

## Analysis of Economic Growth, Regional Inequality and Poverty Levels among Provinces on The Island of Kalimantan

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Received 02 Mei 2024 | Revised 5 Mei 2024 | Accepted 16 Mei 2024

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### Abstrak

*The economic growth of a region is reflected in GDP and GRDP. It is important to achieve economic growth and economic equality so that prosperity increases evenly. Economic inequality can cause social problems and risk regional disintegration. Even though high economic growth can occur, it does not always mean that people's welfare increases automatically, especially for the poor. Differences in development and infrastructure between regions also affect people's income. This research aims to examine the economic situation, regional inequality and poverty levels in Kalimantan Province. It is hoped that the results of this research will provide useful information for local governments in future policy making. This research is descriptive in nature and uses a qualitative approach to understand social phenomena through secondary data from the Central Statistics Agency (BPS) and related regional institutions. Economic growth in Kalimantan province experienced fluctuations during the 2014-2023 period. Although there are annual variations, in general there is an upward trend after 2020. The Williamson Index in Kalimantan province experienced small variations from year to year during the 2014-2023 period. The poverty level in Kalimantan province tends to vary from year to year during the 2014-2023 period.*

**Keywords:** Economic Growth; Regional Inequality; Williamsons Index; Poverty

### INTRODUCTION

The success of a region's development is often measured through its economic growth, which is reflected in the growth of Gross Domestic Product (GDP) at the national level and Gross Regional Domestic Product (GRDP) at the regional level from year to year (Aji, 2022; Lapian et al., 2023). Economic growth can be considered positive if the level of economic activity in a region increases from the previous period. Conceptually, increasing people's income is associated with increasing welfare (Pasaribu et al., 2021; Wangke & Kainde, 2021).

In the process of developing a region, it is important to achieve economic growth and economic equality simultaneously (Peterson, 2017; Surya et al., 2021). The success of economic development lies in the region's/region's ability to increase economic growth while improving community welfare evenly. Economic growth without equality can widen the gap between community groups (rich and poor) or between developed and underdeveloped regions (Dahlum et al., 2022). High inequality can give rise to various problems such as social jealousy, the risk of regional disintegration, and increasingly sharp economic disparities. Other impacts include increased migration from poor areas to developed areas, a decrease in the level of community welfare which can cause jealousy and dissatisfaction, which in turn can increase crime, conflict between communities, and damage public trust in the government (Afandi1 & \*, Dwi Wahyuni2, 2017; Herman, 2021; State of the Global Islamic Economy Report, 2022; Xi & Wang, 2023).

Lincoln Arsyad (1999) argues that high levels of economic growth rarely provide significant benefits in overcoming poverty. Even though GDP is growing rapidly, it does not always mean that people's welfare will automatically increase. The idea of a "trickle down effect", where the benefits of economic growth would be distributed equally to the poor, often does not materialize as expected. Without equal distribution efforts, the benefits of economic growth tend to be enjoyed by those who have large capital and the upper classes in society.

When starting the development process, a dilemma often arises between achieving rapid economic growth and balancing income distribution. This has been a long-standing and continuing problem. There is a trade-off between economic growth and income distribution in each region. Inequality can arise because development priorities tend to focus more on urban areas than rural areas. Differences in development and infrastructure also affect people's income in various regions, both urban and rural. This issue is complex, especially when addressing income inequality between regions.

Development imbalances between regions can occur due to a lack of coordination between regions. Differences in development capabilities and natural resources between regions can cause regional income inequality, influenced by factors such as resource ownership, infrastructure, geography, and others. Although development inequality is part of the development process itself, economic inequality is often used as an indicator of differences in per capita income, employment and between regions. This research aims to examine the economic situation, regional inequality and poverty levels in Kalimantan Province. It is hoped that the results of this research will provide useful information for local governments in future policy making.

## METHOD

This research is descriptive research because it aims to describe the conditions of the research variables. This research is a type of qualitative research, a research approach that aims to understand social phenomena in depth through collecting and analyzing descriptive data in the form of words, text or images. The data sources in this research consist of secondary data. The data in this research was obtained from the Central Statistics Agency (BPS) and related regional institutions.

