Fiscal Decentralization and Regional Disparity in East and West Indonesia’s Provinces

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Abstract
This study aimed to examine the direct and indirect effects of fiscal decentralization on regional disparity in eastern and western Indonesia through economic growth. Analyzing variable between economic growths because growth based on several theories and previous research says that the increase in local revenues and fund balance can increase economic growth. Meanwhile, according to theory said that increasing economic growth will increase regional disparity. The method of analysis used in this study is a quantitative method, with the use of Path Analysis. The variables used in this study are the General Allocation Fund (DAU), Special Allocation Fund (DAK), Revenue Sharing Fund (DBH), local revenue (PAD), Economic Growth (G), and regional disparity (IW). While to compare the results of the analysis between Eastern Indonesia Region (Borneo, Celebes, Maluku, Papua, and Nusa Tenggara) and Western Indonesia Region (Sumatera, Java, and Bali). The results of the study is that there is no direct effect of fiscal decentralization on regional disparity and economic growth through direct fiscal decentralization on regional disparity both in eastern Indonesia western Indonesia. Although the outcome in eastern Indonesia there is only DAU variable that affects. Whereas in the west Indonesia DBH only have an influence. This is consistent with the composition of the balance funds are disbursed by the central government to local governments, where the composition of the greatest in eastern Indonesia is the General Allocation Fund in which it reflects the dependence of local governments to the center of the high, while for the West Region Indonesia composition equalization funds is greatest DBH where this is a reflection of the independence of local governments are not dependent on the central government. So as to create fiscal decentralization well then required a greater allocation of the fund balance.

Keywords: Fiscal Decentralization, Economic Growth, Fund Balance, Regional disparity

INTRODUCTION
Aim of the decentralized system of government, which is to create an independent local government, efficient but still controlled by the central government. So with the system of self-governance and efficient, is expected to accommodate the aspirations of its people as well as be able to explore local revenue sources that will be useful to the national income. To
realize this purpose the establishment of the decentralized system of government that the central government issued Law No. 22 Year 1999 on Regional Government which has now been converted into Law No. 32 of 2004 and Act No. 25 of 1999 on Fiscal Balance between Local Government and the Government center which has now been converted into Law No. 33 of 2004.

With the local government's fiscal decentralization is expected to explore potential possessed by each region, where the potential of this area will be used as a source of local revenue. Moreover, with fiscal decentralization based on Law No. 33 of 2004 to give local governments the flexibility to increase the region's revenue that will be used to finance economic development activities. Of revenues according to Humes (Muluk, 2006) in a decentralized system of government comes from 3 sources i.e. local revenue (PAD), the transfer of funds from the central government (fund balance) and loans. Besides that local governments are able to compete and develop their potentials, respectively, fiscal decentralization also has a main goal, to reduce fiscal disparities among regions, providing a more efficient public services, and a closer relationship with the government.

This is reflected by the allocation of central government funds allocated to the local government, which is expected to boost economic growth and reduce regional disparity. Empirically however, studies conducted in several countries about the relationship of fiscal decentralization to economic growth and regional disparity vary. Akai Sakata (2002), Stensel (2005), Zhang and Zou (2001) and TieBen (2003) found that fiscal decentralization has a positive effect that can boost economic growth. Similarly, Desai, freikman and Goldberg (2005) also found a positive but non-linear relationship between economic growth and tax revenues. While Davoodi, and Zhou (1998), Woller and Philip (1998), Jin and Zou (2005) determined that fiscal decentralization has a negative effect that could reduce economic growth. Even Rodriguez - Pose and Ezcurra (2010) found that fiscal
Fiscal Decentralization and Regional Disparity....... Faishal Fadli

decentralization can be harmful to economic growth.

Indonesia's economy grew at 6.4 percent in the second quarter of 2012 was not accompanied by equal distribution of income. Precisely regional disparity in Indonesia has become increasingly serious. Figures Gini Ratio increased from 0.33 in 2004 to 0.41 in 2011, which, if this trend continues then the increase will potentially lead to social unrest which eventually could bring social unrest.

