FLYPAPER EFFECT TRACER ON OPERATING EXPENDITURE AND CAPITAL EXPENDITURE OF CITY GOVERNMENT IN INDONESIA

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ABSTRACT

The aim of this research was to analyze the possibility of flypaper effect on the Operating and Capital Expenditures (OCE) of City Governments in Indonesia. This research also examined the effect of the Regional Original Revenue (ROR) and the General Allocation Fund (GAF) to the Operating Expenditures(OE) and Capital Expenditure (CE) of City Governments in Indonesia in the period of 2010-2012. The data used was the Realization Reports of City Government Budgets. The sampling method used was purposive sampling method with the number of samples of 56 city governments in Indonesia. The type of data used was panel data which was the combined data of time series 2010-2012 and cross section of 56 cities. The analytical method used was regression analysis of panel data with the estimation method of Fixed Effect Model (FEM) and Random Effect Model (REM). The selection of the method was based on Hausman test. These results indicate that ROR and GAF have positive and significant effect on operating expenditure. Furthermore, it was also found that there was flypaper effect on Operating Expenditure. The impact of the increase of GAF on Operating Expenditure was more than 1% and significant. However GAF does not significant effect on Capital Expenditure while GAF has positive and significant effect on Capital Expenditure. Thus, flypaper effect does not occur in capital expenditures.

Keywords: General Allocation Fund (GAF), Regional Original Revenue (ROR), Operating Expenditure (OE), Capital Expenditure (CE), Flypaper Effect.

INTRODUCTION

The financial capacity of a region can be seen from the size of the Regional Original Revenue (ROR) obtained by the relevant region. (Rinaldi, 2012). ROR is the financing source for regional governments in creating regional infrastructures. ROR was gained from regional taxes, the result of regional retribution, the results of separated regional wealth management and other legitimate ROR. Therefore, in decentralization period, regional governments are required to be able to develop and increase their each revenue by maximizing their resources. The better the ROR of a region, the greater the allocation of capital expenditure (Ardhani, 2011). Darwanto et al (2007) states that ROR has positive and significant effect on the allocation of capital expenditures. These findings may indicate that the amount of ROR is one of the deciding factors in determining regional expenditure.

In fact, the ROR earned by many districts/ cities in Indonesia shows the small percentage compared to other regional revenue sources. Consequently, the presence of ROR in order to finance all the activities of building regional infrastructures through the allocation of capital expenditure in the regional budget is less meaningful. Table 1 illustrates that the transfer funds dominates the Regency / City revenue in Indonesia compared to ROR. The percentage of transfer funds ranges from 87% to 89% of the revenue of regencies/ cities in Indonesia, while the percentage of ROR ranges between 7.42% to 9.75%.

Table 1: Percentage of Transfer Fund and ROR to the Regional Revenue of Regencies/ Cities in Indonesia in 2010 - 2012

Year	Contribution of Transfer Fund to Regional Revenue	Contribution of ROR to Regional Revenue
2010	89,15%	7,42%
2011	89,00%	7,80%
2012	87,24%	9,75%

Source: DJPK, processed in 2014.

The problem occurred at this time is that regional governments more depend on GAF allocation to finance regional government expenditures than optimizing the potential of the regions. When the GAF allocation obtained is great, regional governments try to make the next period of general allocation fund obtained is fixed in its nominal portion. According Ndadari (2008), the proportion of GAF to regional revenue region remains the highest in comparison with other regional revenues, including ROR.

Some researchers found that Regional Governments respond differently to transfer and own revenues (e.g. taxes). It means that when regional revenue is derived from transfer, the resulting stimulation of expenditure is different from the stimulation arising from regional revenue (mainly regional taxes). When regional response (expenditure) is higher than transfer, it is called flypaper effect (Oates, 1999 in Abdullah et al, 2003).

