# Do the Growth of Original Local Government Revenues and the Growth of Capital Expenditure Affect Fiscal Stress?

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#### ABSTRACT

This study aims to determine and analyze the effect of original local government revenue growth and local government capital expenditure growth on fiscal stress in regencies/municipalities in West Java Province. This study employed all 27 regencies/municipalities in West Java Province in 4 (four) periods from 2013 to 2016. This study used multiple regression analysis (panel data) and performed classical assumption tests. Because in the literature, no measurement meets the characteristics of local government budgets in Indonesia. The authors introduced a new approach by applying the fiscal capacity formula to measure fiscal stress. This study's results indicate that the growth in original local government revenue and the growth in local government capital expenditures simultaneously have a positive effect on fiscal stress in regencies/municipalities in West Java Province. The growth of local government revenue partially has a negative effect on fiscal stress in regencies and municipalities in West Java Province. The growth of capital expenditures partially has an insignificant effect on fiscal stress in regencies and municipalities in West Java Province. This research implies that the measurement of fiscal pressure is carried out using the fiscal capacity index as a new alternative that can be used by local governments to design policies.

#### ABSTRAK

This study aims to determine and analyze the effect of original local government revenue growth and local government capital expenditure growth on fiscal stress in regencies/municipalities in West Java Province. This study employed all 27 regencies/municipalities in West Java Province in 4 (four) periods from 2013 to 2016. This study used multiple regression analysis (panel data) and performed classical assumption tests. Because in the literature, no measurement meets the characteristics of local government budgets in Indonesia. The authors introduced a new approach by applying the fiscal capacity formula to measure fiscal stress. This study's results indicate that the growth in original local government revenue and the growth in local government capital expenditures simultaneously have a positive effect on fiscal stress in regencies/municipalities in West Java Province. The growth of local government revenue partially has a negative effect on fiscal stress in regencies and municipalities in West Java Province. The growth of capital expenditures partially has an insignificant effect on fiscal stress in regencies and municipalities in West Java Province. This research implies that the measurement of fiscal pressure is carried out using the fiscal capacity index as a new alternative that can be used by local governments to design policies.

#### 1. INTRODUCTION

The issuance of Laws Number 32 and 34 of 2004 concerning regional authority has impacted fiscal decentralization. This policy implies that local governments can manage resources in their regions

more optimally. Local governments have the freedom to increase creativity in managing and developing potential resources in their regions. On the other hand, this policy could result in high disparities in each region.

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Fiscal stress is an assessment of financial conditions, which in general means that people are experiencing difficulties in financing operations and other budget-related problems (Hevesi, 2006). When fiscal stress increases, local governments will tend to explore the potential of tax revenues to increase regional revenues (Mudayen & Maridjo, 2018; Shamsub & Akoto, 2004). This is done to increase income as needed (Honadle, 2003). This means that the tax effort is an attempt by the government to consider its potential to obtain optimal revenue for the region. Potential refers to the size of the target set by the local government to be achieved in the fiscal year.

The existence of fiscal pressure is influenced not only by regional revenues but also by the pattern or structure of regional spending. According to Adi (2007), changes in spending patterns, especially with an increase in spending for development, are natural to increase local revenue.

The study of fiscal stress at the regional level is becoming increasingly important, especially in the era of regional autonomy, where the regions are required to be able to organize their government in the provision of goods and services for their people. Efforts to increase regional revenues by exploring new revenues must continue to be made to cover the regional budgets, increasing every year (Firstanto, 2015).

Fiscal decentralization in Indonesia characterized by delegating significant expenditure responsibilities to local governments, especially at the Regency/municipality level. However, control over key sources of fixed income is highly centralized (Sukarwo., 2003). As a result, transfers from the central government are needed to finance the most decentralized expenditures to the regional level. The decline in economic activities in various regions also causes a decline in regional revenues, which then hampers the implementation of autonomous government activities, development, and community services. On the other hand, an increase in the region's economic activities will also increase the regional revenues of the region so that the government's implementation of government activities, development, and community services is not hampered.