Regional differences in inequality that occurred in the Western Regions of Eastern Indonesia with one of them can be seen by the composition of the Fund Balance acquired each province is located in eastern Indonesia with the West. Acquisition Fund Balance transfers from central to most of the areas contained in the provinces in western Indonesia are Jakarta with the composition of the Revenue Sharing Fund (DBH) were dominating. But the province does not have the DAK Jakarta. As for the composition of the General Allocation Fund (DAU) and Special Allocation Fund (DAK) which has the largest provinces in Eastern Indonesia, Papua Province. Of the proportion of inter-provincial equalization fund can be seen in the gap region of eastern Indonesia with the western part of the Indonesian region is very high. Although it does not possess the Jakarta provincial DAK, but of the high value of DBH provincial city still comes out first. Besides, it also DKI Jakarta province still gets proportions DAU.

The positive impact of fiscal decentralization that occurs in a country or region within a certain period cannot be used as a measure of public finances that intergovernmental transfers will provide a positive impact as well on other areas at the same time (Wibowo, 2008). In line with Sjafrizal (2008) who argue that, the implementation of regional autonomy and fiscal decentralization will lead to the development of each region, including underdeveloped areas may be authorized to explore the potential of the region will boost the growth of the region and at the same time the development gap between regions will be also reduced.

Based on this background, this
study took a first analysis of the direct and indirect effects of fiscal decentralization on regional disparity and take the case of provinces in eastern and western Indonesia. The aim is to analyze the effect of direct and indirect equalization funds to regional disparity in eastern and western provinces of Indonesia.

**RESEARCH METHODS**

The approach used in this study is a positivist approach. According to Neuman (2006:82-83), the positivist approach is an organized method for combining deductive logic with precise empirical observations of the behavior of individuals or groups to discover and confirm a set of causal laws that can be used to predict general patterns of human activities. The positivist approach, in addition to analyzing the direct and indirect relationships between variables and the balance fund revenue as a proxy of fiscal decentralization on regional disparity through economic growth.

**Definition and Measurement of Variables**

The definition and measurement of variables is intended to explain the variable being studied. In other words, the variable definitions are guidelines how to measure a variable in this study.

**Table 1. Definition and Measurement of Variables**

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Measurement of Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fiscal Decentralization</td>
<td>Ratio Balance Funds (DAU, DBH, DAK, and PAD) District to the total expenses per year.</td>
</tr>
<tr>
<td>2</td>
<td>Economic growth</td>
<td>Logarithmic Natural (ln) Gross Domestic Regional Product (PDRB) per capita of all the Province in Indonesia.</td>
</tr>
<tr>
<td>3</td>
<td>Regional disparity</td>
<td>Constant price GDP inequality between districts / municipalities in the province by the method of Williamson Index.</td>
</tr>
</tbody>
</table>

**Data Analysis**

Analysis of the data in this study aimed to test the hypothesis in response to the research problems. Therefore, the collected data sources have the properties of time series and cross-section, the data analysis methods used by the author is a panel...
Fiscal Decentralization and Regional Disparity........ Faishal Fadli

In answer to the formulation of the problem that has been mentioned previously, this study will use the method of path analysis (path analysis). The reason researchers used path analysis in this study is due to the path variable used is the recursive path or what we know with one-way influence. Relationships between variables and the balance fund revenue is direct relationship with economic growth variable. Similarly, the relationship of economic growth with economic inequality is a direct relationship only. Because if the relationship is reciprocal relation or two-way path analysis methods used are not biased.

Figure 2. Hypothetical model of Operational

Results
Testing Analysis Model
As explained earlier, this study uses panel data, which are a combination of the data time series and cross-sectional. As for the modeling approach using path analysis or path analysis.

