



## Economic Globalization and Income Inequality: A Review

Yan hui\*, Amiya Bhaumik

Lincoln University College, 47301 Petaling Jaya, Selangor D. E., Malaysia

\*Correspondence E-mail: [yanhui012@outlook.com](mailto:yanhui012@outlook.com)

### Abstract

The potential for economic progress has been constrained in recent decades by growing income disparity. Using panel data methodologies and policy simulations, this study examines the impact of economic globalisation on income inequality in both a cross-country and country-specific context. The sample includes post-liberalization developed, developing, and least-developed nations. The findings reveal that globalisation has reduced inequality in advanced nations while having the reverse impact in low-income ones. Trade and FDI have opposing effects on income distribution; trade makes it worse, but FDI is good for all countries and helps to lessen income inequality. It has been discovered that FDI has a greater effect on lowering income disparity.

The effects of economic globalisation on income inequality globally have been examined in a sizable body of econometric work. It is difficult to draw reliable conclusions because stated econometric estimates vary greatly. The link between globalisation and inequality is summarised quantitatively and analysed in this work. Researchers utilise a fresh dataset comprised of 1,254 observations from 123 original studies. Using meta-analysis and meta-regression methods, researchers reach a number of important results. First, there is a small to moderate increase in inequality as a result of globalisation. Second, whereas the impact of trade globalisation is negligible, the impact of financial globalisation on inequality is much larger and substantially stronger. Third, both developed and developing nations see an average increase in inequality as a result of globalisation. Fourth, technology and education mitigate the effects of globalisation on economic disparity.

**Keywords:** *Globalization; Inequality; Trade Openness; FDI; ICT*

### Introduction

Most nations have recently been affected by the consequences of economic globalisation, which has led to higher economic growth (Cuevas García-Dorado *et al.*, 2019). The extent of economic globalisation and its effects, however, differ between nations and areas with different levels of development. Economic development has benefited from increased economic globalisation at the expense of increased income disparity across nations. As the advantages of increased income are not distributed fairly across all parts of the population, widening income inequality is the most important concern of recent times (Gozgor *et al.*, 2020; Xia *et al.*, 2022). The issues raised by economic disparity have sparked discussion about its effects both inside and across nations. The divide between the haves and have-nots is getting wider because of the anti-globalization argument. According to the argument in favour of globalisation, it has increased equality and decreased poverty (Lugo-Ocando, 2020).

The way to a more equitable society is to reduce inequality, which also takes care of people's welfare concerns. There is no guarantee that the poorest members of society would gain if the graph of the pie chart rose, but their portion decreased. Since the poor are unable to take advantage of the possibilities

presented by economic globalisation, inequality reduces the productive capacity of economies, limiting their ability to expand. Developing the policy measures that improve the economy's capacity to profit from economic globalisation requires a thorough understanding of the factors that contribute to inequality.

Economic globalisation is a multifaceted term that has been defined and assessed in several different ways throughout the years. In 2002, the ETH Zurich unveiled the KOF International Ratio. Based on the first index of economic globalisation, trade openness, FDI, and ICT are used to measure globalisation. The process of building networks of linkages between players throughout several continents, mediated by different flows such as those of individuals, information, ideas, money, and commodities, is defined as "globalization" by the KOF index. The three components of the KOF index are, more particularly, productive development, political globalisation, and social globalisation. Economic globalisation essentially has two facets. The first index includes information on actual economic flows, including trade, FDI, and portfolio investment. By means of tariff rates, covert import barriers, taxes on international commerce (as a proportion of current income), and an index of capital restrictions, the second index addresses trade and capital limitations.

Drawing insightful policy findings for income distribution and poverty reduction may be aided by evaluating the influence of globalisation on income disparity. Two dimensions are evaluated in the article. The first stage is to examine the empirical association between economic globalisation indexes and income inequality for a sample of countries representing a range of economic development levels. The second involves running policy simulations to assess the effects on income inequality in a cross-country as well as a country-specific framework, notably for India.

