REGIONAL BUDGET ANOMALY IN REGIONAL GOVERNMENT IN INDONESIA

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Abstract
The demand of the budget effectiveness and efficiency has increased as many local regions do not optimally and effectively manage their budget. The objective of this study was to investigate the determinants of the regional budget deficits. Multiple regression analysis tools with Common Effect Model Method using panel data from 33 provinces were used. The results showed that the budget deficit in the provincial government administration in Indonesia is determined by the expenditure of goods and services as well as the financing surplus (SILPA).

Key words: budget deficit, financing surplus, goods and services expenditure, inflation, economic growth

Introduction
Since 2001, the implementation of the autonomy and fiscal decentralization has been effective, and since then, local governments have a profound authority to manage their local finance. In this case, the effectiveness of the local governments to run their responsibility must be supported by the effectiveness of managing all available resources especially budget management. Underlying the management, good budget governance encompasses three pillars; transparency, participation, and accountability. In fact, problems arise as inefficiencies and ineffectiveness of budget management occur such as budget deficit scenario in the estimate plan of the regional budget (APBD); however, at the end of the fiscal year, there is a financing surplus.

In Indonesia, the disparity of the general revenue and expenditure budget often occur resulting in a surplus or deficit. A report on regional budget of 2010 submitted to the Ministry of Finance revealed that 450 (86%) out of 524 regions estimated budget deficit, but in the realization most have budget surplus. The budgetary deficit and surplus in the provincial level is shown in Figure 1

Figure 1. Financing Deficit and Surplus in the Provincial Level in Indonesia during 2011-2014 (in IDR Million)

Source: Ministry of Finance, 2015

An anomaly has taken place in the implementation of the local budget in Indonesia, as the local regions estimate a deficit budget but the budgetary surplus balance exists in a considerable value. This happens because of the exceeding revenue targets but the realization target of the expenditure does not comply. The exceeding of the revenue targets might be due to several causes such as the regional income is targeted under its real potencies, the central government transfer is assessable after regional budget is set, and other legitimate incomes are earned after the regional budget is stated. The incompleteness of the expenditure targets could be due to the inefficiency in the implementation of
the planned activities (the output of the activities is achieved, but the budget is not fully realized), the activities are not yet completed (so, the budget has not been fully used), and the activity is canceled. In general, the budget deficit/surplus can be affected by fiscal policy and macroeconomic conditions such as economic slowdown and inflation.

From fiscal point of view, the anomaly does not only relate to the complexity in formulating the amount of revenue and the optimal allocation of the expenditure, but more importantly is how to defray the financing gap. Thus, the challenge in the future is that the fiscal policy should not only be determined by the right financing strategy but also by budget deficit control. Based on the existing problems, the objective of this study was to investigate the determinants of the regional budget deficits from the aspects of fiscal policy (spending and budgetary balance), and macroeconomic conditions (inflation and economic growth).

Literature Review

Keynes' theory emphasizes the importance of government intervention in the economy through deficit financing and other fiscal measures to drive the aggregate demand; therefore, as the economy inherently unstable, Keynesians believe that it needs to be stabilized through government intervention and/or appropriate government policies (Anyanwu, 1993; Nwaeke and Korgbeelo, 2016). According to Keynesians, deficit financing is an important instrument for achieving consistent levels of aggregate demand within full employment conditions. Furthermore, the increase in the government spending through the use of debt causes a shift over on the aggregate demand curve. They believe that the assumption of full employment by classical theory is unrealistic. If economy runs at high unemployment and below the capacity of the national income level, an increase in government expenditure financed by debt will bring expansion to output and income. Thus, deficit financing, according to Keynesian theory, can be used to create additional employment when the economy suffers from an inadequate demand shortfall. As an instrument of recovery after the recession, deficit financing can be used to reduce severe cyclical fluctuations (Dewett, 2009; Nwaeke and Korgbeelo, 2016).

Meanwhile, according to Krugman (2010), deficit spending is the fundamental thought of controversy in the field of macroeconomics underlying the leading economists to have different ideas. The thought of mainstream economists suggests that a budget deficit, not a structural deficit, is essential when economy is slowing down. In the economic downturn, the government must run financing deficit to compensate the shortage of aggregate demand, but the government must run a surplus in the boom period, so there is no net deficit during the economic cycle, only cycle deficit.

