The Asian Journal of Professional and Business Studies

ANALYSIS OF DETERMINANTS OF INCOME DISTRIBUTION INEQUALITY IN INDONESIA

Indah Sukma Dewi*[1], Junaidi[2], Etik Umiyati[3]

[1,2,3]Faculty of Business and Economic, Universitas Jambi

Corresponding Author: Indahsukmadewi3@gmail.com

ABSTRACT

This study aims to analyze the factors that influence income distribution inequality in Indonesia. The analysis method uses quantitative descriptive analysis with secondary data, the analysis tool uses panel data regression using cross-section data, The research objects are the Provinces in Indonesia, and time series data, namely 2015-2022 with a total number of observations of 272 objects, then using tests related to panel data regression, the selection of chow test models, Hausman test, and multiple Lagrange tests, as well as using statistical F hypothesis tests and statistical t and coefficients of determination. The results show that the poverty rate has a positive and significant effect on income distribution inequality in Indonesia, economic growth has a negative and significant effect on income distribution inequality in Indonesia, information and communication technology has a negative and significant effect on income distribution inequality in Indonesia, and investment has a positive and significant effect on income inequality in Indonesia. While the other two variables such as the human development index and unemployment rate do not affect the inequality of income distribution in Indonesia.

Keywords: Inequality of Income Distribution, Poverty Rate, Economic Growth, Information and Communication Technology, And Investment

1.0 INTRODUCTION

The development of Indonesia's Gini ratio (urban and rural) in recent years has fluctuated. From September 2020 to March 2023, this figure continued to decline from 0.319 to 0.313. Barro (in Guspika, 2019) explained how inequality occurs due to economic changes from traditional to modern such as changes from the agricultural sector to industry and changes in the use of technology. This change from traditional to modern in addition to creating high growth also creates inequality in the early stages of development, and inequality will decrease during the growth period. Various development policies and regional equity are needed to reduce various problems arising from income inequality between regions, such as mass migration, poverty, and other social impacts. The government as a development agent is expected to overcome the problem of income inequality and create community welfare. To achieve this, an in-depth analysis of the causes of inequality is needed so that appropriate policies can be applied.

Dudleey Seer (in Todaro &; Smith, 2014) formulated measures of development success no longer create the highest GDP growth rate, but in development, there must be a reduction in income inequality or there is equity in income distribution, elimination, or at least there is a decrease in poverty in a country, and finally there must be a decrease in the unemployment rate in the context of a growing economy. Inequality in developing countries is relatively higher because when the development process is just beginning, existing development opportunities and opportunities are generally utilized by regions with better development conditions while underdeveloped regions are unable to take advantage of these opportunities due to limited infrastructure and facilities and low-quality of human resources (Sjafrizal, 2012).

This inequality of income distribution is certainly influenced by various factors. These factors have been widely studied by various researchers before. Research conducted by Hartini (2017), Kusuma (2019), Farhan & Sugianto (2022), Ghifara et al (2022), and Putri & Wulandari (2022) found that the dominant and significant factor for income distribution inequality is the Human Development Index (HDI). According to them, the increase in HDI value will affect the decrease in the value of inequality, or in this case, it means that HDI has a negative effect on inequality. This means that the quality of a region's human resources will affect the level of inequality in the area. Indonesia in 2022 has an HDI of 72.91 and rises to 74.39 in 2023. Human development in Indonesia continues to progress. Since 2020, Indonesia's human development status has been at a "high" level. During 2020–2023, Indonesia's HDI will increase by an average of 0.72 percent per year, from 72.81 in 2020 to 74.39 in 2023. However, this increase is not in line with the Gini Ratio which is still fluctuating in recent years. From various previous studies, HDI and income distribution inequality have an interrelated relationship. Becker (in Hartini, 2017) states that HDI has a negative influence on income distribution inequality.