THEORY OF LOCAL GOVERNMENT FINANCIAL MANAGEMENT

Broadly speaking, local government financial management can be divided into two: regional revenue management and regional expenditure management. Both components will largely determine the position of a regional government in order to implement regional autonomy. Talking about local government financial management cannot be separated from the discussion of Regional Budget. Therefore, the discussion of local government financial management starts from the discussion of Regional Budget, which is a region's working program in the form of figures (Halim , 2004).

Halim (2004) states that the most basic issues in an organization's financial management both private and public organizations, is how the organization earns fund (money) and also how to allocate or use the fund. In the local government financial management according to Mardiasmo (2002), the issue is broadly expressed in Income Management (frequently called revenue) and Expense Management (frequently called Expenditure). Both management issues are the issues of Regional Budget Management. Thus, talking about local government financial management cannot be separated from the regional budget talks and the discussions of local government financial management issues start from the discussion of regional budget, which is a region's working program n the form of figures (Yunasman, 2002 in Halim, 2004).

Local Government Finance which is reflected in Regional Budget is public money. Therefore, Local Government Financial Management is part of Public Financial Management. Local Government Financial Management (regional budget) will involve the issues of accounting, budgeting, control, and audit. Since financial transactions on the organization of regional government are the transactions of Regional Budget, the historical transaction aspects of local government financial accounting generate the information that reports the implementation of Regional Budget.

FLYPAPER EFFECT THEORY

For regional governments, balance funding is one of highly significant revenue accounts, and it appears in practice that the transfer from the center is the major financial source for regional governments to finance operational purposes and must be reported in the calculation of Regional Revenue and Expenditure Budget. When regional revenue

comes from the transfers from the central government, the stimulus generated is different from the stimulus that appears from regional revenues (mainly regional taxes). When regional response (expenditure) is greater to transfer than the regional original revenue, it is called flypaper effect (Hines, 1995 in Lambut et al, 2013).

Inman (2008) in Lambut, et al (2013) argued that the decision in determining the expenditure of transfer funds is a political issue rather than an anomaly. Flypaper effect is clearly visible as a result of politicization and is associated with the incentives for those who have voted by public. Bureaucratic models examined flypaper effect from the viewpoint of bureaucrats, while the model of fiscal illusion establishes its study from the perspective of people who have information limitation in their local government's budgets.

The research of Legrenzi et al (2001) in Prakosa (2004) also proves the empirical evidence on the presence of flypaper-effect in long term for the sample of municipalities in Italy. They state that *local goverments consistently increase their expenditure more with respect to increase in state transfer rather than to increase in own revenues.* Zampeli (1986) in Prakosa (2004), provided the similar proof to the data of the municipality in the United States, that is, flypaper-effect that occurred in expenditure reaction to unconditional grants. Therefore, according to Hines et al (1995) in Prakosa (2004), flypaper-effect is seen as an anomaly in rational behavior if transfer should be considered as an (additional) income of communities (as well as regional taxes), so it should be spent (expended) in the same way as well.

The granting of transfer results in ineffectiveness in financing local government expenditures. The phenomenon is known as flypaper effect which is defined as: (1) an increase in taxes and excessive government expenditure, (2) the elasticity of expenditure to higher transfer than expenditure elasticity to regional tax (Rokhaniyah et al, 2011).

PREVIOUS RESEARCH AND HYPOTHESIS DEVELOPMENT

Hartati (2009) concluded that flypaper effect occurred in General Allocation Fund (GAF) and Regional Original Revenue (ROR) on Local government Expenditure in the districts / cities in Central Java Province. Unun Dian Anggraeni, et al (2010) concluded that GAF has the effect on local government expenditure more than the effect of ROR on local government expenditure. Kesit Bambang Prakosa (2004) found that flypaper effect occurred in the local government's response to the GAF and ROR. Adventinus Kristanto Lambut, et al (2013) concluded that five (5) local governments in North Sulawesi province were found to have flypaper effect in the budget realization period of 2006-2010. Afrizawati (2012) found that flypaper effect occurred in the Local Government Expenditures in the districts / cities in South Sumatra. Siti Rokhaniyah, et al (2011) concluded that flypaper effect did not occur in Local Government expenditures, both in Java and out of Java because the response of ROR to Local Government Expenditure is faster than that to Local Government Expenditure.

