Economic Growth, Employment and Inclusive Growth Diagnostics

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Abstract. Inclusive growth creates economic opportunities for all segments and ensures equal access to society. High economic growth is expected to have an impact on increasing the supply of employment and encouraging productive workforce to work. The purpose of this study is to analyze inclusive growth using a workforce approach in the provinces of Java, Indonesia. The method of approach used in this study is descriptive analysis. Poverty-Equivalent Growth Rate (PEGR) was developed for measurement of inclusive growth. The results showed that during the 2001-2019 period, the economic growth of provinces in Java was not yet inclusive. This is indicated by the average coefficient of inclusive growth (\hat{G}_g). Government policies are needed so that economic growth provides benefits for employment.

Keyword: Economic Growth; Employment; Inclusive Growth; PEGR

1 Introduction

Inclusive growth has become a concern in the last two decades with the concept that society is not only the beneficiary of growth, but also participates in and contributes to the growth process [1]-[3]. Moreover, inclusive growth creates economic opportunities for all segments of the population and ensures equal access to them [4]-[9]. Researchers and international organizations have proposed a conceptual framework for inclusive growth. Inclusive growth focused on labor productivity is part of the various approaches being developed [10]. The key elements in inclusive growth are employment and productivity, development in human capabilities and social safety nets and the targeted intervention [11].

Indonesia is a country with the fourth highest population and workforce in the world. The total population of Indonesia in 2019 reached 268.074.600 people and the workforce was 133.560.880 people. Indonesia is a country with a strategic location. Located between the Continent of Asia and the Continent of Australia, and between the Indian Ocean and the Pacific Ocean. Indonesia consists of 34 provinces located on five major islands and four archipelago. Has great potential as a country with a large economic level. Indonesia's economic growth in 2019 is 5,02% [12]. Meanwhile, Indonesia's average economic growth in 2001-2019 was 5,29% per year. High economic growth is expected to overcome the problem of population growth which tends to increase. Availability of employment is expected to reduce unemployment and alleviate poverty.

Java Island is the region with the highest number of labor force when compared to other regions in Indonesia. The total workforce in 2019 reached 76.979.802 people or 57,64% of the

total workforce in Indonesia. Java Island is also the region with the highest economic contribution when compared to other regions in Indonesia. In 2019, the contribution of the island of Java to the Indonesian economy reached 59,12%. This shows that most of the economic activities are centralized on the island of Java. But in fact, the provinces on the island of Java are also experiencing various development problems such as unemployment. The unemployment rate in 2019 reached 5,49%. This indicates that economic growth has not been able to fully address the increase in population growth, labor force and provide employment opportunities. This paper will conduct a study on inclusive growth diagnostics in provinces on the island of Java using a labor approach. Whether high economic growth has been able to carry out its role in providing employment, reducing unemployment and poverty. The results of this study are expected to provide input for the government in overcoming labor problems.

2 Methodology

The measurement of inclusive growth (IG) in this study uses the IG_{ij} concept developed by Klasen [13]. Initially this concept was used to measure the benefits or impacts of economic growth in reducing poverty. However, it is further developed to measure inclusive growth which can be applied to economic and non-economic aspects. This method has also been used in previous researchers [14]-[16]. Defining labor absorption (E_m) as a function of the number of workers (W) and total of economically active (EA), which is written as follows:

$$E_{m} = E_{m} (W, EA)$$
(1)

The change in the percentage of labor absorption in period 1 and period 2 can be calculated as:

$$Em_{12} = Em_2 - Em_1 = Ln[Em(W_2, EA_2) - Ln[Em(W_1, EA_1)]$$
(2)

The change in the percentage of the workforce can be calculated as:

$$EA^* = Ln (EA_2) - Ln (EA_1)$$
(3)

The elasticity of labor absorption to the labor force (E_{em}) can be calculated as:

$$E_{em} = Em_{12} / EA^*$$
 (4)

Economic growth (\hat{G}_g) in this approach is calculated as the change in Gross Regional Domestic Product (GRDP) in a period, so that economic growth can be written as follows:

$$G_{g} = Ln (GRDP_{2}) - Ln (GRDP_{1})$$
(5)

The elasticity of labor absorption to economic growth (E_{em.g}) can be calculated as:

 $\mathbf{E}_{\mathrm{em},\mathrm{g}} = \mathbf{E}\mathbf{m}_{12} / \hat{\mathbf{G}}_{\mathrm{g}} \tag{6}$

Inclusive growth in increasing employment, the coefficient is:

$$IG_{em} = (E_{em,g}/E_{em}) \hat{G}_g$$
⁽⁷⁾

Note:

IGem : inclusive growth coefficient in absorbing labor

E_{em} : elasticity of labor absorption

E_{em.g} : elasticity of labor absorption to growth the economy

 \hat{G}_{g} : economic growth

 IG_{em} states the inclusiveness of growth in absorbing labor, so that growth is declared inclusive if the value of $IG_{em} > \hat{G}_{g}$.

