

## The Effect of Fiscal Stress, Original Local Government Revenue and Capital Expenditures on Efficiency Ratio of Government Independence Performance

Ermatry Hariani, Retno Febriyastuti Widyawati  
Department of Economics, Wijaya Kusuma University Surabaya, Indonesia  
E-mail: ermategyhariani@uwks.ac.id

Received: July, 2019; Accepted: January, 2020; Published: March, 2020  
Permalink/DOI: <http://dx.doi.org/10.17977/um002v12i12020p018>

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### Abstract

The enactment of autonomy in Indonesia is to minimize the dependence of regional/local governments on the central government. In this case the regional/local government must be able to increase the source of revenue for the region. When fiscal stress is high, the government tends to explore the potential for tax revenues. The ability of an area to explore Original Local Government Revenue (PAD) will affect the development of the area. One of the important tasks of the Regional Government is to provide and build public infrastructure through the allocation of capital expenditure in the Regional Government Budget (APBD). Capital expenditure is the expenditure of the Regional Government which has the leverage to drive the economy. To measure the financial capacity of the local government is to analyze the financial ratios of APBD. This study use method of panel data, which is a combination of data time series (time series) and the data cross (cross section) in each province Indonesia 2016 - 2018. The method from this research use FEM (fixed effect model). The result shows that PAD has significant effect to efficiency ratio of government independence performance in each province in Indonesia. It means that high to low PAD has been influenced in ratio efficiency performance of independence. In this case the high and low fiscal stress and capital expenditure do not have an influence on efficiency ratio of government independence performance.

**Keywords:** *Fiscal stress, Original Local Government Revenue, Capital Expenditure, Government Independence Performance*

**JEL Classification:** H30

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### INTRODUCTION

In period of autonomy system, aim to minimize dependency of local governments to the central government. Meanwhile, the system make problem is fiscal stress higher. It means Government must increase of the source of revenue for the region. The problem that fiscal stress describes regards the financial/fiscal condition of a government (Rubin and Willoughby 2009; Hendrick 2004; Wang et al 2007). Maher and Gorina (2016) and arnet (2012) defined fiscal stress as the

condition of local finances in which the government cannot provide public services and meet its own operating needs to the extent that it previously did. Fewer researchers defined fiscal stress as weak financial condition. When fiscal stress is high, the government tends to explore the potential for tax revenues (Shamsub and Akoto, 2004: 85). Tax effort is an effort of local governments to explore the potential of their regions to improve their regional income, finally will increase so that regional dependence on balance funds can be limited. Growth of PAD will affect the regional development.

The government is expected to explore the potential that exists in its area, so that it can be used to finance regional expenditures, especially those directly related to public services or improving infrastructure that supports the acceleration of regional economic growth. One of the important tasks of the local government is to provide and build public infrastructure through the allocation of capital expenditure in the APBD. Because capital expenditure is the expenditure of the local government which has a leverage in region economy, finally can increase PAD and reduces the level of dependence on the central government. The wider authority given by the central government is not only indicated to affect regional income, but also indicated influence on regional expenditure structures. Adi (2007) argue that changes in expenditure structures, especially with increased capital expenditures be the important things to increase PAD.

The state of government has financial pressures causes in the preparation of the APBD becoming uncertain, so it makes shifting in the components of regional income and expenditure. For measure financial capacity of local governments using financial ratio analysis of the budget that has been set. According (Halim, 2004: 230) As other regions in Indonesia, the main problem facing the autonomous region is low acceptance PAD, while on the other hand the potential of natural resources and human resources is potential. Based on this, the authors were interested to know how the efficiency of the performance of every province in Indonesia. Does the performance of the regional government's financial independence continue to increase or even decrease for each year? Therefore, the title of this research is: "Effect of *Fiscal Stress*, PAD, and Capital Expenditure on Efficiency Ratio of Government Independence Performance"

## **METHOD**

Approach research is a research explanatory, the research test and then explain causal relation between variable i.e. *fiscal stress*, PAD, capital expenditure, as well as the efficiency ratio of government independence performance. Location this research is every province in Indonesia. This study, the technique taking samples by using the census method, so that take all provinces in Indonesia. The data of this research is that the secondary data use documentary method either through the Internet or published by the directorate general of financial balance the Ministry of Finance (DJPK) as well as the source of other relevant to be processed, and proved from theory earlier, and then analyzed. The analysis tool in this study is using analysis regression and panels. Analysis regression to see the relationship FS, PAD, BM, and the efficiency ratio of government independence performance (KK) in each province Indonesia using panels. In panel data using 3 methods: *Pooled Least Square (PLS)*, *Fixed effect Models (FEM)* and *Random Effect Models (REM)*.

