

## THE INFLUENCE OF REGIONAL GENUINE INCOME, BALANCED FUNDS AND BUDGET RETURN CALCULATIONS (SILPA) ON CAPITAL EXPENDITURES IN INDONESIAN PROVINCE

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### Abstract

This study aims to analyze the effect of regional original income, balancing funds, and excess budget calculations on capital expenditure in provinces throughout Indonesia. The population in this study totaled 34 provinces. The samples used in this study amounted to 34 provinces. The type of research used is quantitative. Quantitative research is a study that emphasizes the analysis of numerical data (numbers) that are processed using certain statistical methods. The data collection technique used in this study was a documentation technique and analyzed using panel data regression and processed using the Eviews9 application. The results of the study found that the variable regional original income (PAD) had a positive and significant effect on capital expenditure, while balancing funds (DP) and remaining budget calculations (SiLPA) had a negative and insignificant effect on capital expenditure.

**Keywords:** Local Own Revenue, Balancing Funds, Budget Calculation Surplus Time, Capital Expenditure

### INTRODUCTION

Regional Governments (Pemda) have the right and authority to use the financial resources they have in accordance with the needs and aspirations of the community. Law Number 23 of 2014 concerning Regional Government, the regions are given broad authority to manage their own finances with provisions regulated by the central government. The law confirms that the regions have the authority to determine the allocation of resources into the Regional Revenue and Expenditure Budget (APBD) by adhering to the principles of decency, needs, fairness and regional capabilities. The Regional Revenue and Expenditure Budget (APBD) is the regional government's annual financial plan that is reviewed and agreed upon by regional assemblies and determined by regional regulations. APBD is the essence of local financial management as a direction for local governments in providing services to the community in one fiscal year. The function of the APBD is to become a tool used by local governments to support the creation of public accountability. The concept of public accountability is associated with improving organizational performance, that in the implementation of regional autonomy performance-oriented financial management and a regional budget system is needed.

The phenomenon that occurred was the spread of the Covid-19 virus in 2020 which had a major effect on Regional Original Revenue which resulted in the income sector in an area, for example, the tourism and hospitality sector experienced closure and became quiet. As well as having a big impact on the budget for the revenue of the region's own original income, so that there was a quite drastic decline, different from the previous year for each province in Indonesia.

In the Balancing Fund, the central government also reduces transfer funds to local governments which results in fiscal imbalances in provinces throughout Indonesia. In the revenue-sharing budget, general allocation funds and special allocation funds, fluctuations occurred in the budgets of each province throughout Indonesia from 2019 to 2020, this was due to the impact of the Covid-19 virus where the central government reduced the balance fund budget for handling the Covid-19 virus. 19 nationally.

The occurrence of this phenomenon also has an impact on the previous year's excess budget calculations (SiLPA) in provinces throughout Indonesia, which are also experiencing fluctuations as seen in the budget comparison using percentages between the two years, namely 2019-2020 in Appendix 1. You can see the realization of the SiLPA budget in Each province in Indonesia has fluctuated. This happened because many government programs that the government was going to carry out were stopped because of the Covid-19 virus. Based on the APBD realization data for regional expenditure allocations, it reflects that the budget allocation for capital expenditure in 2019 to 2020 can be seen that there have been fluctuations in each province, namely a decrease in the majority of provinces and an increase in several provinces throughout Indonesia. By looking at the

results of the decrease in capital expenditure in DKI Jakarta Province from 2019 to 2020, this is the most significant decrease compared to other provinces. This is due to the regional original income factor, the balance fund is reduced, then it cannot carry out activities so that capital expenditure decreases so that SiLPA increases. The impact of the covid-19 virus which has almost spread to remote areas in Indonesia, which has caused a decrease and increase in spending budgets in provinces throughout Indonesia then unable to carry out activities so that capital expenditure decreases so that SiLPA increases. The impact of the covid-19 virus which has almost spread to remote areas in Indonesia, which has caused a decrease and increase in spending budgets in provinces throughout Indonesia then unable to carry out activities so that capital expenditure decreases so that SiLPA increases. The impact of the covid-19 virus which has almost spread to remote areas in Indonesia, which has caused a decrease and increase in spending budgets in provinces throughout Indonesia

## RESEARCH METHODS

In this research, the data analysis method used is panel data regression analysis, where panel data is a combination of time series and cross section data. Meanwhile, the software used to process data using the panel data regression method is Eviews. To perform panel data regression, several tests are needed to select a panel data regression model that is suitable for this study. There are 3 (three) panel data regression estimation models, Gujarati and Porter (2012), namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The explanation of the three models is as follows:

### 1. Common Effects Model(CEM)

The Common Effect Model (CEM) regression model is the simplest technique for estimating panel data. This method combines all time series data and cross sections. This model can be estimated using the Ordinary Least Square (OLS) method.