The next factor can be seen in research conducted by Cysne & Turchick (2012), Rosa & Sovita (2016), Deyshappriya (2017), Yusica et al (2018), and Zusanti et al (2020), which found that unemployment rate is the dominant factor affecting income distribution inequality. Their research concluded that the unemployment rate has a positive and significant effect on income inequality. The greater unemployment rate in one region means a decrease in productivity and will trigger a decrease in economic growth in the region, while other regions have an increase in the level of welfare. Indonesia's Open Unemployment Rate (TPT) in August 2022 was 5.86 percent, down by 0.63 percentage points compared to August 2021. If detailed, there are 8.42 million unemployed spread throughout Indonesia. That way, out of 100 people in the labor force there are about 6 unemployed people. The decline occurred in line with the increasing number of working people and was driven by growth in employment absorption in line with the continued economic recovery.

Other factors that can affect income distribution inequality can also be seen in research conducted by Hassan et al (2015), Hindun et al (2019), and Kunenengan et al (2023) which found that the poverty rate has a significant and positive influence on income distribution inequality. This means that if the poverty rate rises, the value of inequality will also increase. According to The Central Bureau of Statistics (BPS), the percentage of poor people in September 2022 was 9.57 percent, an increase of 0.03 percentage points against March 2022 and a decrease of 0.14 percentage points against September 2021. The number of poor people in September 2022 was 26.36 million people, an increase of 0.20 million people compared to March 2022 and a decrease of 0.14 million people compared to September 2021. As stated by Arsyad (2017) the problem of income equality is also related to poverty alleviation efforts. Therefore, efforts need to be made to reduce poverty so that income inequality is lower.

Further research conducted by Yusica et al (2018), and Kunenengan et al (2023) found that economic growth has a negative and significant effect on income distribution inequality. If economic growth is higher, it will increase income inequality. Meanwhile, Ghifara et al (2022) found that economic growth has a positive and significant effect on income distribution inequality. According to data from BPS Indonesia, Indonesia's economy experienced growth of 5.05 percent (c-to-c) until the third quarter of 2023. In terms of production, the largest growth occurred in the Transportation and Warehousing Business Field by 15.30 percent. Meanwhile, in terms of expenditure, the largest growth occurred in the PK-

LNPRT component of 7.01 percent. "Spatially, Indonesia's economy in the third quarter of 2023 in almost all provinces experienced slower growth (y-on-y), where the provincial group in Java Island became the largest economic contributor with a contribution of 57.12 percent and an economic growth rate of 4.83 percent (y-on-y).

Referring to Kuznets' hypothesis, economic growth followed by inequality only occurs at the beginning of development and then when it reaches its peak point the inequality will decrease. The next factor related to income inequality studied by Daud et al (2020), Dewi et al (2022), and Wijayanti et al (2023) found that the dominant factor that influences it is information and communication technology. The high index of information and communication technology will reduce the level of inequality. Indonesia's ICT development has shown positive developments in the last five years. In 2018, the ICT Development Index value was recorded at 5.07 and continued to increase until 2022 with a value reaching 5.85. Of the three subindexes, the fastest growth occurred in the ICT use subindex, which grew by 2.83 percent. The ICT access and infrastructure subindex grew by 0.69 percent and the ICT expertise subindex grew by 0.50 percent. This condition shows that the improvement in Indonesia's ICT development from 2021 to 2022 is driven by the increasing use of ICT by the community. Mastery of technology means that the development process is going towards a better direction (BPS Indonesia).

No less important factors that affect income distribution inequality are also examined by Ravinthirakumaran (2018), Safitri (2020), Febrianti &; Anis (2022), Nurfifah et al (2022), and Do et al (2023) who found that investment is the dominant factor affecting income inequality. Research by Ravinthirakumaran (2018) and Safitri (2020) concludes that investment has a negative impact on income inequality. This means that if investment increases, income inequality will decrease and vice versa. Meanwhile, research by Febrianti & Anis (2022), Nurfifah et al (2022), and Do et al (2023) found that investment has a positive effect on income inequality. This means that if investment increases, income inequality increases as well. BKPM or the Investment Coordinating Board (2023) said that the contribution of foreign investment (PMA) in the second quarter of 2023 in Indonesia reached 53.3 percent of the total investment or IDR 186.3 trillion, which is the highest value since 2019. This shows the increasing confidence of foreign investors in government policies as well as Indonesia's economic and political stability. The top five largest investment contributions of FDI came from Singapore (US$3.4 billion), R.R. China (US$2.6 billion), Hong Kong (US$2.0 billion), Japan (US$1.0 billion) and Malaysia (US$0.8 billion). This study will also analyze the factors that influence income distribution inequality. The author will examine the effect of the Human Development Index (HDI), unemployment rate, poverty rate, economic growth, technology, and investment on income distribution inequality in Indonesia. This research uses the latest data from 2015 – 2022 with 34 provinces in Indonesia. Based on the phenomena in the description described above, it is necessary to conduct research with the title, namely "Analysis of Determinants of Income Distribution Inequality in Indonesia.