Some researchers, such as Muda (2012), Firstanto (2015), and Mariani (2016), have conducted research related to fiscal stress in Indonesia. However, the formula used to measure the fiscal stress is still based on the results and formula produced by researchers from abroad so that indicators and variables for calculating fiscal stress

are still based on foreign research. Meanwhile, regional finance in Indonesia has a unique character and cannot be equated with states or cities abroad.

This research aims to fill in the gap in the measurement of the fiscal stress that is more in line with regional finance and meets the character and uniqueness of regional finance in Indonesia. Therefore, the authors offer new references to measure fiscal stress in local governments in Indonesia. Previous researchers such as Arnett (2011), Honadle (2003), and Gorina et al. (2017) have proposed some measurements for budget, cash, long-run, service-level, financial ratios, and socioeconomic variables. This study, however, the authors will apply the measurements to Indonesia due to different situations. Ministry of Finance of Indonesia issues the fiscal capacity index every year to calculate fiscal capacity in provinces, regencies, and municipalities. Thus, the authors propose the index to be a new approach to measure fiscal stress.

The research departs from the idea that regional fiscal capacity has an inverse relationship with fiscal stress, assuming that the higher the fiscal capacity of the region, the lower the level of fiscal stress in the region, and vice versa. With this assumption, the authors apply the calculation of fiscal capacity formula to measure fiscal stress levels in regional governments in Indonesia.

### 2. THEORETICAL FRAMEWORK AND HY-POTHESES

Several terms such as fiscal pressure, fiscal difficulties, poor fiscal health, poor financial conditions, and weak fiscal conditions are used to describe the problematic economic condition faced by the state or local government (Arnett, 2011). In some instances, in both academic research and practitioner-oriented guidelines, these terms are treated as synonyms. There is no universally accepted definition of fiscal stress. Researchers often make their definitions to accommodate the focus of their research or refine the definitions used in previous studies. Definitions of related terms such as fiscal conditions, financial conditions, and fiscal health are also not clear in the current literature (Arnett, 2011).

The lack of accepted definitions includes literature on central and regional governments. Three terms, together with close variations, appear consistently in the literature: (1) financial conditions, (2) fiscal stress, and (3) fiscal crisis. These terms remain in the literature from time to time and in various units of analysis. Regarding financial conditions and the variants that are close to financial

conditions and fiscal health, this term usually describes the local government's overall financial state (Arnett, 2011). The financial condition can be categorized as strong or weak, or even between the two. The definition of fiscal pressure and its variants, fiscal tension, and fiscal stress, on the other hand, suggest identifiable problems. The problem is illustrated by fiscal pressure related to financial/fiscal governance conditions. Honadle (2003) describes the fiscal crisis as the final stage of fiscal stress. With this connection, fiscal stress is a weak financial condition, and a fiscal crisis is a fragile financial condition.

Fiscal stress includes situations where the government also cannot fulfill its financial obligations or services. The causes of such a situation may differ between the central and regional governments. Research identifies some potential fiscal stress causes as well as reactions to fiscal pressure.

The measurement of fiscal stress has changed over the years, but there is still no consensus on the best measure to calculate it. The study of fiscal stress began at the city level in response to financial problems in urban areas such as New York and Cleveland by Savage in 1992. Therefore, fiscal stress was initially measured and focused on urban data sources and city problems. The study's main objective was to identify which cities were the most fiscally suppressed to determine federal and state assistance goals, measures, and to distinguish reliable and non-reliable fiscal investments (Arnett, 2011). Despite the breadth of academic and professional literature and the increasingly widespread use of fiscal conditions metrics in modern management practices, the problem of measuring fiscal conditions remains resolved, and empirical methodologies for predicting fiscal stress must still be refined (Gorina et al., 2017).