This study explores the effects of economic globalisation on income inequality in both a cross-country and country-specific context using panel data approaches and policy simulations. Post-liberalized developed, developing, and least-developed countries are all represented in the sample.

## Discussion

This section provides a quick overview of some widely used measures of inequality and the accompanying measurement problems. Measures of income inequality that focus on the top quintile reveal how much of a country's total income is owned by the wealthiest few. For instance, the "top 1 percent of income" statistic measures how much money the wealthiest 1 percent of a country's population has. After research brought it to light, this indicator of inequality gained significant traction in the policy and academic communities. Top income inequality statistics were created for around 22 nations, with yearly frequencies and extensive temporal ranges. For the most part, tax returns from the past are used to determine who gets what percentage of the top income. Statistics on the number of filers, their average income, and the amount of taxes they owe are all tabulated and published as part of the tax code. In order to calculate the top 1 percent inequality metric, researchers integrate this data with the country's total population, total personal income, certain assumptions about taxpayer filing behaviour, and the underlying structure of the income distribution.

### 1.Theory Background: The Linkage of Globalization and Inequity

In completing the numeric writings evaluation on how income disparity is impacted by globalisation, this part focuses on two factors that are crucial (Wang *et al.*, 2020). Designers start by discussing how the concept of financial internationalisation is defined and measured. Second, designers offer a concise assessment of the most important speculative arguments for how globalisation can impact income inequality.

## 1.1 Measurement and Definition of Globalisation

It is noted that the paper's analysis is restricted to the financial aspects of internationalisation, including commerce and monetary access. The focus of researchers is only on financial internationalisation, but for the sake of simplicity, they refer to it as globalisation. Economic globalisation, according to Brady, Beckfield, and Seeleib-Kaiser (2005), is "the increase of worldwide economic interchange and the name given to the current period of global economic integration." As a result, "[economic] globalisation" refers to the transformation of welfare states brought about by the global economy as well as a growth in direct international commerce. The term "globalisation," which is used more generally in this paper, goes much beyond the measures that are generally used to measure capital flows or trade openness and includes a broad variety of features in the economic, political, and social dimensions. In this article, the concept of "economic globalisation" is considerably more limited.

