GATR Journal of Finance and Banking Review

Journal homepage: www.gatrenterprise.com/GATRJournals/jfbr_issues.html

J. Fin. Bank. Review 4 (4) 116–121 (2019)

Flypaper Effect in Indonesia: The Case of Kalimantan

Yarlina Yacoub[1*], Nindya Lestari[2]

[12] Universitas Tanjungpura, Jln. Prof. H. Hadari Nawawi, 78124, Pontianak, Indonesia

ABSTRACT

Objective – Changes in financial authority as a result of decentralization are expected to make provinces in Indonesia become more flexible in approving their finances. However, it goes beyond central government transfers which make local governments more consumptive, which impacts on the phenomenon of the effect of flypaper. This study aims to identify the influence of the government's fiscal on regional expenditure and identify the effect of flypaper on the regional expenditure in Kalimantan.

Methodology/Technique – The research uses panel data from 56 regencies and cities on Kalimantan Island. Pooled least square method is used.

Findings – The results show that intergovernmental fiscal revenue has a significant relationship with expenditure. Further, the flypaper effect occurs in regional expenditure which means that districts and cities in Kalimantan are still dependent on the central government to finance regional expenditures. They are not able to maximize their respective regional income.

Novelty – These results indicate that the existence of local revenue derived from taxes has not been able to be optimally absorbed. Thus, dependence on intergovernmental transfers is very high. In addition, the flypaper effect also indicated that the intervention of the central government came into regional development planning programs.

Type of Paper: Empirical

Keywords: Flypaper Effect; Intergovernmental Transfer; Fiscal; Grants.

Reference to this paper should be made as follows: Yacoub, Y; Lestari, N. (2019). Flypaper Effect in Indonesia: The Case of Kalimantan, *J. Fin. Bank. Review*, 4 (4): 116 – 121 https://doi.org/10.35609/jfbr.2019.4.4(1)

JEL Classification: B22, D02, H02, H21, H3.

1. Introduction

The implementation of regional autonomy in Indonesia is manifested in the form of decentralization. Changes in financial authority are expected to make provinces in Indonesia more flexible to regulate their respective finances. Autonomous regions are required to explore their own financial resources.

* Paper Info: Revised: September 13, 2019
Accepted: December 31, 2019

* Corresponding author: Yarlina Yacoub
E-mail: yyarlina@gmail.com
Affiliation: Faculty of Economics and Business, Tanjungpura University, Indonesia

Autonomous regional governments can plan their regional income and expenditure budgets in accordance with applicable policies. Since decentralization, the financial system in Indonesia has recognized local and intergovernmental income. Transfer in Indonesia are unconditional direct transfer and can be used according to the recipient area (Feld & Schaltegger, 2005).

Intergovernmental transfer is one of the important budgeting elements. It can be used to improve social welfare (Abbott & Jones, 2012). Traditional economic theory shows that intergovernmental transfers in the form of cash transfers make an economic convenience at the local level when the number of transfers is between 5 to 10% of the total income (Sobel & Crowley, 2012).

However, many studies have shown that a consistent transfer creates a flypaper effect. The flypaper effect arises because public expenditure is lower when financed by transfers between regions (Sapulveda, 2007). This effect refers to unequal local income sources. In particular, local public spending is more responsive to increase grants from the central government than to an increase in the local tax base (Aragon, 2013). Baicker (2001) and Gordon (2004) found that there is a flypaper effect on health expenditure and education expenditure in the United States. Meanwhile, in Japan, Kakamu, et. al. (2014) found that there is a flypaper effect on land development, education, and debt expenditure. Aragon (2013) also indicates a flypaper effect in Peru for three years due to the low cost of tax revenue. In China, Shi (2012) shows a strong flypaper effect on education spending at the elementary and secondary school levels due to reduced local expenditure from the intergovernmental transfers.