The deficit policy plays an important role in many countries especially in the developing countries to achieve macroeconomic stability, poverty reduction, income redistribution, and sustainable growth. For this reason, the government generally uses the budget as an effective tool to achieve its economic goals. A reasonable and accumulated budget deficit may not be a bad policy if such deficit is effectively used to promote economic growth (Antwi et al., 2013).

Moreover, Antwi et al., (2013) argued that the budget deficit can be caused by the changes in the government spending, tax revenue, or a combination of both as the dominant sources of government revenues are taxes from households and companies. On the other hand, the government spend its expenditure for daily activities and capital goods. Thus, the budget deficit increases as government spending continues to exceed its income. If expenditure continues to increase throughout the year while income especially taxes are less accumulated, the budget deficit will multiply. The accumulated past deficit value creates an increase in debt that must be financed simultaneously with interest payments.

Several studies have found inconsistent findings of budget deficit on the macro economy. The study of Masayab and Ali (2009) on the relationship between budget deficit and current account deficit in the Philippines using Granger Causality test upon the data of 1970 - 2005 identified a strong bidirectional relationship between the budget deficit and the current account deficit. Taylor, Proano, Carvalho, and Barbosa (2012) examined the relationship between fiscal deficits, economic growth, and debt of the United States. The study found that fiscal deficits have a strong positive effect on economic growth. Meanwhile the study of Ahmad (2015) found that there is a positive but insignificant relationship between budget deficit and GDP in Pakistan as the budget deficit has no role in returning the economy to its equilibrium. Meanwhile, Wosowei E. (2013) found that fiscal deficit
policy has a negative and insignificant relationship affecting macroeconomic output. Moreover, according to Rahman, N. A. (2012), economic growth has no long-term relationship with the budget deficit, but positively associated with productive spending in Malaysia.

According to Abdullah et al. (2013), the financing shortage is a classic that perceived by state and even local governments. The challenge of fiscal policy determination depend on the right strategy of financing and of budget deficit control. Brixi (2002) argued that several factors cause budget deficit such as economic growth, exchange rate, world oil prices, inflation, and interest rates.

According to Perry (2014), the influencing factors of budget deficit are:

1. Government policy. Government as a stakeholder has the right to define the national economic condition. To keep the economic stability, government should take a budget deficit policy through several calculated considerations.
2. The effect of business cycle is on revenue and expenditure. Deficit proportion caused by business cycle fluctuation is called cyclical deficit. Deficit can be caused by decreasing tax revenue or increasing expenditure. Tax revenue commonly decreases over recession period, because of unemployment or decreasing profit. As a result, as the expenditure is bigger than income, budget deficit takes place.

The budget deficit policy also causes several risks:
1. The decision makers will face difficult judgment in handing budget deficit and debt problem in the following years.
2. To decrease current deficit, the government has to impose a saving program that has a bad impact for increasing GDP and economic recovery in the future.
3. The higher the budget deficit, the higher the debt will be. It means that the higher the expenditure percentage in the future, the higher the tax rate to cover the debt.
4. Government as a stakeholder is considered to be failed in the term of political view by its own people regarding the raising expenditure over income and at the same time people are not be well informed of the background reasons.

**Research Methodology**

This study analyzed secondary data of 2011-2014 from 33 provinces in Indonesia gathered from Central Bureau of Statistic (BPS), Ministry of finance, and Bank Indonesia. The dependent variable used was budget deficit, which is a total margin of regional income. The independent variables were a) SILPA, which is a financing surplus, b) Expenditure of goods and service, which is an expenditure for goods and services, c) Inflation, which is a general increasing prices at province level, d). Economic Growth, which is a growing trend of GDP based on constant price in 2010.