2.0 LITERATURE REVIEW

Income Distribution Inequality Theory

Disparity in income distribution involves contrasting incomes between communities and income differences between developed regions versus underdeveloped regions. The larger the income gap, the more it illustrates the variation in income distribution. Inequality in income distribution can trigger deviations between regions. This is inevitable due to the impact of downflow from the results broadly to a wider area that does not appear perfectly (Amalia et al, 2022).

Human Development Index

A comparative measurement of life expectancy, literacy, education, and standard of living for all countries around the world is what is meant by the Human Development Index (HDI). HDI can be used as a tool to measure the level of regional inequality, by classifying provinces in Indonesia in four categories of human development status that have been issued by UNDP (Todaro, 2014).

Unemployment

Mankiw, Quah, & Wilson (2014) define unemployment as someone who stops working temporarily or is looking for work. An unemployed person does not earn income. The greater the unemployment, the more the workforce has no income. Too much unemployment can reduce the wages of low-income groups so that income inequality is higher. Such a situation requires that job vacancies must be provided and must be created according to changes in the number of workers so that the distribution of income is evenly distributed.

Poverty

According to Todaro & Smith (2014), absolute poverty is defined as a situation of inability or barely able to meet basic needs in the form of food, clothing, and shelter. The poverty gap is the sum of the differences between the poverty line and the actual income levels of all people living below that line.

Economic Growth

Increased economic growth indicates that economic development has advanced. Economic growth is the process of increasing per capita output in the long run. Here, the process gets emphasis because it contains dynamic elements where conditions can change (Boediono, 2018).

Information and Communication Technology

Information and communication technology (ICT) has helped rapid industry growth, boosted efficiency in government, and business operations, and developed an important foundation for a technology-based economy. ICT can change the way society does things, such as faster access to relevant information, efficient means of communication, increased ability to communicate, and make informed decisions (Fuady, 2019).

Investment

Investment can be defined as a form of fund management by allocating these funds into estimates that provide benefits in the future (Fahmi, 2018). Investment is the commitment of some current funds or resources to get future profits (Bodie et al, 2014).

3.0 METHODOLOGY

The study used panel data regression analysis. According to Caraka (2017), panel data is a combination of time series data and cross-section data. Time series data typically includes a single object/individual (e.g. stock price, currency rate, SBI, or inflation rate), but covers multiple periods (usually daily, monthly, quarterly, or yearly). Cross-data consists of several or many objects, often called respondents (e.g., companies) with some type of data (e.g., profit, advertising costs, retained earnings, and investment level) over some time. The basic model to be used in this study is as follows:

$$GR_{it} = \beta_0 + \beta_1 IPM_{it} + \beta_2 TPT_{it} + \beta_3 PPM_{it} + \beta_4 PE_{it} + \beta_5 TIK_{it} + \beta_6 PMA_{it} + \varepsilon_{it}$$

Information:

GR	= Provincial Income Inequality in Indonesia
HDI	= Human Development Index
TPT	= Open Unemployment Rate
PPM	= Percentage of Poor People
PE	= Economic Growth
ICT	= Development Index – ICT
PMA	= Realization of PMA
β_0	= *Intercept*
$\beta_1\ \beta_2\ \beta_3\ \beta_4\ \beta_5\ \beta_6$	= Coefficient Variables Value
i	= Provinces of Indonesia
t	= Year
ε	= *error term*

Regression analysis with panel data can be done with three estimation methods, namely Common Effect, Fixed Effect, and Random Effect estimation. Method selection is adjusted to the available data and reliability between variables. Before conducting a regression analysis, the step taken is to test the model estimate to obtain the most appropriate model estimate to use. After the model is selected, the next step is to test the research hypothesis consisting of a statistical f test statistical t-test, and coefficient of determination.