One effort to see the regional financial capability, in terms of regional finance to reduce dependence on the central government, is to look at the composition of existing regional revenues. The higher the composition of local government revenue, the greater the ability of local governments to assume greater responsibility. However, the smaller the composition of original local government revenues, the higher the dependence on the Central Government. Furthermore, the community's impact on the increase in revenue from the regional income is smooth development. The development includes various sectors, including the construction of the road, public facilities, and other facilities.

The fact is that the original local government revenue in each autonomous region in Indonesia is still low. The low original local government revenue is caused by several things, such as a substantial source of income that is extracted by region but is beyond the authority of the local government to collect it, regional-owned enterprises have not been a reliable source of revenue, lack of public awareness of paying taxes and levies, lack of ability of local government officials in exploring original local government revenue sources, and low level of economy and community living.

### The effect of original local government revenues growth on Fiscal Stress

Previous research conducted by Bappenas in 2003, contained in the regional capability map (provinces, regencies, and municipalities) in the autonomy era, shows that original local government revenues experience a significant increase. The Regional government seeks to optimize the potential of original local government revenues as an essential part of the Regional Budget preparation, as an effort to minimize dependence on revenues from the central government.

One theory relating to regional budgets focused on fiscal stress problems was stated by Spicer & Bingham (1991): "When changing economic, demographic, and political factors limit the growth of revenues, containment of hunger becomes much more difficult, and fiscal stress may be produced." From the theory, it can be concluded that there is a connection between fiscal stress and regional budgets, especially those relating to revenue (Dougherty et al., 2000).

A state government that cannot provide revenue support to local governments will force local governments to do more tax authority (Bartle, 2011)

The research results on the government in Russia show that substantial revenues will cause the region to have excellent public services. Conversely, regions that have small revenues will find it challenging to fulfill their public services and depend more on financial assistance from the central government (Martinez-Vazquez & Timofeev, 2014)

Original local government revenues growth has an impact on regional fiscal stress. This indicates that original local government revenues growth affects the level of fiscal stress in a region. The change (increase/decrease) of the regional revenue component will cause changes in the level of fiscal stress experienced by the area. The higher the original local government revenues in a region, the lower the level of fiscal stress in the region will be. With high original local government revenues, the region can finance its expenses, and vice versa (Muda, 2012).

Based on the description above, the first hypothesis can be drawn as follows:

**H**<sub>1</sub>: The growth of original local government revenues partially reduces fiscal stress in regencies/municipalities throughout West Java Province.

### The effect of Capital Expenditure Growth on Fiscal Stress

In facing regional autonomy, regional governments must further improve their public services. These efforts will continue to increase as long as an adequate regional financing level supports them. Adequate expenditure allocations for improving public services are expected to provide reciprocity in the form of increased revenue from original local government revenues, either from retribution, regional taxes, or other revenues.

The higher the capital expenditure, the higher the government expenditure. Expenditure cuts may be effective at reducing future levels of fiscal stress. The focus of cuts is essential, as is the extent to which the expenditure cut balance overall spending and revenue levels. At the broadest level, the literature suggests that fiscal stress is a condition of imbalance. The imbalance may be between the services desired by the public and what the government provides, for example, the case of expenditures above available financial resources (Arnett, 2011). expenditures reduction is often used as the fiscal retrenchment strategy among city governments facing fiscal hardship (Jimenez, 2010).

The increasing capital expenditure made by the local government will cause the central government to be burdened with higher transfer grant funds to continue economic growth (Lewis, 2013). Local government expenditure in the housing sector (capital expenditure) affects the economic growth of the state budget negatively and significantly (Gunarto et al., 2018)

Based on the description above, the second hypothesis can be drawn as follows:

**H**<sub>2</sub>: The capital expenditure growth partially raises Fiscal Stress in regencies/municipalities throughout West Java.