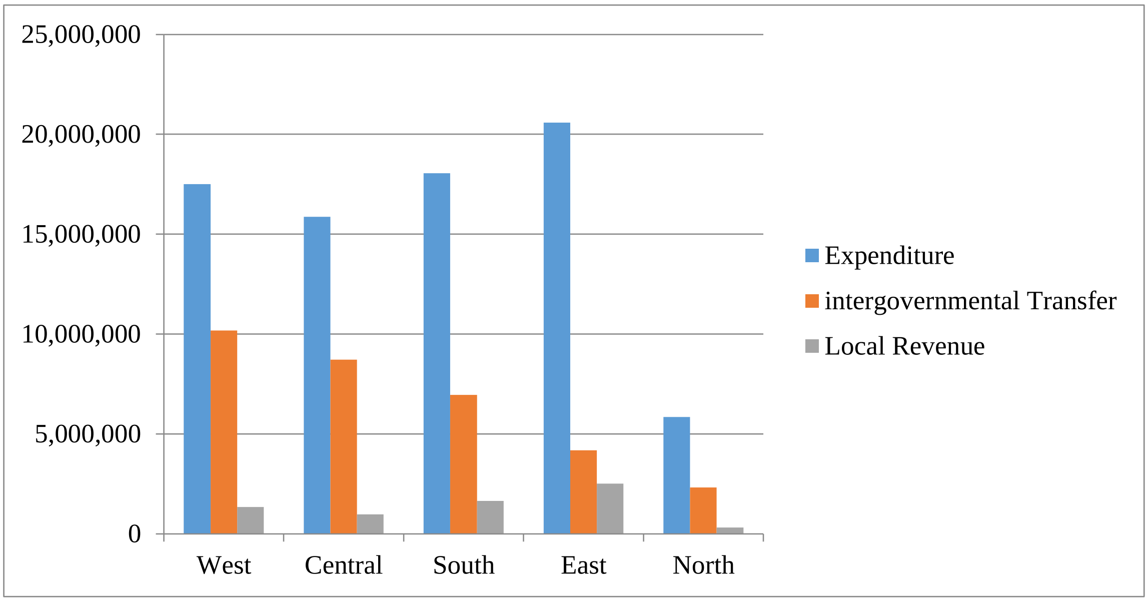

Figure 1. Expenditure and Intergovernmental Transfer in Kalimantan,
Source: Ministry of Finance (2018)

This study aims to identify the influence of the government's finances on regional expenditure and to identify the effect of flypaper on the regional expenditure in Kalimantan. This paper focuses on the flypaper effect in Kalimantan because provinces on the island deal with several problems in budgeting development in Indonesia. They are considered too dependent on the central government. For autonomous regional governments, intergovernmental transfers are an alternative form of budgeting. High intergovernmental transfers are a risk-sharing and stabilization tool in finance (Von Hagen, 2007). According to the Indonesian Ministry of Finance (2018), the regional dependence on intergovernmental transfers is very high, reaching 80.1%, while the contribution of Local Own Revenue is only 12.9%.

The data indicates that the autonomous region has not been able to allocate their funds to productive sources that can increase regional investment. Feld and Schaltegger (2005) argue that the government should have financial literacy capabilities so that it can manage public finances in accordance with procedures. Government expenditure in all provinces in Kalimantan is very dependent on transfers between regions. This dependence then makes the autonomous region consumptive. This situation will also lead to the phenomenon of the flypaper effect. Figure 1 shows the financial structure of an autonomous region in Kalimantan. It is strongly influenced by intergovernmental transfers so that a flypaper effect occurs. Figure 1 shows the expenditure and intergovernmental transfers in Kalimantan.

This research contributes to the empirical study of the flypaper effect theory that occurs in Indonesia, especially in Kalimantan. We found that the impact of decentralization in Indonesia created an enormous flypaper effect. This flypaper effect occurs because local revenue from taxes in Kalimantan has not been absorbed optimally. Hence, the dependence on intergovernmental transfers is very high. The example of Kalimantan shows that government spending will be adjusted to changes in government revenue. The potential for local revenue also varies, causing fiscal imbalances. We also find that high intergovernmental revenue in Kalimantan is one way for the central government to come into development planning programs.

Literature Review

Transfers between regions are a complement of decentralization. The debate about intergovernmental transfers is an interesting matter to date. In general, there are three objectives for regional transfers. First, there are financial differences between the centre and the regions. Second, transfers between regions aim to balance the increasing differences in fiscal capacity at the central government due to fiscal decentralization. Third, the central government aims to influence regional policies to be in accordance with the design of the central program (Shah, 2007). Transfers between regions can be divided into two categories, namely direct transfers and transfers in the form of central government work programs (Goeminne et. al., 2017). Direct transfers are grants in the form of cash transfers which allow the local governments to use the cash according to their respective interests. Meanwhile, transfers in the form of government programs cause many flypaper effects (Dahlby & Ferede, 2016).