The data were analyzed using multiple linear regression with Common Effect Model. The function is:

\[ D = f(\text{SILPA, BB, INF, EG}) \]

\[ \text{LnD}_i = \alpha + \beta_1 \text{LnSILPA}_i + \beta_2 \text{LnBB}_i + \beta_3 \text{INF}_i + \beta_4 \text{EG}_i + u_i \]  

Where, D is budget deficit, SILPA is financing surplus, BB is expenditure for goods and services, INF is inflation, EG is economic growth, \( \alpha \) is intercept, \( \beta \) is variable coefficient, i is 1, 2, 3, .....33 cross section data (33 Provinces in Indonesia), t is time series data (2011 -2014), and u is error term

**Result and Discussion**

This study was to investigate the determinants of regional budget deficits from the aspects of fiscal policy (spending and budgetary surplus), and macroeconomic conditions (inflation and economic growth). The empirical data of financing surplus of budget and spending on goods and services is shown in Figure 2.

**Figure 2. Expenditure on Goods and Services, and Financing Surplus in Provincial level (Million Rupiah)**
Figure 2 shows that local government spending on goods and services expenditure increases every year in line with the increasing needs of public facilities and public services. On the other hand, the provincial government still have budget surplus suggesting that the budget allocation has not been optimized. The regional economic conditions playing an important role in influencing the budget allocation are inflation and economic growth.

**Figure 3. The Average Inflation and Economic Growth in the Province Level in 2011-2014**

Figure 3 exhibits that the economic growth in the local regions is strongly influenced by national and international economic conditions. During the observation, the economic growth experienced a weakening trend, which was closely related to the weakening of the global and national economy; meanwhile, inflation experienced an increasing trend.

The estimated result of the independent variable to the dependent variable using common effect model is shown in table 1:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
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<tbody>
<tr>
<td>SILPA</td>
<td>0.522120</td>
<td>6.529247</td>
<td>0.0000</td>
</tr>
<tr>
<td>BB</td>
<td>0.508572</td>
<td>3.297955</td>
<td>0.0013</td>
</tr>
<tr>
<td>INF</td>
<td>-0.072502</td>
<td>-1.526996</td>
<td>0.1292</td>
</tr>
<tr>
<td>EG</td>
<td>0.035183</td>
<td>0.517425</td>
<td>0.6058</td>
</tr>
<tr>
<td>C</td>
<td>-1.093384</td>
<td>-0.546265</td>
<td>0.5858</td>
</tr>
</tbody>
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R-squared          0.461904
Adjusted R-squared 0.444956
The result of table 1 shows that the independent variables are able to explain the dependent variable (budget deficit) by 46%, while the rest are explained by other variables outside the model. Cumulatively, the independent variables (SILPA, goods and services spending, inflation, and economic growth) have a significant effect on the regional budget deficit. Therefore, the research model is feasible to investigate research problems. The analysis of each independent variable to the dependent variable is as follows:

The estimation result showed that the variable of SILPA positively and significantly influenced budget deficit. The higher the value of SILPA was, the higher the regional budget deficit would be. This finding was in accordance with empirical facts that many regions set budget deficit in estimate plan of regional budget, but a substantial of financing surplus occurred in their realization. This condition might be due to the synchronization of the plan with the realization of the received revenue did not work well, as such the amount of expenditure realized was under the set target.

Therefore, local governments was in need of paying attention and managing budget allocations as effectively as possible to avoid an idle budget and misallocation. Another reason for local government do budget deficit was that the local regions had SILPA from the previous year, so the local government took the change to set budget deficit in the regional budget plan. The increased of the local budgets caused the budget was greater than the revenue received; therefore, the fiscal capacity of the region needed to be continuously improved to meet the needs of the increasing spending. Moreover, the local governments should not always depend on the budget transfers from the central government.

The result of this study contradicted with the findings of research from Center for International Economics (2012) concluding that there is a negative influence between the budget surplus and the budget deficit because the higher the surplus value, the lower the budget deficit from the previous year will be, and the balance of the budget might be achieved. The budget surplus could be done by reducing the interest cost of foreign debt and increasing the value of domestic investment to reduce the dependence on other countries.

The second finding of this study was that the expenditure of goods and services positively and significantly affected local budget deficit. When the expenditure raised, the budget deficit increased. The expenditure of goods and services was allocated to provide adequate public facility and proper public service. The services provided by government to the people varied following their needs. In this case, the purpose of providing public service was to support people activity to improve mobility and welfare.