### Economic Growth Rate

The assumption is that economic growth is the dominant variable that determines the size of the state income component. Economic growth is a variable with basic macroeconomic assumptions which is directly positively related to domestic revenues, including domestic tax revenues. The way to calculate the rate of economic growth is as follows:

$$PE = \left( \frac{PDB_T - PDB_{T-1}}{PDB_{T-1}} \right) \times 100\%$$

Where :

- P.E = Economic Growth
- GDP = Gross Domestic Product
- Q = Certain Period
- t-1 = Previous period

### Measures of Inequality Between Regions

The Williamson Index is a method for measuring development inequality between regions, using GDP per capita as basic data. This approach is considered relevant because the focus is on the level of development between regions, not the distribution of income between community groups.

The Williamson Index compares regional disparities by economic level, using economic data covering developed and developing regions. The calculation is based on regional income per capita and the population in each region. Statistically, the Williamson Index formulation can be represented in the following formula:

$$IW = \frac{\sqrt{\frac{\sum_i^n (y_i - \bar{y})^2 \cdot \frac{n_i}{n}}{\bar{y}}}}{\bar{y}} \times 100$$

Information :

IW = Williamson index

Yi = GDP per capita per district/city  $\bar{y}$  = GDP per capita Province

here = Population of each district/city n = Total Population of the Province

By using the Williamson Index, it can be seen how big the inequality is between regions. And the value ranges between 0-1. Williamson Index assessment criteria: If the IW value is away from 0 (zero), it indicates that the level of income inequality between regions in that region is getting bigger, and if the IW value is close to 0 (zero), it shows that the level of income inequality between regions in that region is getting smaller. With low  $IW < 0.35$  criteria;  $0.35 < IW < 0.5$  moderate ;  $IW > 0.5$  high.

## RESULTS and DISCUSSION

### Economic growth

The first thing that needs to be discussed about the rate of economic growth between Kalimantan provinces is the variation in economic performance in each province. The table below will show that each province has different growth trends from year to year. These provinces experienced significant fluctuations, ranging from high growth to sharp declines in certain years.

These differences reflect various economic and policy factors that influence economic development in each province. The discussion can start by finding out what factors cause these fluctuations, such as the impact of commodity prices, infrastructure investment, government policies, or changes in regional economic structures.

Next, it is important to identify provinces that are able to maintain stable economic growth as well as what factors contribute to their success. On the other hand, provinces that experience significant fluctuations require further analysis to understand the causes of these changes and what efforts can be made to reduce their economic volatility.

**Table 1.** Economic Growth Rate between Provinces in Kalimantan

Province	Economic Growth Rate (%)									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
North Kalimantan Province	7.43	3.36	3.89	6.70	6.24	6.54	-1.09	3.99	5.32	4.94
East Kalimantan Province	1.71	-1.2	-0.38	3.13	2.64	4.7	-2.9	2.55	4.48	6.22
Central Kalimantan Province	6.21	7.01	6.35	6.73	5.61	6.12	-1.41	3.59	3.59	4.14
West Kalimantan Province	5.03	4.81	5.2	5.17	5.07	5.09	-1.82	4.8	5.07	4.46
South Kalimantan Province	4.84	3.82	4.4	5.28	5.12	4.09	-1.82	3.48	5,11	4.84

Source: Processed Data in BPS

North Kalimantan Province experienced significant fluctuations in the rate of economic growth from 2014 to 2023. The high increase in 2014 and 2017 was caused by a surge in investment in the mining or energy sector, which is the main sector in this province. However, the sharp decline in 2020 was mainly due to falling prices of certain commodities such as oil and gas, which affected key sectors of the region's economy.

East Kalimantan Province The rate of economic growth experienced significant fluctuations from 2014 to 2023. The significant decline in 2015 and 2020 was caused by the global economic slowdown and the decline in commodity prices such as coal, which is one of the main commodities in this province. The increase in 2019 and 2023 can be attributed to successful government policies in diversifying the economy and attracting investment to non-oil and gas sectors.



Central Kalimantan Province's economic growth rate tends to be stable with relatively small fluctuations from 2014 to 2023. The increase in 2015 and 2016 was caused by investment in infrastructure development and growth in sectors such as agriculture and forestry. The decline in 2020 was largely influenced by the impact of the COVID-19 pandemic on overall economic activity.

West Kalimantan Province, although the rate of economic growth shows fluctuations, this province is likely to experience stable growth from 2014 to 2023. The decline in 2020 was most likely caused by a decline in global economic activity due to the COVID-19 pandemic. However, the recovery in 2021 and 2022 can be attributed to the government's successful economic stimulus and economic recovery program.

