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A computerized study of factors of economic growth disparity in Indonesia

N Sirait*, H Hendra and L Nesti

Department of Economy, Faculty of Economy, Andalas University, Padang, Indonesia

Abstract. Disparity of economic development between regions is one of the problems and major challenges of economic development in Indonesia in the current situation and in the future. The success of development in the fiscal decentralization system cannot be measured only by the economic aspect with growth indicators or GRDP values of one region, however, it must be extended to indicators of economic progress, especially those concerning general basic services. Government put some efforts to reduce fiscal disparity, one of them is by providing the equalization funds, which are; SAF (Special Allocation Funds), GAF (General Allocation Funds) and RSF (Revenue Sharing Funds). However, in fact, the provision of equalization funds still causes fiscal imbalances. The purpose of this study is to describe variables that affect the condition of economic disparity in Indonesia, then examine the factors that cause economic growth disparity in Indonesia and the policies that should be carried out by the government to solve the problems. This study found that some researchers use different variables/indicators in determining economic growth in Indonesia.

1. Introduction

There is disparity progress between regions in developing countries, including in Indonesia. In other words, there is an economic disparity between regions. Disparity of economic development between regions is one of the problems and major challenges of economic development in Indonesia in the current situation and in the future.

The level of disparity around the last few years tends to increase and still remains relatively large. The difference in current growth rates will further aggravate the disparity of GRDP in the provinces in the future.

The disparity of variation of GRDP per capita between regions is very high, where in 2000 the Williamsi Index (IW) of 0.8 decreased to 0.73 in 2014, then increased to 0.76 in 2015. However, in March 2018, the level of expenditure disparity of Indonesia's population measured by the Gini Ratio was equal to 0.389.

This number decreased by 0.002 points compared to September 2017's Gini Ratio of 0.391. Gini Ratio in urban areas in March 2018 was recorded at 0.401, lower than September 2017's Gini Ratio of 0.404.

Meanwhile, Gini Ratio in rural areas in March 2018 was recorded at 0.324, increased by 0.004 points compared to Gini Ratio of 0.320 in March 2017 and September 2017.

In March 2018, the distribution of expenditures in the lowest 40 percent group was 17.29 percent. This means that population expenditure was in the category of low disparity. In urban areas, the value was recorded at 16.47 percent classified as moderate disparity. While in rural areas, the figure was recorded at 20.15 percent, which can be categorised as low disparity [1].

Various efforts have been made by the government in minimizing fiscal disparity which results in income disparity between regions and disparity in providing basic services to all communities in

Indonesia, one of the ways by providing equalization funds namely SAF (Special Allocation Funds), GAF (General Allocation Funds) and RSF (Revenue Sharing). However, the provision of equalization funds still causes fiscal imbalances. One of the causes is the allocation of the Balancing Fund between regions through SAF, GAF, and RSF, which are not equitably distributed to each region. In general, funding sources for the regions consist of local revenues, balance funds (revenue sharing funds, general allocation funds, and special allocation funds) and regional loans, de concentration, and co-administration. The first three sources are directly managed by the Regional Government through the RGB, while others are managed by the Central Government through cooperation with the Regional Government.

The success of development in the fiscal decentralization system cannot be measured only by the economic aspect with growth indicators or GRDP values of one region. Local capacity enhancement (local communities) can be indicated by the decreasing unemployment rates, decreasing numbers of poor people, increasing the quality of public consumption (food consumption, education and health), increasing labour, improving infrastructure, per capita consumption, and household income. Therefore, regional disparity cannot be measured only by the difference in GRDP per capita value between regions, however, it must be extended to indicators of economic progress, especially those concerning general basic services.

The purpose of this study is to analyse fiscal disparity between provinces in Indonesia and their impact on disparities of income and basic service, and to examine the factors that cause economic growth disparity in Indonesia, and policies that should be carried out by the government to solve the problems.

2. Methodology

The study is a descriptive research which is the presentation of the results of previous researches about economic growth in Indonesia and the variables that influence the economic growth disparity in Indonesia. This study used the secondary data obtained from the literature review of economic journals, it is expected that this explanation can make an overview of the causes of economic growth disparity in Indonesia by taking samples from several regions in Indonesia.

3. Results and discussions

3.1. Description of variables which affect the condition of economic growth in a country

Some researchers use variables that indicate economic disparities in Indonesia, which include the influence of private investment, the Human Development Index and government capital, government expenditure, local government revenue [2]. A study from Oktaviani concluded that private investment had a significant effect on economic growth, while the amount of labour and expenditure of development had no significant effect on economic growth [3].

Anita found that the increasing of capital expenditure had a positive effect on economic disparity, which increased the GDP of Province [4]. Rahayu concluded that the role of the local public sector had a significant impact on economic growth, however, it was not able to eliminate the economic disparities between regions [5].

The study of the World Bank and the Asian Development Bank by Kuncoro prove that high rates of literacy, low infant mortality, and low levels of disparity and poverty contribute positively to economic growth in East and Southeast Asia [6].

