

# A Literature Review on the Trends and Implications of Economic Shocks on Income Inequality in Malaysia

\*Sarsirah Koon@Jamaludin, Caroline Geetha A/p B. Arokiadasan, Wong Sing Yun

Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah

\*Corresponding Author

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.90300337>

Received: 28 February 2025; Accepted: 06 March 2025; Published: 19 April 2025

## ABSTRACT

Income inequality has been a major issue globally in recent decades, both in developing and developed countries. This economic problem occurs when the income distribution is not evenly distributed across households or society. High levels of inequality may dampen economic development and lead to social unrest and poverty. In most developing countries, Malaysia is no exception, especially since the income inequality between states or regions has widened over time due to several economic variables' impact. Despite the widening income inequality, there is limited empirical evidence on how these economic shocks affect income inequality. Therefore, this study is presented to examine the patterns and the implications of economic shocks on income inequality in Malaysia through a narrative review. This paper begins by providing an overview of past studies, and empirical findings on income inequality and economic shocks. By analyzing these consequences of economic shocks, this study may provide a nuanced perspective on the contribution to mitigate the adverse impact of income inequality and help to boost economic growth. The findings from these narratives review will provide insight into the literature gap and recommendations for future direction of studies. Future research should explore other economic variables such as globalization and the immigration of foreign workers to various sectors such as agriculture, manufacturing, and services, which has a significant impact on income inequality. By addressing these gaps, it allows us to understand the drivers and consequences of income inequality from multiple perspectives, leading to a more comprehensive and impactful research to contribute to academic knowledge and policymaking.

**Keywords:** Income Inequality, Economic Shocks, Gini coefficient, Income Distribution

## INTRODUCTION

Over the last five decades, Malaysia has undergone varying levels of development. Initially, Malaysia was primarily an agricultural-oriented economy. In the early 1970s, the agricultural sectors played a major role in driving economic growth. However, the global oil crisis occurred, which caused inflation and economic instability worldwide. For oil-exporting countries, oil price fluctuations may contribute to the growth of real national income by boosting export revenue (Apriani & Perwithosuci, 2024). Even though Malaysia is an oil-exporting country, the impact of the oil crisis has been severe with an increase in the production of goods and services. Changes in oil prices not only raise the production cost but also increase transportation costs and heating bills, particularly the price of items that are produced with petroleum products (Abdelsalam, 2023). In the 1980s, the sharp decline in global commodity prices also significantly impacted the nation's economy due to the contraction in the demand for rubber and tin. This reduction resulted in a recession, high unemployment, and severe income inequality. During 1997-1998, the Asian financial crisis contributed to economic downturns and currency depreciation. The Asian financial crisis first emerged in Thailand and affected other countries due to excessive borrowing, unstable financial systems, and a prolonged investment boom (Corden, 2007). The crisis triggered a decline in about 80 percent of the value of Malaysian ringgit, from RM2.50 to RM4.50 per

US dollar (Naseem et al., 2010). This depreciation led to the increased cost of imported goods, high living expenses, and exacerbated income inequality, specifically in the lower-income group. A similar economic impact also occurred when the Global financial crisis hit Malaysia's economy and caused a slowdown in export industries. The global financial crisis also known as the Great Recession occurred in 2008 due to the housing bubble burst, leading to economic downturns worldwide (Wang, 2024). Although the crisis impact was less severe in Malaysia, it continued to contribute to employment declines and disproportionately impacted vulnerable groups, which further widened the income gap. The second-greatest economic downturn struck Malaysia, driven by the COVID-19 pandemic. This health crisis spread rapidly across the world and was announced as a pandemic following widespread transmission by the WHO in 2020. Several measures were adopted to curb the spread of the disease, including persistent lockdowns and social distancing measures. Although effective, this measure has significantly impacted service sectors, leading to firm shutdowns, layoffs, and thus amplifying income inequality (Ohnsorge & Yu, 2022). During the pandemic, households suffered from income reductions and changes in daily consumption since the implementation of movement restrictions (Ismail et al., 2021).

