

Globalization and Inequality

Carlos Eduardo Neves Marques da Costa

Challenges of Globalization

Master in International Markets

Faculty of Business and Economics

University Rovira y Virgili

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Introduction

The debate for and against globalization and its impact on inequality and poverty has always been fruitful. However, today with the critical posture of the current American administration on trade agreements and the course of international trade, with BREXIT and the growth of political parties or social movements against globalization, we wonder if Ian Bremer is right when he says:

Today, the watchword is inequality. We have always known the world remained an unfair place, but most of the world's elites believed, with plenty of evidence, that globalism was the solution, not the problem. But while the elites convene for debate, more people are getting frustrated. (2018, 5)

Surveys tracking public opinion on globalization seem to reveal complex realities regarding the public's perceptions of it. For example, in the European Union public opinion appears, on average, to view globalization in a more positive than negative way. In the autumn of 2018, 51% of those surveyed saw globalization positively while only 37% considered it negative. This is the second highest percentage of positive replies since 2009, 52%, and replicates the result for 2017. While it is the second lowest percentage of negative replies behind 2017 with 36%. However, comparing the replies across countries we are faced with a very different picture. If on the one hand we have Denmark with 78% of positive replies, on the opposite spectrum we have Greece with only 25% of positive replies. Furthermore, we have six countries with higher percentages of negative than positive views on globalization (Greece, Czech Republic, France, Cyprus, Slovakia and Italy) and one with the same percentages for both (Bulgaria). Nonetheless, when we look at the replies concerning free trade we do not see such wide dispersal of answers. In this question, all countries have very high positive replies, and even the country with the lowest positive percentage, France, has a percentage of 58% positive perception against 29% negative. The average for the 28 countries is 74% of positive answers.

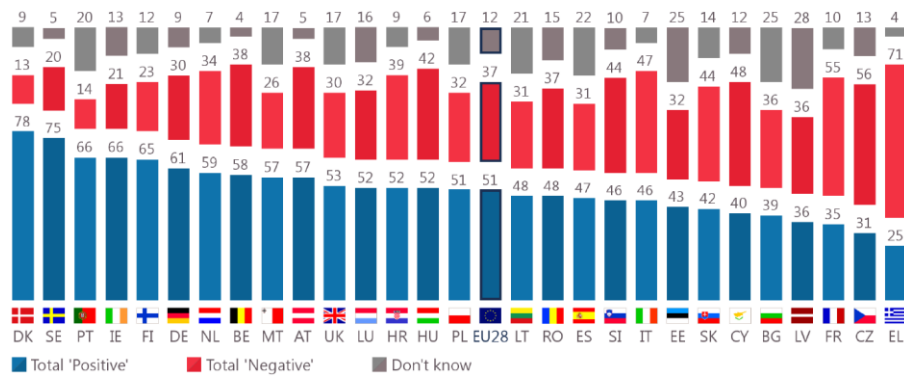


Figure 1 – Perceptions for the term globalization in the EU in 2018

Answers to question QA9.2 of the Standard Eurobarometer 90 (European Commission, 2018, 150-154)

Much of the variation in these results derives from the feeling these populations have of the gains or losses they get from the globalization process. Additionally, people tend to consider trade as positive since it is associated with the availability of products they desire, while globalization entails not only the entry of those products but also, for instance, offshoring of jobs and firms, monopoly of global companies or migration of workers. These perceptions are mostly personal, e.g. if a person has seen his/her life improve, or related with the individual's perception of his situation relative to the situation of those around him/her, e.g. if his/her improvement is similar to that of others. In this sense, much of this perception is linked with the impact globalization has on the wealth of societies and individuals. The patterns of wealth distribution, either at a local, national or global level, are surely one of the key elements to explain the above-mentioned diversity of answers, as well as some of the root causes behind the undeniable frustration Ian Bremer talks about.

