LUISS

Dipartimento
di Economia e Finanza

Cattedra International Economics

The Impact of Trade and Globalization on Inequality

Prof. Amin Ashtiani Zokaei

RELATORE

Raffaella Pia Pelusi, 236391

CANDIDATO

Anno Accademico 2020/2021

Table of Contents:

INTRODUCTION

In the past few decades, the world has seen increasing interdependence among countries and increasing volume of International trade. This phenomenon has been called "globalization" and it is accomplished through different channels that include technology, information, investment and trade.[1] During the same period, many countries experienced an increase in income inequality that significantly accelerated starting from the 1970s. These patterns have caused many researchers to study what is the relationship between inequality and globalization or, more specifically, an interesting aspect of globalization that is trade liberalization. In order to reduce the gap between rich and poor, it is crucial to understand what are the drivers of income inequality and in which way they affect inequality so that governments and institutions can devise the right policies[2]. However, reducing inequality is not just about redistributing income in a more equal manner, policies to reduce inequality should also have the objective of providing the same access to socio-economic opportunities for all individuals regardless of their background (household income, gender, ethnicity, etc.).

This paper focuses on explaining the effects that globalization and in particular trade openness have on income distribution. I will start, in Section I, by defining what is meant with the term globalization and how it is measured. Moreover, this first section analyzes the start and evolution of globalization from early colonialism to industrialization. Then, I will also present the definition for inequality and , more specifically, for income inequality along with its units of measures. To conclude, at the end of the first section, the link between globalization and inequality is explored through evidence in the existing literature.

In Section II, a distinction will be made between inequality across countries and inequality within each country. As we will see later in the paper, the literature suggests that between-country inequality is declining while within-country inequality is increasing. But how is this related to globalization and trade liberalization? We will see, in this second section, that the pattern of increasing within-countries inequality and declining between-countries inequality accentuates in the period of time coinciding with the start of modern globalization. For instance, it is in this period that a large number of countries moved towards greater trade openness. For this reason we will analyze the so-called elephant curve by Lakner and Milanovic which focuses on the income distribution in the period going from 1988 to 2008. Then I make a further distinction between developed and developing countries in order to analyze their differences in income distribution. In order to do this it is useful to also look at the evolution of the share of income detained by the top 1 percent of the population in the income distribution at the end of this second section.

In Section III, I'll describe how the pattern of income inequality evolved during the past few decades in

[1] Keeley, B. (2015), *Income Inequality: The Gap between Rich and Poor*. OECD Insights, OECD Publishing, Paris. Retrieved from https://doi.org/10.1787/9789264246010-en.

[2] Kumar, K., & Paramanik, R. N. (2020). *Nexus between Indian Economic Growth and Financial Development: A Non-Linear ARDL Approach.* The Journal of Asian Finance, Economics and Business, 7(6), 109–116. https://doi.org/10.13106/JAFEB.2020.VOL7.NO6.109

India and what role has been played by trade liberalization. The case of India is useful to explain how trade openness can influence inequality because at the beginning of 1990s, the Indian government started a campaign of trade liberalization and during the same period India experienced significant changes in poverty and income distribution. This third section also presents the main barriers that Indian exporters have to face and some solutions to overcome these barriers such as policies implemented by the government or trade agreements with other countries.

Even though globalization is one of the most discussed drivers of inequality, there is a whole range of factors influencing the distribution of income. For this reason, in Section IV, I'll present other driving forces of income inequality such as Skilled-biased Technical Change, geography and education.

Finally, in Section V, I'll discuss different policies responses to income inequality that have been implemented by some countries and we will try to highlight those that are most effective.

I. TRADE, GLOBALIZATION AND INEQUALITY

1.1. The Evolution of Globalization

The term “globalization” became popular in use after the end of the Cold War in 1991 to refer to the increasing cooperation among countries[3]. However, the process of globalization has its origins long before the 1990s. Indeed, many economists and historians divide the process of Globalization in three different phases[4].

The start of the first phase can be traced back to 1500, shortly after Columbus landed in America, with the start of colonialism also characterized by commercial exchanges conducted by state-owned companies. In this phase, businesses and companies mainly traded raw materials and spices applying high prices to compensate for the expensive transportation costs and for the difficulties faced to retrieve materials. As a consequence, only the richest percentage of the European population could benefit from those trades.

The second wave of globalization refers to the period between 1700 and 1900 and it was characterized by major changes in transportation and by innovative technologies such as steamships, railroads and the telegraph, which drastically decreased transportation and communication costs[5]. During this phase, Heckscher and Ohlin[6] built a model, based on the well known theory of Comparative advantage developed by David Ricardo[7], according to which a country should specialize in producing and exporting the goods that are abundant in the country while importing those goods that are scarce in a such a way to exploit cost advantages[8]. After reaching its peak in 1914, the globalization process almost stopped with the advent of World War I, followed by the Great Depression and then World War II[9].

After World War II, different countries began to move towards international trade and greater integration in the global market giving rise to a third wave of globalization, also referred to as modern globalization. During this phase, international trade began to expand to a broader class of commodities involving also well established European industrial sectors such as the textile sector[10]. This greater openness was the result of a continuous decline in transportation cost as well as the introduction by several countries of trade-related policies[11]. In 1944, with the treaty of Bretton Woods, it was established a new international monetary system and the IMF and World Bank were created in order to promote international economic cooperation and to

---

[3] Kolb, M. (2021, August 24), *What Is Globalization?*. Peterson Institute for International Economics. Retrieved from https://www.piie.com/microsites/globalization/what-is-globalization

[4] O'Rourke, K. H. & Williamson, J. G. (2002), *When did globalisation begin?*, European Review of Economic History, Cambridge University Press, vol. 6(01), pages 23-50.

[5] Kolb, *supra* note 3.

[6] Leamer, E. E. (1995). *The Heckscher-Ohlin Model in Theory and Practice*. Princeton Studies in International Finance 77.

[7] Dornbusch, R., Fischer, S., & Samuelson, P. A. (1977). *Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods.* The American Economic Review, 67(5), 823–839. http://www.jstor.org/stable/1828066

[8] O'Rourke, *supra* note 4.

[9] Kolb, *supra* note 3.

[10] O'Rourke, *supra* note 4.

[11] David, Dan Ben; Nordström, Håkan; Winters, L. Alan (1999), *Trade, income disparity and poverty*, WTO Special Studies, No. 5, ISBN 9287012113, World Trade Organization (WTO), Geneva

sustain the benefits of global integration[12]. Moreover, in this third phase, maritime trade also expanded as a result of the opening of the Suez Canal in 1869 and of the Panama canal in 1914.

Public opinion on globalization is split between those who support it for a greater global integration and those who view this phenomenon with growing concern. Those that are worried the most are the middle classes of developed countries since, as we will see later in the paper, are those who have benefited the least from globalization.

There exist several units of measure for globalization. However, one of the most used is the KOF index, which was developed by the German economist Alex Dreher at the Economic Research Center of the ETH Zurich. This index provides data for 208 countries by analyzing 24 different socio-economic variables[13].

The current process of globalization is without precedents. However, it seems that the gains from this phenomenon have not been shared equally across countries and, also within those countries that have gained more than others from the process of globalization, not all people could improve their conditions[14].

1.2. What is Inequality and How it is Measured

According to the Oxford dictionary, inequality is defined as "the unfair difference between groups of people in society"[15]. Thus, inequality concerns variations in living standards across a population that allow some individuals to make choices that are not available to other individuals[16].

There are different types of inequality. Indeed, we can make a distinction between economic inequality, income inequality, gender inequality or inequality in living conditions. Our main focus will be on income inequality that is the degree to which total income is distributed unevenly throughout a population[17]. In order to calculate income inequality, income is usually calculated as the net disposable income available to a given household[18]. The main theory concerned with income inequality and in general with inequality in standards of living (income, health, education, nutrition) is the Development theory[19]. In the early stages of this theory, much focus was put on the growth rate of the average income of a nation without putting attention on the distribution of income since it was common though that growth would eventually "lift all boats". Indeed,

---

[12] IMF, (2013), *The IMF and the World Bank*, IMF Factsheet. Retrieved from https://www.imf.org/en/About/Factsheets/Sheets/2016/07/27/15/31/IMF-World-Bank

[13] Atif, S. M., Srivastav, M., Sauytbekova, M., & Arachchige, U. K. (2012). *Globalization and Income Inequality : A Panel Data Analysis of 68 Countries*.

[14] Bigman, D. (2007). *Globalization and the Least Developed Countries: Potentials and Pitfalls*. CABI.

[15] See Oxford Learner's Dictionary https://www.oxfordlearnersdictionaries.com/definition/english/inequality?q=inequality

[16] Ray, D. (1998). *Development economics*. Princeton, N.J: Princeton University Press.

[17] MasterClass staff, *Income Inequality Definition, Facts, and History of Income Inequality in the US.* Last updated: Nov 8, 2020. Retrieved from https://www.masterclass.com/articles/what-is-income-inequality

[18] Ballarino, G., Bogliacino, F., Braga, M., Bratti, M., Checchi, D., Filippin, A., Maestri, V., Meschi, E., Scervini, F., (2012), *Drivers of Growing Inequalities*, Intermediate Work Package 3 Report, GINI Project (European Commission)

[19] Development Strategy and Policy Analysis Unit, (21 October 2015), *Concepts of Inequality Development Issues No.1,* Development Policy and Analysis Division Department of Economic and Social Affairs. Retrieved from https://www.un.org/en/development/desa/policy/wess/wess_dev_issues/dsp_policy_01.pdf

according to the Kuznets curve (Figure 1), it was believed that as an economy grows and develops, inequality will first increase and then decrease, thus the curve with per capita income on the x axis and an inequality index on the y axis will have the shape of an inverted U[20].

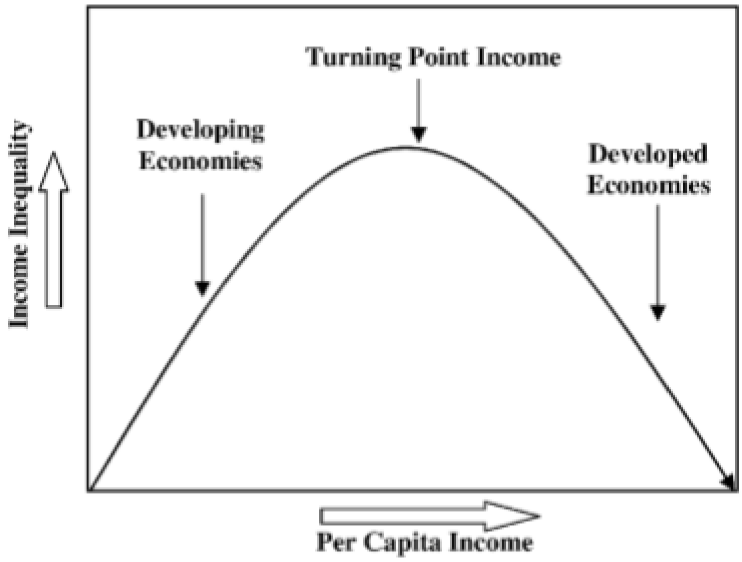

Figure 1:
Source: Yandle, B., Vijayaraghavan, M., & Bhattarai, M. (2002).
The Environmental Kuznets Curve A Primer.

