Economics Development Analysis Journal Vol (1) (2023)

Economics Development Analysis Journal

http://journal.unnes.ac.id/sju/index.php/edaj

The Impact of Fiscal Variables on Economic Growth in Indonesia

Yesi Aprianti[1]✉, [2]Muliati, [3]Andra Sulindrina

[1,2,3]Faculty of Economics and Business, Mulawarman University

Article Information

History of Article
Received October 2022
Accepted December 2022
Pusblished February 2023

Keywords:
Government Expenditure, locally-generated revenue, labor force participation rate, Economic Growth

Abstract

Economic growth is one indicator of the government's success, and the declining economic growth rates, even at the level of districts/cities, became the strategic issue of this research. The research objective of the researcher is to analyze economic growth as a regional productivity output and address specific research problems, whether economic growth, regional income (PAD), government's direct expenditure, balancing fund, and labor participation influence the current economic growth. The scope of the research is districts/cities in Indonesia during 2015-2020. Panel data were analyzed using General Moment Method (GMM) estimation. The results of panel data processing in 487 regencies/cities in Indonesia show that there is a significant influence between the previous year's economic growth and direct spending on economic growth. This indicates that regional economic growth in Indonesia still requires expansionary policies. Furthermore, the researcher did not find any empirical evidence of the influence of PAD growth and balancing funds on economic growth, while the labor force participation rate/TPAK shows an insignificant negative relationship to economic growth.

✉ Corresponding author :
Address: Universitas Mulawarman, Samarinda, Indonesia
E-mail: yesi.aprianti@feb.unmul.ac.id

ISSN 2252-6560

INTRODUCTION

Positive economic growth is a regional performance that is targeted for a government. In other words, economic growth is an indicator of the success of government intervention in the economy. Positive economic growth can be interpreted as higher economic activity in the current period than in the previous year (Munandar, 2017). According to Mankiw (2003), the productivity produced by the state can be grouped in two ways. First, as the total income of each person (actors) in these economic activities, and second, as a total expenditure in economic output of goods and services. Connecting economic growth to productivity means that capital and labor components shape economic growth. Based on data on economic growth in Indonesia within the last five years, economic growth of Indonesia can be shown as follows:

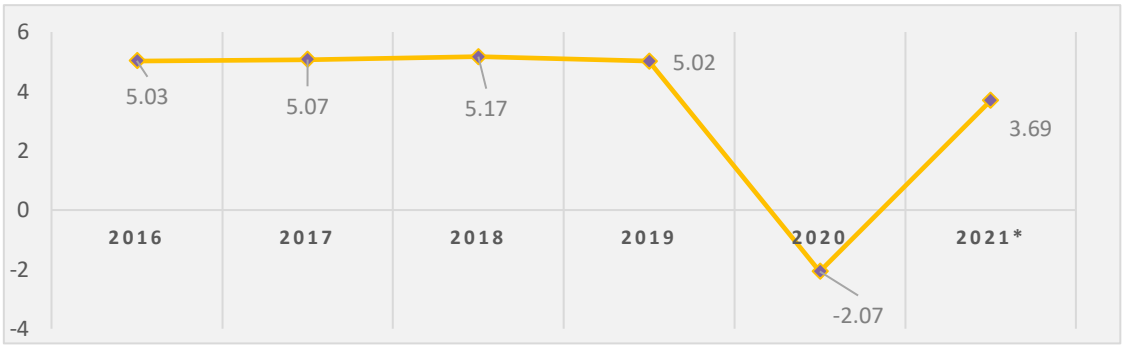

Figure 1. GDP Growth Rate Based on Constant Prices 2010 (year-on-year) 2016-2021
Source: Indonesia Central Bureau of Statistics, 2022.

The data in Figure 1 is GDP based on 17 business sectors in Indonesia. Indonesia's economic growth is relatively stable and experiencing positive growth. Indonesia's economic growth in 2016-2019 was around 5%. However, in 2020, as with other countries, there was a -2.07% decline in economic growth in Indonesia, as the same phenomenon also happens to economic growth at the district/city level. The latest BPS data shows that there has been an improvement in Indonesia's economic growth in 2021, namely an increase of 3.69%, although it has not been as good as the previous period. The economic growth of a region can reflect regional economic activities. Kuznets in Todaro & Smith (2003) define economic growth as an increase in the long-term production capacity of the country concerned to provide various economic goods to its population. Adopting this theory, this study projects the regional budget allocation (APBD) as capital and the labor force participation rate (TPAK) as labor input. Keynes's theory suggests that government spending has a positive impact on increasing output so that there is positive economic growth, while taxes will have a negative impact (Amri, 2020). This indicates a dual effect of fiscal policy on the economy. Fiscal policy can be interpreted as determining the government's desired direction by managing/directing the economy to a better condition. The government can regulate the economy by changing government revenues and expenditures.

Concerning the three-sector economy, the role of the government is indispensable for improving the economy at the national and regional levels. The government's efforts will be contained in the APBD document, which becomes a "bind" for local governments to implement work programs. With the regional autonomy program, local governments can empower regional potentials to increase economic growth. Regional economic growth can be interpreted as the result of increasing the ability of a region's economy to process its capital and labor resources. If the definition is related to the role of the government, it is hoped that the government can "regulate" the capital and labor owned by the region as a driving factor for the regional economy.