4.0 FINDINGS AND DISCUSSION

The following are the results of *the fixed effect regression model* using the help of the EViews 12 computer program looking at the effect of HDI, unemployment rate, poverty rate, economic growth, technology and investment on income distribution inequality and obtained the estimated results, namely:

Table 1 Fixed Effect Model Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.376804	0.018104	20.81387	0.0000
IPM	4.12E-05	0.000213	0.193916	0.8464
TPT	-0.001600	0.001015	-1.576779	0.1162
IKPK	0.017639	0.006653	2.651180	0.0086
PE	-0.000437	0.000259	-1.690790	0.0922
TIK	-0.008040	0.001170	-6.869188	0.0000
LOG_PMA	0.002543	0.001261	2.016352	0.0449

Effects Specification				
Cross-section fixed (dummy variables)				

Root MSE	0.011547	R-squared		0.910814
Mean dependent var	0.352842	Adjusted R-squared		0.895821
S.D. dependent var	0.038738	S.E. of regression		0.012503
Akaike info criterion	-5.790593	Sum squared resid		0.036269
Schwarz criterion	-5.260328	Log likelihood		827.5206
Hannan-Quinn criter.	-5.577710	F-statistic		60.75118
Durbin-Watson stat	1.525533	Prob(F-statistic)		0.000000

Source: Olah Data Eviews 12, 2024

The results of the regression analysis of panel data that have been carried out are used to determine how far the influence of variables, unemployment rate, poverty rate, economic growth, technology and investment on income distribution inequality. From the results of panel data regression with *a fixed effect* model, the regression equation is obtained as follows:

$$GR_{it} = \beta_0 + \beta_1 IPM_{it} + \beta_2 TPT_{it} + \beta_3 IKPK_{it} + \beta_4 PE_{it} + \beta_5 TIK_{it} + \beta_6 PMA_{it} + \varepsilon_{it}$$

$$GR = 0{,}376804 + 4.12\text{E-}05 IPM_{it} - 0{,}001600 TPT_{it} + 0.017639 IKPK_{it} - 0.000439 PE_{it}$$
$$(0{,}0000) \qquad (0{,}8464) \qquad (0{,}01162) \qquad (0{,}0086) \qquad (0{,}0922)$$
$$- 0.008040 TIK_{it} - 0{,}002543 Log\_PMA_{it} + \varepsilon_{it}$$
$$(0{,}0000) \qquad (0{,}0449)$$

From the regression equation obtained based on the estimation results using the EViews 12 application with a significance level of $\alpha = 10\%$ or 0.10, it can be interpreted that the constant has a positive and significant effect on the inequality of income distribution between regions in Indonesia, then the human development index has no significant effect on the inequality of income distribution between regions in Indonesia, unemployment does not affect inequality income distribution between regions in Indonesia, poverty has a positive and significant effect on income distribution inequality between regions in Indonesia, economic growth has a negative and significant effect on income distribution inequality between regions in Indonesia, information and communication technology has a negative and significant effect on income distribution inequality between regions in Indonesia, and finally investment has a positive effect and significant to the inequality of income distribution between regions in Indonesia.

F-Statistical Simultaneous Significance Test

The F test is used to determine whether the independent variables together affect the dependent variable. Tests were conducted using a significant level of 0.10 (α = 10%). To test the effect between the independent variable (independent variable) and the dependent variable (dependent variable) simultaneously used statistical F test tools which can be seen in the output results of the EViews 12 program as follows:

Table 2 Simultaneous Coefficient Test Results (Test F)

Root MSE	0.011547	R-squared	0.910814
Mean dependent var	0.352842	Adjusted R-squared	0.895821
S.D. dependent var	0.038738	S.E. of regression	0.012503
Akaike info criterion	-5.790593	Sum squared resid	0.036269
Black criterion	-5.260328	Log likelihood	827.5206
Hannan-Quinn criter.	-5.577710	F-statistic	60.75118
Durbin-Watson stat	1.525533	Prob(F-statistic)	0.000000

Source: EViews Data Processing 12, 2024

Based on the results of the analysis, it is known that the value of Prob (F-statistic) is 0.000000 < 0.10. When compared with a significant level of 10%, Prob (F-statistic) is smaller than the level of significance. This explains that together (simultaneously) independent variables, namely HDI, unemployment, poverty, economic growth, technology, and investment, have a significant effect on the dependent variables (inequality of income distribution) between regions in Indonesia during the 2015-2022 period.