Eventually, however, several studies showed that while growth had no significant effects on inequality[21], income inequality was destructive to economic growth[22]. According to the capability framework developed by Amartya Sen[23], what should be equalized are not the means of living, but the actual opportunities of living available to an individual. To conclude, a society can be said to provide equal opportunities when the socio-economic background of people do not determine the differences in life outcomes[24]. Thus, equality of opportunity exists when states are capable of implementing policies that compensate for differences in socio-economic backgrounds[25].

In order to measure income distribution and thus inequality, there are different mathematical and graphical methods. However, no single measure can be considered complete and superior with respect to the others so, the choice of one measure over another implies trade-offs. For this reason, a good analysis of inequality should involve the use of several measures[26]. Between the most popular measures of inequality we can find

[20] Nielsen, F., & Alderson, A. S. (1997). *The Kuznets Curve and the Great U-Turn: Income Inequality in U.S. Counties, 1970 to 1990.* American Sociological Review, 62(1), 12–33. https://doi.org/10.2307/2657450
[21] Development Strategy and Policy Analysis Unit, *supra* note 19.
[22] Keeley, *supra* note 1.
[23] Sen, A. (2006). *Development as Freedom: An India Perspective.* Indian Journal of Industrial Relations, 42(2), 157–169. http://www.jstor.org/stable/27768063
[24] Ferreira, F. H. G., Vega, J. R. M., Paes de Barros, R., and Chanduvi, J. S. (2009), *Measuring Inequality of Opportunities in Latin America and the Caribbean,* The World Bank and Palgrave Macmillan.
[25] Development Strategy and Policy Analysis Unit, *supra* note 19.
[26] Development Strategy and Policy Analysis Unit, (21 October 2015), *Inequality Measurement Development Issues No. 2 ,* Development Policy and Analysis Division Department of Economic and Social Affairs. Retrieved from https://www.un.org/en/development/desa/policy/wess/wess_dev_issues/dsp_policy_02.pdf

the Gini index, the Atkinson index and the Lorenz curve.

The Lorenz curve (Figure 2) is one of the simplest graphical representations of inequality. On the horizontal axis it displays the cumulative percentage of population according to income while on the vertical axis it plots the cumulative percentage of total income[27]. Thus, the Lorenz curve shows the percentage of income owned by a given percentage of the population. Usually, this curve is shown in relation to a 45-degree line that represents perfect equality. So, the farther the Lorenz curve is from the 45-degree line, the higher the level of inequality[28].

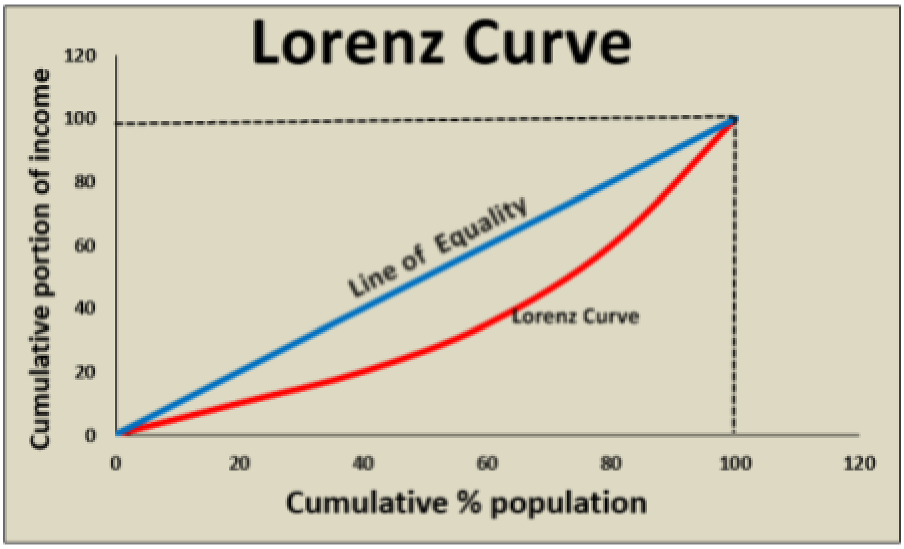

Figure 2: The Lorenz Curve
Source: https://www.brainyias.com/iasbuzz/poverty-estimates-in-india/

The most popular measure of inequality is the Gini index which is computed as the ratio of the area between the Lorenz curve and 45-degree line to the area below the 45-degree line[29]. The Gini index measures how much the distribution of income within an economy deviates from a perfectly equal distribution and its coefficient ranges from 0 to 1 with 0 being equal to a value of perfect equality and 1 representing perfect inequality[30].

The Atkinson's index measures the share of income that a society would have to sacrifice in order to have a more equal distribution across its population. A strong feature of this index is that it can be decomposed in between and within-group inequality. The Atkinson index will have higher values when the society is more willing to reduce its income in favor of lower inequality.

[27] Gastwirth, J. L. (1971). *A General Definition of the Lorenz Curve.* Econometrica, 39(6), 1037–1039. Retrieved from https://doi.org/10.2307/1909675
[28] Development Strategy and Policy Analysis Unit, *supra* note 26.
[29] Rycroft, R. (2003). *The Lorenz Curve and the Gini Coefficient*. The Journal of Economic Education, 34(3), 296–296. Retrieved from http://www.jstor.org/stable/30042553
[30] Development Strategy and Policy Analysis Unit, *supra* note 26.

1.3 Evidences of Correlation between Inequality and Globalization

From the existing literature, it becomes evident that there must be a link between inequality and globalization. However, it is not always clear in which way they are related. Is inequality a direct consequence of globalization? If so, is globalization the main determinant of income inequality? In this Section I will present some of the evidence in the existing literature that explains how globalization and, more specifically, trade liberalization affect inequality.

Probably, the most famous theory that suggests the existence of a link between trade liberalization and income inequality is the Stolper-Samuelson theorem derived from the Heckscher-Ohlin model. Indeed, this theory implies that increased trade openness in a developing country, where low-skilled labour is abundant, would increase the wage of unskilled workers due to the relocation of low-skilled firms from developed to developing countries and also due to the increased demand from developed countries[31]. As a consequence, inequality in developed countries will increase due to the fact that, according to the Stolper-Samuelson predictions, wages in the sector competing with imports will decrease due to the falling competing prices of imports. However, between countries inequality is expected to fall since, in developing countries, prices of exported goods rise so also wages of exporting firms will rise[32].

Borjas and Ramey (1994) found a positive link between income inequality and globalization by conducting an econometric analysis for different potential drivers of income inequality in the United States[33].

A study conducted by Marjit, Beladi and Chakrabarti (2004) provides a theoretical framework of how trade liberalization could affect income inequality in a developing economy[34]. The results suggest that an increase in trade would cause a significant decline in unskilled workers wages, thus widening the gap between them and skilled workers. Even though this study found a positive relationship between trade openness and income inequality, the main limitation of this research is that there is only a theoretical analysis without the support of an econometric model[35].

Another research which links trade and income inequality is from Edwards (1997)[36]. Indeed, in his study, he regressed the Gini index over six indicators of trade openness in order to study the nexus between trade and

---

[31] Giri, A. K., Pandey, R., & Mohapatra, G. (2021). *Does Technological Progress, Trade, or Financial Globalization Stimulate Income Inequality in India?*. The Journal of Asian Finance, Economics and Business, 8(2), 111–122. Retrieved from https://doi.org/10.13106/JAFEB.2021.VOL8.NO2.0111

[32] Roser, M. and Cuaresma, J. C., (2016), *Why is Income Inequality Increasing in the Developed World?* Review of Income and Wealth, Vol. 62, Issue 1, pp. 1-27, 2016, Available at SSRN: https://ssrn.com/abstract=2735215 or http://dx.doi.org/10.1111/roiw.12153

[33] Borjas, GJ & Ramey, VA 1994, *Time-Series Evidence on the Sources of Trends in Wage Inequality,* The American Economic Review, vol. 84, pp. 10-16.

[34] Marjit, S, Beladi, H, & Chakrabarti, A, 2004, *Trade and Wage inequality in Developing Countries,* Economic Inquiry, vol. 42 no. 2, pp. 295-303.

[35] Atif et al., *supra* note 13.

[36] Edwards, S., (1997), *Trade Policy, Growth, and Income Distribution*, The American Economic Review, vol. 87 no. 2, pp. 205-10

income distribution. Edwards got different results depending on the unit of measures used and, overall, the study did not find any significant relationship between increased trade or globalization and income inequality. However, these results may non be accurate since “the final Ordinary Least Squares regression model is not statistically significant (Edwards 1997, p. 209) (R2= 0.28)”[37].

Finally, a different way in which trade affects inequality is through policies and regulations. For instance, trade policies provide conditions for access and entry in the market. These include standards of quality for the goods produced and control for infrastructure and production process. It is trivial to say that rich countries can more easily meet these requirements with respect to low-income countries that often struggle to enter in the global competition. So, after discussing some of the literature evidence highlighting the nexus between inequality and globalization, we can affirm that globalization is one of the determinants of income inequality. However, we can not state that globalization is the sole and major force influencing inequality. Indeed, as we will see in Section V, there are many factors driving the patterns of income inequality and often they are self-reinforcing and interdependent among each other.

[37] Atif et al., *supra* note 13. pp.3-4.

II. BETWEEN VS WITHIN COUNTRIES INEQUALITY

When talking about income inequality a distinction has to be made between the income inequality that we observe across different countries and the income inequality within a given country. From the existing literature analyzing trends of inequality, starting from the end of the twentieth century, cross-country inequality seems to be decreasing while within-country inequality is increasing[38].

2.1. Trends in income distribution

To better understand the falling trend in inequality between countries and the rising inequality within countries, it may be useful to first analyze the evolution of income distribution in the past few decades. Lakner and Milanovic[39] (2013) constructed a graph showing the change in income distribution between 1988 and 2008 with the purpose of studying the effects of globalization on income distribution (Figure 3). This graph is known as the Elephant Curve because of its shape that resembles that of the animal. We can analyze the graph by dividing it into four different parts.

In the first part we find the poorer people in the world (between 0-5% of global population) that, according to the graph, experienced almost no change or benefit in their level of income between 1988 and 2008. In the graph, they correspond to the elephant's tail which mostly represents the least developed countries in Sub-Saharan Africa.

The second part, which is the biggest one, includes almost two thirds of the global population and is represented by the body and head of the elephant. This part includes emerging economies like China and India which, as shown by the graph, observed a considerable growth in income with a change between 40% and 80%.

The third part represents the middle class of developed countries that include European countries, the US and from a few decades it also includes part of the Chinese middle class. They are located between the seventieth and the ninetieth percentile and, as we can see from the graph, this class experienced very little growth and in some cases even a reduction in their income level.