There are two components of the APBD as a form of fiscal policy: revenue and

government expenditure. The government's fiscal policy aims to manage and direct economic conditions toward a better or desired direction by changing and updating government revenues and expenditures. Determinants of fiscal policy obtained from state revenues (taxes) as a source of development can be coercive, as stated in the constitution. According to Law Number 16 of the Year 2009, tax is a mandatory contribution to the state owed by an individual or entity that is coercive under the law and does not receive direct compensation, and is used for the state and the prosperity of the people.

The theory of fiscal federalism states that economic growth will be achieved through fiscal decentralization (Wertianti & Dwirandra, 2013). Within the fiscal decentralization context, each region is given the authority by the central government to explore its financial resources to finance the needs of its region. Zagler & Dürnecker (2003) in their research, found that tax rates and categories of government spending directly impact economic growth.

In Indonesia, taxes are the primary source of state revenue. However, based on a study conducted by researchers, the role of local taxes is still less effective in being the primary source of regional income. Local taxes are one component of locally-generated revenue (PAD). PAD is a component of regional revenue originating from processing regional potential, namely taxes, levies, separated regional wealth, and other legitimate regional income. PAD will be used as a critical variable in researchers' research, with regional fiscal independence reflected by this variable.

The fiscal variable from the expenditure side is government spending, which in the APBD structure is grouped into direct and indirect spending. Regional expenditure is defined as the regional government's expenditure and/or obligation, recognized as a deduction from the value of wealth and used for operational implementation and regional work programs in one fiscal year. The role of government spending will also be tested for its effect on economic growth. The study results of Modebe et al., (2012) show no significant effect between capital expenditures and economic growth in Nigeria. Likewise, the research of Fajri (2016) states the same thing in the scope of research on the island of Sumatra, Indonesia. However, the results of the research of Nurmainah (2013) state that capital expenditure and employment are closely and significantly related to economic growth. Similarly, Sularso & Restianto (2012) and Priambodo (2015), in the scope of research in Central Java, found that allocating capital expenditures affects economic growth.

If PAD and government spending are seen as capital components of local government efforts to increase economic growth, the researcher will also examine balancing funds as a projection of capital transfers from the central government to the regions. As a form of support for the implementation of regional autonomy, the central government implements a policy through the balancing fund, which is an instrument to cover inter-regional fiscal gaps that cannot be financed by PAD. This variable is based on the researcher's initial calculations, which state that the ratio of the 2015-2020 district/city balancing funds, on average, is more than 70% of the total regional income.

Research on fiscal variables and economic growth in Indonesia is still carried out between regions with significant results. From the research of Sularso & Restianto (2012), Haryanto (2013), and Nurmainah (2013) in the Central Java region. Meanwhile, research by Kusumawati & Wiksuana (2018) in Bali Province. The limitations of previous research were completed in this study using all districts/cities in Indonesia. This indicates that a study is needed on the effect of fiscal variables and economic growth in Indonesia. Regional economic growth is seen as the output of regional activities, and the researchers also use the labor variable to complement Robert Solow's theory. The research objective is to analyze economic growth as a regional productivity output, where the role of the fiscal instrument is PAD, government spending, balancing funds as a capital projection, and the labor force participation rate as a workforce projection. To answer the research objective, there are five

research problems generated: Does variable GDP growth in the previous periods influence the current economic growth? Is the variable of regional income (PAD) influence the current economic growth? Does the government's direct expenditure variable influence the current economic growth? Is the variable of balancing funds influence the current economic growth? and, is the variable of labor participation influence the current economic growth?

The research questions are based on the primary assumption that the government has a role in increasing regional economic growth. This assumption is based on previous studies by Qamar et al., (2020); Kim et al., (2021); Nabieu et al., (2021); Kaharudin & Ab-Rahman (2022); and Tendengu et al., (2022) which projected the government's role using fiscal variables in various countries. This study complements previous studies in Indonesia, which were still focused on certain districts/cities, so the results cannot answer whether fiscal variables have a role in increasing economic growth in Indonesia. In the end, research findings can be relevant to policies directed at local governments to increase economic growth.

RESEARCH METHODS

This research uses quantitative analysis with secondary data sourced from the Central Statistics Agency and the Directorate General of Fiscal Balance, Ministry of Finance, with series data for 2015-2020, and covers 514 districts and cities in Indonesia. The data from 2021 was not used in this study because the publication of secondary data was incomplete. However, the number of districts/cities will be filtered based on the completeness of the data. The data is in panel data, a combination of cross-section and Time Series data (Gujarati, 2007). Researchers eliminated areas with incomplete data so that they only used 497 regions in Indonesia. However, this number is still more than 95% of the territory in Indonesia. Research on economic growth has been carried out by previous researchers using multiple regression analysis tools and panel data to produce findings or recommended policies based on static model analysis. The weakness of this method is that the analytical tool cannot accommodate the nature of economic variables, which are generally dynamic, where the value of a variable is not only determined by the value of other variables but is also influenced by the variable itself in the past.