Recognizing the issue, Malaysia has introduced several strategic policies with various benefits in addressing income inequality. In 1971, the New Economic Policy (NEP) was adopted to eradicate poverty and restructure society across racial lines. This policy aimed to balance the economy between ethnic groups. Development programs for rural areas targeting disadvantaged groups, including infrastructure development and agricultural support. Affirmative-action policies for Bumiputera ownership in the economy, such as access to employment, education, and business opportunities. Despite this measure, the income inequality between ethnic and regions remained prevalent. In 1991-2000, the policy was replaced by the National Development Policy (NDP) with the objective of achieving sustainable and equitable economic growth. Similar to previous policies, the NDP also continues to eradicate poverty and inequality within society. This policy successfully lowered poverty rates, however, income disparities persisted as a significant challenge. From 2001-2010, the National Vision Policy (NVP) was established to create a more inclusive and sustainable economy by improving the quality of life and narrowing the disparity. The poverty level declined, nevertheless, the income gap between ethnic and regions continued to broaden over time. In 2010, Malaysia adopted the New Economic Model (NEM) with its goal for Malaysia to become a high-income nation by 2020. The NEM proposed a restructuring to focus on needs-based policies replacing race-based affirmative action. This was developed with the purpose of ensuring that social security was distributed fairly by targeting the bottom 40% of income earners (B40) across all ethnic groups. The model contributed to the significant GDP growth and minimized the absolute poverty levels, yet challenges persist in the educational access gap. Recently, the long-term policy Shared Prosperity Vision (SPV) was launched in 2019 to balance quality of life while continuing efforts to reform the economic framework and mitigate wealth and income disparities. However, the COVID-19 pandemic exacerbated inequality in 2020, thus challenging the early impact assessment of SPV policy. Early indicators such as Gini coefficient show slight improvement from 0.407(2019) to 0.404(2022), indicating the initial impact of the policy contributed to income distributions. The SPV could have a huge potential in narrowing income gaps by 2030, depending on strategic government interventions.

The transformation from agricultural sectors to service and manufacturing sectors tends to exacerbate income inequality, particularly in developing countries (Andersson & Palacio Chaverra, 2016). Widening income inequality may contribute to several risks such as social and political instability, and hinder economic development (Ohnsorge & Yu, 2022). For developing countries, stable economic growth is deemed necessary to reach a high-income country status (Shaukat et al., 2019). It is important to combat income inequality to ensure economic growth benefits all income groups in a country. Existing studies mainly focused on income inequality between ethnic groups, however, there are limited studies that examined income inequality across states by taking into account the effects of economic shocks over a long period of time. Therefore, delving into how undisrupted events and government policies affect income inequality is crucial to developing policies tailored to the needs of each state.

The objective of this study is to analyze the emerging trends and the implications of economic shocks on income inequality in a long-term analysis through a literature review and using the insight from the literature gap to provide recommendations of future study direction.

## Theoretical Review

Firstly, a review on the theories related to the studies of economic shocks impact on income inequality will be examined. The theoretical landscape surrounding economic shocks and income inequality encompasses a variety of models that highlight how different factors interact to shape income distribution outcomes. Understanding these dynamics is essential for policymakers aiming to address the adverse effects of economic fluctuations on vulnerable populations.

### Kuznets Theory

In the 1950s, Simon Kuznets (1955) proposed a notion that there is an inverted U-relationship between income inequality and economic growth. The hypothesis was developed based on the empirical research conducted during the 20<sup>th</sup> century. He believed that when a country experienced a positive trend in economic growth in the initial development, income inequality tended to rise. Once a country reaches the highest level of economic growth, income inequality eventually declines as the economy develops. Kuznets Theory has received both support and challenges through various empirical studies, indicating the complex relationship between income inequality and growth. Zaremba (2024) supported the Kuznets theory by revealing that income inequality in socialist Asian countries rises during early economic development, however it eventually declines as growth continues. Saipudin (2024) empirically examined the linkage between income inequality and economic growth and found that income inequality may boost economic growth in advanced economies, aligned with Kuznets theory. Yet, developing countries demonstrate different results that oppose the theory, implying that income inequality hinders economic growth. This finding was consistent with Deininger & Squire (1998). Kim et al. (2011) proposed their empirical study challenged the Kuznets theory when the results suggested economic growth and income inequality showed a U-shaped relationship.