Finally, the last part of the graph corresponds to the elephant's trunk which shows that the wealthiest 10% of the world population exhibited a sharp increase in the income level[40]. Thus, we can say that the ones who gained the most from globalization in the period going from 1988 to 2008 are those between the ninetieth percentile and the top 1 percent of global income distribution since they experienced a real income growth

[38] Ravallion, M. (2018). *Inequality and Globalization: A Review Essay.* Journal of Economic Literature, 56(2), 620-642. Retrieved from https://www.jstor.org/stable/26494197

[39] Lakner, C. & Milanovic, B. (2013). *Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession.* Washington, D.C: The World Bank.

[40] Cosci, S. Meliciani, V. e Palmerio G., (2019), *Globalizzazione, Innovazione e Diseguaglianze. Riflessioni sul ruolo della politica industriale.* Cacucci Editore

going from near 0% to around 60% and the emerging economies that exhibited a sustained growth contributing to a reduction of absolute poverty. On the other hand, the "losers" are the poor and the developed world middle class that saw their conditions unchanged if not worsened.

Figure 3: The Elephant Curve
Source:
https://milescorak.files.wordpress.com/2016/05/branko-milanovic-global-inequality-elephant-curve.png

The growth of emerging economies' income can be explained by the fact that since the 1990s, China, India and many other developing countries, enacted a serie of trade reforms tending to trade liberalization that contributed to a more rapid economic growth with respect to developed countries, thus reducing the income gap between emerging economies and rich countries[41]. As a consequence, inequality between countries has been decreasing in the past few decades. However, even if this greater integration in the global economy has raised the living standards of many developing countries, evidence shows a polarization in income distribution. In fact, within each country, incomes at the top level of the distribution have been rising at a faster pace than incomes at the bottom of the distribution[42]. As a result, even though between-country inequality is decreasing, within-country inequality is rising. Indeed, although absolute poverty has decreased[43], relative poverty is increasing with the wealthy becoming even more wealthy.

In order to understand the cause of such unbalanced distribution of income, different researchers focus their attention on the analysis of the determinants of top level income. In the US as well as in other English-speaking countries, for example, the share of income for those at the top level started to increase rapidly after the 1980s and much of the public attention went to the phenomenon of extremely high executive compensation.

[41] Ravallion, *supra* note 38.
[42] UNCTAD, (2019), *Trade policies and their impact on inequalities,* Trade and Development Board, Sixty-sixth session, Geneva.
[43] According to a study by Ravallion and Chen (2013) the percentage of the global population living in absolute poverty decreased from 36 to 19 percent from 1990 to 2008.

With the start of modern globalization, in the late 1970s, global competition between managers started and wages for the most talented ones began to rise[44]. Rosen (1981), in his work, referred to this phenomenon with the term "Economy of Superstars" where the superstars are a small number of people that "earn enormous amounts of money and dominate the activities in which they engage"[45]. According to the author, the economy of Superstars is a widespread phenomenon in the modern economy. In the past it was easier for everyone to get a portion of the market because of restricted competition. However, because of open trade and globalization which characterized these past few decades, now a firm or an individual must face global competition in which the most talented or lucky competitors take a big portion of the market gaining abnormous returns while leaving behind all the others.

Moreover, many researchers study the relationship between trade and inequality by observing firms and workers that have similar characteristics in order to isolate those components that may be responsible for variations in income distribution. From different studies, it emerges that exporting firms that successfully integrate in the global chain, offer higher salaries and better working conditions to their employees with respect to non-exporting firms[46]. Also, in their paper, Newfarmer and Sztajerowska[47] explained that trade is associated with an increase in productivity that, in the long-run, will lead to an increase in salaries for workers. As a consequence, in a given country, exporting firms and their employees generally have a higher income than non-exporting firms, thus driving up within-country inequality. On the other hand, higher salaries for workers in exporting firms for developing countries drive down inequality between countries by contributing to the reduction of the gap between developed and developing countries.

We must specify that when talking about declining inequality between countries and rising inequality within-countries, we refer to the average global trend that inequality is showing. This means that even if within-country inequality has been rising globally, not all countries have experienced rising inequality. Indeed, in his book, Bourguignon[48] reports that since the 1980s France has not experienced rising inequality, as well as other OECD countries when observed in specific time periods. In fact, the rising global within-country inequality can be explained by the fact that the two most populous countries, that are China and India, have experienced rising inequality in the past few decades, thus putting upward pressure on the within-country component of inequality at the global level[49].

For Instance, Atif et al. (2012) conducted a study on the effects of globalization on income inequality for 68 countries and the authors showed that there is a positive correlation between income inequality and

[44] This happened to the extent that in 1993 the Clinton Tax Act stated that compensation in excess of $1 million non-related to performance was not tax deductible for US firms.

[45] Rosen, S. (1981). *The Economics of Superstars.* The American Economic Review, 71(5), 845-858, p.845. Retrieved from http://www.jstor.org/stable/1803469

[46] Amiti and Davis, 2011; Frias et al., 2012.

[47] Newfarmer, R., Sztajerowska, M., (2012), *Trade and Employment in a Fast-Changing World* , Policy Priorities for International Trade and Jobs, OECD Publishing, Paris, https://doi.org/10.1787/9789264180178-en.

[48] Bourguignon, F., Scott-Railton, T. (2015). *The globalization of inequality*. Princeton: Princeton University Press.

[49] Ravallion, *supra* note 38.

globalization in most of the countries[50]. However, as you can see from the table below (Figure 4), not all countries follow the increasing inequality trend. Indeed, using the KOF index as a measure for globalization and the Gini coefficient as a measure of inequality, we can see from the table that the KOF index increased by 74% between 1990 and 2010 in China and, at the same time, the Gini index increased by 31%. A positive correlation is also found for India, Bangladesh and other developing countries. Nevertheless, few countries still experienced a change in income distribution of zero (Malaysia and Uganda) or even a reduction in the Gini coefficient (Pakistan, Brazil, Ecuador)[51].

Country	Year	KOF	Change (%)	Gini	Change (%)	HDI	Change (%)
China	1990 2010	34.09 59.36	74%	32.43 42.48	31%	0.490 0.682	39%
Sri Lanka	1990 2010	49.22 50.14	2%	32.48 40.26	24%	0.583 0.686	18%
Bangladesh	1990 2010	21.55 40.72	89%	28.85 32.12	11%	0.352 0.496	41%
India	1990 2010	31.26 51.88	66%	31.88 33.38	5%	0.410 0.542	32%
South Africa	1990 2010	39.06 64.41	65%	59.33 63.14	6%	0.615 0.615	0%
Malaysia	1990 2010	59.63 77.43	30%	46.17 46.21	0%	0.631 0.758	20%
Uganda	1990 2010	20.97 47.62	127%	44.36 44.3	0%	0.299 0.442	48%
Ecuador	1990 2010	36.15 54.16	50%	50.49 49.26	-2%	0.636 0.718	13%
Pakistan	1990 2010	34.82 52.17	50%	33.23 30.02	-10%	0.399 0.503	26%
Brazil	1990 2010	45.32 59.35	31%	61.04 54.69	-10%	0.600 0.715	19%

Sources: **KOF:** Dreher (2006), Updated in Dreher et al. (2008); **Gini:** World Development Indicators; **HDI:** Human Development Report (UNDP, 2011)

Figure 4:
Source: Atif, S. M., Srivastav, M., Sauytbekova, M., & Arachchige, U. K. (2012). *Globalization and Income Inequality : A Panel Data Analysis of 68 Countries.*

2.2. Developed vs developing countries

It is quite difficult to understand the evolution of income inequality without referring to the interaction between developed and developing countries. According to the literature it seems that developing countries are those who benefit the most from globalization so we will analyze the different factors that may explain this trend.

First, according to the principle of comparative advantage, a country imports goods that use its scarce factors

[50] Atif et al., *supra* note 13.
[51] Atif et al., *supra* note 13.

and exports those goods that use the country's abundant factors. This implies that open trade between countries should create new jobs in developing countries and also increase wages for unskilled labor due to the increased demand in the abundant factors. On the other hand, unskilled labor in developed countries will be subject to more unemployment caused by an increase in the imports from those countries where production is more cost-efficient i.e. countries with comparative advantage[52].

Increased trade openness led to the relocation of part of business processes in different countries to take advantage of lower costs of production. This practice, also known as offshoring, has reduced between countries income inequality while also increasing within-country inequality in developed countries[53]. For instance, offshoring seems to have contributed to a reduction in between-country inequality by creating employment and raising living standards in poorer or developing countries. On the other hand, the increase in within-country inequality is justified by the fact that offshoring caused a fall in the wages of unskilled workers in developed countries. Nevertheless, in contrast with what is usually found in the literature, a study by Dix-Carneiro et al. (2021) suggests that offshoring and trade openness have reduced within-country inequality in developing countries[54]. This is explained by the fact that the authors included the informal sector in the calculations to measure inequality.

When talking about the informal sector, we refer to that part of the economy that is invisible to the government and this sector accounts for a significant part of the economy for most developing countries[55]. In their research, Dix-Carneiro et al. (2021), found that higher trade openness leads to a decrease in wage inequality by reducing the gap in pay levels between those working in the formal sectors and those working in the informal sector (Figure 5). In particular, they found that higher trade openness leads to higher wage premium for exporters, thus increasing wage differences within the formal sector. However, the informal sector presents a decline in wage inequality due to exit from the tradable informal market by low-productivity firms which pay low wages and are not able to sustain foreign competition. As a consequence, there is a reduction in the spread between average wages in the formal and informal tradable sectors so, considering both sectors together, trade openness leads to a reduction in overall wage inequality for developing countries.[56]

[52] World Trade Organization. (2013). *World trade report 2013: Factors shaping the future of world trade*.
[53] UNCTAD, *supra* note 42.
[54] Dix-Carneiro, R., Goldberg, P. K., Meghir, C., Ulyssea, G., & National Bureau of Economic Research. (2021). *Trade and Informality in the Presence of Labor Market Frictions and Regulations*. Cambridge, Mass: National Bureau of Economic Research.
[55] *Id.*
[56] *Id.*

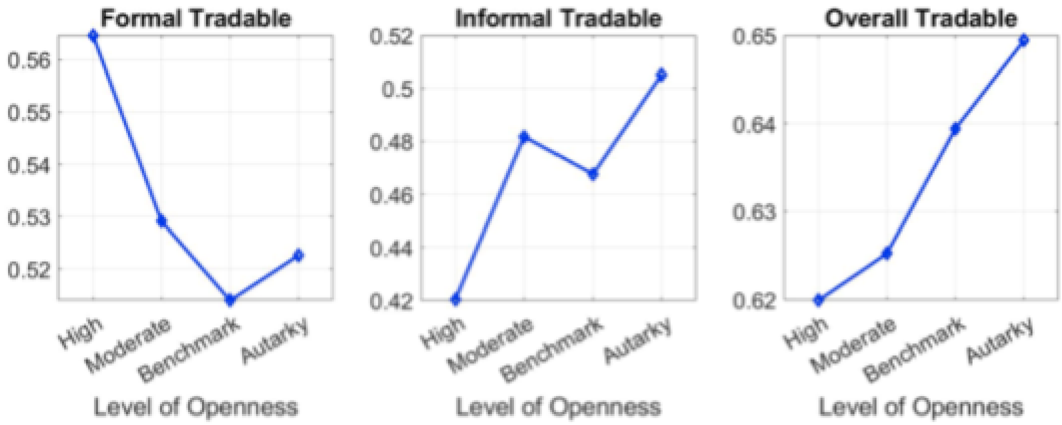

Figure 5:
Source: Dix-Carneiro, R., Goldberg, P. K., Meghir, C., Ulyssea, G., & National Bureau of Economic Research. (2021). *Trade and Informality in the Presence of Labor Market Frictions and Regulations*. Cambridge, Mass: National Bureau of Economic Research. "consider four scenarios for Brazil's level of trade openness: (1) 'benchmark', which corresponds to the Brazilian economy in 2003; (2) 'moderate', which corresponds to a 20% reduction in existing trade barriers; (3) 'high', which corresponds to a 40% reduction in trade barriers; and (4) 'autarky', which corresponds to a large increase in trade barriers, making both imports and exports prohibitive."