## RESULTS AND DISCUSSION

This study uses the *Fixed Effect Model*. The regression analysis model equations are as follows:

$$KK_{it} = 0.961072 - 0.010892FS_{it} + 0.384500PAD_{it} - 0.000904BM_{it} + U_{it}$$

Information:

KK	= Efficiency ratio of government independence performance
FS	= Fiscal stress
PAD	= Local government income
BM	= Capital expenditure
$\beta_0$	= Constant
$\beta_1, \beta_2, \beta_3$	= Coefficient
$U$	= <i>Disturbance error</i>
$i$	= <i>Cross Section</i>
$t$	= <i>Time Series</i>

### Analysis of Regression Results

In panel data regression, the first step is to decide what kind of regression will be used between the common or pool least square (PLS) and the fixed-effect model. The following table 1 is the results of the PLS.

**Table 1. Pool Least Square Test Results**

Variable	Coefficient	Prob.
C	0.945731	0.0000
FS	-0.003683	0.9332
PAD	0.321751	0.0000
BM	0.001565	0.6590
R-squared	0.491869	
Adjusted R-squared	0.476314	
F-statistic	31.62123	
Prob(F-statistic)	0.000000	

Source: author, data processed

Next is to regression the data with the second step, which is to do a test using *Fixed Effect Method* (FEM) and continued with the test *Chow*. As for the results in this study, the FEM models is better than the PLS model. The following table 2 results of the *fixed effect test*.

**Table 2. Fixed Effect Method (FEM) Test Result**

Variable	Coefficient	Prob.
C	0.961072	0.0000
FS	-0.010892	0.8164
PAD	0.384500	0.0000
BM	-0.000904	0.7896
R-squared	0.730862	
Adjusted R-squared	0.581801	
F-statistic	4.903114	

Prob(F-statistic)	0.000000
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Source: Author, data processed

The results of the chow test are shown in table 3 below:

**Table 3. Chow Test Result**

Effects Test	Statistic	d.f	Prob.
Cross-section F	1.749083	(33.65)	0.0275
Cross-section Chi-square	64.822637	33	0.0008
R-squared	0.491869		
F-statistic	31.62123		
Prob(F-statistic)	0.000000		

Source: Author, data processed

Base on table 3, the results of the Chow test can be concluded:

$H_0$  = Pool

$H_1$  = Fixed

The Chow Test results that the probability value is 0.0275 and chi-square cross section 0.0008 < 0.05 then  $H_0$  is rejected, then use FEM.

The third step is to do the *Random Effect Method* (REM) test and proceed with the Hausman test. The results of *Hausman test* in this study state that the FEM model is better than the REM model. For more details can be seen in Table 4 below:

**Table 4. Random Effect Method (REM) Test Result**

Variable	Coefficient	Prob.
C	0.946783	0.0000
FS	-0.003392	0.9328
PAD	0.329786	0.0000
BM	0.001213	0.7049
R-squared (Weighted Statistics)	0.516042	
Adjusted R-squared	0.501227	
F-statistic	34.83235	
Prob(F-statistic)	0.000000	

Source: Author, data processed

The *Hausman* test results are shown in table 5:

**Table 5. Hausmann Test Result**

Test Summary	Chi-Sq. Statistic	d.f	Prob.
Cross-section random	18.251814	3	0.0004

Source: Author, data processed

Based on the results of the Hausman test in table 5, the Prob. 0.0004, where the Prob is < 0.05 with hypothesis.  $H_0$  = REM

$H_1 = \text{FEM}$

Then  $H_0$  is rejected, and this study is suitable using FEM

In this study there is no need to do a Lagrange Multiplier (LM) test because the results of the fixed and random test are consistent. In his theory (Gujarati and Porter, 2009) states that the equations that meet the classical assumptions are equations using the GLS method. In the program reviews, the GLS method estimation model is only REM, for FEM and the common effect using OLS. It can be concluded that the need for the classic assumption test in this study depends on the results of the selection of estimation methods. If the estimation method is random effect, there is no need to test classical assumptions. And conversely, if the regression equation uses fixed effect / common effect (OLS), it is necessary to test the classic assumption.

The interpretation of the results of the FEM Regression is as follows:

Based on data processing, the result is the  $R^2$  value of 0.730862. This means that independent variables can explain the diversity of dependent variables together by 73%. The remaining 27% is explained by other variables outside the model.

The results of the analysis show that F count is 4.903114 with prob. F is 0.000000. With  $\alpha$  5% then the prob value.  $F <$  or smaller than the value of the significance level. In this case it means that the independent variable has a significant effect on the dependent variable.