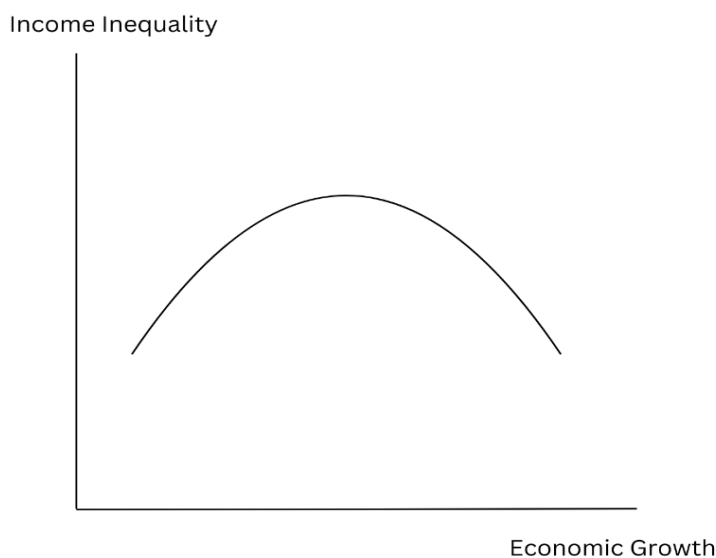


Figure 1 Kuznets Theory

### Human Capital Theory

Human capital theory states that education contributes to changes in income inequality. Adam Smith believed that some individuals inherit wealth or resources naturally from a privileged family. When children have broad access to education, they are more likely to secure a high-paying job and earn higher income. In contrast, children who have limited access to education tend to enter the workforce in lower-wage industries, thus creating disparities in income level. Empirical evidence from multiple studies suggested that education plays an important role in stimulating economic expansion (De la Fuente & Doménech, 2006). Taş (2022) indicated

human capital contributes substantially to income inequality, particularly in tertiary education and enrollment rates. As the education levels rise, the income level of lower-income groups increases, narrowing disparities between poor and wealthy groups. Aqil & Wahyuniati (2022) found a significant positive effect between human capital and income inequality in Indonesia, implying that the increase in education level increases income inequality. Conversely, Suhendra et al. (2020) revealed that growth in educational attainment and skills tends to enhance job opportunities, which results in high-salary positions and greater income.

## Institutional Theory

The institutional theory suggests the role of institutions that control economic activity may significantly influence income distribution. According to Zwysen (2023) the implementation of minimum wages from economic institutions may contract wage inequality, whereas less stable institutional systems increase the gap in wage disparities, further exacerbating income inequality. Sarkhosh-Sara et al. (2020) noted that weaker institutional frameworks allow for greater income inequality. These inefficiencies often lead to inequitable economic resource distribution, thereby enabling pre-existing capital holders to control and generate more income compared to others. Fabrizio (2005) revealed that the quality of institutions exhibits a significant correlation with income distribution through its impact on investment allocations. A stable institution may enhance the average income share and boost economic growth, narrowing the income gap between lower-income and high-income groups.

## Empirical Findings on the Trends of Income Inequality

Each country experienced fluctuations in trends of income inequality over time. Piketty & Zucman (2014) stated that developed countries undergo an upward trend in income inequality and are likely to surge. In developing countries, income inequality has been observed to experience inconsistent patterns, including both upward and downward shifts (Ravallion, 2014). Amarante & Colacce (2018) found that income inequality has been rising in developed and developing countries. Makhlof (2023) revealed different results where the study showed that both developed and developing countries exhibit no consistent secular trend in income inequality. T. Kim & Ilin (2022) believed that the rising income inequality has significantly impacted lower-middle and low-income nations, leading to an increase in poverty levels. Radhakrishna (2018) reported that the top 1% income growth is the primary driver of the rise in income inequality, particularly in advanced economies. Nevertheless, developing countries like India demonstrate a rising gap in income inequality between urban and rural areas regardless of poverty reduction and expansion of economic development.

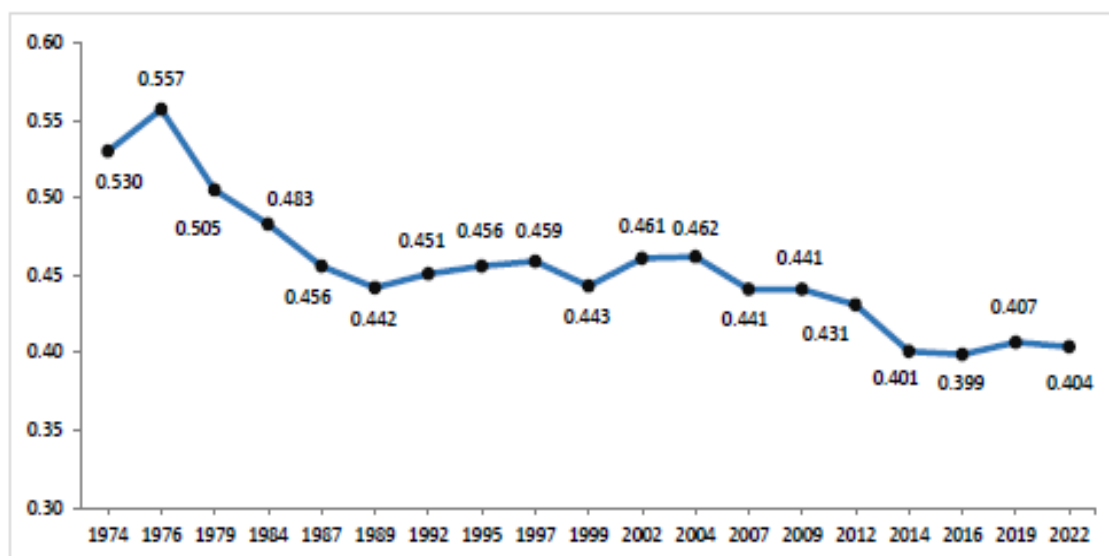


Figure 2 Gini Coefficient in Malaysia, 1974-2022

Since the 1970s, Gini coefficient in Malaysia has recorded fluctuations, with periods of both increases and decreases implying Malaysia has undergone significant changes in income inequality trends over the last few