2.3. Evolution of top 1 percent share of income

Atkinson et al. (2011) conducted a study on the evolution of the top 1 percent share of income for 22 countries from 1910 to 2000[57]. These countries include both developed and developing countries. Results showed that during the first part of the twentieth century, there was a decline in the top 1 percent share of income in almost all the developed and developing countries considered for the study. This decrease in inequality can be explained by the fact that we are referring to the postwar period so, almost all the countries at that time were facing the disrupting scenarios that the war left behind.

On the other hand, while in the second part of the twentieth century and most precisely during the 1950s, 1960s and 1970s, the majority of developed countries continued to observe declining or stagnating share of the top 1 percent[58], after the 1980s, inequality followed different patterns according to the country considered. For this reason, Atkinson identified three groups for developed countries.

The first one includes Australia, Canada, Ireland, New Zealand, the UK and the US. These countries experienced a considerable increase in income inequality after the 1980s (Figure 6).

[57] Atkinson, A.; Piketty, T.; Saez, E. (2011). *Top incomes in the long run of history*, in Journal of Economic Literature, Vol. 49, No. 1, pp. 3–71.

[58] Pavcnik, N., (2011), *Globalization and within-country income inequality*, Making Globalization Socially Sustainable, ILO, WTO. Retrieved from https://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_144904/lang--en/index.htm

Also the second group (composed of Italy, Spain, Portugal, Sweden, Norway and Finland) observed an increase in the top 1 percent share of income, however for these countries the process was more gradual (Figure 7).

France, Germany, the Netherlands, Switzerland and Japan formed the third group of countries. For this group there was no increase in inequality during the time period considered and in the Netherlands inequality decreased (Figure 8).

Regarding the developing countries, the author analyzed five countries (Argentina, India, China, Indonesia and Singapore) which show some interesting frameworks (Figure 9). As we have already mentioned, developing countries have experienced a decline in the top 1 percent share of income during the first part of the twentieth century. On the other hand, from the end of World War II, the developing countries considered in the study showed different patterns in the evolution of the top 1 percent share of income. However, all the developing countries considered for this study observed an increase in inequality subsequent to the 1980s which is shortly after the beginning of modern globalization[59].

From the 1980s, the wage gap between workers with high and low education increased in many countries. Indeed, workers with higher education are paid a skill premium and it seems that increases in skill premiums take place at the same period of trade reforms in the countries where such a rise is observed.[60]

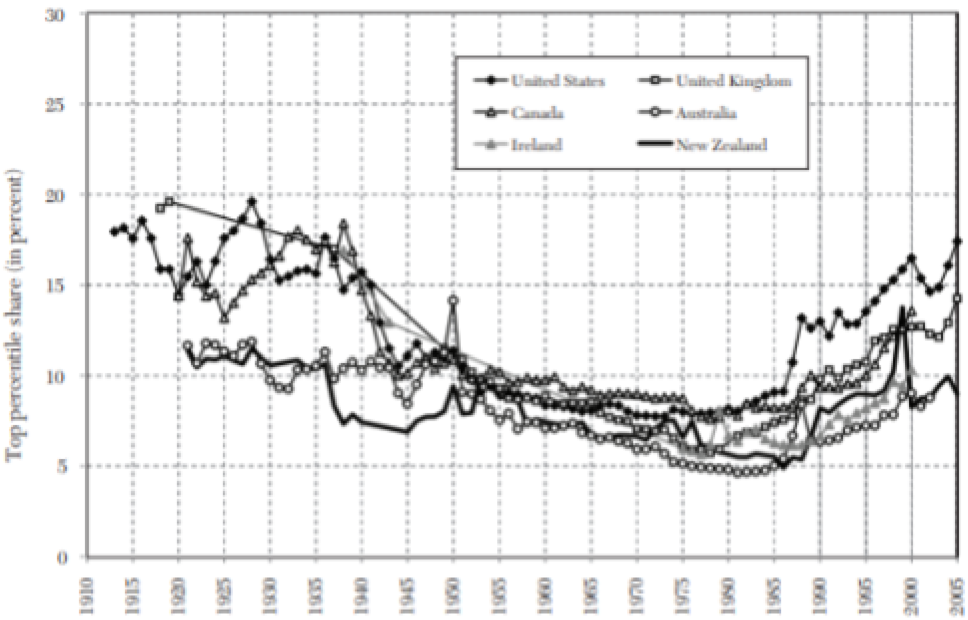

Figure 8. Top 1 Percent Share: English Speaking Countries (*U*-shaped), 1910–2005

Source: Atkinson and Piketty (2007, 2010).

Figure 6:
Source: Atkinson, A.; Piketty, T.; Saez, E. (2011). *Top incomes in the long run of history*, in Journal of Economic Literature, Vol. 49, No. 1, pp. 3–71.

[59] Atkinson et al., *supra* note 57.
[60] Pavcnik, *supra* note 58.

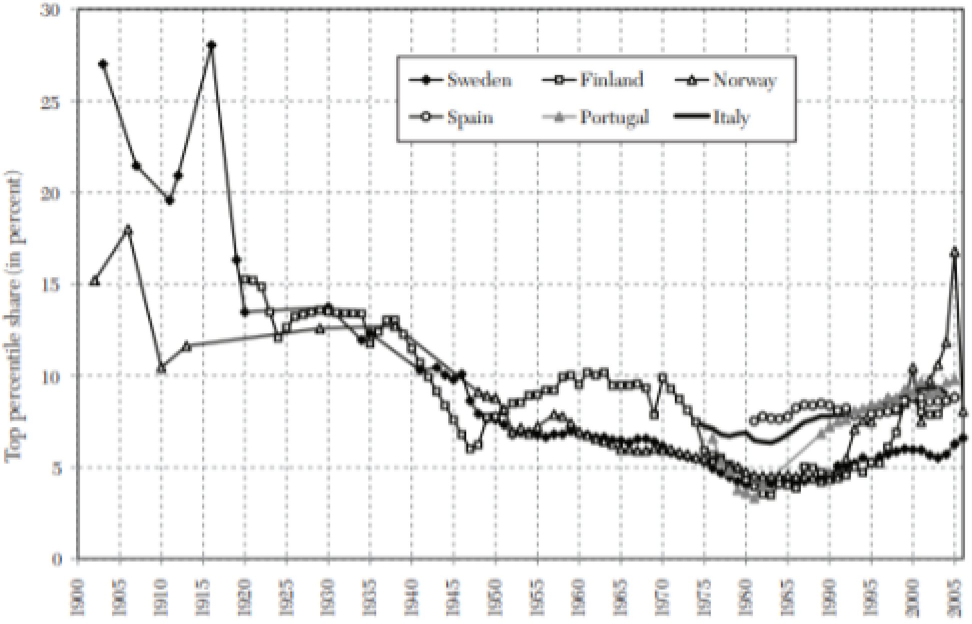

Figure 10. Top 1 Percent Share: Nordic and Southern Europe (*U/L*-shaped), 1900–2006

Source: Atkinson and Picketty (2007, 2010).

Figure 7:
Source: Atkinson, A.; Piketty, T.; Saez, E. (2011). *Top incomes in the long run of history*, in Journal of Economic Literature, Vol. 49, No. 1, pp. 3–71.

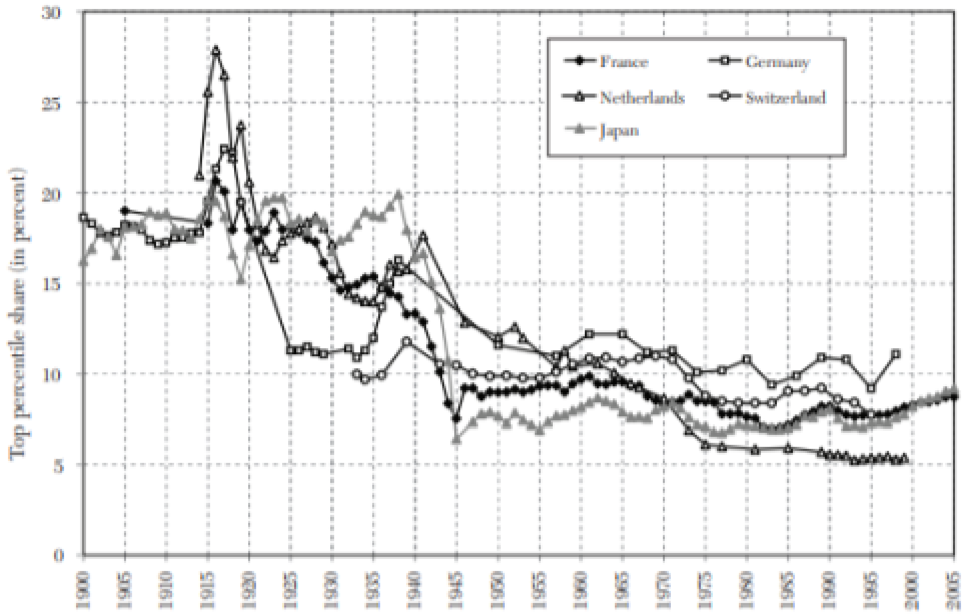

Figure 9. Top 1 Percent Share: Middle Europe and Japan (*L*-shaped), 1900–2005

Source: Atkinson and Picketty (2007, 2010).

Figure 8:
Source: Atkinson, A.; Piketty, T.; Saez, E. (2011). *Top incomes in the long run of history*, in Journal of Economic Literature, Vol. 49, No. 1, pp. 3–71.