Several studies have shown an increase in transfers between regions causing a decrease in local revenue. However, a debate arises when there is high transfers between regions which create a tendency that makes expenditure tend to be consumptive, known as the flypaper effect (Buettner & Wildasin, 2006; Zhuravskya, 2000; Rosen, 2005). Studies in Russia show that increasing transfers between regions causes increased local spending instead of lowering taxes (Burn & Khdari, 2016). Shi (2012) shows a strong flypaper effect on education spending in China at the elementary and secondary school levels due to reduced local expenditure due to intergovernmental transfers.

The term Flypaper Effect was first introduced in 1979 to articulate the thought of Artur Okun (1930) who stated that "money sticks where it hits". Melo (2002) defines the flypaper effect as a phenomenon when local income and government spending increase excessively accompanied by high intergovernmental transfers. The flypaper effect is a financial gap that often occurs in revenue decentralization. Flypaper effects can often occur when people do not know and do not care about government spending and how policies are taken as a result of misperceptions (Sagbas & Saruc, 2004).

When talking about the effect of flypaper, we must remember that the dependent variable used is government spending. Government spending is also influenced by policy decisions (Kakamu et. al., 2014). Baicker (2001) and Gordon (2004) find that there is a flypaper effect on health expenditure and education expenditure in the United States. Kakamu, et. al. (2014) found that there is a flypaper effect on land development, education, and debt expenditure in Japan. Aragon (2013) identifies a flypaper effect in Peru for three years due to the low cost of tax revenue.

Research Methodology

This study uses 224 observations consisting of 56 regencies / cities in five provinces of Kalimantan Island across four years (2013-2016) in a panel using the PLS (Pooled Least Square) method. The equation model in this study is:

$$\mathbf{Y_{it} = \alpha + \beta_1 INT_{1it} + \beta_2 LOCTR_{2it} + e}$$

Where:
Y = government expenditure
α = constant a
β_1, β_2 = coefficient
INT_1 = intergovernmental transfer
$LOCTR_2$= local revenue
i = district in Kalimantan
t = time
e = Error

If the intergovernmental transfer coefficient value is greater than the local revenue value and is significant (smaller than 0.05), it can be concluded that there is a flypaper effect on the equation model. To determine the best model, the Chow test and the Hausman test are used.

Results

Based on the Pooled Least Square test, the regression results can be seen as follows:

$$\mathbf{Y_{it} = -0{,}200926 + 0{,}842631\ INT_{1it} + 0{,}281328\ LOCTR_{2it} + e}$$

Table 1. Coefficient of Intergovernmental Transfer and Local Revenue

Variables	Intergovernmental Transfer	Local Revenue
Coefficient	0,842631*)	0,281328*)
Prob t stat	0,0000	0,0000
R2	0,9477	

Sources: Data processed, 2019
*) Based on Hausman Test, the best model is a fixed effect model with a probability test score of < 0.05.

The coefficient value indicates that the value of intergovernmental transfer coefficient is greater than the value of local revenue and is supported by a probability value that is smaller than the significance level. That is, there was a flypaper effect in Kalimantan during the observation years.

Discussion

The results of the present study highlight the effect of flypaper in Kalimantan. This means that any additional intergovernmental transfers would result in increased government spending. Based on the coefficient value of each district, it was reported that 18 districts have positive coefficients and the rest have negative coefficients. This flypaper effect is in accordance with Wagner's law which states that there is a positive relationship between government spending and income levels.

This flypaper effect occurred because in Kalimantan local revenue from taxes has not been able to be optimally absorbed. Hence, dependence on intergovernmental transfers is very high. The case in Kalimantan shows that government spending will be adjusted according to changes in government revenue. Further, the higher the income received by the region, the higher the government spending will be. The potential for local revenue also varies, causing fiscal imbalances. Government revenue, besides relying on taxes, also depends on the availability of natural resources. Regions with abundant natural resources will have a high potential for regional revenues, such as East Kalimantan. Whereas, regions with less natural resources will have less total revenue.

On the other hand, high intergovernmental revenue in Kalimantan is one way of the central government to enter the development planning programs. Kalimantan is one of the border areas in Indonesia. With high intergovernmental revenue, it will make the central government more dynamic in cooperating with regional governments in developing border areas. This is consistent with the explanation by Syah (2007) in relation to the purpose of intergovernmental revenue.

Conclusion

The existence of decentralization in Indonesia has led to changes in financial authority. This change is expected to make Indonesian provinces more flexible in managing their finances. However, the high transfer of funds from the central government to local governments makes local governments more consumptive, which has an impact on the flypaper phenomenon. The results of this study show that intergovernmental fiscal revenue has a significant relationship to expenditure. Further, the flypaper effect occurs on regional expenditure which means that regions and cities in Kalimantan still depend on the central government to finance regional expenditures and have not been able to maximize their respective regional income. These results indicate that local revenue derived from taxes has not been able to be optimally absorbed. Thus, dependence on intergovernmental transfers is very high. In addition, the flypaper effect also indicates the intervention of the central government into regional development planning programs.