The factors that influence economic growth analyzed are the ratio of regional tax growth, the contribution of direct spending to total local government spending, balancing funds to total regional income, and TPAK. This panel data structure will be analyzed using Ordinary Least Square (OLS), known as dynamic panel data regression. Dynamic data regression is a regression method with the addition of a lag element in the dependent variable to be used as an independent variable. The general model of dynamic panel data regression is as follows:

$$y_{i,t} = \alpha + \delta y_{i,t-1} + x'_{i,t}\beta + \varepsilon_{i,t} \quad \text{.....(1)}$$

Where i is 1, 2, ..., n, which shows regencies and cities totaling 497 regions, and t is 1, 2, ..., t for six years. $y_{i,t}$ states the observation unit of its dependent variable in tth period. The following parameter: α is constant; δ is lag coefficient of the dependent variable; $y_{i,t-1}$ is lag of independent variable; $x'_{i,t}$ is observation vector independent variables; β is coefficient of the vector of independent variables; and $\varepsilon_{i,t}$ is error term.

The equation in model 1 still contains a bias that occurs due to the correlation between the fixed effect and the lag of the dependent variable, so to overcome the differencing problem technique is used to eliminate the fixed effect referred to by the following equation:

$$y_{i,t} - y_{i,t-1} = \delta(y_{i,t1} - y_{i,t-2}) + \beta(x_{i,t} - x_{i,t-1})(\varepsilon_{i,t} - \varepsilon_{i,t-1}) \quad \text{.....(2)}$$

Although some of the problems have been solved, there is still a bias related to the correlation between yi, $y_{i,t1} - y_{i,t-2}$and $\varepsilon_{i,t} - \varepsilon_{i,t-1}$, as well as the problem of endogeneity that may occur due to interrelationships. For this reason, the estimation of the General Moment Method (GMM), as recommended by Arellano & Bond, is used.

This study's steps of data analysis are as follows: First, Estimation of dynamic panel data regression model with First difference-GMM and Sys GMM approaches. Next, Test model specifications with Arellano-Bond and Sargan Test methods were conducted, and the best model test was determined. Then, focus on the parameter significance test for the interpretation of results. Based on the theory and empirical studies, the model designed in this research is:

$$GDPGrowth_{i,t} = \delta\big(GDPGrwoth_{i,t} - GDPGrowth_{i,t-1}\big) + \beta\big(\boldsymbol{x}_{i,t}\big) + (\varepsilon_{i,t} - \varepsilon_{i,t-1}) \ldots (3)$$

Where $GDPGrowth_{i,t}$ is economic growth in the current period, $GDPGrowth_{i,t-1}$ is economic growth in previous periods, $\boldsymbol{x}_{i,t}$ It is the vector of independent variables: regional income, government's direct expenditure, balancing fund, and labor participation. After the researchers found the model, the researchers operationalized the variables used in this study. Economic growth (Y) is an increase in activity in the regional economy which causes goods and services produced in the community to increase and, in the end, will create community prosperity (Sukirno, 2006). Economic growth is defined as an increase in the physical production of goods and services within the time limit of the fiscal year. The indicator in knowing the economic conditions in a country is the Gross Domestic Product (GDP), while at the district/city level, it is the Gross Regional Domestic Product (GRDP). The regional economic growth rate by measuring GRDP growth is carried out based on constant 2010 prices.

This study uses three independent fiscal variables: First, the growth of locally generated revenue (PAD). In Law of the Republic of Indonesia Number 33 of (2004), PAD is income earned by the region, collected based on regional regulations by statutory regulations. PAD can also be interpreted as a fiscal decentralization authority for regions to optimize regional potential. The researcher calculates the growth of each fiscal year from PAD. This is done to reduce the correlation effect between taxes and government spending to the direct expenditure contribution. In Regulation of The Minister of Home Affairs Number 13 of 2006 Concerning Guidelines for Regional Financial Management, the ratio of government spending was all liability areas recognized as a reduction in the net asset value of the relevant fiscal year period (Kemendagri, 2006). The allocation of direct and indirect expenditures are based on the need for regional administration to fulfill regional government operations, payment of salaries, facilities, and infrastructure, as well as for the provision of public infrastructures (Kemendagri, 2006). Usually, the procurement of fixed assets is held annually by the regional government following budget priorities and public services that have a long-term financial impact (Halim & Abdullah, 2006). In reality, the practice of budgeting for capital expenditures (indirect expenditure components) at local governments tends not to be able to be budgeted from PAD.

Furthermore, the researchers used the variable contribution of balancing funds. The role of balancing funds is still very much needed by the regions. In Law of the Republic of Indonesia Number 33 of (2004), it is stated that balancing funds are funds sourced from revenues from the State Revenue and Expenditure Budget (APBN) allocated to regions to fund regional needs in the context of implementing decentralization. This means that the central government uses the balance fund to assist local governments in implementing regional autonomy. However, this concept needs to be studied further if it is associated with regional independence.

The labor variable as production input in this study is projected from TPAK. According to Law of The Republic of Indonesia Number 13 of 2003 concerning Manpower (2003), what is referred to as labor is everyone who can work to produce goods and/or services to meet their needs and those of the community. Indonesian Statistical Board (BPS) classifies workers into labor force data. TPAK is a relative number of the working force with the total working-age population.

By the research problems, the hypothesis tested is the positive and significant effect of previous GDP growth on the current GDP growth; the positive and significant effect of

regional income on current GDP growth; the positive and significant effect of government's direct expenditure; positive and significant effect of balance fund on current GDP growth; and positive and significant effect of labor participation on current GDP growth.

RESULTS AND DISCUSSION

Unit root testing was conducted to determine whether the research data was stationary. One of the requirements for time series analysis, as is the case with panel vector autoregression (PVAR) data, is that the variables used in the study must be stationary or have no unit root.