The t test is used to test whether independent variables partially have a significant effect on dependent variables. Testing is done by comparing the probability value to the 0.05 significance level. The regression test results in table 2 can be seen that the PAD probability value of 0.0000 is smaller than the significance level ( $\alpha$ ) 0.05 meaning that the PAD variable is individually significant towards the variable efficiency ratio of local government independence performance. While the fiscal stress (FS) probability value is 0.8164 and capital expenditure (BM) is 0.7896 which is greater than ( $\alpha$ ) 0.05, meaning that the FS and BM variables individually are not significant or do not affect the efficiency ratio of local government independence performance variables.

The panel data regression equation with Fixed Effect Model is as follows:

$$KK_{it} = 0.961072 - 0.010892FS_{it} + 0.384500PAD_{it} - 0.000904BM_{it} + U_{it}$$

Explanation and further discussion of the factors that influence the efficiency of independence performance are as follows:

### **Effect of Fiscal Stress on The Efficiency Ratio of Government Independence Performance**

The results show that Fiscal Stress (FS) has a negative and not significant effect on the efficiency ratio of government independence performance. The FS variable coefficient of 0.010892 with a probability of 0.8164 explains that a 1% increase in FS will not be followed by a decrease in the efficiency of independence performance by 0.010892 percent. In this case the fiscal stress does not have a significant effect because almost every province in Indonesia gets a balance fund from the central government, so that with the help of balancing

funds this does not cause high fiscal stress and ultimately does not affect the efficiency ratio of financial performance.

### **Effect The Riil Income of Local Government (PAD) on Efficiency Ratio of Government Independence Performance**

The results show that the riil income of local government (PAD) has increased by 1 percent, thus increasing the Efficiency ratio of government Independence Performance by 0.384500 percent. The PAD probability value is 0.0000. Where this test has proven that the riil Income of local government variable has a significant effect on the efficiency ratio of the government independence performance or financial performance. In accordance with the theory, the results of this study concluded that if the riil income of local government variable increases, the efficiency ratio of government independence performance or financial performance will increase. With the increase in regional economic activities, the higher the amount of PAD that can be obtained by the local government. In line with the increase in PAD, the financial performance of the local government will also increase

This research same with Antari and Sedana's (2018) research, where PAD has a significant influence on the financial performance of local governments in the provincial districts / cities of Bali.

### **Effect of Capital Expenditures (BM) on the Efficiency Ratio of Government Independence Performance.**

The results show that BM values have no significant effect on the efficiency ratio of government independence performance. From the regression results it is known that the coefficient value of the BM variable is 0.000904 with probability of 0.7896 means that every 1% increase in BM does not reduce the efficiency ratio of government independence performance by 0.000904 percent but it is not significant. The results of this study are the same as Wiguna's (2018) study which stated that capital expenditure does not have a significant effect on financial efficiency (financial performance) of district / city local governments in South Sumatra in 2012-2018.

Capital expenditure does not affect the efficiency ratio of independence or government financial performance in each of Indonesia's provinces, can be caused by the realization of the largest regional expenditure allocated for operational expenditure which consists of personnel expenditure, goods expenditure, interest expenditure, grant expenditure, financial assistance expenditure and social assistance. The allocation of regional expenditure is still focused on spending in addition to capital expenditure allocated to finance development and infrastructure in various sectors. Therefore, in order to spur an increase in regional economic performance, the government in each Province of Indonesia must focus more on allocating budgets for capital expenditure. Capital expenditure is a type of expenditure that produces added value for assets, both physical and non-physical, that are carried out in a certain period. If you see from empirical evidence on the existing phenomenon, where capital expenditure for infrastructure that is high in the government period is now more focused on development such as toll roads, airports etc., in this case the return on investment will be seen in the long term so that in the short term it still has no impact at this time. It can be concluded that the

high capital expenditure cannot influence the efficiency ratio of the independence or financial performance of the local government

## CONCLUSION

Based on the discussion above, it can be concluded only one variable suitable with theory, namely PAD. In this case PAD has a positive and significant effect on the efficiency ratio of government independence performance (KK) in each of Indonesia's provinces in 2016-2018, but two variables are Fiscal Stress (FS) and Capital Expenditure (BM) is not significant and not suitable with theory. Policy implications in the era of regional autonomy have not been maximized because the government still provides balancing funds to each provincial government in Indonesia, so that in this study fiscal stress and capital expenditure have not been able to influence the level of efficiency of government independence performance.

In this study, the independent variables are PAD, fiscal stress, and capital expenditure, so that there is no possibility that in the future there will be other factors that affect the efficiency ratio of government independence performance in each province of Indonesia. In this study to measure the level of efficiency financial independence / performance using only the efficiency ratio. It is expected that in the next study can increase the measurement of other financial ratios, namely the harmony ratio, growth ratio

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