decades. During the 1990s, there was an increasing trend in income inequality across ethnicity and urban-rural regions (Shari, 2000). Ragayah (2008) also added that Malaysia recorded the highest value of the Gini coefficient in 1976 and gradually declined, however, it began to rise again in 1990. Safari et al. (2018) examined the trend of income inequality in Malaysia using the period between 2007 and 2014 and suggested that there is a declining trend, implying that there has been a degree of improvement in the distribution of income. Rongen et al. (2024) stated that regional disparities remained a major issue regardless of the decline in poverty levels and economic security, specifically between urban Peninsular Malaysia and rural East Malaysia. Peng Tey et al. (2019) emphasized that there are significant differentials in income inequality across states and the impact has been most pronounced among lower-income groups. However, interestingly, this is contrary to a study conducted by Masseran et al. (2020). This study found that higher-income groups were adversely affected by the increase in income inequality. The post-COVID recovery trends show that other economies such as Indonesia, Thailand, and the Philippines are found to be aligned with Malaysia, ranging around 0.4 in terms of Gini coefficient. This indicates that the pandemic crisis significantly widened income inequality among developing countries.

Table 1 Income Inequality by Selected Countries

| Country     | Year | Gini Coefficient |
|-------------|------|------------------|
| Indonesia   | 2021 | 0.379            |
| Uruguay     | 2020 | 0.402            |
| Malaysia    | 2022 | 0.404            |
| Philippines | 2021 | 0.412            |
| Bolivia     | 2020 | 0.436            |
| Thailand    | 2021 | 0.433            |
| Peru        | 2020 | 0.438            |
| Chile       | 2020 | 0.449            |

### Empirical Findings on the Shocks and Income Inequality

Economic shocks such as recessions or financial crises can significantly impact income inequality in many countries. According to Mansour & Wendel (2015), the financial crisis poses a challenge to poor households compared to wealthy groups. This issue persists further when disadvantaged groups receive limited social assistance to cushion the impact of the crisis. Knowles et al. (1999) found that income inequality has worsened during the Asian financial crisis in fewer countries such as Thailand, Korea, and the Philippines, whereas Indonesia experienced a reduction in income gap. Mukhopadhaya (2002) pointed out that Singapore and Thailand experienced a rising trend in poverty levels and income inequality during the Asian financial crisis. Additionally, the crisis disproportionately impacted vulnerable groups as they had inadequate social support and income reduction. Similarly, Bodea et al. (2019) also found that the Asian financial crisis worsened economic conditions and amplified income inequality between low-income and high-income groups. In contrast, Şeker & Dayıoğlu Tayfur (2016) reported that real-income households, poverty levels, and income inequality are declining due to the global financial crisis impact. Wealthy groups were more adversely affected than low-income groups, leading to significant improvement in income allocation. George et al. (2015) found different results, where there is growth in income inequality and poverty levels due to a reduction in welfare benefits.

In a different study, Sheng & Gupta (2022) found oil price shocks have a substantial effect on income inequality. In the short term, oil supply shocks tend to exacerbate income inequality, however, income inequality gradually declines over the long term. Tan & Uprasen (2023) suggested that the fluctuations in oil prices have varying impacts across countries. The escalation of oil prices widens the income gap in the oil-importing country, while the oil-exporting country experienced an improvement in income distribution. Smith & Wills (2018) concluded that the rising of oil prices promotes economic growth, yet worsens income inequality, indicating the benefits of growth are only concentrated in urban areas. Du (2024) examined the impact of the COVID-19 pandemic on regional inequality in China and the empirical evidence revealed the Gini coefficient increases, highlighting that the pandemic worsened inequality, particularly within the region.



Novianti & Panjaitan (2022) analyzed the income inequality before and during the pandemic by using Theil Index and revealed that the value increased from 0.258 in 2019 to 0.516 in 2020. This indicates the rising income inequality, particularly within regions. Işık et al. (2022) emphasized that the pandemic affects each country differently. Some countries demonstrated greater income inequality during the pandemic, whereas other countries have seen contrasting effects. Overall, the effect of the pandemic has been experienced by growing income disparity in both developed and developing nations.