#### The effect of Original Local Government Revenues Growth and Capital Expenditures Growth on Fiscal Stress

The results of research conducted by Muda (2012) show that simultaneously, the original local government revenues growth, capital expenditures growth, and economic growth have a significant effect on fiscal stress in North Sumatra. Partially, the original local government revenues growth has a significant effect on fiscal stress in North Sumatra. In contrast, the variable of capital expenditures growth and economic growth, which is proxied by Gross Regional Domestic Product (GRDP), does not significantly influence fiscal stress regencies/municipalities Sumatra North in Province. The growth in capital expenditures causes the result to decrease and the minimum capital expenditure allocated, as well as an increase in economic growth. However, it does not significantly influence fiscal stress in North Sumatra. This, at least, indicates the efficient and effective use of resources. Various facilities provided can be optimized to obtain benefits so that they can have a high impact on PE / GRDP. This is because the amount of PE / GRDP is primarily determined by the amount of original local government revenues (the existence of a significant correlation). Bappenas (2003) emphasized that the growth in original local government revenues should be sensitive to the increase in economic growth because it is measured using PE / GRDP and per capita income.

Original local government revenues affect fiscal stress. This is in line with the results of research conducted by Nanga (2005). Independence in the regional budget (APBD) is very closely related to the independence of original local government revenues because the higher source of income that comes from regional potential, not the source of income from assistance, the more independent the region will be to accommodate the interests of the community, without the interests of the Central Government, which is not following the needs of the community in the region. The results of research conducted by Budi & Adi (2008) show that the higher the fiscal stress in a region, the higher the growth of capital expenditure in the region.

Based on the description above, the third hypothesis can be drawn as follows:

**H**<sub>3</sub>: Original local government revenues growth and capital expenditure growth simultaneously raise Fiscal Stress in regencies/municipalities throughout West Java Province.

#### 3. RESEARCH METHOD

This type of research is quantitative. This research explains the phenomena that occur clearly, and the data is in the form of numbers of so-called quantitative. The data used in this study is secondary data in the form of Regional Budget for each regency/municipality in West Java. The data sources used in this study are obtained from the Central Bureau of Statistics of the Republic of Indonesia and the Directorate General of Balance. This study uses data from 2013 (published in 2015) to 2016 (published in 2018). This study uses budget realization data to calculate fiscal stress, which is published two years later. Therefore, the data used in the calculation is panel data

Panel data is a set of data in the form of individual sample data at a certain period, a combination of cross-time data (time series) and cross-individual data (cross-section) (Subanti & Hakim, 2014). The period used in this study is yearly.

The use of panel data as a research method is to look at the characteristics of regencies/municipalities selected as the samples in this study and be a differentiator between this research and the research conducted by Muda (2012). Previous researchers analyzed regencies/municipalities and countries using time series as their research method. The following is a description of the variables used in this study:

Table 1. Descriptions and Operational Definition of Variables

| No | Variable Concept  | Scale      | Sources                         |
|----|---|------------|---------------------------------|
| 1  | Original Regional Revenue Growth (Variable X) is<br>one source of regional revenue. Original Regional<br>Revenue according to Law No. 32 of 2004 concern-<br>ing regional government  | Percentage | Central Bureau of<br>Statistics |
| 2  | Capital Expenditure Growth (Variable X) Budget expenditure for the acquisition of fixed assets and other assets that provide benefits for more than one accounting period   | Percentage | Central Bureau of<br>Statistics |
| 3  | Fiscal Stress (Variable Y): The inability of the regional government to fulfill both short-term and long-term financial obligations including the inability to increase regional revenues or provide public goods and services needed by its citizens | Index      | Directorate General of Balance. |

#### Research Population and Sample

The population used in this study is the regencies/municipalities in West Java Province in 2013 - 2016. The sampling technique used is the saturated sampling method. According to Sugiyno (2008), saturated sampling is a sampling technique when all populations are used. The sample used in this study is 27 regencies/municipalities in West Java province.