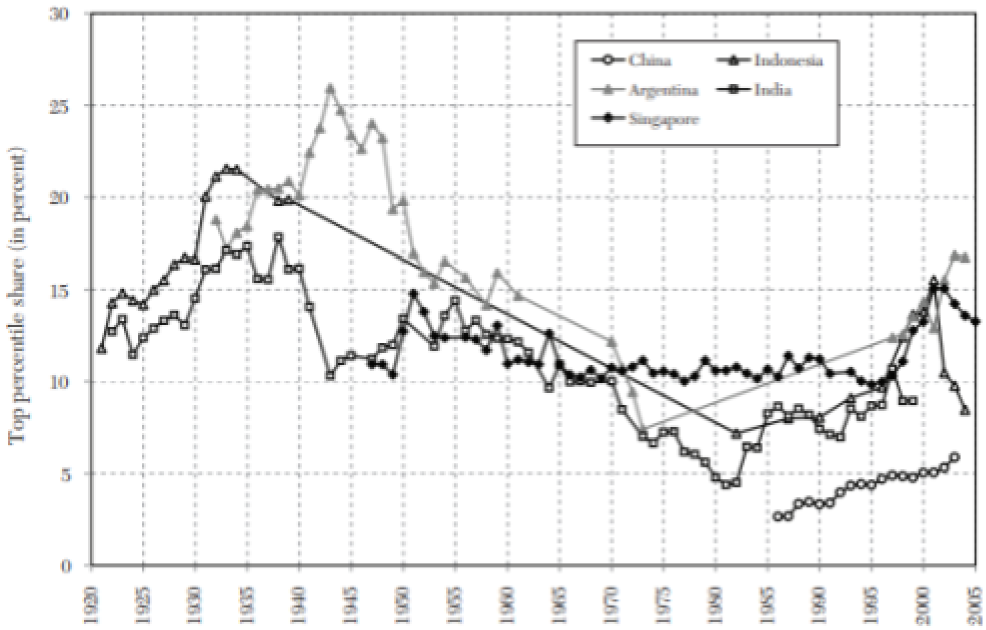

Figure 11. Top 1 Percent Share: Developing Countries, 1920–2005

Source: Atkinson and Picketty (2007, 2010).

Figure 9:
Source: Atkinson, A.; Piketty, T.; Saez, E. (2011). *Top incomes in the long run of history*, in Journal of Economic Literature, Vol. 49, No. 1, pp. 3–71.

So far we have seen that according to the literature, inequality between countries is decreasing since developing countries are catching up with developed countries. However, by eliminating China and India from the calculation, we can see an increasing trend in between-country inequality among the other nations[61]. This is easily justified because China and India are the two most populous countries in the world, thus their trends have more weight in the overall calculations.

[61] Hung, H., & Kucinskas, J. (2011). *Globalization and Global Inequality: Assessing the Impact of the Rise of China and India, 1980–2005.* American Journal of Sociology, 116(5), 1478-1513. doi:10.1086/657456

III. INDIA

It can be useful for our discussion to analyse more closely the trend of income inequality for a developing country with significant International trade. Starting from 1991, India had a substantial increase in trade liberalization policies and at the same time it experienced changing patterns in poverty rates and in the distribution of income so that it could be useful to analyze this country in order to explain some of the literature hypotheses we have referred to in the previous sections.

India is inhabited by more than 1.3 billion people, thus it is the most populous country after China and it is also the second fastest growing economy in the world. Nevertheless, it is likely for India to become more populated than China in the next few decades.

The country registered a Gross Domestic Product (GDP) of around 2,6 trillion dollars in 2020[62] meaning that it is one of the wealthiest countries in the world[63]. However, more than 175 million people in India live in poverty[64]. Indeed, in 2011, India had a Gini index of 35.7[65] and the richest 10% of the Indian population detains around more than 70% of the national wealth[66].

3.1. Trade Reforms in India

For quite some time after declaring independence from the British in 1947, Indian policy was inclined to protectionism with strong restrictions on trade. The Indian government nationalized the majority of the country's industries and businesses. Moreover, between 1947 and 1990, investors were required to have the so-called "License Raj" which was a set of licenses required by the government in order to start a new business. However, it was not easy to get the License Raj from the government that often created some favouritism within those requiring it.

Despite some efforts made in 1966 and early 1980s, the real process of trade liberalization in India began in 1991. For instance, India had to face a severe economic crisis between 1989 and 1991 with the state having serious balance of payments problems. In 1991, P.V. Narasimha Rao was elected as the new prime minister of India and, after pressures from the International Monetary Fund (IMF) and the World Bank to introduce

---

62 World Bank Group, *GDP (current US$) - India*. Retrieved from https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN

63 In 2017 it was the fifth wealthiest country ranked using GDP as a measure of wealth. Data from Worldometer, *GDP by Country* https://www.worldometers.info/gdp/gdp-by-country/

64 World Bank Group, *Poverty & Equity Brief, South Asia, India* (April 2020) https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_IND.pdf

65 World Bank Group, *Gini index (World Bank estimate) - India*. Retrieved from https://data.worldbank.org/indicator/SI.POV.GINI?locations=IN

66 Oxfam International, *India: extreme inequality in numbers.* Retrieved from https://www.oxfam.org/en/india-extreme-inequality-numbers

structural changes in the economy, Rao along with the Finance Minister, Manmohan Singh, adopted the New Economic Policy (NEP) in order for the country to step out of the struggling economic situation and take a place in the world economy. The main objectives of NEP were globalization, liberalisation and privatisation and some of the first measures adopted were: the devaluation and convertibility of the rupee, which is the Indian national currency, the free flow of foreign capital and the privatisation of most of those sectors that were made public by the government in the previous years[67].

Other reforms also included the removal of the License Raj, the reduction in import tariffs and the removal of quantitative import restrictions. For example, India reduced the peak rate of import duty in 1993-1994 from 110 percent to 85 percent and, in the subsequent years, it continued to reduce it to the current level that is around 10 percent[68]. In March 2000, the Indian government announced the set up of Special Economic Zones (SEZ) with the purpose of promoting exports and competitiveness of Indian exports in the international markets[69]. But, what are the effects of these trade reforms and how have them influenced the inequality levels in India? In the next subsection we will analyze the patterns of income inequality in India in the period pre and post reforms.

3.2. Poverty and Inequality trends

Globalization and trade liberalism has largely reshaped Indian society by different channels such as technological innovation, industrialization and urbanization. As a consequence of Indian trade liberalization, India experienced a rapid economic growth that led to a significant reduction in poverty for the country. Gaurav Datt, Martin Ravallion and Rinku Murgai, found in their work[70] that even though the declining trend in poverty seems to have started in the mid 1970s, the process accelerated significantly only after 1991 reaching a sixfold increase in the rate of decline of poverty with respect to the levels of the 1970s. In a study conducted by Deaton and Drèze (2002), the estimates of rural and urban poverty ratios show a declining trend in the period going from 1993-94 to 1999-2000[71]. Indeed, the poverty ratio for urban areas in India declined from 17.8% in 1993 to 12% in 2000 while in rural areas from 33% in 1993 to 26.3% in 2000[72] (Figure 10).

---

[67] Madaan, D., (1995). *India's New Economic Policy - A Macro Study.* Indian Journal of Asian Affairs, 8/9(1/2), 104-113. Retrieved from http://www.jstor.org/stable/41950393

[68] Aahana, S., *Trade Reforms | India | Economics,* Economic Discussion. Retrieved from https://www.economicsdiscussion.net/foreign-trade/trade-reforms/trade-reforms-india-economics/30509

[69] *Id.*

[70] Datt, G., Ravallion, M., & Murgai, R. (January 01, 2020). *Poverty and Growth in India over Six Decades*. American Journal of Agricultural Economics, 102, 1, 4-27.

[71] Deaton, A., & Dreze, J. (2002). *Poverty and Inequality in India: A Re-Examination*. Economic and Political Weekly, 37(36), 3729-3748. Retrieved from http://www.jstor.org/stable/4412578

[72] Acharyya, R., Mehta, R., (2006), *Trade Liberalization, Poverty, and Income Inequality in India, Nontariff Barriers Affecting India's Exports,* INRM Policy Brief No. 10, Asian Development Bank.

Table 1a: All-India Headcount Ratios
(Per cent)

	1987-88	1993-94	1999-00
Rural			
Official estimates	39.4	37.1	26.8
Adjusted estimates:			
Step 1: Adjusting for changes in questionnaire design	39.4	37.1	30.0
Step 2: Revising the poverty lines	39.4	33.0	26.3
Urban			
Official estimates	39.1	32.9	24.1
Adjusted estimates:			
Step 1: Adjusting for changes in questionnaire design	39.1	32.9	24.7
Step 2: Revising the poverty lines	22.5	17.8	12.0

Source: Planning Commission, Press Releases (March 11, 1997, and February 22, 2001), Deaton (2001a, b), and Table 2a below.

Figure 10:
Source: Acharyya, R., Mehta, R., (2006), *Trade Liberalization, Poverty, and Income Inequality in India, Nontariff Barriers Affecting India's Exports,* INRM Policy Brief No. 10, Asian Development Bank.

Before 1991, the decline in poverty was mostly driven by rural and agricultural growth with almost no contribution given by urban growth. On the other hand, after the adoption of trade reforms in 1991, rural growth contributed for about 10 percent to poverty reduction while urban growth became the most important contributor[73].

However, although absolute poverty in India has declined post 1991, the distributional effects were quite adverse. Indeed, this period was also characterized by rising inequality both between and within rural and urban areas[74]. In the period between 1994 and 2000, the inequality between the top and bottom 10 percent of the population was much more higher than the inequality between the top and bottom 20 percent, meaning that the top 10 percent of the population possessed most of the wealth[75].

Many associated the decline in poverty and the increase in income inequality with the rapid growth in manufacturing exports and imports derived from trade liberalization. This can be explained by the fact that during the 1990s there was a high demand for high technology goods such as machinery, chemicals, aerospace and many others, thus there was also an increase in exports of skill-intensive high technology goods. As a consequence, in the short term, as the composition of Indian exports gets biased towards skill-intensive labor, the demand for skilled workers increases as well as their wages while leaving behind unskilled workers and thus driving up inequality[76]. So, poverty reduction can be justified by the fact that unskilled labor may still rise due to the complementarity of exported goods, meaning that some low-skilled goods may be required to manufacture high skilled ones. Indeed, in the long term, unskilled workers of the complementary sectors will eventually have some opportunities to exploit this trade-induced growth. Nevertheless, it is more likely that inequality will continue to rise since the majority of individuals working

[73] Acharyya et al., *supra* note 72.
[74] Datt et al., *supra* note 70.
[75] Acharyya et al., *supra* note 72.
[76] *Id.*

in low-skilled sectors doesn't have the capacity to to take advantage of such opportunities[77].

In one of his works, Kurian affirms that individuals should be educated and trained in order for them to become able to exploit better opportunities and upward income mobility[78]. For this reason, it might be useful for India to build structures where to provide primary education as well as technical skills to those working in the lower income class[79]. However, it seems that even if education is supplied, the demand is scarce. This phenomenon is due to the direct and indirect costs that individuals face in order to acquire education[80]. The direct costs are mainly represented by the money spent in taxes and educational materials, while indirect costs are those costs that households face when deciding to send one or more members of the family to study instead of working.

3.3. Barriers to Indian trade

As we already mentioned, Indian exports and imports significantly increased after 1991. Indeed, by looking at the table below (Figure 11), we can see how the average growth per year between 1980 and 1990 for Indian exports was 7.4 percent while between 1990 and 2000, the average growth was 10.7 percent per year. Regarding Indian imports, there also was a growth in imports by 5.9 percent in the 1980s to 9.2 percent in the 1990s. So, according to these data, both the import and export growth rates increased by 3.3 percent [81].

---

[77] Acharyya et al., *supra* note 72.