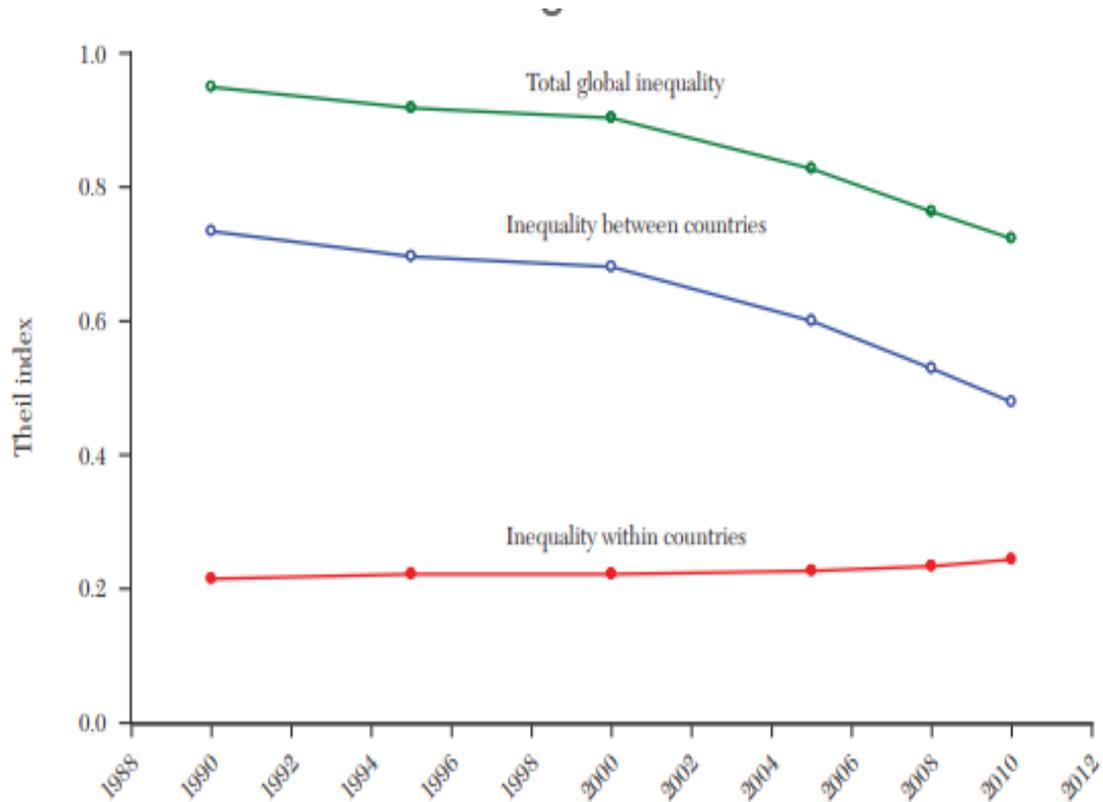
By concentrating on the economic element of globalisation, people may adhere to well-established standards for the global economy. These typologies frequently discriminate between the three types of global integrated commercial, monetary, and total markets while measuring the latter, which combines the characteristics of commerce and financial globalisation. The most often used measure of the internationalization of trade is trade liberalization, which is often calculated as the sum of exports and imports as a percentage of GDP (although there are many different trade openness metrics). Researchers have utilised capital account liberalisation indices and FDI flow indices to analyse the financial globalisation factor. The most widely used indicator of overall economic globalisation, the KOF index of globalisation, provides a complete assessment of the economic globalisation indicators employed in prior empirical studies. This study's meta-data coding adheres to Gräbner *et al.*'s (2021) "typologies" of relevant economic globalisation indicators along the axes of trade globalization, financial globalization, and overall economic globalisation measures.

## 2. The Proof of World Inequality

Here is a summary of the historical trends mentioned in both volumes. Global inequality, which is the proportional disparity in wages across all peoples of the globe, regardless of where they reside, has been on the rise for more than 200 years. This trend started in 1820 and continued until around 1990. The fundamental cause of this long period of increasing inequality was the disparity in growth patterns, with the rich world's economic boom beginning in the early nineteenth century (with some latecomers, such as Japan). Over a large portion of this time, the level of average inequality among nations remained stagnant or even decreased. Most importantly when the affluent world came to refer to it as the "Great Levelling" i.e., around the middle of the 20th century.

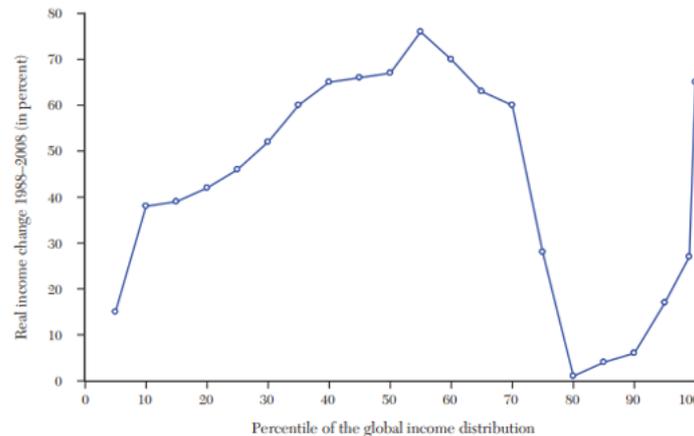
With a general tendency of declining inequality between nations and growing average inequality within countries, this pattern abruptly shifted near the end of the twentieth century. Both books' principal themes centre on this brand-new trend in the development of global inequality. Figure 1 displays the range of Theil-based global inequality indices offered by Bourguignon (2011). Inequality throughout the world has decreased noticeably in the new century. A decline in intra-country inequality, which accounts for most of the global inequality, has contributed to this. Since 2000, the average level of inequality within nations (population-weighted) has slightly increased.