#### **Panel Data Regression Model**

The multiple linear regression model is as follows:

$$FS_{it} = \beta 0 + \beta_1 GPAD_{it} + \beta_2 GBM_{it} + e_{it}$$
 (1)

Where:

 $\beta$ 0 = constant

 $\beta$ 1,  $\beta$ 2 = coefficient

GPAD = Original Local Government

Revenues Growth

GBM = Capital Expenditure Growth

FS = Fiscal Stress

e = error

In the panel data regression model analysis, there are three kinds of estimation approaches, namely the common effect approach, the fixed effects approach, and the random effects approach.

#### 1. Common Effect

A common effect is the simplest form of panel data by simply combining time-series data and cross-sections. Testing is done using ordinary OLS without regard to dimensions of cross-section and time series.

#### 2. Fixed Effect

This approach is carried out to improve the LSDV (Dummy Variable) technique. Having a sizeable individual unit will not reduce the degree of freedom, which ultimately does not reduce the efficiency of the estimated parameter. The term effect remains due to constants that can differ between individuals, but each company's constants do not vary over time.

#### 3. Random Effect

This approach is taken to improve the least squared process's inefficiency by calculating the error of the cross-section and time series. The random effect model (REM) is a variation of the generalized least squared estimation. This approach assumes that individual effects that are not observed and are not correlated with regressors are random. Error is termed as *wit* consisting of *ui* and *eit. ui* is the cross-section of the error component, while eit is the combined error component. For this reason, REM is often also called an error components model (ECM).

# Determination of Data Panel Model Analysis Techniques

#### 1. Chow Test

First, the emitted panel data uses a fixed specification effect. The test that is carried out is the Chow test. This test aims to determine whether the model should use a fixed effect or a common effect.

H0: Common Effect

Ha: Fixed Effect

If the chi-square cross-section probability results are more than 5%, which is 0.6698, then H0 is accepted.

#### 2. Omitted Random Effects - Lagrange Multiplier

This test aims to determine whether the random effect model is better used than the common effect.

Ho: Random Effect

Ha: Common Effect

The method used in this test is the *Breusch Pagan* method. If the p-value is less than 5%, H0 is rejected. Conversely, if it is more than 5%, H0 is accepted. The Lagrange Multiplier Test is carried out to determine the best method for panel data regression, whether to use common effects or random effects.

#### **Fiscal Stress**

This study uses the fiscal capacity approach, which illustrates the financial capability of each region. Regional fiscal capacity has an inverse relationship

with fiscal stress, assuming that the higher the regional capacity, the lower the level of fiscal stress of the region, and vice versa. With this assumption, this study uses the fiscal capacity index to measure fiscal stress levels in regencies/municipalities throughout West Java Province.

This study uses a fiscal capacity index, as stated in the Minister of Finance Regulations Number 33 /PMK.07 / 2015 (realization 2013), PMK Number 37 / PMK.07 / 2016 (Realization 2014), PMK Number 119 / PMK.07 / 2017 (realization 2015), and PMK Number 107 / PMK.07 / 2018 (realization 2016) to calculate the level of fiscal stress

## Original Local Government Revenues Growth (GPAD)

The measurement of original local government revenues growth in this study refers to the research conducted by Haryadi (2002), which is measured by original local government revenues in the year minus original local government revenues in the previous year and divided by original local government revenues in the previous year, then multiplied by 100%. Original local government revenue is used as one of the independent variables because the original local government revenue is one of the primary sources of revenue in the region. The use of this variable refers to variables used by some previous studies.

GPAD = PAD (t) - PAD (t-1) 
$$\div$$
 PAD (t-1) X 100% (2)

#### Capital Expenditure Growth (GBM)

Capital expenditure in this study is calculated from its growth by calculating capital expenditure in the year minus by capital expenditure in the previous year, divided by capital expenditure in the previous year, and then multiplied by 100%. The use of capital expenditure as a variable is due to the emergence of fiscal stress. According to (Shamsub & Akoto, 2004), capital expenditure the right variable to represent fiscal stress calculations from the expenditure side.

$$GBM = BM (t) - BM (t-1) \div BM (t-1) \times 100\%$$
 (3)

# 4. DATA ANALYSIS AND DISCUSSION Descriptive analysis

Descriptive analysis is conducted to find a brief overview of each variable in this study. Table 1 shows the descriptive statistics of the original local government revenue growth (GPAD) and local government capital expenditure growth (GBM) as the independent variables.