Stationarity of the data is essential to avoid spurious regression, where the regression results show statistically significant coefficients and a high coefficient of determination, but the relationship between variables in the model is not interconnected. Several tests can be used to determine the stationarity of the data, but this study presents the results of only two tests, namely the Levin-Lin-Chu (LLC) and Im-Pesaran-Shin (IPS) tests in table 1. The purpose of using these two tests is to ensure the consistency of the test results. The test using Levin-Lin-Chu (LLC) shows that all variables used in the study are free from stationarity problems, while the test results using the Im-Pesaran-Shin (IPS) method have one variable whose data is not stationary. However, further analysis can still be carried out by referring to the results of the LLC test.

Table 1. Test of Panel Unit Root using Two Methods: LLC and IPS

Variable	Levin-Lin-Chu (LLC)	Im-Pesaran-Shin
Economic growth	-1.5e+02	25.4201
	(0.0000)	(1.0000)
PAD growth	-2.6e+02	-14.175
	(0.0000)	(0.0000)
Contribution of direct expenditure	-75.8178	-5.9954
	(0.0000)	(0.0000)
Contribution to balancing funds	-43.2937	-5.1953
	(0.0000)	(0.0000)
LFPR	-1.3e+02	-2.9428
	(0.0000)	(0.0016)

Source: Data Processed, 2022

As previously stated, the economic growth data panel model is a dynamic model, which means that there is a lag variable from the dependent variable that becomes the regressor/independent variable. In addition, using a static panel data model does not allow us to see how the lag variable is converged into the model. Thus analysis with the GMM model is deemed necessary to be carried out. Before it was decided to use the GMM approach, an analysis of the static panel data was first carried out, both the methods common effect (pooled/PLS) and fixed effect model (FEM). The results of the specification test using FEM static panel data show that the economic growth lag variable (peL1), direct expenditure contribution (r_bl), and balancing fund contribution (r_dp) are statistically significant in explaining the changes that occur in the dependent variable, namely economic growth (pe). Meanwhile, other variables such as PAD growth (p_pad) and labor force participation rate (tpak) are not statistically significant to changes that occur in the economic growth variable (pe). Another thing that can be shown from the analysis of the FEM model is an indication of convergence in the model, which is shown in the coefficient value of the lag of economic growth, which is statistically significant with an alpha of 1%.

Table 2. Static panel model specifications

Variable	Fixed Effect Model (FEM)	Pooled Least Square (PLS)
peL1	-.21758745***	-.090697***
	(.017395) [-12.51]	(.0161257) [-5.62]
p_pad	.0453377	.04131086
	(.0330467) [1.37]	(.0316816) [1.30]
r_bl	.67593813*	.19393823
	(.3124598) [2.16]	(.1586246) [1.22]
r_dp	.75324349 *	-.09286247
	(.3226561) [2:33]	(.1301999) [-0.71]
participation in the work	-.00022221	-.00238309
	(.0043163) [-0.05]	(.0020276) [-1.18]
observations	2485	2485
R-squared	0010	0014
F-test	1.44	7.32
	0.0000	0.0000
Total area	497	497

Note: * p<0.05; ** p<0.01; *** p<0.001

The number in brackets is the standard error of the regressor variable, and the number in square brackets is the t statistic for FEM and PLS.

Source: Data Processed, 2022

The test is carried out because the impact of changes in one variable on other variables does not always occur in the same year period but can also occur in different year periods. In contrast to the estimation results of the model using the PLS approach, table 3, column 3 shows that there is one significant variable explaining changes in the economic growth variable (pe), namely the lag of the economic growth variable itself (peL1). Meanwhile, other independent variables such as direct expenditure contribution (r_bl), balancing fund contribution (r_dp), PAD growth (p_pad), and labor force participation rate (tpak) were not statistically significant in explaining changes in the dependent variable.

Two types of analysis can be done using the GMM approach: the approach's first difference is GMM (fdgmm) and the GMM system (sysgmm). These two approaches technically depend on the coefficients generated from the fdgmm estimation. If the fdgmm coefficient is between the FEM and PLS coefficient values or close to the FEM coefficient value, it can be considered to use the GMM system approach. As a first step, the regression results using the GMM model can be seen in table 3, where there are estimated coefficients for each research variable and the model's feasibility test. One of the backgrounds of using the GMM model here is the dynamic nature of the dependent variable, where the previous static panel data estimation was shown from the significance lag of the dependent variable, which was estimated as an independent variable, as well as its convergence.

The interpretation of the GMM model is carried out after first testing the goodness of the model, which consists of testing the validity of the instrument, testing for consistency, and testing for unfamiliarity. The results of estimating the model coefficients and goodness test can be seen in table 3. Testing the instrument's validity is done using the Sargan test with H0 expected to be valid, while the consistency test is checked by using the Arellano-Bond test (AR) with a null hypothesis of no autocorrelation. In the AR test, the significance value of the second order must be considered by expecting rejection of H0. The third check is the goodness-of-fit test, which compares the coefficient values generated from the estimated first difference GMM (fdgmm) with the estimated coefficients from FEM. If the FDGMM coefficient is between the values of the FEM and PLS coefficients or is close to the coefficients obtained from the FEM model, the model's unusual requirements are fulfilled.