Partial Significance Test (t-Test)

Statistical tests are partial tests that aim to determine whether each regression coefficient is significant or not against the dependent variable by assuming the other variables are constant. To see the results of each partially bound variable tested with a t-test in detail, the regression coefficient on each variable can be seen in the table below which shows the following results:

Table 3 Partial Coefficient Test Results (Test t)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.376804	0.018104	20.81387	0.0000
IPM	4.12E-05	0.000213	0.193916	0.8464
TPT	-0.001600	0.001015	-1.576779	0.1162
IKPK	0.017639	0.006653	2.651180	0.0086
PE	-0.000437	0.000259	-1.690790	0.0922
TIK	-0.008040	0.001170	-6.869188	0.0000
LOG_PMA	0.002543	0.001261	2.016352	0.0449

Source: EViews Data Processing 12, 2024

Based on table 3 above, information can be obtained for each independent variable as follows:

The Effect of HDI on Income Distribution Inequality in Indonesia

From the regression results, it is known that the HDI variable coefficient is 4.12E-05 or 0.0000412 with a probability of 0.8464 > 0.10. When compared with a significant level of 10%, the probability value is greater than 0.10. This means that HDI does not have a significant effect on income inequality between regions in Indonesia. HDI does not affect income inequality because HDI does not directly affect income inequality, but HDI can affect income inequality through economic growth, Human development index as a measure of the success of a region in human development can be influential in increasing the rate of economic growth which in turn can reduce inequality resulting in security and welfare among citizens and Impact on Economic Growth

The Effect of Unemployment Rate on Income Distribution Inequality in Indonesia

From the regression results, it is known that the coefficient of the unemployment variable is -0.001600 with a probability of 0.1162 > 0.10. When compared with a significance level of 10%, the probability is greater than 0.05. This means that the unemployment rate does not affect income inequality between regions in Indonesia. This is because the unemployment rate in Indonesia has decreased. The decline in the unemployment rate was caused by the informal sector which absorbed a lot of labor. Where the sectors that absorb a lot of labor include the trade sector, hotels and restaurants, the agricultural sector, and the service sector. With so much labor absorbed, the unemployment rate does not affect the ups and downs of income inequality. The results of this study are in accordance with research conducted by Hindun et al (2019) stating that the unemployment rate has no influence on income inequality.

The Effect of Poverty Rate on Income Distribution Inequality in Indonesia

From the regression results, it is known that the variable coefficient of the poverty rate is 0.017639 with a probability of 0.0086 < 0.10. When compared with a significance level of 10%, the probability is smaller than 0.10. This means that the poverty rate has a positive and significant effect on income inequality in Indonesia. This means that if the poverty rate increases by 1%, it will be followed by an increase in income inequality in the territory of Indonesia by 0.017639 percent. The variable poverty has a significant partial effect on income inequality. In the test results, the relationship of poverty to income inequality was positive. This means that the higher the poverty, the higher the income inequality, and vice versa. Poverty is one of the factors that can influence the occurrence of income inequality. Poverty occurs due to the non-fulfillment of minimum needs. When poverty is reduced, it shows that society has been able to meet its minimum needs. Minimum needs are met because the income they earn is increasing. Increasing income in the community will narrow the gap in the income they earn, so that income inequality decreases. This is inseparable from policies carried out by the government to reduce poverty, such as providing free job training in the hope of entrepreneurship, to obtain income that can later meet their minimum needs. In the end, it has an impact on reducing income inequality.

The Effect of Economic Growth on Income Distribution Inequality in Indonesia

From the regression results, it is known that the economic growth variable coefficient is -0.000437 with a probability of 0.0922 < 0.10. When compared with a significance level of 10%, the probability is smaller than 0.10. This means that economic growth has a negative and significant effect on income inequality in Indonesia. This means that if economic growth increases by 1%, it will be followed by a decrease in income inequality in the territory of Indonesia by 0.000437 percent. This means that good economic growth can reduce income inequality. The neo-classical hypothesis put forward by Kuznets explains that in the early stages of economic development in a country, over time an increase in the country's economic growth will be followed by an increase in development inequality between regions. This condition will continue to occur until the level of inequality reaches a peak point.