Biswas et al. (2017) examined the relationship between tax policy, income inequality, and economic growth and found that lower-income disparities between low and median-income groups drive economic growth. Nevertheless, adopting a tax policy to mitigate income inequality within the median and high-income groups may dampen growth. Wu et al. (2006) summarized that imposing taxes in urban areas and expanding social assistance in rural areas helps to address the income gap between regions. Study by Yan & Mohd (2023) analyzed the impact of structural changes on income inequality in China and the result from the study showed that the increase in urbanization rate significantly contributed to the higher income inequality in both urban and rural areas. Despite this, the income distribution gradually experienced a relative improvement across these regions over time. Soava et al. (2019) stated that developing economies experienced a surge in income inequality accompanied by positive economic growth, confirming the Kuznets hypothesis. Next, empirical research by Muszyńska & Wędrowska (2023) explored the association between education and income inequality and suggested that higher education levels are inclined to diminish income inequality. However, this result was contradicted by the study Arshed et al. (2018) who found that education exhibited an inverted U-shape relationship with income inequality for secondary levels. On the other hand, tertiary education showed a U-shaped trend. Suryadinata et al. (2023) examined the interplay between educational attainment and income inequality in Indonesia and found that high education influenced income distribution by increasing the opportunity to earn higher compared to individuals with low education.

### **Literature Gaps**

This study aims to address the existing literature gap by focusing specifically on the relationship between crises, economic structure, economic policy, and education as primary determinants of income inequality in Malaysia. While these variables provide a solid framework for understanding inequality, it is important to acknowledge that other drivers, such as globalization and the immigration of foreign workers, also have a significant impact. These two factors are the most significant forces shaping the modern world, particularly in income inequality. This may have influenced the results, as these factors could play an important role in analyzing income inequality. Lee (2004) studied the impact of globalization and found that innovation in the manufacturing sector is highly associated with an increase in foreign labor. Sectors such as manufacturing and construction are heavily dependent on unskilled foreign workers to boost growth (Kanapathy, 2006). While Ramesh et al. (2012) suggested that the influx of foreign labor harms wages of local workers and increases the unemployment rate. However, due to the complexity of these variables, they are not included in the main objectives of this study. Future research could address this gap by investigating the impact of these additional variables to better understand their contribution to income inequality. By concentrating on these selected variables, this study seeks to provide a deeper understanding of their impacts on income inequality, while setting the basis for future research into the wider scope.

### **Future Studies Recommendations**

Future studies may explore the impact of globalization in determining income inequality by considering factors such as trade and foreign direct investment, which have significant effects on income distribution. Assessing the role of globalization may help to provide a broader view of how economic integration affects income levels across the population. Besides that, studying the effect of migration on income inequality is also worth considering for research. The impact of migration plays a significant role in the economy, specifically through the employment of foreign workers in various sectors, leading to uneven income distribution among native workers. By addressing these literature gaps and exploring new approaches, future studies have the potential to significantly advance our understanding of income inequality and help policymakers design effective policies and create a fairer society.

## CONCLUSIONS

The study reviews the pattern and the consequences of economic shocks on income inequality in Malaysia and found that each economic variable has various significant impacts that affect the distribution mechanisms of resources, leading to income disparity between regions. Malaysia has experienced a fluctuating trend on income inequality during economic crises such as the Asian financial crisis, global financial crisis, and COVID-19 pandemic. Crises widen pre-existing income inequality within regions. Additionally, the impacts are influenced by different infrastructure development and policy implementation, which directly impact the vulnerable group, as these groups experienced larger consequences from the persistent income inequality. Analyzing the impact will lead to effective resource management as it plays an important role in shaping income distribution and ensuring the allocation of government aid fairly based on its needs. The implementation of welfare programs such as cash transfers and subsidies is important to cushion the impact of crises among vulnerable groups. Policymakers should consider these perspectives when formulating strategies to promote equity and lessen disparities. In conclusion, addressing income inequality in Malaysia requires a thorough awareness by incorporating both domestic and global factors. This is vital to build a sustainable policy solution and ensuring all segments of society benefit from economic growth, without exclusion.