Table 3. Specifications Model Dynamic Using FDGMM and SYSGMM

Variables	First Difference FDGMM	SYS GMM
peL1	-.0834798 ***	-.07622897 ***
	(.0217716) [-3.83]	(.0156711) [-4.86]
p_pad	.0459168	.04451204
	(.0243432) [1.89]	(.037289) [1.19]
r_bl	.89738262**	.87744411**
	(.295421) [3.04]	(.3933395) [2.23]
r_dp	.10502546	.0002565
	(.4464924) [0.24]	(.4136448) [0.00]
Tpak	-.00215914	-.00247298
	(.0025458) [-0.85]	(.0050552) [-0.49]
Sargan test	11.45628	14.09521
	0.2457	0.3672
AB test AR(1)	-2.7996*	-2.7813*
	0.0051	0.0054
AB test AR(2)	-.5408	-.36893
	0.5886	0.7122
Total area	497	497

Note: * p<0.05; ** p<0.01; *** p<0.001

The number in brackets is the standard error of the regressor variable, and the number in square brackets is z statistics for FDGMM and SYSGMM.

Source: Data Processed, 2022

Table 3 shows the estimation results for the FDGMM and SYSGMM approaches and the goodness-of-fitness test for both approaches. In the FDGMM approach in column 2, the instrument validity test shown by the Sargan test shows the statistical value chi square 2 amounted to 11.45628 with a p-value of 0.2457. Figures p-value more significant than alpha 0:05 interpreted as acceptance of H0 alleging that the instruments used in the model as a whole FDGMM valid. The next test of the model's goodness is the consistency test obtained from the Arellano-Bond test results and is known from the values p- for the first and second-order autocorrelated disturbances. In the first order AR(1) generally rejects H0, while the values in the second order AR(2) become the focus of determining whether a model is consistent. In the FDGMM approach, the AR(1) is significant by statistical z score-2.7996 and p value 0.0051, while the statistic z AR (2) is worth -.5408 and not significant with p value 0.5886. Thus, it can be concluded that the FDGMM approach in this study is statistically proven to be consistent and free from serial autocorrelation problems. The third test of the model's goodness is the unbiasedness known from the comparison between the coefficient values generated from the estimated first difference GMM (FDGMM) and the estimated coefficients from FEM. In the FDGMM model, the coefficient obtained from the estimation results is -.0834798 and is not between the coefficients of the other two approaches or close to the FEM coefficient value. Thus, the FDGMM model is not free from the problem of unbiasedness.

Similar to the FDGMM approach, the SYSGMM approach also indicates a goodness-of-fit test result that is not much different from the previous approach. The estimation results of the SYSGMM model approach can be seen in table 3, column 3, where the first test of the model's goodness, namely the instrument's validity, shows the expected results. The Sargan test indicates the instrument's validity with a statistical value of chi-square 2 of 14.09521 and p-values of 0.367211. Figures p-value more significant than alpha 0:05 interpreted as acceptance of H0 alleging that the instruments used in the model as a whole SYSGMM valid. The next test of the model's goodness is the consistency test obtained from the Arellano-Bond test results and is known from the values p- for the first and second-order autocorrelated

disturbances. As expected, the expected hypothesis in this test is the rejection of H0, but as previously expected, the value p- in the first-order AR(1) is significant, and the p-value in the second-order AR(2) is not significant. In the SYSGMM approach, the AR (1) is significant by statistical z score-2.7813 and p value 0.0054, while the statistic z AR (2) is worth -.36893 with p value 0.7122. Thus, the SYSGMM approach in this study is statistically proven to be consistent and free from serial autocorrelation problems. The third test of goodness of the model is unfamiliarity, which in this case is not relevant to be displayed considering the coefficient value generated from the estimated first difference GMM (FDGMM) is proven to be biased.

Researchers found empirical evidence that economic growth t-1 affected economic growth in year t. Economic growth is seen as an indicator of increasing regional capacity. Economic growth is associated with many variables that influence it. The influence of the economic growth variable in the previous year shows that the increase in regional productivity cannot be separated from the regional performance in the previous year. The measurement that the researcher did was using the variable lag for one year. However, the empirical finding of the effect of the previous year's economic growth on regions in Indonesia has a negative coefficient parameter, with a value of 0.0834798. This shows that a positive growth of 1% on the regional economy will have a negative impact of 0.0834798 on the regional economy in the following year. Even though not many previous studies confirm the findings, regional economic activity is still becoming a burden for increasing economic activity for the next period.

Capital and labor are assumed as a form of regional productivity and related to economic growth in capital use with projections on government expenditure and revenue variables. The assumption built is that the productive and unproductive expenditures made by local governments will have an impact on the rate of economic growth, as well as income. Income is seen as a financial potential, so the researcher uses the ratio of PAD growth and the contribution of balancing funds. However, PAD growth and the contribution of balancing funds are insignificant to economic growth at any significance level. The results of previous studies in Manado, Indonesia (Momuat, 2013) show that PAD and employment are closely and significantly related. The research was conducted in the city of Manado. These results are inversely proportional to the empirical evidence on panel data throughout Indonesia that the researchers did.