References

Abbott, A., & Jones, P. (2012). Intergovernmental transfers and procyclical public spending. Economics Letters, 115(3), 447-451.DOI. 10.106/j.econlet.2011.12.104

Aragon, F. (2012). Local spending, transfers and costly tax collection. https://summit.sfu.ca/item/10935

Baicker, K. (2001). Government decision-making and the incidence of federal mandates. Journal of public economics, 82(2), 147-194. https://doi.org/10.1016/S0047-2727(00)00149-3

Brun, J. F., & El Khdari, M. (2016). The incentive effects of conditional and unconditional transfers on local own revenue generation: Empirical evidence from Moroccan municipalities. https://halshs.archives-ouvertes.fr/halshs-01285021/

Buettner, T., & Wildasin, D. E. (2006). The dynamics of municipal fiscal adjustment. Journal of Public Economics, 90(6-7), 1115-1132. Buettner, T., & Wildasin, D. E. (2006). The dynamics of municipal fiscal adjustment. Journal of Public Economics, 90(6-7), 1115-1132. https://doi.org/10.1016/j.jpubeco.2005.09.002

Dahlby, B., & Ferede, E. (2016). The simulative effects of intergovernmental grants and the marginal cost of public funds. International Tax and Public Finance, 23(1), 114-139. https://doi.org/10.1007/s10797-015-9352-5

Feld, L. P., & Schaltegger, C. A. (2005). Voters as a hard budget constraint: On the determination of intergovernmental grants. Public Choice, 123(1-2), 147-169. DOI.: 10.1007/s11127.005.0265.1

Goeminne, S., Smolders, C., & Vandorpe, E. (2017). The real impact of a one-off fiscal restriction: empirical evidence of a flypaper effect in Flemish municipalities. Public Money & Management, 37(4), 285-292. DOI. 10.1080/09540962.2017.1295732

Gordon, N. (2004). Do federal grants boost school spending? Evidence from Title I. Journal of Public Economics, 88(9-10), 1771-1792. https://doi.org/10.1016/j.jpubeco.2003.09.002

Kakamu, K., Yunoue, H., & Kuramoto, T. (2014). Spatial patterns of flypaper effects for local expenditure by policy objective in Japan: A Bayesian approach. Economic Modelling, 37, 500-506. https://doi.org/10.1016/j.econmod.2013.11.028

Ministry of Finance. (2018). Realisasi APBD. Retrieved from http://www.djpk.kemenkeu.go.id/

Melo, L. (2002). The flypaper effect under different institutional contexts: The Colombian case. Public Choice, 111(3-4), 317-345. https://doi.org/10.1023/A:1014964318685

Rosen, H. S. (2005). Public finance (7 ed.). New York: McGraw-Hill Irwin.
Sa/Ğbafi, S., & Saruçş, N. T. (2004). Intergovernmental transfers and the flypaper effect in Turkey. Turkish Studies, 5(2), 79-92.
Shah, A. (2007). A Practitioner's Guide to Intergovernmental Fiscal Transfer. In R. Boadway and A. Shah (eds.), Intergovernmental Fiscal Transfers (pp.1-53). Washington, D.C : The World Bank.
Shi, X. (2012). Does an intra-household flypaper effect exist? Evidence from the educational fee reduction reform in rural China. Journal of development Economics, 99(2), 459-473.DOI. 10.1016/j.jdeveco.2012.05.006
Sepúlveda, C. F. (2017). Taxpayers' Behavior and the Flypaper Effect. Hacienda Publica Espanola, (222), 91-108. DOI: 10.7866/HPE-RPE. 17.3.4
Sobel, R. S., & Crowley, G. R. (2014). Do intergovernmental grants create ratchets in state and local taxes?. Public Choice, 158(1-2), 167-187. DOI.10.1007/s11127-012-9957-5
Von Hagen, J. (2007). Achieving economic stabilization by sharing risk within countries. Intergovernmental Fiscal Transfers, Banco Mundial, Washington DC, 107-132.
Zhuravskaya, E. V. (2000). Incentives to provide local public goods: fiscal federalism, Russian style. Journal of Public Economics, 76(3), 337-368. https://doi.org/10.1016/S0047-2727(99)00090-0