Table 3. Eastern Indonesia Region Testing Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>CR</th>
<th>Standardized Indirect Effect</th>
<th>Standardized Direct Effect</th>
<th>t table**</th>
<th>Decision</th>
</tr>
</thead>
</table>

Jurnal Ekonomi Pembangunan Vol.14, No.01 Juni 2016 5
Fiscal Decentralization and Regional Disparity........ Faishal Fadli

<table>
<thead>
<tr>
<th></th>
<th>( G \leq \text{DAK} )</th>
<th>( G \leq \text{DBH} )</th>
<th>( G \leq \text{DAU} )</th>
<th>( G \leq \text{PAD} )</th>
<th>( \text{IW} \leq \text{DAU} )</th>
<th>( \text{IW} \leq \text{PAD} )</th>
<th>( \text{IW} \leq G )</th>
<th>( \text{IW} \leq \text{DAK} )</th>
<th>( \text{IW} \leq \text{DBH} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.199</td>
<td>1.331</td>
<td>3.022</td>
<td>4.712</td>
<td>-1.680</td>
<td>4.066</td>
<td>6.078</td>
<td>-1.296</td>
<td>-1.250</td>
</tr>
<tr>
<td>CR</td>
<td>0.019</td>
<td>0.118</td>
<td>0.301</td>
<td>0.422</td>
<td>-0.144</td>
<td>0.329</td>
<td>0.476</td>
<td>-0.101</td>
<td>-0.092</td>
</tr>
<tr>
<td>p-value</td>
<td>0.008</td>
<td>0.267</td>
<td>0.268</td>
<td>0.968</td>
<td>-0.021</td>
<td>0.122</td>
<td>0.077</td>
<td>-0.007</td>
<td>-0.034</td>
</tr>
<tr>
<td>H\text{0}</td>
<td>accepted</td>
<td>accepted</td>
<td>rejected</td>
<td>rejected</td>
<td>rejected</td>
<td>rejected</td>
<td>rejected</td>
<td>accepted</td>
<td>accepted</td>
</tr>
</tbody>
</table>

Note: * significant at the 5% level, ** t table value for df 120 and a significance level of 5% (one-sided)

From the table above, it can be seen that there is a direct effect of the equalization fund (DAU) and revenue (PAD) on regional disparity (IW) without going through economic growth (G) and the indirect effect of the equalization fund (DAU) and Revenue (PAD) on regional disparity (IW) through economic growth (G). It can be shown on the p-value direct and indirect influence of grants (DAU) and revenue (PAD) on regional disparity (K) which are in the 5% level.

When viewed from the t value that can be seen from the value of CR, the overall effect of direct and indirect grants (DAU) and revenue (PAD) on regional disparity (IW) is greater than t table (> 1.658) and showed a relationship negative. This indicates that the Fund Balance significant effect on regional disparity. Negative influence indicates that the increase in the equalization fund (DAU) and revenue (PAD) will be able to reduce regional disparity (IW). The state in accordance with the theory and purpose of the fund balance itself which is to reduce regional disparities between provinces in both Western and Eastern Indonesia.

If the view of economic growth (G), in the above table shows the value of CR and the p-value is negative and significant. This means that the increase in economic growth (G) resulted in increased regional disparity (IW). This is possible because according to the theory advanced by Simon Kuznets that the developing countries are still in line with the economic growth it will be followed by the development of
regional disparity. It can be said that the test in accordance with the existing theory.

If seen the influence of grants (DAU) on economic growth (G), in the above table can be seen that the value of CR indicates a positive value. So the increase in grants (DAU) fund raising economic growth (G) although the p-value showed no significant within 5% significance level.