[78] Naidu, Y. (2006). *Globalization and its Impact on Indian Society.* The Indian Journal of Political Science, 67(1), 65-76. Retrieved from http://www.jstor.org/stable/41856193

[79] Acharyya et al., *supra* note 72.

[80] *Id.*

[81] Panagariya, A. (2004). *Growth and Reforms during 1980s and 1990s.* Economic and Political Weekly, 39(25), 2581-2594. Retrieved from http://www.jstor.org/stable/4415173

TABLE 2. Exports and Imports of India and China, 1980–2000

	Billions of current dollars			Average growth (percent per year)	
Category[a]	*1980*	*1990*	*2000*	*1980–90*	*1990–2000*
India					
Exports of goods and services	11.2	23.0	63.8	7.4	10.7
Merchandise, f.o.b.	8.5	18.5	44.9	8.1	9.3
Manufactures	5.1	13.0	34.5	9.8	10.3
Imports of goods and services	17.8	31.5	75.7	5.9	9.2
Merchandise, c.i.f.	15.9	27.9	59.3	5.8	7.8
Capital goods	2.4	5.8	8.8	9.2	4.2
Fuel and energy	6.7	6.0	15.7	−1.0	10.0
China					
Exports of goods and services	20.2	68.0	279.6	12.9	15.2
Merchandise, f.o.b.	18.3	62.1	249.2	13.0	14.9
Manufactures	9.0	46.2	223.8	17.8	17.1
Imports of goods and services	20.9	55.5	250.7	10.3	16.3
Merchandise, c.i.f.	20.0	53.4	225.1	10.3	15.5
Capital goods	5.1	16.9	91.9	12.6	18.5
Fuel and energy	0.2	1.3	26.0	20.1	35.2

Source: World Bank (2002).
a. f.o.b., free on board; c.i.f., cost including insurance and freight.

Figure 11:
Source: Panagariya, A. (2004). *Growth and Reforms during 1980s and 1990s.* Economic and Political Weekly, 39(25), 2581-2594.

However, Indian exporters have to face various barriers such as the lack of infrastructures, the competition of other developing countries like China as well as the asymmetry in information between Indian exporters and the developed world importers. Indeed, foreign buyers often have poor impressions on the quality of Indian goods and services due to the lack of information since, for this kind of products, it is difficult to establish quality before use[82]. For example, even though there was an increase in exports of high technology Indian goods, the share of these products in Indian exports in 2019 was just 10.3 percent[83]. As a consequence, India exporters who could produce better quality goods are discouraged from doing better than the average[84]. Moreover, another major barrier to Indian exports is the growing concern for the environment. Indeed, as years go by, developed countries are increasing the environmental standards as well as standards on goods and services quality that India is struggling to meet. For example, Germany, which is one on the major importer of Indian leather, imposed a ban on those products containing more than 5 mg/kg of pentachlorophenol (PCP), that is used as a cheap antifungal preservative by Indian leather manufacturer[85].
Additionally, India also has to face several Non-tariff Barriers (NTB) mostly imposed by developed countries. The most frequent Non-tariff measures faced by Indian exporters are Technical barriers to trade (TBT) and Sanitary and phytosanitary (SPS) measures. For instance, according to the table below (Figure 12), we can see how India has to deal with a lot of NTMs imposed by the European Union with 712 SPS measures and 1196 TBT against 190 SPS measures and 102 TBT measures imposed by India on EU

---

[82] Acharyya et al., *supra* note 72.
[83] Trading Economics, *India - High-technology Exports (% Of Manufactured Exports).* Retrieved from https://tradingeconomics.com/india/high-technology-exports-percent-of-manufactured-exports-wb-data.html
[84] Akerlof, G. A. (1970). *The Market for "Lemons": Quality Uncertainty and the Market Mechanism. The Quarterly Journal of Economics*, *84*(3), 488–500. Retrieved from https://doi.org/10.2307/1879431
[85] Acharyya et al., *supra* note 72.

exports[86].

Table 10. NTMs impacting EU and India (1991-2016)

NTMs by EU Impacting India		NTMs by India impacting EU	
Type of NTMs	**No. of Measures**	**Type of NTMs**	**No. of Measures**
Anti- dumping	77	Anti- dumping	94
Countervailing	52	NA	
Export Subsidies	40	NA	
Quantitative Restrictions	15	Quantitative Restrictions	118
Sanitary and Phytosanitary	712	Sanitary and Phytosanitary	190
Special Safeguards	54	Safeguards	100
State Trading Enterprises	2	State Trading Enterprises	18
Tariff-rate quotas	174	Tariff-rate quotas	6
Technical Barriers to Trade	1196	Technical Barriers to Trade	102
Specific Trade Concerns	22	Specific Trade Concerns	28

Source: https://i-tip.wto.org/goods/Default.aspx.

Figure 12:
Source: Singh, R., Sharma, S., & Tandon, D. (August 20, 2018). *Non-Tariff Measures in Indian Context and the European Union.* International Journal of Economics and Finance, 10, 9, 54.

3.4. Trade Agreements and Special Provisions

Even though India still faces many barriers, there are several trade agreements and special provisions that may help India overcome some of the barriers. Indeed, The World Trade Organization contains some “special and differential treatment” provisions. For example, according to the so-called Enabling Clause, WTO members are allowed to give differential and more favourable treatment to developing countries such as India. Developing countries are also provided with longer periods of time in order to comply with the requirements of WTO Agreements. Moreover, WTO Members are required to preserve the trade interests of all developing countries.

According to the General Agreement on Tariffs and Trade (GATT), which is supervised by the Council for Trade in Goods[87], developing countries are allowed to make restrictions on their imports if doing so would safeguard or promote a given sector or industry in the country. Moreover, GATT also includes provisions under which developing countries are not required to reciprocate a preferential treatment with the country who made trade concessions[88].

[86] Singh, R., Sharma, S., & Tandon, D. (August 20, 2018). *Non-Tariff Measures in Indian Context and the European Union.* International Journal of Economics and Finance, 10, 9, 54.
[87] The Council is made up of representatives from all WTO member countries
[88] WTO, *Special and differential treatment provisions*, Trade and Development Committee. Retrieved from https://www.wto.org/english/tratop_e/devel_e/dev_special_differential_provisions_e.htm

IV. OTHER FACTORS

Until now, we have discussed how globalization and trade liberalization influence income inequality. However, we should be aware that rising inequality is driven by a whole range of economic and social factors other than Globalization. For instance, even though it is useful to analyze separately the different factors, drivers of income inequality are highly interdependent and their interaction often creates self reinforcing mechanisms[89]. For this reason, we will now analyze some other potential driving factors of income inequality.

4.1 SBTC

One of the most discussed driving forces of income inequality is the so-called Skilled-Biased Technical-Change (SBTC) which is a shift in the production technology favoring skilled over unskilled workers. New technologies led to an increased demand for skilled workers, thus driving up their wages relative to those of unskilled workers.

In one of their studies, Florence Jaumotte, Subir Lall, and Chris Papageorgiou found that the gini coefficient increased annually by an average of 0.42 percent between 1981 and 2003 for 51 countries and that technology contributed to this increase for 0.74 percent annually.[90] According to the World Trade Report (2013), Skill-Biased Technical Change is usually found to be more significant in determining variations in the income distribution than trade openness[91].

However, many argue that SBTC is an indirect consequence of trade liberalization and globalization. More precisely, financial globalization and foreign direct investments (FDI) facilitate technological diffusion and drive up inequality by targeting high-skilled sectors for investment[92]. For instance, with increased trade openness, technological spillover as well as information spillover allowed many emerging economies to transform from agricultural economies into manufacturing economies. This transformation led to the creation of a middle class in these emerging economies, thus reducing cross-countries inequality[93]. However, technology flows are also responsible for the disruption of low-skilled jobs in favor of high-skilled ones.[94]

---

[89]Galasso, V. Nicholas, (2014) *The Drivers of Economic Inequality: A Backgrounder for Oxfam's Inequality Campaign,* Oxfam America Research Backgrounder series: www.oxfamamerica.org/publications/the-drivers-of-economic-inequalitythe-primer.

[90] Jaumotte, F., Lall, S., Papageorgiou, C., (2013). *Rising Income Inequality: Technology, or Trade and Financial Globalization?*. IMF Economic Review 61, no. 2

[91] WTO, *supra* note 52.

[92]Galasso, *supra* note 89.

[93] UNCTAD, *supra* note 42.

[94] Ravallion, *supra* note 38.

4.2. Geography

This increase in the wage gap between skilled and unskilled workers is usually reflected in the gap between wages in manufacturing and agricultural jobs, which also tends to follow the trends in income distribution driven by the geographical position[95]. Indeed, geography is one of the most significant drivers of inequality between countries since the country where you are born or where you live have a strong impact on what are going to be your income and standards of life[96]. So, geography usually exacerbates income inequality between countries since those living in the world's least developed countries are most likely to have a much lower income than people with the same skills and characteristics living in a developed country solely because of the fact that they are born in different countries. Regarding inequality within countries, geography also has some influence. For instance, urban areas, with respect to rural areas, are usually more developed and have easier access to services, education and other resources. Also the governments may drive up income inequality by creating favoritism for certain regions over others when allocating resources[97]. Alwyn Young conducted a study analyzing 65 countries and found that urban-rural inequality accounts for 40 percent of average within-country inequality, and a significant share of inequality across countries[98].

4.3. More drivers

Some studies have also found that inequality may be reinforced by the phenomenon of assortative mating, that is the growing tendency for people to enter into relationships with those who have similar social and economic backgrounds[99]. In one of his paper, Keeley argue that inequality is also affected by the rise in part-time jobs and a decline in union membership[100]. Ethnicity is also an important driver of income inequality, fueled by the exploitation and marginalization of minorities[101]. Another determinant of income inequality is education. Indeed, higher levels of education are associated with higher wages and better working conditions[102]. Different researchers focus their attention on the influence that capital has over income distribution. Thomas Piketty (2014) argued that usually the returns on capital exceed the rate of economic growth meaning that the rich are accumulating wealth at a much faster pace than the rest of the

---

[95]Galasso, *supra* note 89.
[96] *Id.*
[97] *Id.*
[98] Young, A. (2013), *Inequality, the Urban-Rural Gap, and Migration.* The Quarterly Journal of Economics, 128(4), 1727-1786. Retrieved from https://www.jstor.org/stable/26372536
[99]Galasso, *supra* note 89.
[100] Keeley, *supra* note 1.
[101] Momin, A. R. (2016). *Unravelling the Interface between Inequality and Ethnicity. Sociological Bulletin, 65*(1), 121–134. http://www.jstor.org/stable/26368068
[102]Galasso, *supra* note 89.

population[103].

The main findings of two OECD Reports on inequality (OECD 2008, 2011) are that the capacity of redistributing income of taxes and benefits by the State has declined since the mid-1990s and this trend has significantly driven up inequality[104]. Moreover, several studies found a positive relationship between income inequality and periods of recessions. For instance, there are evidence that economic recessions lead to higher income inequality mainly through the increased unemployment[105]. Indeed, the COVID-19 pandemic has led the world into a global recession that most likely increased within-countries inequality by exacerbating the preexisting income inequalities and by also creating new inequalities due to the data registering increasing poverty and at the same time rising income for billionaires[106].