However, the definition of flypaper effect can be explained by the elasticity or the responsiveness level of the percentage of changes in government expenditure due to the changes in the transfer of funds from the center. Based on the opinions above, this thesis offers other concepts related to the occurrence of flypaper effect, by considering the responsiveness of local government expenditure to the change of transfer from the central government. If the unconditional transfer coefficient (Unconditional grants) is higher than 1, flypaper effect occurs. However, if it lower than or equal to 1, flypaper effect does not occur. (Darby et al, 2004)

Therefore, the hypothesis to test flypaper effect in the City Governments in Indonesia is:

H1: If the responsiveness of BO change is multiplied to GAF change, flypaper effect occurs.

H2: If the responsiveness of BM change is multiplied to GAF change, flypaper effect occurs.
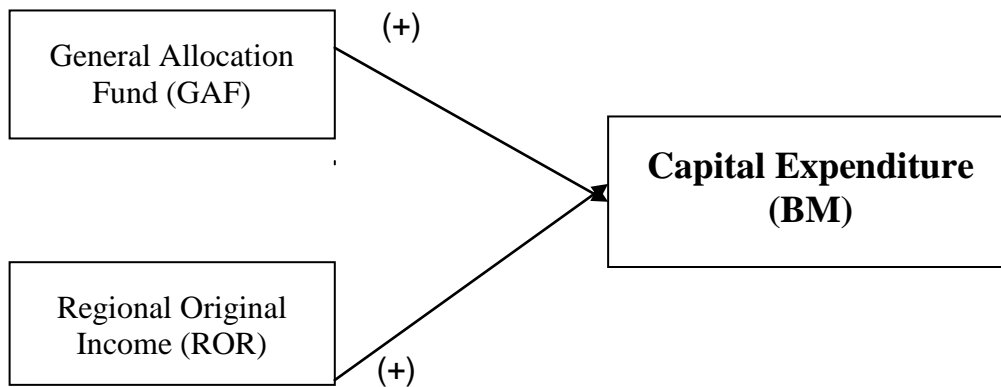

THE RESEARCH MODEL

Theoretically, the effect of the dependent variable on the independent variable in this research can be explained in the empirical model of the research as follows:

Figure 2 : Relation of GAF and ROR with BO
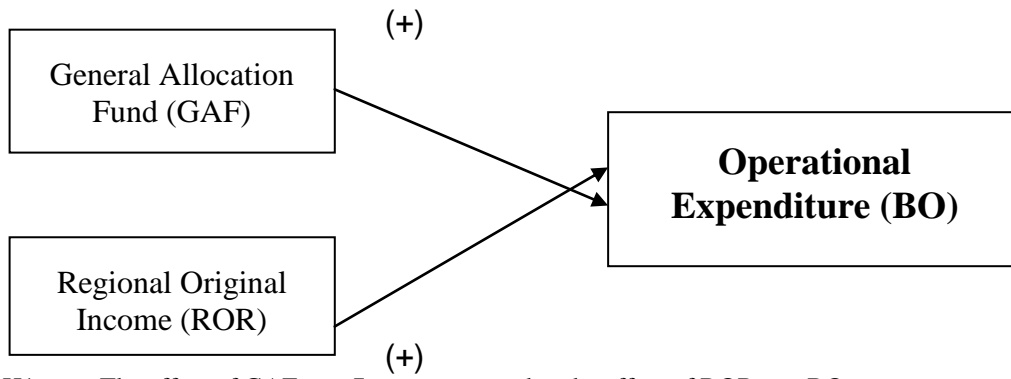
H1 : The effect of GAF_{it} on B... greater that the effect of ROR_{it} on $BO_{it.}$

Figure 3: Relation of GAF and ROR with BM

H2 : The effect of GAF_{it} on BM_{it} is greater that the effect of ROR_{it} on $BM_{it.}$

OBJECT, POPULATION AND RESEARCH SAMPLE

The research object is the City Governments of Indonesia. Based on the purposive sampling method, the number of samples was only 56 out of 98 City Governments in Indonesia that met the following criteria: 1) No change in the period of 2010 -2012. 2) The data availability of the realization reports of the Local Government Budget for 2010-2012.