The dominant factor affecting regional disparity (IW) is the equalization fund (DBH), it can be seen from a standardized coefficient and direct effect on a standardized regression weight (attachment) which is indicated by the value of the largest coefficient. Path analysis in the form of the equation for the line:

1. Substructure I the influence of grants (DAK, DAU, DBH) and PAD on economic growth (G) is as follows: 
   \[
   G = 0.199 D1 + D2 + 1,331 + 4,712 3,022 D3 D4 + e1
   \]

2. Substructure II the influence of grants (DAK, DAU, DBH) and PAD to regional disparity (IW) is as follows: 
   \[
   IW = -1680 + D1 + D2 4,066 6,078 D3 - D4 1,296 - 1,250 G + e2
   \]

From the table below, it can be seen that there is no direct effect of grants (DBH) of the regional disparity (IW) through economic growth (G) and the direct effect of grants (DBH) and revenue (PAD) on regional disparity (IW). It can be shown on the p-value is not directly influence grants (DBH) and revenue (PAD) of the income of inequality (K) through economic growth (G) and the direct effect of grants (DAK, DAU, DBH) revenue (PAD) on regional disparity (IW) which are in the 5% level, while the p-value is not directly influence grants (DAK, DAU) on economic growth (G) above the significance level of 5%.

When viewed from the t value that can be seen from the CR , there is a positive effect of grants (DBH) and revenue (PAD) on economic growth (G) , the negative effect of revenue (PAD) on regional disparity (K) , and the negative impact of economic growth (G) against regional disparity (G) against regional disparity (IW) is greater than t table ( > 1,96 ) . To positively impact grants (DAU) on economic growth (G) shows that any increase in grants (DAU) will result in an
increase in economic growth. Negative influence of local revenue (PAD) on regional disparity (IW) has the meaning that the greater revenue and local revenue (PAD) will impact the decline in regional disparity (IW). As for the positive impact of economic growth (G) against regional disparity (IW) has the meaning that the higher the economic growth (G) then it will have an increasing impact of regional disparity (IW). Then it can be decided from the results of the hypothesis that in section III above that: Fund balance (DBH) positive effect on economic growth (G) and fund balance (DBH) negatively affect regional disparity (IW) through variable economic growth (G). It could happen, when the fund balance (DBH) plus the more it will have an impact on economic growth (G) is increased. Simon Kuznets theory based on the rapidly growing economy will lead to higher inequality also to a certain extent.

**Table 4. Western Indonesia Region Testing Results**

<table>
<thead>
<tr>
<th>Variables</th>
<th>CR</th>
<th>Standardized Indirect Effect</th>
<th>Standardized Direct Effect</th>
<th>t table**</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>G ≤ DAK</td>
<td>-.240</td>
<td>-.024</td>
<td>-.013</td>
<td>1.658</td>
<td>H₀ accepted</td>
</tr>
<tr>
<td>G ≤ DBH</td>
<td>2.042</td>
<td>.188</td>
<td>.023</td>
<td>1.658</td>
<td>H₀ rejected</td>
</tr>
<tr>
<td>G ≤ DAU</td>
<td>-1.757</td>
<td>-.169</td>
<td>-.286</td>
<td>1.658</td>
<td>H₀ accepted</td>
</tr>
<tr>
<td>G ≤ PAD</td>
<td>1.902</td>
<td>.180</td>
<td>.235</td>
<td>1.658</td>
<td>H₀ rejected</td>
</tr>
<tr>
<td>K ≤ DAU</td>
<td>-.011</td>
<td>-.015</td>
<td>-.707</td>
<td>1.658</td>
<td>H₀ accepted</td>
</tr>
<tr>
<td>K ≤ PAD</td>
<td>3.779</td>
<td>.213</td>
<td>.075</td>
<td>1.658</td>
<td>H₀ rejected</td>
</tr>
<tr>
<td>K ≤ G</td>
<td>15.477</td>
<td>.822</td>
<td>.172</td>
<td>1.658</td>
<td>H₀ rejected</td>
</tr>
<tr>
<td>K ≤ DAK</td>
<td>-.833</td>
<td>-.048</td>
<td>-.006</td>
<td>1.658</td>
<td>H₀ accepted</td>
</tr>
<tr>
<td>K ≤ DBH</td>
<td>-.462</td>
<td>-.025</td>
<td>-.001</td>
<td>1.658</td>
<td>H₀ accepted</td>
</tr>
</tbody>
</table>