### 2. Fixed Effects Model(FEM)

The Fixed Effect Model (FEM) regression model takes into account the possibility that the researcher faces an omitted-variables problem, which allows for changes in the intercept time series or in the cross section. This model adds a dummy variable to panel data to allow intercept changes.

### 3. Random Effects Model(BRAKE)

The Random Effect Model (REM) regression model is a variation of the Generalized Least Square (GLS) estimation. The Random Effect Model (REM) takes into account the error from panel data using the least squares method. This modeling approach improves the efficiency of the least squares process by taking into account the error from the time series and cross section.

The panel data regression equation is as follows:

$$Y = \alpha + \beta_1 PAD + \beta_2 DP + \beta_3 SiLPA + \varepsilon$$

Information:

Y = Capital Expenditures

$\alpha$  = Constant Number

$\beta_1 - \beta_3$  = Regression Coefficient

PAD = Local Own Revenue

DP = Balancing Fund

SiLPA = Remaining Over Budget Calculation (SiLPA)

$\varepsilon$  = standard error

This study uses Capital Expenditure as an independent variable and Regional Own Revenue, Balancing Funds, and Budget Calculation Overtime as the dependent variable. The measurement of each variable is presented as follows:

1. PAD (X1) is the income earned by the region that is collected based on regional regulations in accordance with statutory regulations. The components of PAD are revenues originating from regional taxes, regional levies, separated regional wealth management results and other legitimate regional original income. The calculation is done by the formula:

**PAD= Regional Taxes + Regional Levies + Results of Yang Wealth Management Separated + Other Legitimate Regional Revenues.**

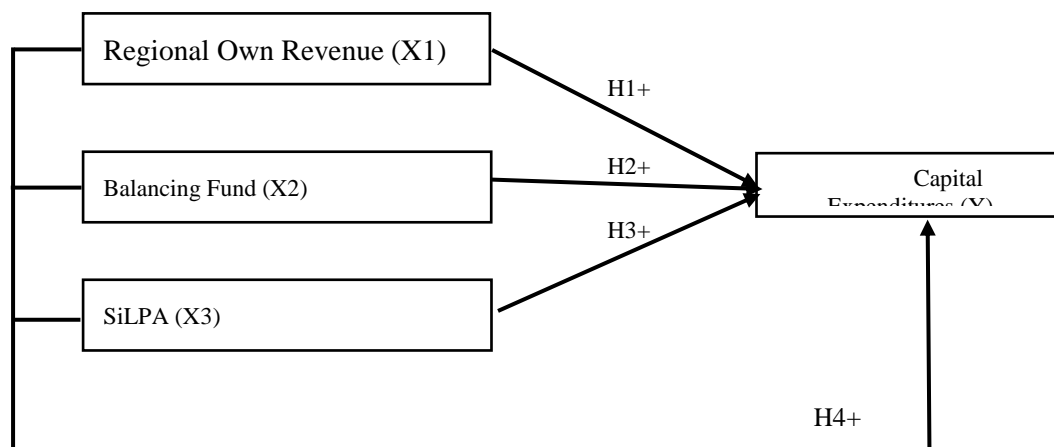
2. Balancing Funds (X2) are funds originating from APBN revenues allocated to regions to be able to fund regional needs in the context of implementing decentralization which aims to balance between the central government and regional governments. The calculation of the Balancing Fund is by using the formula:

**Balancing Fund = Profit Sharing Fund + General Allocation Fund + Special Allocation Fund**

3. Remaining Budget Calculations (X3) Law no. 20 of 2019 concerning the State Revenue and Expenditure Budget for the 2020 Fiscal Year stipulates that SiLPA is the excess difference between the realization of budget revenues and expenditures during one budget period. Calculation of the excess budget calculation is done by the formula:

**SiLPA = (Revenue Realization – Expenditure Realization) + (Financing Receipt – Financing Expenses)**

Framework and the hypothesis in the study is as follows:



**Figure 1. conceptual framework**

The description of the conceptual framework and supported by existing theory, the research hypothesis is as follows:

- H1 : There is an influence of regional original income on capital expenditure in provinces in Indonesia  
 H2 : There is an effect of balancing funds on capital expenditure in provinces in Indonesia  
 H3 : There is an influence of excess budget calculations on capital expenditure in provinces in Indonesia  
 H4 : There is a simultaneous influence of regional original income, balancing funds and excess budget calculations on capital expenditure in provinces in Indonesia.

## RESULTS AND DISCUSSION

### Determination of Panel Data Estimation Techniques

There are three models in the panel data regression, namely the Common Effect Model (CEM), Fixed Effect Model (FEM) and Random Effect Model (REM). To determine the best model and which is suitable for this study, the tests carried out were the Chow Test and the Hausman Test. The Chow test was performed to compare CEM and FEM while the Hausman test was performed to compare FEM and REM.

The chow test is a test conducted to determine the appropriate model between the Common Effect Model (CEM) or Fixed Effect Model (FEM), by looking at the probability chi square value. If the prob chi square value is above the standard tolerance value in this study which is 0.05 then the best model is the Common Effect Model (CEM) and if the probability value is below 0.05 then the best model is the Fixed Effect Model (FEM). The results of the chow test in this study are as follows:

**Table 1 Chow test results**

Effect Test	Statistics	df	Prob.
Cross-section F	4.7073	(33,31)	0.0000
Chi-square cross-sections	121.9648	33	0.0000

Based on the table above, it can be seen that the profitability value for the chow test is 0.0000 where this figure is below the standard error tolerance value of 0.05 so based on the best chow test model is the Fixed Effect Model so that the Hausman Test is needed to compare Fixed Effect Models and Random Effect Models.

If the probability value on Hausman is above the standard error tolerance value, which is 0.05, then the best model is chosen by the Random Effect Model. Meanwhile, if the probability value is below 0.05 then the Fixed Effect Model is selected. The results of the Hausman test in this study can be seen in the following table:

**Table 2. Haustman test results**

Test Summary	Chi-Sq. Statistics	Chi-Sq. df	Prob.
Random cross-sections	23.3902	3	0.0000

Based on Table 2 the probability value on the Hausman Test is 0.0000. This value is below the standard error value of 0.05. Where the right model in this study is the Fixed Effect Model (FEM). So in this study, data estimation and hypothesis testing use panel data regression with the Fixed Effect Model (FEM).

### Panel Data Regression Estimation Results

**Table 3 Estimation of Panel Data Regression Using Fixed Effect Model (FEM)**

Variables	coefficien t	std. Error	t-Statistics	Prob.
C	-27.6202	16.6016	-1.6637	0.1062
PAD	21.2068	42.9399	4.9387	0.0000
DP	-16.0246	47.8567	-0.3348	0.7400
SiLPA	-0.01378	0.00888	-1.5510	0.1310
R-squared	0.9433	Mean dependent var		27.5964
Adjusted R-squared	0.8776	SD dependent var		63.8385

SE of regression	22.3302	Akaike info criterion	9.35247
Sum squared residue	15.4578	Schwarz criterion	10.5601
Likelihood logs	-28.0984	Hannan-Quinn criter.	9.83099
F-statistics	14.3496	Durbin-Watson stat	3.88571
Prob(F-statistic)	0.00000		

Source: Data processed with *evIEWS9* (2022)

Based on table 3, the regression equation can be arranged as follows:

$$BM = -27.6202 + 21.20687 PAD - 16.0246 DP - 0.01378 SiLPA$$

From the above equation, it can be seen that there is a constant value (C) of -27.6202, which means that capital expenditure indicates that if regional original income, balancing funds and the remaining surplus from budget calculations are constant (fixed), then capital expenditure will remain constant with a value of -27.6202. In line with that, local revenue has a positive relationship to capital expenditure with a regression coefficient of 21.2068. This shows that if local revenue is added by 1% it will increase capital expenditure to 21.2068%.