The Effect of Information and Communication Technology on Income Distribution Inequality in Indonesia

From the regression results, it is known that the coefficient of the technology variable is -0.008040 with a probability of 0.0000 < 0.10. When compared with a significance level of 10%, the probability is smaller than 0.10. This means that technology has a negative and significant effect on income inequality in Indonesia. This means that if **Information and Communication Technology** increases by 1%, it will be followed by a decrease in income inequality in Indonesia by 0.008040 percent. The results of this study are by the theory of exogenous growth put forward by Slow-Swan which explains that economic growth is influenced by factors of production coupled with the level of technological progress. This is what causes the efficiency of the workforce in carrying out production activities to increase due to technological advances.

The Effect of Investment on Income Distribution Inequality in Indonesia

From the regression results, it is known that the investment variable coefficient is 0.002543 with a probability of 0.0449 < 0.10. When compared with a significance level of 10%, the probability is smaller than 0.10. This means that investment has a positive and significant effect on income inequality in Indonesia. This means that if investment increases by 1%, it will be followed by an increase in income inequality in Indonesia by 0.002543 percent. This is in line with the

results of research from Febrianti & Anis (2022), Nurfifah et al (2022), and Do et al (2023) found that investment has a positive effect on income inequality. Febrianti &; Anis (2022) stated that an increase in investment in Indonesia is followed by an increase in income inequality because investment will expand employment opportunities and improve people's welfare as a consequence of increasing income received.

Coefficient of Determination (Adjusted R2)

The value of the coefficient of determination (Adjusted R2) or goodness of fit is 0.895821 This shows that the independent variables in the study were able to explain the dependent variable by 90%. The remaining 10% is explained by other variables outside the model.

5.0 CONCLUSION

The dominant factors affecting income distribution inequality in Indonesia in the period 2015 – 2022 are poverty levels, economic growth, information and communication technology, and investment. Simultaneously, the influence of HDI, unemployment rate, poverty rate, economic growth, information and communication technology, and investment together affect the inequality of income distribution in Indonesia. Partially, the poverty rate has a positive and significant effect on income distribution inequality in Indonesia, economic growth has a negative and significant effect on income distribution inequality in Indonesia, information and communication technology has a negative and significant effect on income distribution inequality in Indonesia, and investment has a positive and significant effect on income inequality in Indonesia. While the other two variables such as the human development index and unemployment rate have no effect on the inequality of income distribution in Indonesia.

6.0 ACKNOWLEDGEMENT

REFERENCES

Amalia, F., Sinaga, R., Soeyatno, R. F., Silitonga, D., Solikin, A., Hubbansyah, A. K., Siregar, R. T., Maulina, D., Kusumaningrum, R., & Sahamony, N. F. (2022). *Ekonomi pembangunan*. Penerbit Widina.

Arsyad, L. (2017). *Development economics* (5th ed.). UPP STIM YKPN.

Boediono. (2018). *Introduction to economics No. 2: Macroeconomics* (4th ed., cet. 10). BPFE.

But, I. H. (2016). *Economy macro*. Prenadamedia Group.

Caraka, R. E. (2017). *Spatial data panel*. Wade Publish.

CNBC Research Team. (2022). Bakrie Cs finds gas to gold, proof of RI treasure center [Press release].

Cysne, R. P., & Turchick, D. (2012). Equilibrium unemployment–inequality correlation. *Journal of Macroeconomics, 34*(2), 454–469. https://doi.org/10.1016/j.jmacro.2011.12.009

Damanhuri, D. S., Al Hakim, I., Ramdani, P., Nuryanto, I., Fatimah, H., Fuadi, D., Aji, S., Maulana, M. I., Ryansha, E., Fatwani, K. I., et al. (2021). *Political economy research: Corruption, rente hunting, inequality and economic institutions*. IPB Press.