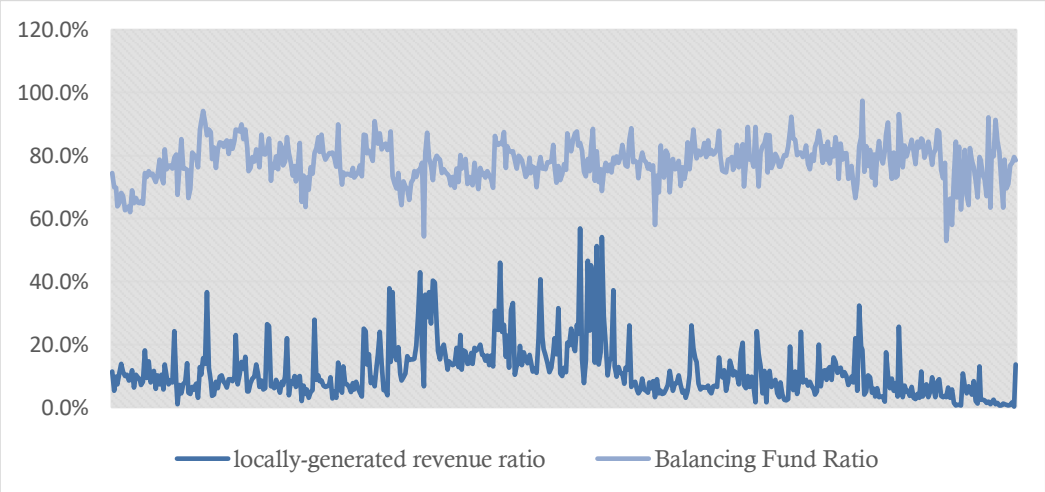

Figure 2. Distribution of the Ratio of PAD and District/City Balancing Funds in Indonesia in 2020
Source: Data Processed, 2022

Figure 2 shows that the contribution of PAD is still lower than the contribution of the balancing fund. On average, the contribution of PAD in 2020 is still less than 20% when compared to total regional revenues. Regions have been unable to optimize the region's potential to create local revenue. Local government finances are still supported by transfers from the central government in profit sharing, general allocation funds, and special allocation funds that regions will use for operational implementation and work programs. The balancing fund provides more space for the regions to finance the expenditures that have been programmed. If regional income increases, it is also expected to increase economic growth. However, the contribution of the balancing fund cannot be categorized as potential regional finance because this variable is a regional dependence on the central government.

The findings of examining the effect of PAD growth on economic growth using 497 districts/cities in Indonesia are not in line with the results of previous research conducted in DKI Jakarta (Yurianto & Akhmad, 2021). As well as research in Palangkaraya City by Nasution et al., (2021), which examines the effect of taxes. However, the researcher's findings are the same as those in 48 states where taxes have no effect on economic growth and have an impact on reducing per capita income. The results that the researchers found stated that the growth of PAD and the contribution of the balancing fund did not affect economic growth, although with a positive relationship pattern. So the researchers did not conduct further discussions on the parameter value of the PAD growth coefficient and the contribution of the balancing fund. The ratio of realization of regional income cannot influence economic growth which is very flexible in terms of its formation. The increase in economic activity that occurs in a region has not been able to be influenced by the income ratio in the same year. This shows that the role of fiscal policy in terms of revenues, both local revenue and revenues sourced from central government transfers, has not been allocated directly to the agenda for increasing regional economic activity in the same year.

The financial potential from the revenue side is still several funds and has not been able to carry out its function as a driving force for the regional economy. Capital is defined as several funds for financing production activities so that the growth of PAD and the contribution of the balancing fund has not been directed to the regional production sectors.

The contribution of direct spending significantly affects economic growth, with a positive coefficient parameter of 0.89738262. This figure shows that if there is an increase in the direct expenditure ratio of 1%, it will increase economic growth by 0.897738262%. This value is relatively high for the formation of economic growth. This finding is in line with previous research conducted by Haryanto (2013), using the FEM approach found that government spending in Central Java has a direct effect on economic growth. Although several regional studies find there is no effect of government spending and economic growth, with a thorough examination of districts and cities in Indonesia, researchers find that routine government spending consistently affects regional economic growth.

This finding indicates that the general policies in Indonesia are still expansive. Expansive fiscal policy is defined as a policy carried out by the government from the APBD management sector to increase both direct and indirect spending. This can also mean that the government can reduce taxes to increase aggregate demand by the community in an area. The expansionary fiscal policy aims to increase regional gross domestic product and reduce unemployment. Expansive fiscal policy aims to improve economic conditions by adjusting government revenues and expenditures, where government spending is still higher than revenue. This means that the consumption (expenditure) sector is still the driving force behind the creation of regional economic growth.

Figure 3. Distribution of District/City Government Expenditure Ratios in Indonesia in 2020
Source: Data Processed, 2022

Based on programs and activities, regional spending is grouped into two types: direct spending and indirect spending. A financing expenditure component exists if there is an excess difference between regional expenditure and revenue. Direct expenditure is defined as a component of government expenditure that is budgeted directly for the implementation of programs and activities related to local government activities. Meanwhile, indirect expenditure is a component of government programs, and activity expenditure is not directly related, or this expenditure is intended for implementation by other parties. Examples of indirect expenditures are personnel expenditures (salaries, grants, honoraria), social assistance, goods and services, and capital expenditures.

Figure 3 shows that in 2020, the ratio of indirect spending is still higher than the direct expenditure made by the government. Researchers did not check each component of indirect spending, but government spending can encourage increased economic growth. Regional spending aims to advance the region, create public needs and prosper the people. The more regional income that can be obtained, the more capable and independent regions will be in financing their regional expenditures.