Underlying figure 1 are several data difficulties, including household surveys, price benchmarks, census information, and how national accounts work.



**Figure 1:** Global Inequality and its Components (Bourguignon, 2011)

Although the first chapter of each book gives a quick overview of how their estimates for global inequality were created, neither book delves into great length on these topics. This article will also not focus on data issues. But it just draws attention to one thing that must be remembered. It is believed that figure 1's within-country component is overstated, as do both authors. There are several causes. Survey selectivity is a problem practically everywhere, and it stands to reason that wealthy people are less inclined to engage in home surveys. The correction for such selective compliance, raises the Gini index for the United States by around five percentage points, suggesting that the bias might be significant. Underreporting of revenues, particularly income from capital, is an issue as well. Estimates based on income tax records have revealed "high-end" incomes that are higher than found in surveys. The degree of intra-national inequality that exists likely exceeds that which is currently estimated. The extent to which these measurement errors affect the trend is less clear, but based on the supposition that many newly wealthy respondents are hesitant to fully disclose their gains or even to participate in surveys, it is anticipated that inequality within countries is rising more than the data in figure 1 suggest. The aggregate summary data in Figure 1 don't reveal anything about the evolution of the population's income distribution. Milanovic begins with a more illuminating tool to explain the evolution of wealth distribution around the world, a graph from Lakner and Milanovic (2016), which is replicated in Figure 2. The income gain as a percentage from 1988 to 2008 is shown against the income distribution's fractiles in the graph. This is an illustration of what is referred to as a "growth incidence curve" (GIC) for continuous distributions and describes the curve's properties. The steps taken to create the GIC in figure 2 are detailed in Lakner and Milanovic.



**Figure 2:** The Elephant Graph of Lakner and Milanovic (2016)

The Lakner-Milanovic (Lakner & Milanovic, 2016) graph is referred to as the "elephant chart" because it looks like an elephant's head and trunk. The sharply positive curve (the elevated trunk of the elephant) that climbs from nearly zero growth to over a 60% gain for the top percentile between the 80th percentile (from the bottom) and the top 1% globally is the graph's most remarkable characteristic. This feature will be familiar to readers who are used to hearing about growing inequality in the developed world. Readers also pick up on the significant relative growth in incomes for those around the centre of the global distribution, popularly known as "the big and growing elephant's head." The poorest people's growth was noticeably slower as a result.

### 3. Theories on Income Disparity and its Impact due to Globalisation

There are many great review articles available, but this section does not provide a comprehensive examination of the theoretical literature on the links between economic globalisation and income inequality. Designers restrict the discussion to a few crucial theoretical points about how globalisation in commerce and finance affects money inequality. While doing so, we analyse how globalisation has impacted income disparities in rich and developing countries while focusing on the theoretical links that have influenced a substantial section of the research. Notably, current typologies of economic globalisation indicators underline the reality that different components of economic globalisation are indeed reflected in financial and trade openness. Since they might not have the same consequences on wealth disparities, researchers in this section examine trade and financial globalisation independently. Afterward, the meta-analysis considers a number of facets of economic globalisation.

According to the Stolper-Samuelson theory, economic globalisation will result in a reduction in income gaps in developing countries (Heimberger, 2020a). The standard Heckscher-Ohlin trade model makes use of this as a pivotal finding. The more abundant production element of a country will profit from trade openness since trade specialisation typically advantages industries that depend largely on the plentiful component. With regard to the comparatively abundant portion of unskilled labour, developing countries frequently have an advantage over the rest of the world. The Stolper-Samuelson theory predicts that as global trade expands in growing nations, the demand for unskilled labour will increase, increasing real wages and reducing income inequality. By raising the real return on abundant skilled labour and lowering the real rate of return on comparatively abundant unskilled labour, trade openness is predicted to reduce income inequality in developed countries. The premises upon which these theoretical predictions are based can only be considered as being quite restrictive, despite the fact that the theorem has been expanded by a number of authors beyond the fundamental premises upon which it was formed. When discussing the consequences of globalisation, the literature has surely covered a wider range of subjects. For example, offshore has been added to models of the Heckscher-Ohlin-Samuelson

type, and these additional assumptions can modify the predictions given by the models. However, the original Stolper-Samuelson theorem's predictions have offered essential advice for structuring hypothesis testing in a sizable portion of the econometric globalization-inequality literature for wealthy and developing nations.