South Kalimantan Province experienced significant fluctuations in the rate of economic growth from 2014 to 2023. The decline in 2015 and 2020 was caused by the global economic slowdown and falling commodity prices, which had a negative impact on the province's main sectors such as mining and agriculture. The increase in 2017 and 2023 can be attributed to government efforts to increase investment and diversify the economy, particularly in sectors such as tourism and the processing industry.

The table of economic growth rates between Kalimantan provinces provides a more detailed picture of the economic dynamics in the region. The significant difference in economic growth rates from 2014 to 2023 shows variations in economic performance in each province. Some provinces, such as Central Kalimantan, show relatively stable economic growth, while other provinces, such as East Kalimantan, experience significant fluctuations from year to year.

A decline in economic growth in certain years, such as in 2015 and 2020, may be caused by global factors such as a global economic slowdown or a decline in certain commodity prices that have a direct impact on key sectors in these provinces, such as mining or agriculture. In contrast, increases in economic growth in other years may be driven by successful government policies, economic stimulus, or diversification of economic sectors. According to Rajab et al. (2021), this happened because all existing economic sectors experienced strong shocks due to the corona virus. From the existing data, it can be seen that the impact of the corona virus has a very strong impact on the economy because it is capable of having a negative impact on existing economic growth. Regional disparities are the center of attention for reformers in justifying their political agenda, because they are closely related to economic growth, social stability and political cohesion (Suparman & Muzakir, 2023). According to Efendi et al. (2019), economic growth is interrelated that economic growth is needed by society which improves health and the quality of education for economic growth in a region or country to reduce poverty. According to Olabu et al. (2022) Economic growth is an indicator of community welfare in an area. If a region's economic growth increases, it is hoped that it can be enjoyed equally by the entire community. Economic growth will directly and indirectly impact the problem of inequality.

Further analysis is needed to understand the specific factors that influence economic growth in each province. This includes further evaluation of regional economic policies, infrastructure, investment in key sectors, as well as external factors such as fluctuations in global commodity prices. With a deeper understanding of these regional economic dynamics, the government can design more effective policies to encourage sustainable economic growth in each province of Kalimantan.

### **Regional Inequality**

The concept of the Williamson Index, which measures the level of economic growth of a region in relation to national economic growth. It provides an idea of the extent to which a region contributes to the overall economic growth of the country. Then, attention can be shifted to regional inequality in Kalimantan. Regional inequality reflects disparities in economic development, access to resources, infrastructure and economic opportunities between regions in Kalimantan.

By understanding the relationship between the Williamson Index or regional inequality, discussants can identify factors that contribute to economic inequality in Kalimantan and formulate strategies to reduce this inequality through appropriate economic policies and efficient resource allocation.

**Table 2.**Williamsons Index between Provinces in Kalimantan

Province	Williamson Index									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
<b>North Kalimantan Province</b>	0.33	0.27	0.24	0.21	0.19	0.39	0.20	0.20	0.19	0.19
<b>East Kalimantan Province</b>	0.53	0.52	0.51	0.5	0.48	0.48	0.47	0.45	0.45	0.44
<b>Central Kalimantan Province</b>	0.21	0.21	0.2	0.2	0.19	0.19	0.22	0.22	0.22	0.34
<b>West Kalimantan Province</b>	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.29	0.28
<b>South Kalimantan Province</b>	0.49	0.47	0.47	0.45	0.45	0.44	0.44	0.44	0.55	0.5

Source: Processed Data in BPS

**North Kalimantan Province** In the last 10, if you look at the table, the average regional inequality is in the low category. This has increased significantly in 2019, which is caused by a surge in investment in the mining or energy sector in this region. This increase can also be attributed to infrastructure development that improves accessibility to the province's rich natural resources. The sharp decline in 2020 likely reflects the impact of falling prices of certain commodities or global economic uncertainty affecting investment.

**East Kalimantan Province**In the last 10, if you look at the table, the average regional inequality is in the high category, but there is a gradual decline from 2014 to 2023, which is caused by the economic slowdown in the mining and energy sectors, which are the backbone of this province's economy. This decline could also be influenced by a decrease in the price of certain commodities or policy changes in the industry that reduce the competitiveness of this region.

**Central Kalimantan Province**In the last 10, if you look at the table, the average regional inequality is in the low category, there were small fluctuations from 2014 to 2019, then there was a significant increase in 2022. This increase was caused by the launch of large infrastructure projects such as roads and bridges, or airports that improve connectivity and encourage local economic growth. Investments in potential sectors such as agriculture or tourism also contribute.