Note: * significant at the 5% level, ** t table value for df 120 and a significance level of 5% (one-sided)

The dominant factor affecting regional disparity (IW) is the equalization fund (DBH), it can be seen from a standardized coefficient and direct effect on a standardized regression weight (attachment) which is indicated by the value of the largest coefficient. Path analysis in the form of the equation for the line:

1. Substructure I the influence of grants (DAK, DAU, and DBH) and PAD on economic growth (G) is as follows: \( G = -0.240 \ D1 \)
+ D2 2,042 - 1,757 1,902 + D3 + D4 e1

2. Substructure II the influence of grants (DAK, DAU, and DBH) and PAD to regional disparity (IW) is as follows: 
   \[ \text{IW} = -0011 \]
   \[ D1 + D2 + 15 477 3779 D3 - D4 \]
   \[ 0833 - 0462 G + e2 \]

**Impact of Fiscal Decentralization on Regional Economic Growth**

Fiscal decentralization policy as a driving force of economic development of the region has become a concern by many experts. Basic view that fiscal decentralization is the delegation of authority and responsibility from central government to local governments to manage financial resources because the area is expected to create efficiency and effectiveness of local economic activity as per your preferences and needs of local communities. Fulfillment of the needs of the local community by itself will encourage regional economic growth which in turn can improve the welfare of the people [(Oates1993, 2007; Bird, 2000; Khusaini, 2006; Bahl, 2008; Yustika, 2008; dan Ananda, 2010)].

Problem of limited funds to finance development activities into the source area increased fiscal imbalances between regions. Implementation of the fiscal decentralization policy, is one of the instruments in order to reduce the fiscal imbalance. The results proved that to reduce the impact caused by the existence of the fiscal imbalance, over the last ten years i.e from the year 2006-2015, the funds allocated by the central government to local governments continued to increase, on average per year is 20.86 percent or by Rp.9, 84 trillion.

Figure 3. Average Fund Fiscal Decentralization and GDP Per Capita In eastern and western Indonesia, 2006-2015
An increasing number of decentralized funds that continue to show the improvement, should also be accompanied by an increase in better service to the community. But the reality is far from expectations. The results showed that the allocation of funds transfer contribution to economic growth only for fiscal decentralization coefficient reached 3.68 percent, equivalent to 0.36 percent (362.1 billion per year) of the average fund balance (DP) allocated in budget. With the decentralization of funds, then any region or area of the province of East and West Indonesia only gained 0.06 percent or 22.6 billion dollars per year to fund local economic development activities. This means that only a small percentage allocation of budget funds to finance the construction absorbed the real sector, while the remaining 96.32 per cent for non-real sector spending.

Local governments are required to be careful in defining and implementing development policies in the region without having to override one of the factors, so it does not have a negative impact on the sustainability of regional development in the long term. This is the main core of the Decentralization Theorem says Oates (1972, 2007).

According to Oates (1972, 2007) that any consumption of the public good is defined as a set of...
geographically part of the total population, and every sacrifice yield benefits in every jurisdiction similar to the central government or any local government and will always try to be more efficient (or at least efficient) so that it can achieve a Pareto-efficient level of output in any jurisdiction which in turn will impact on all aspects evenly.

This means that fiscal decentralization have a positive impact because it could create a level of efficiency in many areas of development, especially related to the provision of better services to the public. With the provision of better services, other development activities were also affected, to grow and evolve, so will indirectly encourage local economic growth which in turn is expected to improve the welfare of the community.

Thus, the results of this study have proved that fiscal decentralization is positively and significantly to regional economic growth in eastern and western Indonesia. These findings as well as strengthening the theory and previous empirical studies on the effects of fiscal decentralization on economic growth, among others; Oates (1993, 2007), Akai and Sakata (2002), Khusaini (2006), Jin and Zou (2003), and Wibowo (2008). Their view is the core of fiscal decentralization has the potential to improve efficiency at the level of government and promote economic growth.