3 Results and Discussion

High economic growth should be accompanied by the provision of jobs to absorb the growing workforce, reduce unemployment and reduce poverty. This section will describe the performance of the economy, the workforce and a diagnosis of inclusive growth in the province of Java.

3.1 Economic Growth Performance

The Indonesian government is still faced with the problem of high development inequality between regions. Inequality between regions is the Western Region of Indonesia and the Eastern Region of Indonesia. Referring to the disparity between regions, around 80% of the region's contribution to national economic growth comes from the Western Region of Indonesia, especially the islands of Java and Sumatra. Java Island is the region with the highest contribution to the national economy. Statistical data shows that in 2019, the island of Java made the highest contribution to the national economy reaching 59,12%. The high contribution of the island of Java is inseparable from the economic contribution of the provinces in Java, namely Jakarta, West Java, Central Java, Yogyakarta, East Java and Banten.

Jakarta is a province that provides the highest contribution to the economy of the island of Java. The average contribution of the province of Jakarta to the economy of the island of Java in 2001-2019 was 27,56% per year. In addition, Jakarta, the capital city of Indonesia, is a province that provides the highest contribution to the national economy when compared to other regions. The business sectors that provide the highest contribution to the economy of the province of Jakarta are wholesale and retail trade; repair of motor vehicles and motorcycles, construction and manufacturing. Furthermore, the region which also gives a high contribution to the economy of the island of Java is the province of East Java. The average contribution of East Java province to the economy of the island of Java is 25,25% per year. Meanwhile, the region which gave the lowest contribution to the economy of the island of Java is 1,65% per year. The manufacturing sector provides the highest contribution to the economy of the island to 1,65% per year.

Java Island is a region with a high average economic growth when compared to other islands which reach 5,60% per year. The average economic growth of the island of Java is higher than Indonesia's average economic growth of 5,29% per year. Figure 1 shows the average economic growth of provinces in Java for the period 2001-2019. During the observation period, it is known that Banten province is a province with the highest average economic growth reaching 6,54% per year. The manufacturing sector provides the highest contribution to the economy of Banten province. In 2019, the contribution of this sector reached 33,81%. Meanwhile, Yogyakarta is the region with the lowest average economic growth, which is 4,99% per year.



Fig. 1. The average economic growth of the provinces in Java in 2001-2019

Issues and problems for the development of economic growth centers in Java are (1) limited connectivity between growth centers located in two Special Economic Zones and two Integrated Economic Zones with buffer zones; (2) limited area infrastructure causes minimal industrial investment; (3) regulatory barriers to support the improvement of the investment climate and business climate. In an effort to improve the provincial economy on the island of Java, the government has determined the direction and strategy for the development of the strategic areas of Java, namely (1) accelerating the development of regional economic growth centers by maximizing the advantages of agglomeration, exploring regional potential and advantages and increasing efficiency in infrastructure provision; (2) accelerating development of underdeveloped areas is focused on efforts to fulfill basic needs and basic public service needs and to develop the community economy supported by quality human resources and infrastructure to support connectivity; (3) realizing the country's front yard as a gateway for economic activity and trade with neighboring countries; (4) enhancing the capacity of local governments that promote industrial-based national competitiveness, national food storage, and international trade and services.

3.2 Employment Performance

The workforce in Indonesia is predominantly primary and high school graduates. A small proportion of the workforce are university graduates. Java Island is the region with the highest number of labor force when compared to other regions in Indonesia. The average labor force in Java in 2001-2019 was 67.774.475 people per year. The provinces of East Java and West Java are the regions with the highest contribution to the workforce on the island of Java with an average number of 19.828.573 people and 19.370.995 people per year. Meanwhile, the region with the lowest labor force is Yogyakarya province with a total of 1.949.158 people per year. The high economic growth in Java has not been able to fully solve the labor problem. This is indicated by high unemployment. The average unemployment rate on the island of Java reaches 5,417,606 people per year. This condition is in line with the high number of workforce on the island of Java. The population has not yet fully got the same access to the benefits of growth and

cannot even contribute to the growth process.

Figure 2 shows the ratio between the total working population of 15 years and over and the labor force. This ratio illustrates the relationship between the labor force and the ability to absorb labor or as a picture of labor demand. Yogyakarta is a province with the highest average percentage reaching 95,24% per year. This condition indicates that Yogyakarta is an area with the highest employment capacity when compared to other provinces on the island of Java. Other areas that also have the ability to absorb high labor are East Java and Central Java with an average value of 94,36% and 93,62% per year. Meanwhile, the region with the lowest employment capacity is Banten province with an average value of 87,56% per year.