Table 3 also shows that the labor force participation rate has a negative coefficient on economic growth, but it is not significant. This finding indicates that the amount of labor seen as an input has passed the production break-even point. Where the addition of input will reduce the output obtained. These empirical findings align with research in East Java by Rofii (2017) and Central Java in Hidayah (2017)'s research, which states that labor does not have a significant effect on economic growth.

David Ricardo argues that tremendous population growth will produce many workers, so wages decline and the economy becomes stagnant (Lestari, 2019). Researchers indicate this possibility because, in Indonesia, the number of unskilled workers is greater than the number of skilled workers, or a proportional increase does not follow the excess number of workers in regional productivity.

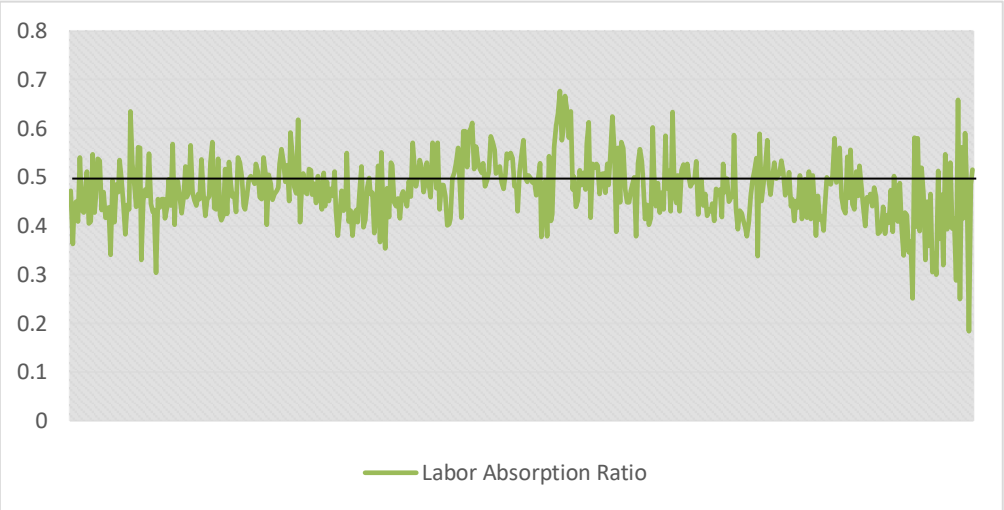

Figure 4. Distribution of Regency/City Workforce Absorption in Indonesia in 2020
Source: Data Processed, 2022

Regions with skilled workers will have the potential capital of human resources, which are very much needed in increasing regional productivity. The workforce is a population of productive age, BPS grouping them into the age ready to work, which is between 15-64 years old. The more people at that age, the better. Because the population group not at that age will be the responsibility of the productive age population, to see this phenomenon, the researcher compares the population data and the working force data in Figure 4. The results show that, on average only part of the Indonesian population is absorbed in the available employment opportunities. 52.47% of the population in Indonesia in 2020 is not a working workforce (BPS data, processed). These findings are the researchers' suspicions that the labor variable is insignificant to economic growth.

CONCLUSION

There is a significant effect between the previous year's economic growth and direct spending on economic growth. This indicates that regional economic growth in Indonesia still requires expansionary policies. Furthermore, the researcher did not find any empirical evidence of the influence of PAD growth, balancing funds, and LFPR on economic growth. Regions and revenues from transfers obtained from the regions have not affected economic growth in the same fiscal year. The researcher recommends the use of variable lags for further research. Meanwhile, the absence of the influence of labor on economic growth with an antagonistic relationship shows that the utilization of labor in Indonesia has exceeded the productivity limit. The limitation of the study to be recommended for further research is that the researcher has not measured the effect of fiscal variables and economic growth in the presence of moderating variables.

REFERENCES

Amri, K. (2020). [*Kebijakan fiskal dan pertumbuhan ekonomi daerah: Bukti data panel di Indonesia]*. Al-Masharif: Jurnal Ilmu Ekonomi Dan Keislaman, 8(1), 1–18.

Gujarati, D. N. (2007). [*Dasar-dasar Ekonometrika].*

Halim, A., & Abdullah, S. (2006). [*Hubungan dan Masalah Keagenan di Pemerintah Daerah.* Jurnal Akuntansi Pemerintahan], *2*(1), 53–64.

Haryanto, T. P. (2013). [*Pengaruh Pengeluaran Pemerintah Terhadap Pertumbuhan Ekonomi Kabupaten/Kota Di Provinsi Jawa Tengah Tahun 2007-2011].* Economics Development Analysis Journal, 2(3).

Hidayah, E. N. (2017). [*Pengaruh Jumlah Penduduk, Indeks Pembangunan Manusia, Daya Tarik Wisata, Tenaga Kerja dan UMK terhadap Perumbuhan Ekonomi di Kabupaten/Kota di Jawa Tengah (Tahun 2010-2014)].*

Kaharudin, I. H., & Ab-Rahman, M. S. (2022). Fiscal Policy Effects on Private Expenditure for Sustainable Economic Growth: A Panel VAR Study from Selected Developing Countries. *Sustainability*, *14*(17), 10786. https://doi.org/10.3390/su141710786

Kemendagri (2006) [*Peraturan Menteri Dalam Negeri (Permendagri) No. 13 Tahun 2006 tentang Pedoman Pengelolaan Keuangan Daerah*]. Jakarta, pp. 1–73.