**West Kalimantan Province** The Williamson Index value tends to be stable from 2014 to 2023, with a slight increase in 2022, however, in the last 10 years, if you look at the table, the average regional inequality is in the low category. This increase was caused by the successful economic diversification carried out by the provincial government, such as developing the tourism sector or other industries which were able to offset uncertainty in key sectors such as mining.

**South Kalimantan Province**In the last 10 years, if you look at the table, the average regional inequality is in the high category, but there was a gradual decline from 2014 to 2020, then there was a spike in 2022. The initial decline was caused by the global economic slowdown and a decline in certain commodity prices which affected mining and energy sectors, which are the main sectors of this province. The spike in 2022 is due to the provincial government's success in attracting foreign or national investment in alternative sectors such as the processing industry or tourism.

The Williamson index table between Kalimantan provinces shows striking differences in the level of economic development in the region. Some provinces show steady increases from year to year, such as Central Kalimantan, which shows consistency in economic development efforts. On the other hand, there are other provinces that experience fluctuations in index values, such as North Kalimantan, which shows more complex economic dynamics.

The factors that cause the rise and fall of the Williamson Index from this table can vary between provinces. For example, such value fluctuations may be caused by changes in investments in key sectors such as mining or energy, global economic uncertainty affecting the prices of certain commodities, success in economic diversification, the launch of large infrastructure projects, or changes in regional economic policies. Thus, the fluctuations in the value of the Williamson Index can be reflected in regional responses to global economic dynamics, government policies and investment in key sectors of economic development.



According to Pritha Aprianoor dan Muhammad Muktiali (2015) one of the causes of regional inequality is Differences in the quality of human resources are very important for a region. However, without adequate quality, human resources cannot play an optimal role in regional progress. The difference in the quality of human resources in question is the level of community education, as well as the education level of workers. This level of education greatly influences the abilities of the community and the selling value of the community itself. Majiid & Woyanti (2023) Determination of regional economic development policies must prioritize relatively underdeveloped regions without forgetting other regions, and strengthen the economic structure of relatively underdeveloped regions and improve supporting infrastructure and facilities that can attract investment in these regions. Regarding sectoral development policies to encourage regional economic growth, each region must prioritize the potential sectors that each region has. However, other sectors still receive attention according to their potential. The development of these potential sectors must be based on inter-sector linkages and inter-regional cooperation so that it can drive the economy through commodity exchange between regions. These policies are expected to increase equality and reduce regional disparities

**Poverty**

Poverty is a problem that varies among Kalimantan provinces over the time period observed. Differences in poverty levels from one province to another indicate variations in access to resources and economic opportunities in the region. In addition, fluctuations in poverty levels from year to year illustrate the complex economic dynamics and challenges faced in efforts to reduce poverty. By understanding this variability, we can identify provinces that may require special attention in poverty reduction programs and formulate strategies that are appropriate to the local context to improve community welfare.

**Table 3.**Percentage of Poverty between Provinces in Kalimantan

Province	Poverty Percentage (%)									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
North Kalimantan Province	0.33	0.27	0.24	0.21	0.19	0.39	0.20	0.20	0.19	0.19
East Kalimantan Province	6.31	6.23	6,11	6.19	6.03	5.94	6.1	6.54	6.31	6,11
Central Kalimantan Province	6.07	5.94	5.66	5.37	5.17	4.98	4.82	5.16	5.28	5,11
West Kalimantan Province	6.71	6.73	7.15	7.17	7.49	7.77	7.88	7.87	8.03	8.54
South Kalimantan Province	4.68	4.99	4.85	4.73	4.54	4.55	4.38	4.83	4.49	4.29

Source: Processed Data in BPS

North Kalimantan Province There was a fluctuation in the percentage of poverty from 2014 to 2023. The increase in 2019 may have occurred due to global economic instability which affected commodity prices, which directly affected the unemployment rate and people's welfare. However, the decline in 2020 could be due to the effectiveness of local economic empowerment programs or increased access to education and health services. East Kalimantan Province The poverty percentage tends to be stable, but fluctuates from 2014 to 2023. The increase in 2021 and 2022 may occur due to the global economic slowdown which affects the province's main industries, such as mining and energy. In addition, ineffective government policies in dealing with regional economic disparities can also contribute to this increase.