Daud, S. N. M., Ahmad, A. H., & Ngah, W. A. S. W. (2020). Financialization, digital technology and income inequality. *Applied Economics Letters, 28*(16), 1339–1343. https://doi.org/10.1080/13504851.2020.1808165

Dewi, D. M., Setiadi, Y., Ikhwanuddin, M., & Fadhilah, L. A. (2022). Contribution of information and communication technology to regional income inequality groups. *Indonesian Journal of Economics and Development, 22*(2), 221–242. https://doi.org/10.21002/jepi.2022.13

Deyshappriya, N. P. R. (2017). *Impact of macroeconomic factors on income inequality and income distribution in Asian countries* (ADB Institute Working Paper 696). Asian Development Bank Institute.

Do, Q. A., Do, A. D., Doan, M. H., Le, Q. H., Le, A. D., & Nguyen, T. T. D. (2023). Spatial effect of foreign direct investment on wage inequality in Vietnam. *Cogent Economics & Finance, 12*, 1–17. https://doi.org/10.1080/23322039.2023.2293297

Fahmi, I. (2013). *Introduction to the capital article*. Alphabeta Appeal.

Fahmi, I. (2018). *Introduction to portfolio theory and investment analysis*. Alphabeta Appeal.

Farhan, M., & Sugianto, S. (2022). Analysis of factors affecting the level of income inequality in Java. *SIBATIK Journal: Scientific Journal of Social, Economic, Cultural, Technology, and Education, 1*(4), 243–258. https://doi.org/10.54443/sibatik.v1i4.29

Febriyani, A., & Anis, A. (2022). Effects of economic growth, investment and human development index on income distribution inequality in Indonesia. *Journal of Economic and Development Studies, 3*(4), 9–16.

Frisdiantara, C., & Mukhlis, I. (2016). *Development economics: A theoretical and empirical study*. Deepublish.

Fuady, A. H. (2019). Digital technology and economic inequality in Indonesia. *Indonesian Social Sciences Magazine LIPI, 44*(1), 75–88.

Ghasemi, A., & Zahediasl, S. (2012). Normality test for statistical analysis: A study for non-statisticians. *International Journal of Endocrinology and Metabolism, 10*, 486–489.

Ghifara, A. S., Iman, A. N., Wardhana, A. K., Rusgianto, S., & Ratnasari, R. T. (2022). The effect of economic growth, government spending, and human development index toward income distribution inequality in metropolitan cities in Indonesia. *Daengku: Journal of Humanities and Social Sciences Innovation, 2*(4), 529–536. https://doi.org/10.35877/454RI.daengku1092

Goodin, R. E. (2021). *On inequality: A handbook of political economy*. Nusamedia.

Goso, G., & Anwar, S. M. (2017). The poverty of traditional fishermen and their impact on slum development. *Journal of Management STIE Muhammadiyah Palopo, 3*(1).

Guspika., Adiyoso, W., Muharram, A., Miranda, R., Wtarni, W., Finilih, E., Nurdiyanti, S., & Paskalinal. (2019). *Direktori mini tesis-disertasi ekonomi pembangunan*. Bappenas.

Hartini, N. T. (2017). The effect of GDP per capita, investment and HDI on inter-regional income inequality in DIY Province (2011–2015). *Journal of Education and Economics, 6*(6), 530–539.

Hassan, S. A., Zaman, K., & Gul, S. (2015). The relationship between growth–inequality–poverty triangle and environmental degradation: Unveiling the reality. *Arab Economic and Business Journal, 10*(1), 57–71. https://doi.org/10.1016/j.aebj.2014.05.007

Hindun, H., Soejoto, A., & Hariyati, H. (2019). Effects of education, unemployment, and poverty on income inequality in Indonesia. *Journal of Business and Entrepreneurship Economics, 8*(3), 250–265. https://doi.org/10.26418/jebik.v8i3.34721

Kunenengan, R. M. A., Engka, D. S. M., & Rorong, I. P. F. (2023). The effect of economic growth and poverty on income inequality in five districts/municipalities in Bolaang Mongondow, North Sulawesi Province. *Journal of Scientific Periodicals of Efficiency, 23*(3), 133–144.

Kusuma, D. S. D., Sarfiah, S. N., & Septiani, Y. (2019). Analysis of the effect of GRDP, inflation, and HDI on income inequality in the Special Region of Yogyakarta (2011–2017). *DYNAMICS: Directory Journal of Economics, 1*(3), 282–293.

