraordinary policy, reopening policy, and recovery & reform policy.

To overcome problems in the health and economic sectors during the Covid-19 pandemic, the Indonesian Government through Government Regulation in Lieu of Law (Perpu) No. 1 of 2020 established the National Economic Recovery (PEN) program. The mechanism of the PEN program focuses not only on the economy but also supports the handling of the health crisis. The PEN program is designed by the Government to restore the Indonesian economy by protecting the poor and vulnerable to poverty and supporting the business world so that it does not get worse.

At the start of the pandemic, the Indonesian government's rapid response was aimed at implementing Community Activity Restrictions (PPKM), providing medical equipment, and accelerating vaccinations. In the government spending sector, a budget of up to 62,67 trillion rupiahs was carried out to be allocated to the Ministry of Health, the National Disaster Relief Agency, and the Covid-19 Task Force.

Budget reallocation and refocusing at the beginning of the Covid-19 pandemic were directed to meet the needs of vaccination, medical treatment of Covid-19 patients, and the fulfillment of medical equipment. The large budget for vaccination implementation has boosted the vaccination rate of the Indonesian population to become one of the countries with high vaccination rates in the world.

Figure 5. Total Number of Covid-19 Vaccination Doses Provided in Various Countries

![Source: Bloomberg (2021)](image)

The reopening and recovery policy marked by the provision of stimulus and cash assistance for the poor, and small and micro enterprises. According to data from the Ministry of Finance, in 2021 funds for national economic recovery were allocated up to 744 trillion rupiahs. The funds were disbursed for social protection programs, small and micro enterprises support, business incentives, the health sector, and other priority programs.
On the economic side, several macro indicators have started to show a positive trend after the implementation of fiscal stimulus by the government. Which can be illustrated by the movement of Indonesia’s economic growth rate, which recorded a positive value starting in the second quarter of 2021. In the second quarter of 2021, the economic growth rate was at 7.3 percent compared to the second quarter of 2020 (year-on-year) at -5.1 percent.

**Figure 6. Indonesia’s Quarterly Economic Growth Rate (Percent)**

The good increase in the rate of economic growth was supported by an increase in its leading sector, the manufacturing industry. The easing of population mobility and supported by several government policies related to taxation for businesses encourage manufacturing industry activities to gradually return to normal. At the beginning of the Covid-19 pandemic, PMI had dropped to 28.6 and has continued to increase since the second semester of 2020, even in October 2021 the Indonesian Manufacturing PMI recorded the highest record in the history of the PMI survey with 57.2. This figure illustrates that business conditions across Indonesia's manufacturing sector are starting to improve, which is also inseparable from the easing of population mobility and increasing domestic demand. In addition, the decline only occurred in July 2021 when there was a peak in the spread of the second wave of the Covid-19 virus in Indonesia.

**Figure 7. Indonesian Manufacturing Purchasing Manager Index (PMI) – present**

The improving economic situation has also had a positive influence on the labor sector. In early 2021, the large amount of stimulus disbursed by the Indonesian government to business sector increased production activity and the creation of new jobs. This made labor absorption improve so that in February 2021 the number of unemployed people in
Indonesia fell to 8.7 million people or 6.26 percent. However, the second wave of pandemic Covid-19 spread from May to July 2021 then prompted the government to impose Emergency Community Activity Restrictions (PPKM), it again had a significant impact on workers in Indonesia so in August 2021 the number of unemployed people increased slightly to 6.49 percent.

**Figure 8. Open Unemployment Rate in Indonesia, percent**

Source: Badan Pusat Statistik (2022)

Furthermore, researchers used path analysis to see the effect of fiscal decentralization on Indonesia’s economic growth rate during the pandemic with the following results.

**Path Coefficient Estimation**

1) 

(1) \[ \text{PAD} = 1.288^{**} \text{DP} - 0.552 \text{BM} + 0.355 \]  
\[ R^2 = 0.645 \]

(2) \[ \text{LPE} = 0.931^{**} \text{DP} - 0.147 \text{BM} - 1.011^{**} \text{PAD} + 0.625 \]  
\[ R^2 = 0.375 \]

Significant level at **5%

Based on the equation in sub-structure 1, it is known that the balance fund (DP) has a significant influence while capital expenditure (BM) has no significant influence on local own-source revenue (PAD). Based on the equation in sub-structure 2, it is known that the balance fund (DP) and local own-source revenue (PAD) have a significant influence on economic growth rate (LPE), while the capital expenditure (BM) has no significant influence on economic growth rate (LPE).