Table 2. Descriptive analysis

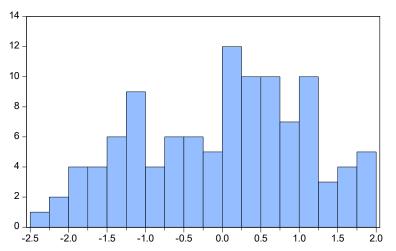
|      | Min     | Max    | Mean     | Median  | St. Deviation |
|------|---------|--------|----------|---------|---------------|
| GPAD | -2.2645 | 1.5656 | -0.67751 | -0.7479 | 1.1445        |
| GBM  | -2.2324 | 3.5062 | -0.91923 | -0.9791 | 1.0490        |

#### Classical Assumption Test Results

#### 1. Normality Test

The normality test is a statistical process used to determine whether a sample or a group of data meets the standard of normal distribution. Jarque–Bera test is a goodness-of-fit test of whether sample data have the skewness and kurtosis matching a normal

distribution. Based on the Jargue-Bera test or J-B test, if the probability value is > 5%, the variables are normally distributed. Based on the normality test presented in Figure 1, it is obtained the probability value of 0.1332 or prob > 5%. So, it can be said that the data is normally distributed.



Series: Standardized Residuals Sample 2013 2016 Observations 108 Mean -6.99e-17 Median 0.173256 Maximum 1.939487 Minimum -2.264534 Std. Dev. 1.095275 Skewness -0.206639 Kurtosis 2.148531 Jarque-Bera 4.031090 Probability 0.133248

Figure 1. Normality Test Result

#### 2. Autocorrelation Test

The autocorrelation test aims to test whether, in the linear regression model, there is a correlation between the confounding error in the period or space and the intruder error at the previous time or space. To detect this problem, the Durbin-Watson (DW) test can be used (Table 2).

Table 3. Durbin Watson Test Criteria Table

| Hypothesis 0                         | Decision             | Criteria                 |
|--------------------------------------|----------------------|--------------------------|
| There is positive autocorrelation    | Reject               | 0 < d < d1               |
| There is no positive autocorrelation | There is no decision | dl < d <du< td=""></du<> |
| There is negative autocorrelation    | Reject               | 4-dl < d < 4             |
| There is no negative autocorrelation | There is no decision | 4-du < d < 4dl           |
| There is no autocorrelation          | Accept it            | du < d < 4-du            |

Source: (Gujarati, 2004)

From the results of the DW test that has been done, the value of the Durbin-Watson stat is 1.6498. While d\_L= 1.6488 and d\_u= 1.7241. Because the d count's value is greater than du and smaller than 4-du, it can be concluded that there is no interference with autocorrelation.

#### 3. Heteroscedasticity Test

The heteroscedasticity test aims to test whether, in the regression model, there is an unconscious variance from the residuals of one observation to another observation. The regression results from the square residual log of all variables indicate a

probability value of more than 0.05. This means that there is no heteroscedasticity in the model.

Table 4. Breusch-Pagan Test Statistics

| Breusch-Pagan Test |         |  |
|--------------------|---------|--|
| df                 | p-value |  |
| 2                  | 0,462   |  |

H<sub>0</sub>: Variety of homogeneous residuals

H<sub>1</sub>: The residual range is not homogeneous

The Breusch-Pagan test is performed to see whether the range of residuals is homogeneous or not. Based on the test results presented in Table 4, p-value = 0.462 which is greater than  $\alpha$  = 0.05. This gives the conclusion that there is sufficient evidence to say that residuals have a homogeneous range (there is not enough evidence to reject H0).