Central Kalimantan Province tThere has been a gradual decline in the percentage of poverty from 2014 to 2023. This may be due to investments in infrastructure development and more equitable local economic empowerment. In addition, successful adoption of pro-poor policies and increased access to public services can also be a major factor in reducing poverty levels in the province. West Kalimantan Province's poverty percentage experienced a significant increase from 2014 to 2023. Factors that may have caused this increase include a lack of economic diversification outside of the mining sector, a lack of investment in infrastructure development, as well as an imbalance in the distribution of resources and economic opportunities in the region. .South Kalimantan Province mAlthough it tends to be stable, there



have been fluctuations in the percentage of poverty from 2014 to 2023. The decline in 2020 may be due to the adoption of successful social assistance policies or economic empowerment programs. However, the increase in 2021 could be influenced by external factors such as the global economic slowdown or internal factors such as a lack of economic diversification and limited access to public services.

The poverty table between Kalimantan provinces illustrates the striking differences in poverty levels from 2014 to 2023. Although there is a general trend of decreasing poverty levels throughout the period, the fluctuations that occur show complex dynamics in each region. Some provinces show stable trends with small fluctuations, while others experience more significant changes from year to year. This shows that there are unique factors that influence the level of poverty in each region, such as local economic conditions, local government policies, access to resources, and demographic characteristics. Problems arise when a large population is not matched by adequate employment opportunities, which can result in unemployment and poverty, as well as inequality in income distribution. An increase in population without an increase in employment opportunities can result in an increase in the number of poor people (Asy'ariati et al., 2022). Because the majority of poor people in developing countries live in rural areas and depend on the agricultural sector as their main livelihood, it seems logical that the growth of the agricultural sector is prioritized in efforts to reduce poverty. Increasing agricultural productivity can have a positive impact on the economy as a whole and can help reduce poverty levels (Suryahadi et al., 2006).

To reduce poverty between provinces in Kalimantan, a series of more detailed steps need to be taken, such as increasing investment in road infrastructure, electricity networks and access to clean water to support economic growth and improve people's quality of life. In addition, efforts are needed to diversify local economic sectors, such as the development of sustainable agriculture, tourism and creative industries, by providing skills training and access to business capital. Affordable and high-quality education programs are also important, including scholarship assistance and technical education facilities, to ensure that children from poor families have an equal opportunity to receive a decent education. In addition, broader social protection such as cash transfers and other social assistance programs must be strengthened to provide a safety net for families vulnerable to poverty. Cooperation between central and local governments, the private sector, and civil society must also be strengthened to ensure effective implementation of these programs. Poverty conditions may also be related to factors that have not been identified or are difficult to measure precisely, making these variables more speculative. It is possible that there are other key variables that researchers have not thought of that have the potential to be related to poverty conditions (Noussair, n.d.).

## CONCLUSION

North Kalimantan Province experienced fluctuating economic growth from 2014 to 2023, with increases in 2014 and 2017 due to investment in the mining sector. However, the sharp decline in 2020 occurred due to commodity prices such as oil and gas. East Kalimantan also experienced fluctuations, with declines in 2015 and 2020 due to the global economic slowdown. Meanwhile, Central Kalimantan showed a stable rate, with an increase in 2015 and 2016 due to infrastructure investment. West Kalimantan tends to be stable, although it experienced a decline in 2020 due to the COVID-19 pandemic. Meanwhile, South Kalimantan experienced fluctuations, with declines in 2015 and 2020 due to falling commodity prices. The increase in 2017 and 2023 is due to government efforts to increase investment and diversify the economy. North Kalimantan Province showed low fluctuations in regional inequality with a significant increase in 2019, then a sharp decline in 2020. East Kalimantan Province experienced a decrease in high regional inequality from 2014 to 2023, triggered by the economic slowdown in the mining and energy sectors. Central Kalimantan shows small fluctuations until 2019, then a significant increase in 2022 due to the launch of large infrastructure projects. West Kalimantan tends to be stable, with low regional inequality due to economic diversification. South Kalimantan experienced a decline until 2020, then a spike in 2022 due to investment withdrawals. The percentage of poverty in Kalimantan provinces fluctuated from 2014 to 2023. North Kalimantan experienced an increase in 2019 and a decrease in 2020, possibly related to global economic instability and the effectiveness of economic empowerment programs. East Kalimantan is also experiencing fluctuations, with an increase in 2021-2022 which may be influenced by the global economic slowdown. Meanwhile, Central Kalimantan experienced a gradual decline, possibly due to infrastructure

investment and the success of pro-poor policies. On the other hand, West Kalimantan experienced a significant increase in the percentage of poverty, perhaps due to a lack of economic diversification. South Kalimantan, although stable, has also experienced fluctuations, with a decline in 2020 that may be related to social assistance policies.

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