METHOD OF DATA ANALYSIS

The analysis method used in this research was the method of panel data regression (Winarno, 2011). The following is the regression equations of the panel data used in the testing of hypotheses 1 and 2:

$$LogOE_{it} = \alpha + \beta_1 LogGAF_{it} + \beta_2 LogROR_{it} + e_{it} \dotfill (1)$$

$$LogCE_{it} = \alpha + \beta_1 LogGAF_{it} + \beta_2 LogROR_{it} + e_{it} \dotfill (2)$$

Where :

$LogOE_{it}$ is the logarithmic of Operating expenditure and $LogCE_{it}$ is the logarithmic of Capital Expenditure, α is constant, β_1 β_2 is regression coefficient, $LogGAF_t$ is the logarithmic of GAF, $LogROR_t$ is the logarithmic of ROR, and e *error term*.

This research used the Fixed Effect Model (FEM) and Random Effects Model (REM) to estimate the data panel regression analysis. The model selection was determined by the Hausman test (Winarno, 2011; Ariefianto et al,2012)

MULTIPLE REGRESSION ANALYSIS AND MODEL TEST

1) **Equation of Regression 1**

Table 2 : The Results of Hausman Test for the Equation of Regression 1

Test Summary	Chi-Sq Statistic	Chi-Sq d.f.	Prob
Period random	0.093269	2	0.9544

Source: Eviews Output, March 2014

Based on Hausman test performed, the statistical chi-square value obtained is 0.093269 with the probability of 0.9544 and df 2. By using the chi-square table, the value obtained is 124.342. The test results show that the statistical chi-square is smaller than the chi-square table with the probability greater than 0.05. Then, it can be concluded that H_1 is rejected, and it means that the right model is REM.

2) **Equation of Regression 2**

Based on Hausman test performed, the statistical chi-square value obtained is 1.943798 with the probability of 0.3784 and df 2. By using the chi-square table, the value obtained is 124.342. The test results show that the statistical chi-square is smaller than the chi-square table with the probability greater than 0.05. Then, it can be concluded that H_1 is rejected, and it means that the right model is REM.

Table 3 : The Results of Hausman Test for the Equation of Regression 2

Test Summary	Chi-Sq Statistic	Chi-Sq d.f.	Prob
Period random	1.943798	2	0.3784

Source: Eviews Output, March 2014

Hypothesis Testing

1) **Equation of Regression 2 (Hypothesis 1)**

Table 4 : the Estimation Result of *Random Effects Model* (REM) for the Equation of Regression 1

Dependent Variable : BO

Method : Pooled EGLS (period random effects)

Independent Variable	Coefficient	t-Statistic	Prob
C	7.223280	17.36686	0.0000
GAF	0.119304	3.216127	0.0016
ROR	0.399692	25.81597	0.0000

Source: Eviews Output, March 2014

The testing results show for Hypothesis 1 that:
a) GAF t-statistic is greater than t-table and the probability is smaller than 0.05, so it can be concluded that the General Allocation Fund has a significant effect on Operating Expenditure.
b) ROR t-statistic is greater than t-table and the probability is smaller than 0.05, so it can be concluded that the Regional Original Revenue (ROR) has a significant effect on the Operating Expenditure.
c) The GAF coefficient is 0.119304, meaning that 1% increase in GAF will increase the Operating Expenditure to 11.93%. Under the provisions of the concept of flypaper effect, the conditions mentioned above indicate the existence of flypaper effect on Operating Expenditure.