Mankiw, N. G. (2014). *Macroeconomics* (I. N. F. Liza, Trans.). Erlangga.

Mulyadi, M. (2016). The role of government in overcoming unemployment and poverty in society. *Study (Research Center of the DPR RI Expertise Agency), 21*(3), 221–236.

Nurfifah, R., Walewangko, E. N., & Masloman, I. (2022). Analysis of the effect of economic growth and investment on inequality of cities in North Sulawesi Province. *Journal of Scientific Periodicals of Efficiency, 22*(5), 25–26.

Pahlavi, I. (2015). *Development of information communication technology for public services and national security in the regions*. P3DI Setjen DPR Republik Indonesia & Azza Grafika.

Putri, N. D. K., & Wulandari, D. K. A. (2022). Determinant analysis of income inequality in Indonesia (2015–2020). *Indonesian Journal of Human Resources Management, 1*(1), 1–15.

Rahman, A., Syafii, M., & Hakin, S. H. (2021). *Well-being and key development indicators*. Merdeka Kreasi Group.

Ravinthirakumaran, K., & Ravinthirakumaran, N. (2018). The impact of foreign direct investment on income inequality: A panel autoregressive distributed lag approach for the Asia-Pacific Economic Cooperation developing economies. *Asia-Pacific Sustainable Development Journal, 25*(1), 57–84.

Rosa, Y. D., & Sovita, I. (2016). Analysis of factors affecting income distribution inequality in Java. *Journal of Economic Towers: Research and Scientific Studies in Economics, 2*(4), 41–52.

Rustanto, B. (2015). *Tackling poverty*. PT. Juvenile Rosdakarya.

Sari, S. G. (2020). Determinants of youth unemployment in urban areas (2016–2019). *Journal of Economics and Business Aseanomics, 5*(2).

Savitri, C., Faddila, S. P., Irmawartini, Iswari, H. R., Anam, C., Syah, S., Mulyani, S. R., Sihombing, P. R., Kismawadi, E. R., Pujianto, A., Mulyati, A., Astuti, Y., Adinugroho, W. C., Imanuddin, R., Kristia, Nuraini, A., & Siregar, M. T. (2021). *Statistik multivariat dalam riset*. Widina Bhakti Persada Bandung.

Savitri, E. (2020). Analysis of development disparities between districts/cities in Jambi Province (economic and non-economic perspectives). [Unpublished manuscript], Jambi University.

Sjafrizal. (2012). *Regional and urban economics*. PT Raja Grafindo Persada.

Sudaryana, B., & Agusiady, R. (2022). *Quantitative research methodology*. Deepublisher.

Sudono, S. (2016). *Macroeconomics: Introductory theory*. PT Raja Grafindo Persada.

Sugiyono. (2017). *Quantitative, qualitative and R & D research methods*. Alphabeta.

Todaro, M. P., & Smith, S. C. (2014). *Economic development*. Pearson UK.

Wibarsono, D. (2015). *Research methods & data analysis*. Salemba Medika.

Widarjono, A. (2017). *Econometrics introduction and its applications* (with Eviews guide). UPP STIM YKPN.

Wijayanti, N. N. A., Ratih, A., Usman, M., Aida, N., & Ciptawaty, U. (2023). Analysis of the effect of investment, labor force, and technology on income distribution inequality in Indonesia (2018–2021). *Economics and Digital Business Review, 4*(2), 245–265.

Yulianto, T. (2023, March 13). Understanding poverty alleviation strategies in Indonesia as a source of state revenue. Retrieved from https://djpb.kemenkeu.go.id/kanwil/sulteng/id/data-publikasi/berita-terbaru/2830-memahami-kembali-strategi-pengentasan-kemiskinan-di-indonesia-sebagai-sumber-penerimaan-negara.html

Yusica, L. V., Malik, N., & Arifin, Z. (2018). Analysis of the effect of economic growth, agglomeration and unemployment on inequality in East Kalimantan. *Journal of Economic Sciences, 2*(2), 230–240.

Zusanti, R. D., Sasana, H., & Rusmijati, R. (2020). Analysis of the effect of HDI, economic growth, and TPT on regional inequality in Java Island (2010–2018). *DYNAMICS: Directory Journal of Economics, 2*(3), 602–615.