Wahyuni stated that government expenditure and investment from 2000-2012 had a positive and significant impact on the economic growth of regencies/cities in Bali Province. Government expenditure, investment, and economic growth also had a positive and significant effect on the income disparities of regencies/cities in Bali Province. Besides, government expenditure had a significant effect on income disparities through the economic growth of regencies/cities in Bali Province. Investment had a significant effect on the income disparity through the economic growth of regencies/cities in Bali Province. Significant influence of government expenditure, investment, and economic growth on the directly or indirectly income show that it is important to study the determination of expenditure distribution and the equitable investment allocations to increase economic growth and reduce income disparities [7].

Education, health, and infrastructure facilities in a number of big cities in Indonesia are much better when compared to other cities, especially in eastern Indonesia. The disparity basic service between regions still occurs. The indicator of the education sector can be seen from the public access to enter Elementary and Junior High School. In 2016, the Net Enrolment Rate (NER) of Elementary School level in DKI Jakarta Province, Maluku Province, and Papua Province were 95.35%, 82.59%, and 56.45% respectively. In the case of Junior High School level, the NER in DKI Jakarta Province, Maluku Province, and Papua Province were 67.91%, 53.78%, and 37.69% accordingly [8].

In the health sector, service disparity can be seen from the infant mortality rate. In 2012, the provinces with the highest infant mortality rate were West Papua Province (74), Gorontalo Province (67), and North Maluku Province (62). While the provinces with the lowest infant mortality rate were DKI Jakarta Province (22), Riau Province (24), and DI Yogyakarta Province (24) [9].

The chosen indicator for public access towards basic infrastructure services was public access to adequate clean water. In 2014, the provinces with the percentage of households with the highest access to safe drinking water were Bali (93.22%), DKI Jakarta (91.23%), and Riau Island (83.27%). While the provinces with the percentage of households with the lowest access to safe drinking water were Bengkulu (35.17%), Papua (49.42%), and West Sulawesi (50.88%) [10].

In terms of community access towards basic sanitation services, the provinces with the highest percentage of households which have the highest access to proper sanitation in 2014 were DKI Jakarta (86.81%), DI Yogyakarta (82.54%), and Bangka Belitung Islands (80.13%). The province with the percentage of households which had the lowest access to proper sanitation was East Nusa Tenggara (12.77%) [10].

Hendra Esmara conducted a study by using the Williamson Index as a measure of disparity between regions [11]. Sjafrizal also studied about development disparity between regions in Indonesia for the period 1993-2000. Besides measuring the level of disparity and its tendency, this study also tried to see the influence of the capital city of Jakarta on development disparity between regions. For this purpose, the disparity index was measured by using both data of DKI Jakarta Province and provinces outside DKI Jakarta [12]. Another case of disparity of development between regions in Indonesia was explained by the study of Akita and Alisyahbana, by using Theil Index as a tool to measure development disparity between regions [13].

3.2. Description of the condition of Indonesia's economic disparity

Economic disparity between regions is one of the problems and major challenges of economic development in Indonesia in the current situation and in the future, which occurred not only in rural areas but also in urban areas. The level of disparity around the last few years tends to increase and still remains relatively large. The average of GDP growth rate in the Western Indonesia is around 4, 87%, while in the Eastern Indonesia is only 3.93%. The difference in growth rates further exacerbates the imbalance in the value of GDP between the two regions. While fiscal decentralization, according to some studies, significantly improves regional fiscal performance, but has not succeeded in reducing the disparities, even increasing the regional disparities [14].

The World Bank reported two phenomenon that threaten the implementation of the decentralization process in Indonesia, i.e. the similarity of public expenditure in all regions without considering the different problems of each region and an increase of public expenditure due to corruption. The first phenomenon reflected the problem of budgeting planning, while the second revealed the effectiveness and problems of efficiency in providing public goods [15]. In other words, irregularities in the use of local government budgets, both administrative and expenditure, ultimately result in outputs not being achieved targets that have been planned or even achieved, however, it spent the expense of more expensive processes [16].

Amidst poverty, unemployment, and disparity of income distribution, the condition of macroeconomic in Indonesia showed a tendency to increase. This was marked by economic growth of 2004-2010 period, the average growth of above five percent [17]. However, if it is associated with the achievement of poverty, unemployment, and disparity of distribution of income in the same period, economic growth does not have a positive impact on improving people's welfare through job creation and poverty reduction. Despite the fact that Indonesia has a higher labour surplus than economic growth, however, it is not a measure of growth if it is not accompanied by an increase in equity.

Inadequate indications of Indonesia's economic growth for the period of 2004-2010 can be seen from the increasing of sectoral growth disparity between the trade, communication, and services for the real sectors (Industry, manufacturing, agriculture and mining). GDP growth from 2000 to 2006 with an average growth of five percent cannot be said as a solution to the problem of unemployment and poverty.

According to economist Kwik Kian Gie, the high growth is not followed by a decline in unemployment and poverty due to the low income distribution and the high investment in financial markets that does not have a direct impact on the real sector which can reduce poverty and unemployment. In addition to investments in financial markets, investments are also often made by investors in the industrial and manufacturing sectors, which are vulnerable towards the decreasing of the economic situation.