## REFERENCES

1. Abdelsalam, M. A. M. (2023). Oil price fluctuations and economic growth: the case of MENA countries. *Review of Economics and Political Science*, 8(5), 353–379. <https://doi.org/10.1108/REPS-12-2019-0162>
2. Amarante, V., & Colacce, M. (2018). More unequal or less? A review of global, regional and national income inequality. *CEPAL Review*, 2018(124), 7–31. <https://doi.org/10.18356/7c796646-en>
3. Andersson, M. P., & Palacio Chaverra, A. F. (2016). Structural Change and Income Inequality – Agricultural Development and Inter-sectoral Dualism in the Developing World, 1960-2010. *OASIS*, 23, 99. <https://doi.org/10.18601/16577558.n23.06>
4. Apriani, A. R., & Perwithosuci, W. (2024). The Effect of World Oil Price Fluctuations, CO2 Emissions, GDP Per Capita, Government Expenditures and Trade Openness on Income Inequality in ASEAN (pp. 880–893). [https://doi.org/10.2991/978-94-6463-204-0\\_73](https://doi.org/10.2991/978-94-6463-204-0_73)
5. Aqil, H. M., & Wahyuniati, D. (2022). The Effect of Human Capital Inequality on Income Inequality: Evidence from Indonesia. *Proceedings of The International Conference on Data Science and Official Statistics*, 2021(1), 358–372. <https://doi.org/10.34123/icdsos.v2021i1.63>
6. Arshed, N., Anwar, A., Kousar, N., & Bukhari, S. (2018). Education Enrollment Level and Income Inequality: A Case of SAARC Economies. *Social Indicators Research*, 140(3), 1211–1224. <https://doi.org/10.1007/s11205-017-1824-9>
7. Biswas, S., Chakraborty, I., & Hai, R. (2017). Income Inequality, Tax Policy, and Economic Growth\*. *The Economic Journal*, 127(601), 688–727. <https://doi.org/10.1111/eoj.12485>
8. Bodea, C., Houle, C., & Kim, H. (2019). Do Financial Crises increase Income Inequality? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3486470>
9. Corden, W. M. (2007). The Asian Crisis: a perspective after ten years. *Asian-Pacific Economic Literature*, 21(2), 1–12. <https://doi.org/10.1111/j.1467-8411.2006.00185.x-i1>
10. De la Fuente, A., & Doménech, R. (2006). Human Capital in Growth Regressions: How Much Difference Does Data Quality Make? *Journal of the European Economic Association*, 4(1), 1–36. <https://doi.org/10.1162/154247606776014686>
11. Deininger, K., & Squire, L. (1998). New ways of looking at old issues: inequality and growth. *Journal of Development Economics*, 57(2), 259–287. [https://doi.org/10.1016/S0304-3878\(98\)00099-6](https://doi.org/10.1016/S0304-3878(98)00099-6)
12. Du, Q. (2024). An Analysis of the Impact of COVID-19 Pandemic on Regional Inequality in China. *Lecture Notes in Education Psychology and Public Media*, 44(1), 154–162. <https://doi.org/10.54254/2753-7048/44/20230099>
13. Fabrizio, C. (2005). Efficiency of institutions, political stability and income dynamics. *Research Papers in Economics*.