#### 4. Multicollinearity Test

The multicollinearity test aims to test whether the regression model correlates with independent variables or not. According to (Gujarati, 2004), if the correlation coefficient between independent variables is more than 0.8, it can be concluded that the model experiences multicollinearity problems. Conversely, if the correlation coefficient is less than 0.8, the model is free from multicollinearity problems.

Table 5. Variance Inflation Factor

| Variable | VIF      |
|----------|----------|
| GPAD     | 1.000364 |
| GBM      | 1.000364 |

From the results of the test presented in Table 5, all the correlation coefficients are less than 0.8. So, it can be said that the model is free of multicollinearity problems. Multicollinearity occurs when the VIF value is more than 10. The above output shows that the VIF value in variables X1 and X2 is less than 10 (ten), so there is no multicollinearity.

# Determination of Panel Data Model Analysis Techniques

This study uses the Chow Test to determine whether the model should use fixed effects or common effects. If the value of the chi-square cross-section probability is more than 5%, which is 0.6698, then H0 is accepted. The model uses common effects. The results of the estimation use the following common specification effects.

Table 6. Result of the Chow test and LM test

| Chow test                | 0.6698   |
|--------------------------|----------|
| Lagrange Multiplier Test | (0.2788) |

The Omitted Random Effects-Lagrange Multiplier Test is used to determine whether the random effect model is better than the common effect. The method used in this test is the Breusch-Pagan method. If the p-value is less than 5%, Ho is rejected. Conversely, if it is more than 5%, Ho is accepted. The results of the Omitted Random Effects-Lagrange Muliplier test presented in Table 6 show that the p-value is 0.2788. So, it can be said that the model should use the Common Effect

#### **Panel Data Analysis**

Based on the specification test above, the model should use estimates with fixed effects. In the previous test, the model has passed the classical assumption test, so the estimation results are consistent and unbiased. The results show that the probability value of the PAD's variable is at a level of error of 5%. At the same time, the BM variable has a probability value of 0.6265, which means that it is not significant.

#### Significance Test Results

#### 1. Partial Test

The partial test analysis is presented in Table 6. The result of the analysis shows that the GPAD variable has a t-count value of -2.5731 and a probability value of 0.0022, at a significance level of 5%. So, the GPAD variable partially has a negative effect on the FS index. Besides, the GBM variable has a t-count value of 0.4881 and a probability value of 0.6265. With the significance level of 5%, the GBM variable partially has an insignificant effect on the FS index.

Table 7. Partial Test

| Variable | Coefficient | Prob.  |
|----------|-------------|--------|
| GPAD     | -0.6329     | 0.0022 |
| GBM      | 0.0988      | 0.6265 |

#### 2. Simultaneous Test

Based on the results of the analysis presented in Table 8, the F-count value is 3.4069, and the F probability value is 0.0368. With the significance level of 5%, the F test is significant. So, it can be seen that all independent variables simultaneously have a significant effect on the dependent variable. Therefore, the PAD and BM variables simultaneously have a significant effect on the FS index.

Table 8. Simultaneous Test

| Variable | Prob.  |
|----------|--------|
| GPAD-GBM | 0.0368 |

#### The coefficient of Determination (R2)

The coefficient of determination value or goodness of fit value obtained is 0.6090. This means that the contribution of all independent variables in explaining the dependent variable is 60.90%, while other variables outside the model explain the remaining 39.10%. From the results of processing panel data with the fixed effect method, the regression equation obtained is as follows:

 $FS_{it} = -0.6329 - 0.5507 \text{PAD} + 0.0988 \text{BM} + \mathcal{E}_{it}$ 

#### Discussion

#### The growth of Original Local Government Revenues (PAD) has a significant negative effect on Fiscal Stress

The first hypothesis states that the growth of original local government revenues (PAD) partially reduces Fiscal Stress in regencies/municipalities throughout West Java Province. With the significance level of 5%, the variable of original local government revenues partially has a significant effect on the FS index.