It was proofed by the economic crisis in 1997, the industrial and manufacturing sectors experienced a contraction of 13.68 percent. In terms of employment, there was a decrease in employment of 2,934,441 people. The agricultural sector survived with a positive growth of 3.7 percent and recruited labour by 45 percent of the total workforce [18].

The agricultural sector is a part of the real sector which has an important role in the Indonesian economy. Since Indonesia is an agrarian country, agricultural should be a basic of the economy. The agricultural sector plays several roles, i.e. employment, source of foreign exchange and Gross Domestic Product (GDP), providers of basic needs, and as the main lines of the economy in rural areas.

As the basic of the economy, the agricultural sector is expected to grow continuously and contribute substantially to GDP growth. However, the contribution of the agricultural sector towards GDP when compared to other economic sectors can be said to be relatively small.

Researches of Bati in North Sumatra [19], Purwanto in East Java concluded that capital expenditure had a positive effect on economic growth in both regions [20]. In West Borneo Province, the economic growth was relatively high (an average of 5%), however, it had not been accompanied by an increase in the parameters of economic development success (poverty, unemployment, and disparity of income distribution).

The increase in economic growth was due to the relatively large contribution of household consumption to GDP (between 50.94-53 percent). In addition, West Borneo Province faced classic problems, as experienced by other provinces in Indonesia, i.e. the limited capital where the utilization of natural resources was not optimal, and achievement of an average investment of less than 50%. The realization of private investment (domestic and foreign) in West Borneo Province was not as expected (actual average of below 36 percent). The realization of capital expenditure was much lower (around 30% of total expenditure) [2].

Besides, the number of capital expenditures as part of the direct expenditure of local governments is not the same because of differences in fiscal capacity of each regions, which can be said as one of the causes of economic growth disparity in almost regions in Indonesia. However, it was realized that government investment through capital expenditure will be able to increase economic activity at the local level by increasing the community activities and adding investment from the larger private sector [21].

Both studies concluded that capital expenditure and positive effect on economic growth in South Sulawesi Province and in East Java Province. Government expenditure and investment from 2000-2012 had a positive and significant impact on the economic growth of regencies/cities in Bali Province. It also had a positive and significant impact on the income disparities of districts/cities in Bali Province [7].
Research findings from Panggabean showed that the simultaneous effect of the three exogenous variables was only 20.27%. 79.73% of other factors which influence economic growth were not examined in their research, such as cultural, political, economic actors and leaders' behaviour, law enforcement, geography, and others [2].

3.3. Policy recommendations that should be carried out by the government to reduce economic disparity in Indonesia

Provinces and districts/cities must strive continuously to improve the investment climate to facilitate licensing and provision of basic infrastructure, which can be a recommendation to reduce the disparity in economic growth. In addition, the seriousness of the local government is needed to build designs from regional investments, not only contain various strategies to increase private investment, but also contain incentives and disincentives to guide private investment to certain sectors.

Human development through education and health must be carried out equitably to sub-districts and villages levels, especially in terms of distribution of teachers and medical staffs (doctors and nurses). The learning policies of Package A, Package B and Package C must be implemented continuously to increase literacy rates and average length of study. Therefore, government allocations are prioritized in education and health. Education plays an important role to strengthen the economic transformation to reduce the regional disparity.

Capital expenditure utilization is directed to the development of basic infrastructure to the village level. The availability of infrastructure is one of the attractions for investors to invest in this region and one of the parameters in increasing regional competitiveness.

It is important to study the determination of expenditure distribution and investment allocations to increase economic growth and reduce income disparities.

It is important to prioritize the allocation of investment to the agricultural sector and agriculture-based industries supported by the development of infrastructure, which can generate high economic growth and reduce economic disparity between regions [22]. However, investment in the agricultural sector has not been the main target of investors in investing. Therefore, the development of the agricultural sector as a trigger for a country's economic progress should actually be followed by a large investment in the agricultural sector.

Study on the Role of Investment in the Agriculture and Agro-Industry Sectors in Labour Recruitment and Income Distribution: The Approach of the Socio-Economic Balance System reported that the policies of export, investment and tax incentives in the agro-industry sector resulted in the decreasing of income disparities of sectoral, labour, and household. The policies of export and investment in the food agro-industry sector reduce income inequality greater than the policy in the non-food agro-industry sector. The most effective economic policies to reduce income disparity is by increasing investment in priority agro-industry sectors.

The direct and indirect income disparities show that it is important to study the determination of expenditure distribution and the equitable investment allocations to increase economic growth and reduce income disparities.

4. Conclusions

Indicators which show economic disparity in Indonesia are not only generated by fiscal disparity, but also by basic services disparity between regions. The number of capital expenditures as part of the direct expenditure of local governments is not the same because of differences in fiscal capacity of each region, which can be said as one of the causes of economic growth disparity in almost all of regions in Indonesia. However, it was realized that government investment through capital expenditure will be able to increase economic activity at the local level by increasing the community activities and adding investment from the larger private sector. The direct and indirect income disparities show that it is important to study the determination of expenditure distribution and the equitable investment allocations to increase economic growth and reduce income disparities.

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