14. George, M., Dimitrios, K., & Stergios, A. (2015). The Economic Crisis (2008) and Effects on Income. The Case of Greece. *Procedia Economics and Finance*, 19, 27–36. [https://doi.org/10.1016/S2212-5671\(15\)00005-2](https://doi.org/10.1016/S2212-5671(15)00005-2)
15. Işık, E., Özyılmaz, A., Toprak, M., Bayraktar, Y., Büyükkakın, F., & Olgun, M. (2022). Will Outbreaks Increase or Reduce Income Inequality? the Case of COVID-19. *Istanbul Business Research*, 0(0), 0–0. <https://doi.org/10.26650/ibr.2022.52.895431>
16. Ismail, M. K., Kumaran, V. V., Munawwarah, S. N., Muhamad, M. Z., & Sarifuddin, S. (2021). COVID-19 Outbreak: An Analysis of Malaysian Household Income Class During Movement Control Order (MCO). *Studies of Applied Economics*, 39(4). <https://doi.org/10.25115/eea.v39i4.4484>
17. Kanapathy, V. (2006). TOWARDS AND EAST ASIAN COOPERATION FRAMEWORK FOR MIGRANT LABOUR MIGRANT WORKERS IN MALAYSIA: AN OVERVIEW MIGRANT WORKERS IN MALAYSIA: AN OVERVIEW.
18. Kim, D.-H., Huang, H.-C., & Lin, S.-C. (2011). KUZNETS HYPOTHESIS IN A PANEL OF STATES. *Contemporary Economic Policy*, 29(2), 250–260. <https://doi.org/10.1111/j.1465-7287.2010.00218.x>
19. Kim, D.-H., Huang, H.-C., & Lin, S.-C. (2011). KUZNETS HYPOTHESIS IN A PANEL OF STATES. *Contemporary Economic Policy*, 29(2), 250–260. <https://doi.org/10.1111/j.1465-7287.2010.00218.x>
20. Kim, T., & Ilin, H. (2022). Trends in the spread of excessive economic inequality in the modern world and prospects for overcoming it. *Bulletin of V. N. Karazin Kharkiv National University Economic Series*, 103, 24–32. <https://doi.org/10.26565/2311-2379-2022-103-03>
21. Knowles, J. C., Pernia, E. M., & Racelis, M. (1999). SOCIAL CONSEQUENCES OF THE FINANCIAL CRISIS IN ASIA.
22. Kristensen, J. P. (2022). The Gini coefficient and discontinuity. *Cogent Economics & Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2072451>
23. Lee, Cassey. (2004). The determinants of innovation in the Malaysian manufacturing sector: an econometric analysis at the firm level. Centre on Regulation and Competition.
24. Makhoulf, Y. (2023). Trends in Income Inequality: Evidence from Developing and Developed Countries. *Social Indicators Research*, 165(1), 213–243. <https://doi.org/10.1007/s11205-022-03010-8>
25. Mansour, M. S., & Wendel, M. (2015). Finance and Inequality – Evidence from East Asia. *Eurasian Journal of Economics and Finance*, 3(3), 1–16. <https://doi.org/10.15604/ejef.2015.03.03.001>
26. Masseran, N., Safari, M. A. M., Lok, C. M., & Hussain, S. I. (2020). Analysis of inequality in the upper-tail of urban household incomes in Malaysia. 090008. <https://doi.org/10.1063/5.0018073>
27. Mengesha, G. (2020). Review Article on Determinant of Income Inequality: An Evidence Based Approach. *Journal of World Economic Research*, 9(1), 33. <https://doi.org/10.11648/j.jwer.20200901.15>
28. Mukhopadhyaya, P. (2002). CRISIS, SOCIAL SECTOR AND INCOME DISTRIBUTION IN SOME SOUTHEAST ASIAN COUNTRIES. <http://www.hhs.se/eijs>
29. Muszyńska, J., & Wędrowska, E. (2023). Does Education Affect Income Inequality? A Comparative Review of Fourteen European Countries. *Economy of Regions*, 19(2), 397–409. <https://doi.org/10.17059/ekon.reg.2023-2-8>
30. Naseem, M., Ahmad, N., Yusop, Z., & Masron, T. A. (2010). HOW DID THE MALAYSIAN REAL EXCHANGE RATE MISALIGN DURING THE 1997 ASIAN CRISIS? In *IJUM Journal of Economics and Management* (Vol. 18, Issue 2).
31. Novianti, T., & Panjaitan, D. V. (2022). Income Inequality in Indonesia: Before and during the Covid-19 Pandemic. *International Journal of Economics and Financial Issues*, 12(3), 29–37. <https://doi.org/10.32479/ijefi.12996>
32. Ohnsorge, F., & Yu, S. (2022). The Long Shadow of Informality: Challenges and Policies. *The World Bank*. <https://doi.org/10.1596/978-1-4648-1753-3>
33. Peng Tey, N., Li Lai, S., Tho Ng, S., Leng Goh, K., & Osman, A. F. (2019). INCOME INEQUALITY ACROSS STATES IN MALAYSIA. *PLANNING MALAYSIA*, 17. <https://doi.org/10.21837/pm.v17i10.625>
34. Piketty, T., & Zucman, G. (2014). Capital is Back: Wealth-Income Ratios in Rich Countries 1700–2010 \*. *The Quarterly Journal of Economics*, 129(3), 1255–1310. <https://doi.org/10.1093/qje/qju018>
35. Radhakrishna, R. (2018). Inequality in India: Trends, Emerging Challenges and Path Ways for Reduction of Inequality. *Indian Journal of Human Development*, 12(2), 121–126. <https://doi.org/10.1177/0973703018794311>