Fig. 2. The average percentage of working to economically active of the provinces in Java in 2001-2019

Figure 2 shows that the provinces on the island of Java are still facing labor problems. Not all of the workforce has found a job. Manpower development must be directed towards overcoming unemployment caused by a work force that has not yet found a job coupled with a new workforce resulting from the output of education and job training. To overcome this problem, it is necessary to create new jobs from the creation of investment in various business fields in accordance with the superior potential that exists in various regions on the island of Java. In order to support the creation of the ability and quality of the workforce, the concept of link and match between formal education and job training with the demands of work requirements from job opportunities needs to be considered. This is a synergistic relationship between the education system and the labor system. Support for dynamic and fair labor laws is needed to cover various business activities, so that the business can run well. Furthermore, the relationship between labor law subjects is expected to run harmoniously, synergistically and constructively.

3.3 Inclusive Growth Diagnostics

In line with the economic performance of each region which tends to increase and the manpower phenomenon as stated earlier, it is necessary to measure inclusive growth using the labor approach. Inclusive economic development refers to an economic growth accompanied by

equal economic opportunities for all people [17]. Inclusive economic development focuses on creating economic opportunities and their access for all people of all groups, groups or levels, not only for the poor. Inclusive growth is also defined as sustainable output growth for decades, across all sectors of the economy, creating productive employment opportunities for a large proportion of the working age population in a region or country [18].

Using the labor approach, inclusive growth in this study is if the coefficient of inclusive growth (IG_{em}) is higher than economic growth (\hat{G}_g). The value of the coefficient of inclusive growth (IG_{em}) and economic growth (\hat{G}_g) of Java for the period 2001-2019 is shown in Figure 3. During the observation period, the coefficient of inclusive growth (IG_{em}) was lower than economic growth (\hat{G}_g). Thus, the average inclusive growth coefficient (IG_{em}) in Java is 0,015 lower than the economic growth (\hat{G}_g) of 0,054. This shows that in general the economic growth of the island of Sumatra has not been inclusive. The economic growth coefficient ($\hat{G}g$) has fluctuated and has tended to decline since 2013. The inclusive growth coefficient ($\hat{G}g$) has also fluctuated during the observation period, but the trend of the coefficient tends to increase. This indicates that the economic performance has improved the provision of jobs and absorbs labor.



in Java Island 2001-2019

Regional economic performance contributed to the achievement of inclusive growth (IG_{em}) in Java. In general, provincial economic growth in Java is not yet inclusive. In terms of the achievement of inclusive growth (IG_{em}) per region, the province of Jakarta experienced inclusive growth in 2008 and 2010; West Java province in 2017 and 2019; Yogyakarta province in 2008 and 2016; Banten province in 2002 and 2010. Meanwhile, Central Java and West Java provinces economic growth was not inclusive during the observation period.

Figure 4 shows the average coefficient of inclusive growth and the coefficient of economic growth for the provinces of Java in 2001-2019. The average coefficient of inclusive growth is lower than the average coefficient of economic growth. Banten is a province with an average coefficient of inclusive growth and the highest coefficient of economic growth when compared to other provinces in Java with an average value of 0,030 and 0,063. However, economic growth is not yet inclusive. Banten is a province with the highest economic growth performance during

the observation period, still having employment problems. The percentage of worker and economically active is lowest when compared to other regions on the island of Java. This shows that high economic growth performance does not guarantee an inclusive growth.

The results of the study show that Yogyakarta is the region with the lowest economic growth performance compared to other provinces, but is considered more capable of dealing with labor problems. The highest percentage of the working population in the labor force is compared to other provinces in Java. However, growth is also not yet inclusive. The average inclusive growth coefficient of 0.012 is lower than the economic growth coefficient of 0.049. The achievement of inclusive growth cannot be measured only by looking at the high or low economic growth, but the quality of that economic growth. How can economic growth provide benefits for employment, reduce unemployment and improve social welfare.



Fig. 4. The average of the inclusive growth coefficient (IGem) and the economic growth coefficient (\hat{G}_g) of provinces in Java in 2001-2019

Handling labor issues in various fields. As a consequence of this, coordination with several sectors is required. The problems are complex, so handling must also be carried out gradually and determining targets from various aspects that must be implemented. Manpower development must be carried out comprehensively, both in terms of workforce planning, job opportunities, training and work competence, labor productivity, industrial relations, work environment conditions, wages and worker welfare and labor social security. In terms of workforce education, national education policies and programs to improve secondary and tertiary education in order to reduce the number of workers for primary school education. It is hoped that the high economic performance will trigger the impetus for industrialization and more adequate technology implementation. Besides that, the growth of industrialization significantly boosted the economy and stimulated the growth of other sectors. This has implications for the welfare of the community and in turn has implications for the level of education of the workforce.

4 Conclusion

This paper diagnoses inclusive growth in provinces on the island of Java using an employment approach. Developing the PEGR method in measuring inclusive growth shows that in general the economic growth of provinces in Java in 2001-2019 was not yet inclusive. This is indicated by the average value of the inclusive growth coefficient (IG_{em}) which is lower than the average coefficient of economic growth (\hat{G}_g). This paper also finds that inclusive growth is not only determined by high economic performance or vice versa. Inclusive growth measures the benefits of growth in increasing employment and improving people's welfare.

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