Kim, J., Wang, M., Park, D., & Petalcorin, C. C. (2021). Fiscal policy and economic growth: Some evidence from China. *Review of World Economics*, *157*(3), 555–582. https://doi.org/10.1007/s10290-021-00414-5

Kusumawati, L., & Wiksuana, I. G. B. (2018). [*Pengaruh Pendapatan Daerah Terhadap Pertumbuhan Ekonomi Di Wilayah Sarbagita Provinsi Bali]*. E-Jurnal Manajemen Universitas Udayana, 7(5), 2592.

Lestari, U. S. (2019). [*Analisis Teori-Teori Pertumbuhan Ekonomi Sebuah Studi Literatur]*. Universitas Andalas.

Mankiw, N. G. (2003). [*Teori Makro Ekonomi]*, Edisi Kelima, Alih Bahasa. Imam Nurmawan, Penerbit Erlangga, Jakarta.

Modebe, N. J., Okafor, R. G., Onwumere, J. U. J., & Ibe, I. G. (2012). Impact of recurrent and capital expenditure on Nigeria's economic growth. *European Journal of Business and Management*, *4*(19), 66–74.

Momuat, R. (2013). [P*engaruh Belanja Modal dan Tenaga Kerja Terhadap Pertumbuhan Ekonomi di Kota Manado]*. Jurnal Pembangunan Dan Keuangan Daerah, 10(2), 45015.

Munandar, A. (2017). [*Analisis Regresi Data Panel Pada Pertumbuhan Ekonomi Di Negara–Negara Asia]*. Jurnal Ilmiah Ekonomi Global Masa Kini, 8(1), 59–67.

Nabieu, G. A. A., Bokpin, G. A., Osei, A. K., & Asuming, P. O. (2021). Fiscal rules, fiscal performance and economic growth in Sub-Saharan Africa. *African Development Review*, *33*(4), 607–619. https://doi.org/10.1111/1467-8268.12595

Nasution, D. P., Afifuddin, S., Irsad, I., & Rahmanta, R. (2021). Analysis of Small Micro Business Sector on the Welfare of Small Micro Enterprises in North Sumatra. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, *4*(3), 5066–5079.

Nurmainah, S. (2013). [*Analisis Pengaruh Belanja Modal Pemerintah Daerah, Tenaga Kerja Terserap dan Indeks Pembangunan Manusia Terhadap Pertumbuhan Ekonomi dan Kemiskinan (Studi Kasus 35 Kabupaten/Kota di Provinsi Jawa Tengah*)]. *Jurnal Bisnis Dan Ekonomi*, *20*(2).

Presiden Republik Indonesia (2003) [*Undang-undang Republik Indonesia Nomor 13 Tahun 2003 Tentang Ketenagakerjaan]*. Jakarta.

Presiden Republik Indonesia (2004) [*Undang-undang Republik Indonesia Nomor 33 Tahun 2004 Tentang Perimbangan Keuangan Antara Pemerintah Pusat dan Pemerintah Daerah*]. Indonesia.

Priambodo, A. (2015). [*Analisis Pengaruh Pendapatan Asli Daerah, Belanja Modal, Tenaga Kerja Terhadap Pertumbuhan Ekonomi]*. Economics Development Analysis Journal, 4(1), 1–9.

Qamar, A., Ashraf, M. S., Ghouse, G., & Aslam, A. (2020). Probing Real Economic Growth through Institutional Quality and Fiscal Policy in Pakistan. *3*, 2378–2385. https://doi.org/doi: 10.17051/ilkonline.2020.03.735395

Rofii, A. M. (2017). [*Analisis pengaruh inflasi, penanaman modal asing (pma) dan tenaga kerja terhadap pertumbuhan ekonomi di jawa timur]*. JEB17: Jurnal Ekonomi Dan Bisnis, 2(01).

Sukirno, S. (2006). [*Makro Ekonomi Teori Pengantar],* PT. Raja Grafindo, Jakarta.

Sularso, H., & Restianto, Y. E. (2012). [*Pengaruh kinerja keuangan terhadap alokasi belanja modal dan pertumbuhan ekonomi kabupaten/kota di Jawa Tengah]*. Media Riset Akuntansi, 1(2).

Tendengu, S., Kapingura, F. M., & Tsegaye, A. (2022). Fiscal Policy and Economic Growth in South Africa. *Economies*, *10*(9), 204. https://doi.org/10.3390/economies10090204

Todaro, M. P., & Smith, S. C. (2003). [*Economic* Development in the Third World. Jakarta: Erlangga.

Wertianti, I., & Dwirandra, A. (2013). [*Pengaruh Pertumbuhan Ekonomi Pada Belanja Modal Dengan PAD dan DAU Sebagai Variabel Moderasi]*. E-Jurnal Akuntansi, 4(3), 567–584.

Yurianto, Y., & Akhmad, T. (2021). [*Pengaruh Penerimaan Pajak Daerah Terhadap Pertumbuhan Ekonomi Dki Jakarta]*. JABE (Journal of Applied Business and Economics), 7(4), 436–449.

Zagler, M., & Dürnecker, G. (2003). Fiscal policy and economic growth. *Journal of Economic Surveys*, *17*(3), 397–418.