[103] Piketty, T. (2014). *Capital in the twenty-first century*. (Capital in the Twenty-First Century.) Cambridge Massachusetts: The Belknap Press of Harvard University Press.

[104] Ballarino, *supra* note 18.

[105] *Id*.

[106] Ferreira, F., (2021), *Inequality in the Time of Covid-19,* Finance and Development, IMF. Retrieved from https://www.imf.org/external/pubs/ft/fandd/2021/06/inequality-and-covid-19-ferreira.htm

V. POLICIES

The most effective way to combat inequality is that of involving governments for the creation of effective and balanced policies with the objective of achieving a more equal society that offers the same opportunity for all.

5.1. Education

Education is one of the most significant factors influencing an individual's opportunities to move upward in the income distribution. For this reason, policies that provide access and support to education are crucial to achieve a more equal framework across a given population. According to a study by Barros et al. (2010)[107], wage inequality between workers in Brazil have declined after an increase in the number of well educated workers in the country[108]. Datas from the OECD's PISA programme[109] show the percentage of "resilient" students which are those who perform better than what is predicted by looking at their socio-economic background (Figure 13). From the results of this programme it seems that some countries' educational systems are more successful than others in lowering socio-economic barriers to success. Among the crucial factors promoting equity in education there are teachers[110].

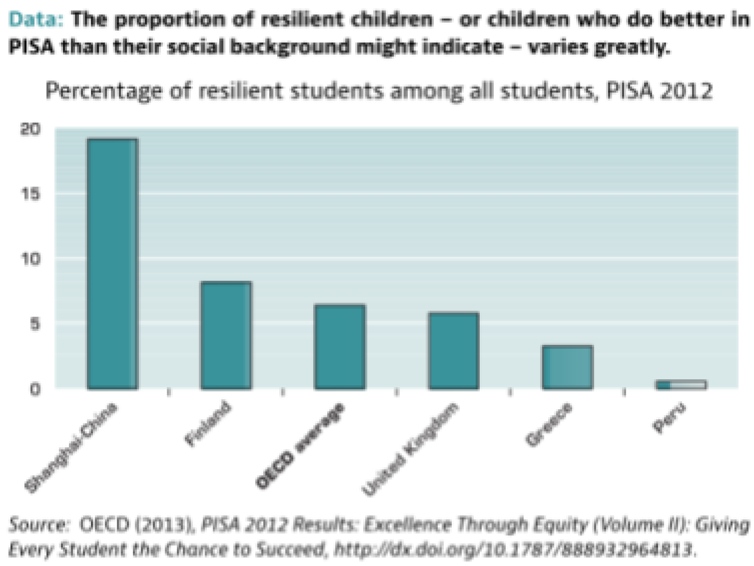

Figure 13:
Source: Keeley, B. (2015), *Income Inequality: The Gap between Rich and Poor*. OECD Insights, OECD Publishing, Paris.

[107] Barros, R., Mirela de Carvalho, Franco, S. and Mendonça, R., (2010), *Markets, the State and the Dynamics of Inequality in Brazil,* In Declining Inequality in Latin America: A Decade of Progress?, edited by Luis F. Lopez-Calva and Nora Lustig, 134–74. Washington, DC: Brookings Institution Press.
[108] Ravallion, *supra* note 38.
[109] The OECD's PISA programme is an assessment made for 15-year-old students in more than 60 countries during a period of three years.
[110] Keeley, *supra* note 1.

5.2. Taxes and Transfers

Redistributive policies using taxes and transfers have played a significant role in reducing inequality in developed countries[111]. Taxes and transfers can be divided according to their socio-economic objective and for those which are designed to reduce income inequality it is crucial to understand how much they redistribute income across the society.

One of the most common kinds of transfers are the pensions that the state pays to people that have retired. However, pensions are not really effective in redistributing income since they are funded mostly with the money that people paid in form of taxes while working. Moreover, lower-income individuals usually have shorter life expectancy with respect to higher-income individuals, meaning that they will probably not be able to exploit much of the pension transfers and end up paying pensions for those who are wealthier[112].

Other forms of support are provided to people when they are unemployed or having health issues. Finally, the most effective transfers in redistributing income across the society are those made to support low-income individuals and also the so-called universal benefits that are transfer payment provided to all families regardless of their household income (such as child support)[113].

The types of transfers mentioned until now are all direct transfers made by the state. Nevertheless, governments also provide public services that can be viewed like non-cash transfers. For example, public services, in most OECD countries, provide free or almost free primary education[114]. Regarding developing countries, even though they have made some progress in implementing these types of policies, they still have a long way to go in order to catch up with the developed world[115].

Overall, since the mid-1990s, the redistributive effect of taxes and transfers have declined probably due to the stricter eligibility rules for benefits.

5.3. Labor-market policies

Labor-market policies can also have a great influence on inequality. Many countries decide to introduce policies with the objective of reducing unemployment as one aspect of general inequality. However, these policies may have an undesired effect. Indeed, even though more individuals will be employed, it is likely that the number of people working in poverty will rise, driving up income inequality[116].

This phenomenon can be explained by the fact that employment doesn't always mean better living conditions. For instance, in-work poverty will increase if workers are provided with extremely low wages for

[111] Ravallion, *supra* note 38.
[112] Keeley, *supra* note 1.
[113] Ravallion, *supra* note 38.
[114] Keeley, *supra* note 1.
[115] *Id.*
[116] *Id.*

large amounts of working hours[117].

Thus, it would be useful to introduce a statutory minimum wage in order to allow low-income workers to at least lift themself above the poverty line. On the other hand, minimum-wage policies may turn out to be not effective in poorer countries since they present a high share of informality in the labor market that makes the enforcement of these policies quite difficult[118]. However, according to a study by Brito, Foguel and Kerstenetzky (2016), Brazil seems to have succeeded in reducing income inequality by raising the minimum wage[119].

Finally, policy must also work in order to provide training programs for workers so that they can acquire the skills required from the market.

[117] Ravallion, *supra* note 38.

[118] *Id*.

[119] Brito, A., Foguel, M., Kerstenetzky, C., (2016). *Minimum Wage Valorization Policy and the Decline in Income Inequality in Brazil between 1995 and 2014: A Decomposition Approach,* Center for Studies on Inequality and Development Discussion Paper 115.

VI. CONCLUSIONS

In this paper, I studied the nexus between income inequality and globalization. More in detail, the paper focuses on a specific aspect of globalization that is trade liberalization. As we have already seen, in recent decades, the world has experienced high volumes of international trade as a result of increasing interdependence among countries.

At the same time, global inequality has also increased significantly. This rising trend in inequality has brought great concern in the public opinion so, it is fundamental to understand what is the correlation between globalization or trade liberalization and inequality in order to achieve equality. We saw that, even though the term globalization is quite recent, the process of globalization started a long time ago with the start of colonialism. Indeed, globalization is divided in three different phases by many literates: the first phase starts around 1500 and it was characterized by trading in raw material and high transportation costs, the second phase goes from around 1700 to 1990 and it was characterised by technological innovation and the third phase started after World War II with increasing cooperation between countries..

This paper is mainly focused on income inequality which, as we have seen in Section II, is rising within countries but is declining between countries. This pattern accentuated with the start of modern globalization when a large number of countries began a process of trade reforms and international cooperation.

Through the analysis of the Elephant curve by Lakner and Milanovic we saw that the winners of the globalization process are the middle classes of developing countries and those who were already at the top of the income distribution. On the other hand, the losers are the poor of developing and developed countries and the middle class of developed countries which saw their conditions unchanged if not worsened.

The case of India showed us how, after the Indian government started a campaign of trade liberalization, income inequality in the country rose. However, at the same time, India experienced a reduction in absolute poverty and it became one of the wealthier countries in the world. We also looked at what are the barriers that Indian exporters have to face and international trade agreements and special provisions may be the solution to these problems.

Inequality is driven by a whole range of factors other than globalization. Indeed, in Section IV of this paper, I presented other factors that influence income inequality such as Skilled-biased Technical Change, geography, education, ethnicity and many others. It is really important to understand all these factors in order to combat inequality because these driving forces of inequality are usually interdependent and self-reinforcing.

To conclude, inequality is more than just income inequality, meaning that a more equal redistribution of income might not solve the problem of inequality if it doesn’t provide equal access to opportunities to all individuals regardless of their socio-economic background. For this reason, governments should devise effective policies with the objective of providing equal access to opportunity for all by, for example, investing in education, improving the existing methods for taxation and benefits as well as labor-market policies.

BIBLIOGRAPHY

1. Aahana, S., *Trade Reforms | India | Economics,* Economic Discussion. Retrieved from https://www.economicsdiscussion.net/foreign-trade/trade-reforms/trade-reforms-india-economics/30509
2. Acharyya, R., Mehta, R., (2006), *Trade Liberalization, Poverty, and Income Inequality in India, Nontariff Barriers Affecting India's Exports,* INRM Policy Brief No. 10, Asian Development Bank.
3. Akerlof, G. A. (1970). *The Market for "Lemons": Quality Uncertainty and the Market Mechanism. The Quarterly Journal of Economics*, *84*(3), 488–500. Retrieved from https://doi.org/10.2307/1879431
4. Amiti, M. & Davis, D., (2011), Trade, *Firms, and Wages: Theory and Evidence.* The Review of Economic Studies. 79. 1-36.
5. Atif, S. M., Srivastav, M., Sauytbekova, M., & Arachchige, U. K. (2012). *Globalization and Income Inequality : A Panel Data Analysis of 68 Countries*.
6. Atkinson, A.; Piketty, T.; Saez, E. (2011). *Top incomes in the long run of history*, in Journal of Economic Literature, Vol. 49, No. 1, pp. 3–71.
7. Ballarino, G., Bogliacino, F., Braga, M., Bratti, M., Checchi, D., Filippin, A., Maestri, V., Meschi, E., Scervini, F., (2012), *Drivers of Growing Inequalities*, Intermediate Work Package 3 Report, GINI Project (European Commission)
8. Barros, R., Mirela de Carvalho, Franco, S. and Mendonça, R., (2010), *Markets, the State and the Dynamics of Inequality in Brazil,* In Declining Inequality in Latin America: A Decade of Progress?, edited by Luis F. Lopez-Calva and Nora Lustig, 134–74. Washington, DC: Brookings Institution Press.
9. Bigman, D. (2007). *Globalization and the Least Developed Countries: Potentials and Pitfalls*. CABI.
10. Borjas, GJ & Ramey, VA 1994, *Time-Series Evidence on the Sources of Trends in Wage Inequality,* The American Economic Review, vol. 84, pp. 10-16.
11. Bourguignon, F., Scott-Railton, T. (2015). *The globalization of inequality*. Princeton: Princeton University Press.
12. Brito, A., Foguel, M., Kerstenetzky, C., (2016). *Minimum Wage Valorization Policy and the Decline in Income Inequality in Brazil between 1995 and 2014: A Decomposition Approach,* Center for Studies on Inequality and Development Discussion Paper 115.
13. Cosci, S. Meliciani, V. e Palmerio G., (2019), *Globalizzazione, Innovazione e Diseguaglianze. Riflessioni sul ruolo della politica industriale.* Cacucci Editore
14. Datt, G., Ravallion, M., & Murgai, R. (January 01, 2020). *Poverty and Growth in India over Six Decades*. American Journal of Agricultural Economics, 102, 1, 4-27.