More financial openness is widely believed to result in better resource allocation, from the perspective of trade globalisation to the perspective of financial globalization. Releasing these limits will disproportionately increase the wages of poorer people because credit restrictions brought on by the protection of the domestic banking system have a negative impact on their finances. This theory contends that the lure of foreign capital helps nations spend more than they produce and invest more than they save, all of which support economic growth, increased incomes for the poor, and a narrowing of the income gap, particularly in rising nations. On the other hand, other theoretical models place emphasis on the possibility that the level of economic growth may influence how financial openness impacts distribution. Only households at higher income levels have access to and may benefit from financial openness in the early phases of development. At higher economic development levels, where a greater number of families have access to financial markets, a broader spectrum of society gains directly from financial openness. It has also been emphasised that the effectiveness of increased financial transparency in reducing income inequality may rely on how strong democratic institutions are. However, the general viewpoint has mostly emphasised the potential for financial openness to lessen inequality. The premise that greater financial openness will support economic development and increase incomes for lower-income households was frequently cited by international institutions in their promotion of capital account liberalisation in a significant portion of the global economy.

A different collection of scholarship is sceptical of theoretical claims that globalisation has a large impact on wealth inequalities —regardless of the path it takes. This scepticism is mostly supported by theoretical justifications that contend that other elements play a larger role in determining income disparity. The scope of this paper does not allow for a thorough analysis. However, other explanatory variables for income inequality that are frequently mentioned in the literature include government spending, macroeconomic variables, education, skill-biased technological change, the structure of the political system, the institutions of the labour market, and technological change.

With mixed results, a number of research have attempted to examine assumptions about how globalisation affects income inequality. Academic studies on how inequality and globalisation are related have not yet made the effort to thoroughly synthesise and explore estimates from pertinent primary sources. To close this gap in the literature, researchers use meta-analysis and meta-regression approaches. In contrast to meta-regression, which attempts to uncover the sources of variance in reported estimates of globalization-inequality, meta-analysis focuses on determining the magnitude of the impact of globalisation on income inequality. The study also gives us the opportunity to investigate if there is genuine evidence for a hazy connection or if there is a real effect that is consistent with widely recognised theoretical predictions of how globalisation affects income disparities. Researchers may offer a partial response to the question of why the given estimates exhibit notable variety, which provides fresh information on the causes of variation in the reported globalization-inequality outcomes.

#### **4. Globalisation-Inequity Nexus Meta-Analysis**

According to Munir and Bukhari (2019) there are various findings recorded in the empirical literature and it is preferable to evaluate them all completely and, if possible, to draw out stylized facts from them rather than picking out specific outcomes. Here, a so-called meta-analysis can be useful. This entails compiling the findings and traits of numerous studies on the subject and objectively analysing them with statistical techniques.

What can researchers imply about the impact of globalisation on income disparity from the available studies? And what elements help to explain the variations in reported conclusions about the connection between globalisation and inequality? In order to give quantitative answers to these issues, it has researched the effects of economic globalisation on income inequality as documented in 123 relevant peer-reviewed academic journal papers in the English language.

The definition and evaluation of "economic globalisation" must first be made explicit (Heimberger, 2020a). According to Brady, Beckfield, and Seeleib-Kaiser (2005), economic globalisation "involves the current economic environment forming welfare states and the heightening of actual economic exchanges between nations" and should be understood as "the intensification of international economic exchange and the label for the modern age of international economic integration" (Ahmed & Le, 2021). The three dimensions of global market integration that are taken into consideration are trade globalisation, financial globalisation, and overall economic globalisation, all of which are measured (Wang & Sun, 2021).