The existence of an insignificant path coefficient in the previous model led to the need for model trimming. Model trimming is a model used to improve a model in path analysis. The way to do trimming is to remove exogenous/independent variables that have insignificant path coefficients from the model formed. The results of trimming are as follows.

**Figure 9. Path Diagram – Model Trimming**
Path Coefficient Estimation 2)

(1) \( \text{PAD} = 0,789^{*} \text{DP} + 0,378 \)  
\( R^2 = 0,622 \)

(2) \( \text{LPE} = 0,777^{*} \text{DP} - 0,994^{*} \text{PAD} + 0,627 \)  
\( R^2 = 0,373 \)

Significant level at **5%

Table 2. Decomposition of influence between research variables

<table>
<thead>
<tr>
<th>Research Variables</th>
<th>Direct Influence</th>
<th>Indirect Influence</th>
<th>Total Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP to PAD</td>
<td>0,789</td>
<td>-</td>
<td>0,789</td>
</tr>
<tr>
<td>DP to LPE</td>
<td>0,777</td>
<td>-0,784</td>
<td>-0,007</td>
</tr>
<tr>
<td>PAD to LPE</td>
<td>-0,994</td>
<td>-</td>
<td>-0,994</td>
</tr>
</tbody>
</table>

Based on the table above, the following results are obtained:

1. Balance fund (DP) has a direct influence on local own-source revenue (PAD) at 0.789. This influence is positive, which means that the greater the balance fund, the value of local own-source revenue (PAD) will increase.
2. Balance fund (DP) has a direct influence on the economic growth rate (LPE) at 0.777 with a positive value, which means that the larger the balance fund will increase the economic growth rate (LPE). However, if we look at the indirect influence of balance funds on economic growth rate (LPE) through local own-source revenue (PAD), a negative influence value at -0.784 is obtained. From these direct and indirect influence, the total influence of the balance fund (DP) on the economic growth rate (LPE) is -0.007.
3. Local own-source revenue (PAD) has a direct influence on the Economic Growth Rate (LPE) of -0.994. This influence is negative, which means that the greater the regional original income (PAD), the smaller the Economic Growth Rate (LPE). This is in line with research conducted by Dewi and Suputra (2017) that Local own-source revenue (PAD) has a negative influence on economic growth rate (LPE).
4. When viewed from the total value of the influence, the most dominant influence on economic growth rate (LPE) is local own-source revenue (PAD), which is -0.994.

The results of path analysis in this study are in accordance with several studies that have been conducted previously, including by Fadli (2014) that balance funds as part of fiscal decentralization, affects the economic growth rate of a region.

Table 3. Goodness of Fit

<table>
<thead>
<tr>
<th>Feasibility Measure</th>
<th>Value</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>1,000</td>
<td>&gt; 0,90</td>
</tr>
<tr>
<td>Tucker-Lewis Index (TLI)</td>
<td>1,000</td>
<td>&gt; 0,90</td>
</tr>
<tr>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>0,000</td>
<td>&lt; 0,08</td>
</tr>
<tr>
<td>Standardized Root Mean Square Residual (RMSR)</td>
<td>0,000</td>
<td>&lt; 0,08</td>
</tr>
</tbody>
</table>

Of the four measures of model feasibility, all of them meet the limit values. Thus, the model used in this study is declared fit or suitable for use.
CONCLUSION

The flexible fiscal policy implemented by the Indonesian government with various stimuli and budget allocations to important posts has had a positive impact on the handling of the Covid-19 pandemic in Indonesia both in terms of health and economy. From the health side, the policy of increasing government spending on the health sector has encouraged the implementation of vaccinations in Indonesia to increase significantly.

Meanwhile, from the economic side, the policy of providing social assistance and other stimuli has made the problem of unemployment and poverty due to the Covid-19 pandemic can be handled quite well. In addition, the fiscal policy of easing taxes and import duties is a very positive thing for the business world to get back on its feet after slumping at the beginning of the Covid-19 pandemic.

At the regional level analysis related to fiscal decentralization, the balance fund has a direct influence on the economic growth rate. In addition, the balance fund also indirectly has a significant influence on the economic growth rate through local own-source revenue in Indonesia during the Covid-19 pandemic.

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DECLARATION OF CONFLICTING INTERESTS

The purpose of this study is for academic only and there is no personal interest from authors.

REFERENCES