15. David, Dan Ben; Nordström, Håkan; Winters, L. Alan (1999), *Trade, income disparity and poverty*, WTO Special Studies, No. 5, ISBN 9287012113, World Trade Organization (WTO), Geneva
16. Deaton, A., & Dreze, J. (2002). *Poverty and Inequality in India: A Re-Examination*. Economic and Political Weekly, 37(36), 3729-3748. Retrieved from http://www.jstor.org/stable/4412578
17. Development Strategy and Policy Analysis Unit, (21 October 2015), *Concepts of Inequality Development Issues No.1,* Development Policy and Analysis Division Department of Economic and Social Affairs. Retrieved from https://www.un.org/en/development/desa/policy/wess/wess_dev_issues/dsp_policy_01.pdf
18. Development Strategy and Policy Analysis Unit, (21 October 2015), *Inequality Measurement Development Issues No. 2 ,* Development Policy and Analysis Division Department of Economic and Social Affairs. Retrieved from https://www.un.org/en/development/desa/policy/wess/wess_dev_issues/dsp_policy_02.pdf
19. Dix-Carneiro, R., Goldberg, P. K., Meghir, C., Ulyssea, G., & National Bureau of Economic Research. (2021). *Trade and Informality in the Presence of Labor Market Frictions and Regulations*. Cambridge, Mass: National Bureau of Economic Research.
20. Dornbusch, R., Fischer, S., & Samuelson, P. A. (1977). *Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods.* The American Economic Review, 67(5), 823–839. Retrieved from http://www.jstor.org/stable/1828066
21. Edwards, S., (1997), *Trade Policy, Growth, and Income Distribution*, The American Economic Review, vol. 87 no. 2, pp. 205-10
22. Ferreira, F., (2021), *Inequality in the Time of Covid-19,* Finance and Development, IMF. Retrieved from https://www.imf.org/external/pubs/ft/fandd/2021/06/inequality-and-covid-19-ferreira.htm
23. Ferreira, F., Vega, J. R. M., Paes de Barros, R., and Chanduvi, J. S. (2009), *Measuring Inequality of Opportunities in Latin America and the Caribbean,* The World Bank and Palgrave Macmillan.
24. Frías, J., Kaplan, D., & Verhoogen, E. (2012). *Exports and Within-Plant Wage Distributions: Evidence from Mexico. The American Economic Review, 102*(3), 435-440. Retrieved from http://www.jstor.org/stable/23245571
25. Galasso, V. Nicholas, (2014) *The Drivers of Economic Inequality: A Backgrounder for Oxfam's Inequality Campaign,* Oxfam America Research Backgrounder series. Retrieved from www.oxfamamerica.org/publications/the-drivers-of-economic-inequalitythe-primer.
26. Gastwirth, J. L. (1971). *A General Definition of the Lorenz Curve.* Econometrica, 39(6), 1037–1039. Retrieved from https://doi.org/10.2307/1909675
27. Giri, A. K., Pandey, R., & Mohapatra, G. (2021). *Does Technological Progress, Trade, or Financial Globalization Stimulate Income Inequality in India?*. The Journal of Asian Finance, Economics and Business, 8(2), 111–122. Retrieved from https://doi.org/10.13106/JAFEB.2021.VOL8.NO2.0111

28. Hung, H., & Kucinskas, J. (2011). *Globalization and Global Inequality: Assessing the Impact of the Rise of China and India, 1980–2005.* American Journal of Sociology, 116(5), 1478-1513. doi:10.1086/657456
29. IMF, (2013), *The IMF and the World Bank*, IMF Factsheet. Retrieved from https://www.imf.org/en/About/Factsheets/Sheets/2016/07/27/15/31/IMF-World-Bank
30. Jaumotte, F., Lall, S., Papageorgiou, C., (2013). *Rising Income Inequality: Technology, or Trade and Financial Globalization?*. IMF Economic Review 61, no. 2
31. Keeley, B. (2015), *Income Inequality: The Gap between Rich and Poor*. OECD Insights, OECD Publishing, Paris. Retrieved from https://doi.org/10.1787/9789264246010-en.
32. Kolb, M. (2021, August 24), *What Is Globalization?*. Peterson Institute for International Economics. Retrieved from https://www.piie.com/microsites/globalization/what-is-globalization
33. Kumar, K., & Paramanik, R. N. (2020). *Nexus between Indian Economic Growth and Financial Development: A Non-Linear ARDL Approach.* The Journal of Asian Finance, Economics and Business, 7(6), 109–116. Retrieved from https://doi.org/10.13106/JAFEB.2020.VOL7.NO6.109
34. Lakner, C. & Milanovic, B. (2013). *Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession.* Washington, D.C: The World Bank.
35. Leamer, E. E. (1995). *The Heckscher-Ohlin Model in Theory and Practice*. Princeton Studies in International Finance 77.
36. Madaan, D., (1995). *India's New Economic Policy - A Macro Study.* Indian Journal of Asian Affairs, 8/9(1/2), 104-113. Retrieved from http://www.jstor.org/stable/41950393
37. Marjit, S, Beladi, H, & Chakrabarti, A, 2004, *Trade and Wage inequality in Developing Countries,* Economic Inquiry, vol. 42 no. 2, pp. 295-303.
38. MasterClass staff, *Income Inequality Definition, Facts, and History of Income Inequality in the US.* Last updated: Nov 8, 2020. Retrieved from https://www.masterclass.com/articles/what-is-income-inequality
39. Momin, A. R. (2016). *Unravelling the Interface between Inequality and Ethnicity. Sociological Bulletin, 65*(1), 121–134. Retrieved from http://www.jstor.org/stable/26368068
40. Naidu, Y. (2006). *Globalization and its Impact on Indian Society.* The Indian Journal of Political Science, 67(1), 65-76. Retrieved from http://www.jstor.org/stable/41856193
41. Newfarmer, R., Sztajerowska, M., (2012), *Trade and Employment in a Fast-Changing World* , Policy Priorities for International Trade and Jobs, OECD Publishing, Paris. Retrieved from https://doi.org/10.1787/9789264180178-en.
42. Nielsen, F., & Alderson, A. S. (1997). *The Kuznets Curve and the Great U-Turn: Income Inequality in U.S. Counties, 1970 to 1990.* American Sociological Review, 62(1), 12–33. Retrieved from https://doi.org/10.2307/2657450

43. O'Rourke, K. H. & Williamson, J. G. (2002), *When did globalisation begin?*, European Review of Economic History, Cambridge University Press, vol. 6(01), pages 23-50.
44. OpenStax College., *Government Policies to Reduce Income Inequality.* Retrieved from: https://cnx.org/contents/vEmOH-_p@4.44:SyvxX8aL/Government-Policies-to-Reduce-.
45. Oxfam International, *India: extreme inequality in numbers.* Retrieved from https://www.oxfam.org/en/india-extreme-inequality-numbers
46. Panagariya, A. (2004). *Growth and Reforms during 1980s and 1990s.* Economic and Political Weekly, 39(25), 2581-2594. Retrieved from http://www.jstor.org/stable/4415173
47. Pavcnik, N., (2011), *Globalization and within-country income inequality*, Making Globalization Socially Sustainable, ILO, WTO. Retrieved from https://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_144904/lang--en/index.htm
48. Piketty, T. (2014). *Capital in the twenty-first century*. (Capital in the Twenty-First Century.) Cambridge Massachusetts: The Belknap Press of Harvard University Press.
49. Ravallion, M. (2018). *Inequality and Globalization: A Review Essay.* Journal of Economic Literature, 56(2), 620-642. Retrieved from https://www.jstor.org/stable/26494197
50. Ray, D. (1998). *Development economics*. Princeton, N.J: Princeton University Press.
51. Rosen, S. (1981). *The Economics of Superstars.* The American Economic Review, 71(5), 845-858. Retrieved from http://www.jstor.org/stable/1803469
52. Roser, M. and Cuaresma, J. C., (2016), *Why is Income Inequality Increasing in the Developed World?* Review of Income and Wealth, Vol. 62, Issue 1, pp. 1-27, 2016, Available at SSRN: https://ssrn.com/abstract=2735215 or http://dx.doi.org/10.1111/roiw.12153
53. Rycroft, R. (2003). *The Lorenz Curve and the Gini Coefficient*. The Journal of Economic Education, 34(3), 296–296. Retrieved from http://www.jstor.org/stable/30042553
54. Salgado, R. (2016). *Regional Economic Outlook, April 2016, Asia and Pacific: Building on Asia's Strengths during Turbulent Times.* Washington, D.C: International Monetary Fund.
55. Sen, A. (2006). *Development as Freedom: An India Perspective.* Indian Journal of Industrial Relations, 42(2), 157–169. http://www.jstor.org/stable/27768063
56. Singh, R., Sharma, S., & Tandon, D. (August 20, 2018). *Non-Tariff Measures in Indian Context and the European Union.* International Journal of Economics and Finance, 10, 9, 54.
57. Trading Economics, *India - High-technology Exports (% Of Manufactured Exports).* Retrieved from https://tradingeconomics.com/india/high-technology-exports-percent-of-manufactured-exports-wb-data.html
58. UNCTAD, (2019), *Trade policies and their impact on inequalities,* Trade and Development Board, Sixty-sixth session, Geneva.

59. Upadhyay, Rajeev Kumar, (February 5, 2015), *Impact of Globalization on Distribution of Income, Poverty and Inequality in India* . Abhinav-National Monthly Refereed Journal of Research in Commerce & Management (Online ISSN 2277-1166), Vol 4, No 2 (2015), Available at SSRN: https://ssrn.com/abstract=2578005
60. World Bank Group, *GDP (current US$) - India*. Retrieved from https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN
61. World Bank Group, *Gini index (World Bank estimate) - India*. Retrieved from https://data.worldbank.org/indicator/SI.POV.GINI?locations=IN
62. World Bank Group, *Poverty & Equity Brief, South Asia, India* (April 2020). Retrieved from https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_IND.pdf
63. Worldometer, *GDP by Country.* Retrieved from https://www.worldometers.info/gdp/gdp-by-country/
64. World Trade Organization, *Special and differential treatment provisions*, Trade and Development Committee. Retrieved from https://www.wto.org/english/tratop_e/devel_e/dev_special_differential_provisions_e.htm
65. World Trade Organization. (2013). *World trade report 2013: Factors shaping the future of world trade*.
66. Yandle, B., Vijayaraghavan, M., & Bhattarai, M. (2002). *The Environmental Kuznets Curve A Primer.*
67. Yingruo, Y., (2013), *Relationship between Globalization and Wage Inequality.* All Theses. 1687. Retrieved from https://tigerprints.clemson.edu/all_theses/1687
68. Young, A. (2013), *Inequality, the Urban-Rural Gap, and Migration.* The Quarterly Journal of Economics, 128(4), 1727-1786. Retrieved from https://www.jstor.org/stable/26372536