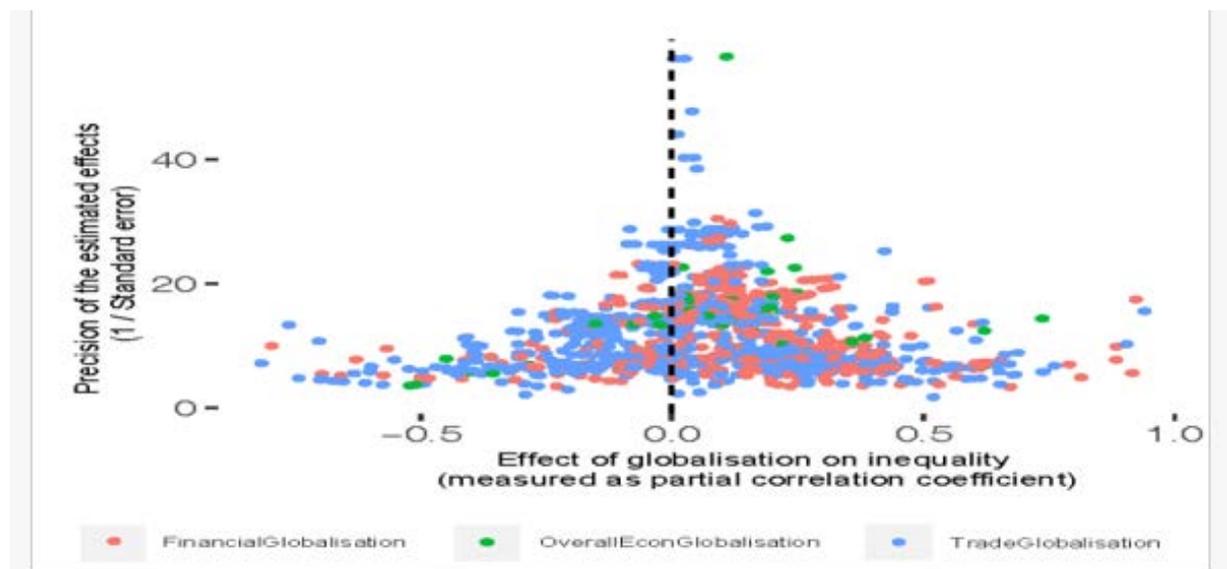
There are many different trade openness indices, but the most crucial indicator of trade globalisation is trade openness, which is frequently calculated as the sum of imports and exports as a percentage of GDP. To analyse the financial globalisation factor, researchers have used indicators like foreign direct investment and capital account liberalisation indices. The KOF Swiss Economic Institute's Globalization Index is perhaps the most widely used globalisation index.

## 5. Adverse Impacts of Globalisation on Distribution

Nearly 1,000 distinct results from 123 published articles were analysed, the first thing that stands out is how evenly distributed they are. There are studies that indicate both a greater income concentration at the top and a globalization-related effect that equalises distribution.

Second, it is clear that effect sizes with higher levels of inequality are more common, especially for the subgroup of financial globalisation. However, there are surprisingly few differences between developed and underdeveloped countries.

Thirdly, the meta-analysis shows that variables that function as stand-ins for technology and education have an influence on the distributional consequences of globalisation that have been reported in the econometric literature. In addition to contributing to the explanation of increases in income disparity, education and technology also seem to mitigate the effects of globalisation.



Source: Heimberger (2020b)

**Figure 3:** Globalisation-inequality effects reported in the literature (n=1254)

## Conclusion

Globalization should raise the wages of developing nations' abundant low-wage, unskilled labor population, increasing equality. The data Researchers concluded that low-income regions suffer while advanced economies win. Economic globalisation and income inequality are examined for 115 economies from 1993 to 2012 using panel data. Decomposition exercises and policy simulations analyze how economic globalisation has affected income disparity.