Balancing funds have a negative relationship to capital expenditure with a coefficient of -16.0246. This states that if the balancing fund is added by 1% it will reduce capital expenditure by a coefficient of -16.0246%. Furthermore, the remaining excess budget calculations have a negative relationship to capital expenditure with a regression coefficient of -0.013783. This shows that if the excess budget calculation is added by 1%, it will reduce capital expenditure by -0.013783%. Other than that, it looks value *Adjusted R-square* of 0.877645 or 87.76%. This study shows that PAD, DP, SiLPA are able to explain BM by 87.76%, while the remaining 12.24% is explained by other factors not analyzed in this study.

## Discussion

### Hypothesis test

#### Partial Test (t test)

##### 1. Effect of Regional Original Income on Capital Expenditures

The results of the regression analysis show that Regional Original Income has a coefficient value 21.20687 with a tcount of 4.938732 and a probability of 0.0000. Therefore, the tcount is (4.938732) > ttable (1.669) and the probability value is (0.0000) < 0.05, so H1 is accepted, which means that Regional Original Income has a positive and significant effect on Capital Expenditures in Provinces throughout Indonesia. This proves that in increasing the development expenditure budget which includes a capital expenditure component, therefore the regional government must explore potential sources that can trigger an increase in PAD. In line with the results of research conducted by Cindy Tania Damanik (2021) which stated that Regional Original Income has a positive and significant effect on Capital Expenditures.

##### 2. The Effect of Balancing Funds on Capital Expenditures

The results show that the Balancing Fund has a coefficient value of -16.02469 with a tcount of -0.334847 and a probability of 0.7400. Therefore tcount (-0.334847) < ttable (1.669) and probability value (0.7400) > 0.05, then H2 is rejected, which means that the Balancing Fund has a negative and insignificant effect on Capital Expenditures in Provinces throughout Indonesia. Thus, the results of this study are not in line with the estimates of the second hypothesis which says balancing funds have a positive and significant effect on capital expenditure. The results of this study are in line with research conducted by Nurmala Sari (2018) which states that balancing funds have a negative effect on capital expenditure.

##### 3. The Influence of Excess Budget Calculations on Capital Expenditures

The results of the regression analysis show that SiLPA has a coefficient value of -0.013783 with a tcount of -1.551049 and a probability of 0.1310. Therefore, tcount (-1.551049) < ttable (1.669) and probability value



(0.1310) > 0.05, then H3 is rejected, which means that the excess budget calculation has a negative and insignificant effect on capital expenditures in provinces throughout Indonesia. The results of this study are in line with research conducted by Rizky An Nizya Nora (2021) which states that excess budget calculations have a negative effect on capital expenditure.

### Simultaneous Test (Test F)

The purpose of the F test is to examine the effect of the independent (independent) variable simultaneously on the dependent (dependent) variable. It is known that Fcount is 14.34967 and Ftable is 2.759 at  $\alpha = 0.05$  or 5%. Thus Fcount > Ftable (14.34967 > 2.759), and the statistical probability value of F is 0.000000 which is smaller than the significant level of 0.05 so H0 is accepted. This shows that the independent variables, namely Local Own Revenue, Balancing Funds and Budget Calculation Overtime (SiLPA) simultaneously have a significant effect on Capital Expenditures in Provinces throughout Indonesia.

### CONCLUSION

Referring to the results of research that examines the effect of Regional Original Income, Balancing Funds and Budget Calculation Surplus (SiLPA) on Capital Expenditure in Provinces throughout Indonesia in 2019-2020 the following conclusions can be drawn:

1. Regional Own Revenue has a positive and significant effect on Capital Expenditure in Provinces throughout Indonesia.
2. Balancing Funds have a negative and insignificant effect on Capital Expenditures in Provinces throughout Indonesia.
3. The excess budget calculation (SiLPA) has a negative and insignificant effect on capital expenditures in provinces throughout Indonesia.

Simultaneously the independent variables namely Local Own Revenue, Balancing Funds and Budget Calculation Overtime (SiLPA) affect Capital Expenditure in Provinces throughout Indonesia.

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