Original Local Government Revenue has an effect on fiscal stress. This is consistent with the results of research conducted by Nanga (2005). Independence in the Regional Budget (APBD) is closely related to the independence of original local government revenues because the higher the source of income that comes from regional potential, not the source of income from assistance, the more independent the region will be to accommodate the interests of the community without the Central Government's interests that are not following the needs of the community in the region.

The authority of the regional government in implementing its policies as an autonomous region is strongly influenced by the region's ability to produce Regional Revenues. Maximization of original local government revenues means that the region's flexibility can be used to increase original local government revenues and explore new sources of revenue. Original local government revenue is regional income originating from the results of regional taxes, the results of regional levies, the results of separated regional wealth management, and others.

### The growth of Capital Expenditure has an insignificant effect on Fiscal Stress.

The second hypothesis states that capital expenditure growth partially raises Fiscal Stress in regencies/municipalities throughout West Java Province. With the significance level of 5%, the variable of the growth of capital expenditure (BM) partially has an insignificant effect on the FS index.

The utilization of capital expenditure should be allocated to productive matters, such as carrying out development activities. The impact of the use of capital expenditure will affect regional economic growth and the economy of the community. Government revenues should be concentrated more on public service programs; this implies the importance of allocating regional government spending for various public interests (Saragih, 2003). This is in line with the results of research conducted by Muda (2012) and Mariani (2016) that capital expenditure does not significantly influence fiscal stress. This is in line with the results of research conducted by Sugiantini (2015) in Buleleng Regency in Bali that the increase in special allocation funds is fluctuating in line with regional development.

#### The Growth of Original Local Government Revenues and the Growth of Capital Expenditures have a significant effect on Fiscal Stress.

The third hypothesis states that original local government revenues growth and capital expenditure growth simultaneously raise Fiscal Stress in regencies/municipalities throughout West Java Province. Based on the results of the analysis, the F-count value obtained is 3.4069, and the probability value of F is 0.0368. With the significance level of 5%, the F test is significant. So, it can be seen that all independent variables simultaneously have a significant effect on the dependent variable. The variables of original local government revenues growth and capital expenditure simultaneously have a significant effect on fiscal stress in regencies/municipalities in West Java Province. Partially, only the variable of growth of original local government revenues has a significant effect on fiscal stress in regencies/municipalities in West Java Province. In contrast, the variable of capital expenditure growth does not have a significant effect on fiscal stress regencies/municipalities in West Java Province. This is due to the decline in capital expenditure and the minimum capital expenditure allocated.

Legitimate Local Revenue aims to provide flexibility. In financing its regional expenditure, in addition to using transfers from the central government, the regional government also uses funds so-called original local government revenues. Besides, the Transition of Rural and Urban Land and Building Taxes (PBB-P2) and the transfer of fees for the acquisition of Land and Building Rights (BPHTB) as regional taxes can make positive changes, especially those related to efforts to improve services to taxpayers. Optimizing and strengthening regional administration is also the potential to increase original local government revenues (Muda, 2012).

# 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Based on the results of the study, it can be concluded that original local government revenues growth and capital expenditure growth simultaneously have a positive effect on fiscal stress in regencies/municipalities throughout West Java Province. Original local government revenues growth (PAD) partially has a negative effect on Fiscal Stress in regencies/municipalities throughout West Java Province. Capital expenditure growth partially has an insignificant effect on Fiscal Stress in regencies/municipalities throughout West Java Province.

The results of this research can be taken into consideration for the government in making policies. The regional government is expected to be more optimal in increasing regional revenue sources by implementing and improving existing methods and systems. At least revenues from taxes, regional levies, and other legitimate regional revenues can be maintained so that regional dependence on funding from the center can be reduced every year.

The implication of this research is to introduce fiscal stress measurement methods using the fiscal capacity index as a new alternative that can be used in this field of research and by the government to design the policy. The limitation of this study is that it is difficult for authors to find relevant theories and journals to support the hypotheses proposed by the authors.

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