36. Ragayah, H. M. Z. (2008). Income inequality in Malaysia. *Asian Economic Policy Review*, 3(1), 114–132. <https://doi.org/10.1111/j.1748-3131.2008.00096.x>
37. Ramesh Kumar, M. H. M., Charles, R., & Peter, Y. (2012). The Impact of Employment of Foreign Workers: Local Employability and Trade Union Roles in Malaysia. *International Journal of Academic Research in Business and Social Science*, 2(10).
38. Ravallion, M. (2014). Income inequality in the developing world. *Science*, 344(6186), 851–855. <https://doi.org/10.1126/science.1251875>
39. Rongen, G., Ahmad, Z. A., Lanjouw, P., & Simler, K. (2024). Regional and ethnic inequalities in Malaysian poverty dynamics. *The Journal of Economic Inequality*, 22(1), 101–130. <https://doi.org/10.1007/s10888-023-09582-w>
40. Safari, M. A. M., Masseran, N., & Ibrahim, K. (2018). A robust semi-parametric approach for measuring income inequality in Malaysia. *Physica A: Statistical Mechanics and Its Applications*, 512, 1–13. <https://doi.org/10.1016/j.physa.2018.08.029>
41. Saipudin, S. (2024). The Relationship between Income Inequality and Economic Growth. *The Journal of Academic Science*, 1(4), 439–450. <https://doi.org/10.59613/rx9waq73>
42. Sarkhosh-Sara, A., Nasrollahi, K., Azarbayjani, K., & Bakhshi Dastjerdi, R. (2020). Comparative analysis of the effects of institutional factors and Piketty's Hypothesis on inequality: evidence from a panel of countries. *Journal of Economic Structures*, 9(1), 44. <https://doi.org/10.1186/s40008-020-00218-0>
43. Şeker, S. D., & Dayioğlu Tayfur, M. (2016). The effect of the global financial crisis on household income, inequality and poverty in Turkey. *METU Studies in Development*, 43(1), 361–390.
44. Shari, I. (2000). ECONOMIC GROWTH AND INCOME INEQUALITY IN MALAYSIA, 1971–95. *Journal of the Asia Pacific Economy*, 5(1–2), 112–124. <https://doi.org/10.1080/13547860008540786>
45. Shaukat, B., Zhu, Q., & Khan, M. I. (2019). Real interest rate and economic growth: A statistical exploration for transitory economies. *Physica A: Statistical Mechanics and Its Applications*, 534, 122193. <https://doi.org/10.1016/j.physa.2019.122193>
46. Sheng, X., & Gupta, R. (2022). Oil Price Shocks and Income Inequality (pp. 144–158). <https://doi.org/10.4018/978-1-7998-8210-7.ch005>
47. Simon Kuznets. (1955). Economic growth and income inequality. *American Economic Review*, 45(1), 1–28.
48. Smith, B., & Wills, S. (2018). Left in the Dark? Oil and Rural Poverty. *Journal of the Association of Environmental and Resource Economists*, 5(4), 865–904. <https://doi.org/10.1086/698512>
49. Soava, G., Mehedintu, A., & Sterpu, M. (2019). RELATIONS BETWEEN INCOME INEQUALITY, ECONOMIC GROWTH AND POVERTY THRESHOLD: NEW EVIDENCES FROM EU COUNTRIES PANELS. *Technological and Economic Development of Economy*, 26(2), 290–310. <https://doi.org/10.3846/tede.2019.11335>
50. Suhendra, I., ISTIKOMAH, N., GINANJAR, R. A. F., & ANWAR, C. J. (2020). Human Capital, Income Inequality and Economic Variables: A Panel Data Estimation from a Region in Indonesia. *The Journal of Asian Finance, Economics and Business*, 7(10), 571–579. <https://doi.org/10.13106/jafeb.2020.vol7.no10.571>
51. Suryadinata, D. M., Bahtiar, N. S., Hidayah, A. N., & Sholihah, A. (2023). THE INFLUENCE OF EDUCATION ON COMMUNITY INCOME GAPS: A CASE STUDY IN THE EAST JAVA REGION. *WORLDVIEW (Jurnal Ekonomi Bisnis Dan Sosial Sains)*, 2(2), 159–170. <https://doi.org/10.38156/worldview.v2i2.326>
52. Tan, Y., & Uprasen, U. (2023). Asymmetric effects of oil price shocks on income inequality in ASEAN countries. *Energy Economics*, 126, 107033. <https://doi.org/10.1016/j.eneco.2023.107033>
53. Taş, B. (2022). The Effect of Human Capital on Income Equality: Cross-sectional Analysis. *Sinop Üniversitesi Sosyal Bilimler Dergisi*, 6(1), 183–199. <https://doi.org/10.30561/sinopusd.1085223>
54. Wang, R. (2024). The Influences of Global Financial Crisis on Financial Markets and Countermeasure Proposals. *Advances in Economics, Management and Political Sciences*, 93(1), 219–223. <https://doi.org/10.54254/2754-1169/93/20241094>
55. Wu, X., Perloff, J. M., & Golan, A. (2006). EFFECTS OF GOVERNMENT POLICIES ON URBAN AND RURAL INCOME INEQUALITY. *Review of Income and Wealth*, 52(2), 213–235. <https://doi.org/10.1111/j.1475-4991.2006.00185.x>

- 
56. Yan, X., & Mohd, S. (2023). Trends and Causes of Regional Income Inequality in China. *Sustainability*, 15(9), 7673. <https://doi.org/10.3390/su15097673>
  57. Zaremba, M. (2024). Economic growth and income inequality. *International Journal of Public Administration, Management and Economic Development*, 9(1). <https://doi.org/10.60026/ijpamed.v9i1.179>
  58. Zwysen, W. (2023). Global and institutional drivers of wage inequality between and within firms. *Socio-Economic Review*, 21(4), 2043–2068. <https://doi.org/10.1093/ser/mwac054>