According to a reputable data collection, economic globalisation is the main cause of income inequality across development categories. Trade has increased income difference in the HIC and LIC, but FDI has decreased it. Globalization worsens income disparity in low-income countries, according to decomposition exercises. Globalization benefits all economies except low-income ones, experts discover. In low-income countries, FDI has a small effect on income inequality, but it benefits all groups. FDI contributes more in industrialized nations with enough human capital and technology. Policy simulations suggest that globalization has increased income disparity and that India, a low-income country, can do better by following rich economies' practices.

## Conflict of Interests

The authors declare that they have no conflict of interests.

## Acknowledgement

The authors are thankful to the institutional authority for completion of the work.

## References

- Ahmed, Z., & Le, H. P. (2021). Linking Information Communication Technology, trade globalization index, and CO2 emissions: evidence from advanced panel techniques. *Environmental Science and Pollution Research*, 28(7), 8770-8781. <https://doi.org/10.1007/s11356-020-11205-0>
- Bourguignon, F. (2011). Non-anonymous growth incidence curves, income mobility and social welfare dominance. *The Journal of Economic Inequality*, 9, 605-627. <https://doi.org/10.1007/s10888-010-9159-7>
- Brady, D., Beckfield, J., & Seeleib-Kaiser, M. (2005). Economic Globalization and the Welfare State in Affluent Democracies, 1975–2001. *American Sociological Review*, 70(6), 921–948. <https://doi.org/10.1177/000312240507000603>
- Cuevas García-Dorado, S., Cornselsen, L., Smith, R., & Walls, H. (2019). Economic globalization, nutrition and health: a review of quantitative evidence. *Globalization and Health*, 15(1), 1-19. <https://doi.org/10.1186/s12992-019-0456-z>
- Gozgor, G., Mahalik, M. K., Demir, E., & Padhan, H. (2020). The impact of economic globalization on renewable energy in the OECD countries. *Energy Policy*, 139, 111365. <https://doi.org/10.1016/j.enpol.2020.111365>
- Gräbner, C., Heimberger, P., Kapeller, J., & Springholz, F. (2021). Understanding economic openness: a review of existing measures. *Review of World Economics*, 157, 87-120.
- Heimberger, P. (2020a). Does economic globalisation affect income inequality? A meta-analysis. *The World Economy*, 43(11), 2960-2982. <https://doi.org/10.1111/twec.13007>
- Heimberger, P. (2020b). How economic globalisation affects income inequality. *The Vienna Institute for International Economic Studies*. <https://wiiw.ac.at/how-economic-globalisation-affects-income-inequality-n-431.html>
- Lakner, C., & Milanovic, B. (2016). Response to Adam Corlett's 'Examining an elephant: globalisation and the lower middle class of the rich world'. *Graduate Center Paper, City University of New York, New York*.

Lugo-Ocando, J. (2020). The 'changing'face of media discourses on poverty in the age of populism and anti-globalisation: The political appeal of anti-modernity and certainty in Brazil. *International Communication Gazette*, 82(1), 101-116. <https://doi.org/10.1177/1748048519880749>

Munir, K., & Bukhari, M. (2019). Impact of globalization on income inequality in Asian emerging economies. *International Journal of Sociology and Social Policy*, 40(1/2), 44-57. <https://doi.org/10.1108/IJSSP-08-2019-0167>

Wang, L., Vo, X. V., Shahbaz, M., & Ak, A. (2020). Globalization and carbon emissions: is there any role of agriculture value-added, financial development, and natural resource rent in the aftermath of COP21?. *Journal of Environmental Management*, 268, 110712. <https://doi.org/10.1016/j.jenvman.2020.110712>

Wang, Z., & Sun, Z. (2021). From globalization to regionalization: The United States, China, and the post-Covid-19 world economic order. *Journal of Chinese Political Science*, 26(1), 69-87. <https://doi.org/10.1007/s11366-020-09706-3>

Xia, W., Apergis, N., Bashir, M. F., Ghosh, S., Doğan, B., & Shahzad, U. (2022). Investigating the role of globalization, and energy consumption for environmental externalities: empirical evidence from developed and developing economies. *Renewable Energy*, 183, 219-228.