2) **Equation of Regression 2 (Hypothesis 2)**

Table 5 : the Estimation Result of *Random Effects Model* (REM) for the Equation of Regression 2

Dependent Variable : BM

Method : Pooled EGLS (Period random effects)

Independent Variable	Coefficient	t-Statistic	Prob
C	8.783431	9.182279	0.0000
GAF	-0.068546	-0.803456	0.4229
ROR	0.342991	9.632645	0.0000

Source: Eviews Output, March 2014

Based on the estimation results of Random Effects Models (REM), it shows for Hypothesis 2 that:
a) GAF t-statistic is smaller than t-table and the probability is greater than 0.05, so it can be concluded that the General Allocation Fund has insignificant effect on capital expenditures.
b) ROR t-statistic is greater than t-table and the probability is smaller than 0.05, so it can be concluded that the original regional revenue has significant effect on Capital Expenditure.
c) Considering the insignificant effect of GAF on Capital Expenditure, it can be concluded that there is no flypaper effect on Capital Expenditure.

DISCUSSION

Responsiveness Level of BO Change to GAF Change

The equation obtained of this research is $LogY_{it} = 7,223280 + 0,119304\ LogDAU_{it} + 0,399692\ Log\ PAD_{it}$.
General Allocation Fund has positive and significant effect on Operating Expenditure and the coefficient is 0.119304 meaning if the GAF of 56 City Governments in Indonesia rise by 1%, it would increase the operating expenditure of 56 City Governments in Indonesia to 11.93% (ceteris paribus). GAF rise of 1% would raise Operating Expenditure 11.93%. Considering the effect of GAF rise on Operating Expenditure to more than 1% and significant, it can be concluded that there is flypaper effect on Operating Expenditure.
Regional Original Revenue has positive and significant effect on Operating Expenditure and the coefficient is 0.399692. it means that if the ROR of 56 City Governments in Indonesia rise by 1%, it would increase the operating expenditure of 56 City Governments in Indonesia to 39.96% (cateris paribus).
The results are consistent with the research of Lambut et al (2013), Afrizawati (2012), Anggraeni et al (2010), Hartati (2009) and Prakosa (2004) which state that there has been flypaper effect on local government expenditure. However, this result is different from that conducted by Rokhaniyah et al (2011).

The Responsiveness Level of BM changes to GAF change
Based on the regression estimation result of panel data, the result obtained is as follows:
$LogBM_{it} = 8,783431 - 0,068546\ LogDAU_{it} + 0,342991\ LogPAD_{it}$

From the estimation results above, it can be explained that General Allocation Fund has insignificant effect on capital expenditures.

Regional Original Revenue has positive and significant effect on Capital Expenditure and the coefficient is 0.342991. It means that if the ROR of 56 City Governments in Indonesia rise by 1%, it would increase the Capital Expenditure of 56 city governments in Indonesia to 34.29% (ceteris paribus). It also means that ROR has the effect on the Capital Expenditure of 56 city governments Indonesia. The higher the amount of regional original revenue, the higher the Capital Expenditure.

Based on the results of multiple linear regression analysis presented, it appears that the General Allocation Fund has insignificant effect on capital expenditure, so it can be concluded that there is no flypaper effect on Capital Expenditure.

The results are consistent with the research of Rokhaniyah et al (2011) which states that flypaper effect did not occur on the local government expenditure in the Indonesian provincial governments. However, the result is different from that conducted by Lambut et al (2013), Afrizawati (2012), Anggraeni et al (2010), Hartati (2009) and Prakosa (2004).

CONCLUSION

This research conclusions are: 1) Flypaper effect occurred on City Governments Operating Expenditure in Indonesia. General Allocation Fund (GAF) and Regional Original Revenue (ROR) respectively have positive and significant effect on Operating Expenditure. 2) Flypaper effect did not occur in the capital expenditures of city governments in Indonesia. General Allocation Fund (GAF) effect is not significant and Regional Original Revenue (ROR) has significant and positive effect on capital expenditures.

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