The result of this study was in line with the finding of Aloibadi (2011) that the government expenditure from goods and services sector has positive effect to budget deficit. As expenditure saving policy by decreasing expenditure for goods and services would decrease budget deficit, a simultaneously positive relation took place. Meanwhile, the results of Tiwari and Kumar (2011) examining the fiscal deficit in India showed that government spending and money supply determine as the important determinant of the increasing fiscal deficit during the observation period. Moreover, Onyango study (2013) concluded that the government's ordinary income, external income, debt services, and government spending are a significant determinant of fiscal deficit in Kenya.

In order to meet the substantial needs of the public, local governments had to allocate budgetary spending on goods and services effectively and efficiently to prevent the waste of government budget. As inefficiency and ineffective spending on goods and services affected budget deficit, they had to be cut down; so that, the budgets could be saved and transferred to programs or projects for the purpose of prospering the community.

The third finding was that the economic growth variables had a positive relationship to the budget deficit but was not statistically significant. This finding was different from the results of Fehimana E (2015) that economic growth is negatively and significantly affect budget deficit. If the national income is getting higher, the budget deficit shall be reduced. Olawummi and Ayinla (2007) on the impact of deficit financing on economic growth in Nigeria found that deficit financing reduces economic growth in this country. Moreover, Dlamini and Amanja (2015) found that fiscal deficit has a negative relationship with economic growth in accordance with neo-classical theory. Meanwhile,
Ojong and Owui (2013) examining the impact of budget deficit financing on Nigerian economy found that financing budget deficit has a significant and positive relationship with economic growth. Later on, the results of the Bangura et al. (2016) concluded that in the long term real GDP, interest rates, and exchange rates have a negative impact on the budget deficit.

The latest study showed that the inflation variable was not statistically significant to the budget deficit. These finding was in line with the results of Tiwari and Kumar (2011) examining the linkages between the fiscal deficit in India using multiple linear regression models found that inflation does not cause fiscal deficits in India in the period 1970 to 2009. In addition, Ezeabasili, Mojekwu, and Herbert (2012) found similar result that the relationship between inflation and fiscal deficits in Nigeria is not significant. In contrast to the previous results, the study of inflation and budget deficits by Arjomand et al. (2016) concluded that there is a positive relationship between inflation and budget deficit in MENA countries. The study of Solomon (2004) in Tanzania showed similar findings that inflation has a positive effect on budget deficits. In Tanzania, the biggest GDP contribution comes from agricultural sector; therefore, if there inflation takes place, the national income dominated by agricultural sector will be shaken and resulted in the decrease in national income. Furthermore, Kadria and Aissa (2014) concluded that the policy of inflation targeting (IT) on budget deficit reduction in developing countries is significant in reducing the budget deficit. The result of the Bangura et al. (2016) concluded that in the long term inflation has a positive effect on the budget deficit.

Inflation is a phenomenon of constantly rising prices of goods in general. Inflation in local regions must be low and stable to maintain people's purchasing power. The stability of prices, especially the price of basic needs as well as oil and gas was very important to grow economy dynamically. The fiscal deficit policy should be allocated to productive sectors such as infrastructure, irrigation, and energy availability to trigger new growth poles in the local regions. The spreading of the poles of economic growth in many areas might create jobs and improved the welfare of the people.

Conclusion
Investigation of determinants of regional budget deficits from the aspects of fiscal policy (spending and budgetary surplus) and macroeconomic conditions (inflation and economic growth) concludes that:

1) SILPA (financing surplus) has a significant and positive effect to budget deficit in Indonesian provinces.
2) Goods and services expenditure has a significant and positive effect to budget deficit in Indonesian provinces.
3) Inflation and economic growth has no effect to budget deficit in local governments in Indonesia.

The regional budget deficit is determined by fiscal policy rather than macroeconomic conditions. Recommendations for the regions is that the local government should perform the function of budget allocation effectively and efficiently to finance productive sectors in order to mobilize the regional economy and to keep inflation low and stable for economic stimulus.

References


Centre for International Economics. 2012. *The economics of budget surplus versus deficit*. Sydney NSW Australia


http://erepository.uonbi.ac.ke/bitstream/handle/11295/58658/Onyango