**Impact of Fiscal Decentralization on Regional disparity**

Fiscal decentralization is expected to have a positive impact on regional economic growth based equitable income distribution and optimization of local government expenditure. But its realization depends on the level of readiness of each fiscal area. Inability of the region to efficiently allocate funds that are not supported by good administrative system and the low power of redistribution of resources between regions (counties / cities) in one province, it will inhibit the growth and economic development of the region and to increase regional disparity.

As explained earlier that fiscal decentralization is expected to have a
positive impact on regional economic growth based equitable income distribution and optimization of local government expenditure. This means that the necessary fiscal readiness of each region. Therefore, the ability of the region to allocate funds efficiently and effectively must be supported by a system of administration and strength of regional redistribution of resources, if not could hamper economic growth and development which could eventually boost regional disparity.

Fiscal decentralization relationships with current imbalance to be a concern by most economists experts. Akai and Sakata (2005) in their study found that the direction of the relationship of fiscal decentralization and regional disparity, it depends on how fiscal decentralization in promoting. There are two directions: (1) relating to the distribution or allocation of the budget, (2) the degree of autonomy. According to Akai and Sakata (2005) that local expenditures in fiscal decentralization does not have a significant effect on regional disparity, while achieving autonomy in fiscal decentralization has a negative effect on regional disparity. The findings Akai and Sakata (2005) implicitly have in common with the findings of researchers, namely the allocation of budget expenditures is not on target, and administrative systems and devices become key institutional decentralization degree attainment.

Moreover, the same result is also consistent with the view Bonet (2006), that the behavior that caused the decentralization relationships with regional disparity is caused by several factors, namely the current spending most of the resources allocated to a new area (eg, wages and salaries), not used for capital investment or infrastructure; lack of national transfer redistribution component; absence of adequate incentives ranging from the national to the local level to promote the benefits of efficiency, and lack of institutional capacity. Therefore, further according to Bonet (2006) that the essential elements that need attention in the implementation of fiscal decentralization that could affect regional disparity is a fair transfer system, the ability to select...
the sector to allocate resources, and the application of the correct incentives. While the elements that need to be done is related to the level of supervision of economic openness and economic agglomeration tendency because it could lead to regional disparity.

Figure 4. Relationships between Fiscal Decentralization and Regional disparity

Source: Calculated from BPS, 2012

Thus, these findings, as well as support for the results of previous researchers, that fiscal decentralization has a negative relationship to regional disparity, but also in response to the majority of previous researchers who say fiscal decentralization has a positive relationship and even dangerous because it will further worsen the local economy, particularly for developing countries (Rodriquez-Pose and Ezcurra, 2010) cannot be accounted for.

CONCLUSION

Fiscal decentralization has a positive impact on regional economic growth. It means that the balance funds have a proven ability to drive regional economic growth in eastern and western Indonesia. While the relationship of fiscal decentralization with regional disparity confirms that fiscal decentralization has the ability to reduce regional disparities in the eastern and western Indonesia.

The results indicate that the eastern Indonesian General Allocation Fund and the Special Allocation Fund 's most influential both to grow the economy and create regional disparity. Meanwhile, in eastern Indonesia is dominated by
DBH. This shows that the regions of Eastern Indonesia still rely on the central government more than in western Indonesia Region. In general, the results of this study confirm that although the fund balance as a fiscal decentralization policy instruments continued to increase every year, but the views of the proportions tend to fall. A decrease in the decentralized allocation due to lack of funding in addition to the government, but also as a result of the emergence of the expansion areas. Most of the expansion areas are classified into regions with economic growth and per capita income is low enough, so that the necessary role of government intervention and a more evenly balanced in the allocation of funds and decentralization.

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