Given this we need to understand what is the real effect of globalization of wealth distribution, i.e. what is the relation between globalization and inequality (or equality). Even if plenty is still unanswered regarding this relation, researchers have actually been able to achieve great progress and uncover many relevant answers already. As we will see, economists first begun trying to unveil these impacts using traditional models of trade. These studies provided some evidence that technological change and offshoring seemed to affect wage inequality in the context of globalization. However, they were unable to explain the full trends in wage inequality in last decades of the twentieth century. This made economists begin to look into models that are more heterogeneous and are capable of analyzing impacts within sectors and with firms. With this, recent studies have been able to start raising some clarify to the relevance of firm choices, labor mobility or innovation on changes in income inequality. Finally, we will consider inequality from

a global perspective and not on a country level and see that this raises completely new issues and questions.

Historical trends of inequality and globalization

In countries that are involved in international trade, income inequality is linked with both the internal and external factors of each country. Additionally, there is interdependence between trading countries inequality levels. Historically, until the Industrial Revolution “there was no relationship between mean income level and the level of inequality” (Milanovic, 2016, 50). The drivers of inequality were epidemics, wars and new discoveries. If, by any chance, there was a reduction in inequality led by an increase in wages and mean income, immediately the Malthusian checks would lead the population to increase to levels that were unsustainable and famine would appear, leading mortality levels to bring society back to the previous equilibrium levels of inequality.

After the Industrial Revolution, this situation changes and it became possible for the inequality level to variate and be higher than previously. A higher total income enables certain segments of the population to see their incomes increase without pushing the rest of the population to famine levels. Therefore, as growth sprang and remained historically high, inequality rose until the beginning of the twentieth century. At that point, inequality began to decrease, on the one hand due to the increased supply of more educated labor and the pressure for more redistributive policies, on the other hand because of the wars and civil conflicts in the middle of the twentieth century. This decline in inequality is often name the “Great Leveling” (Milanovic, 2016, 53).

This took place within a context of an increasing expansion of international trade until the First World War. Trade as percentage of world GDP dropped continuously between the wars until the end of the Second World War. After the war the new Bretton Woods order attempted to create a compromise between the “system’s gold-dollar standard, gradual trade liberalization, and international institutions” and “the welfare state” (Frieden, 2006, 475). This compromise enabled continuous growth until its collapse in the early 1970s and the Oil crisis, leading to a decade and a half of “inflation, budget deficits, and economic stagnation” (Frieden, 2006, 476). After that, trade took an even stronger expansion period, as seen in fig. 2, increasing from 35% in 1986 to 60% of GDP in 2008. Even the financial crisis of 2008 did not bring it below 52%, and by 2010 it had returned close to the previous values.

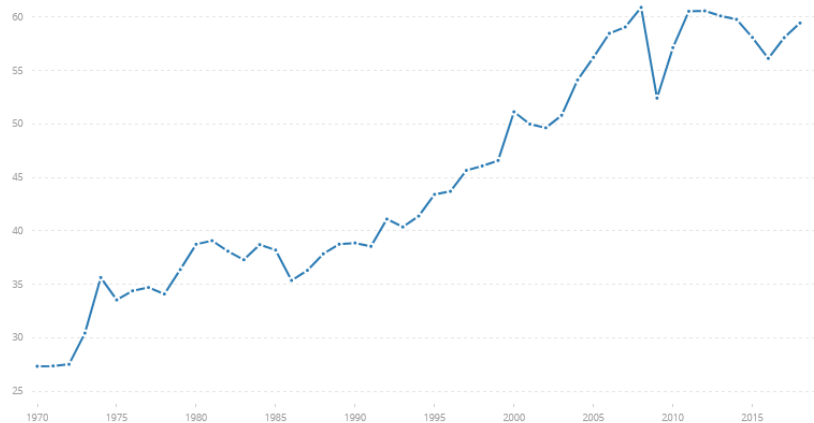


Figure 2 – World trade as % of GDP (1970-2018)
(The World Bank, 2019)

If until the collapse of the Bretton Woods order in the 1970s inequality followed a decreasing trend, after the 1980s we saw a rise in inequality levels throughout the developed countries. In some, like the United States or the United Kingdom, with very pronounced increases, while in other, like the Netherlands or Denmark, with only mild increases, still the decreasing trend halted, as can be seen in fig. 3.

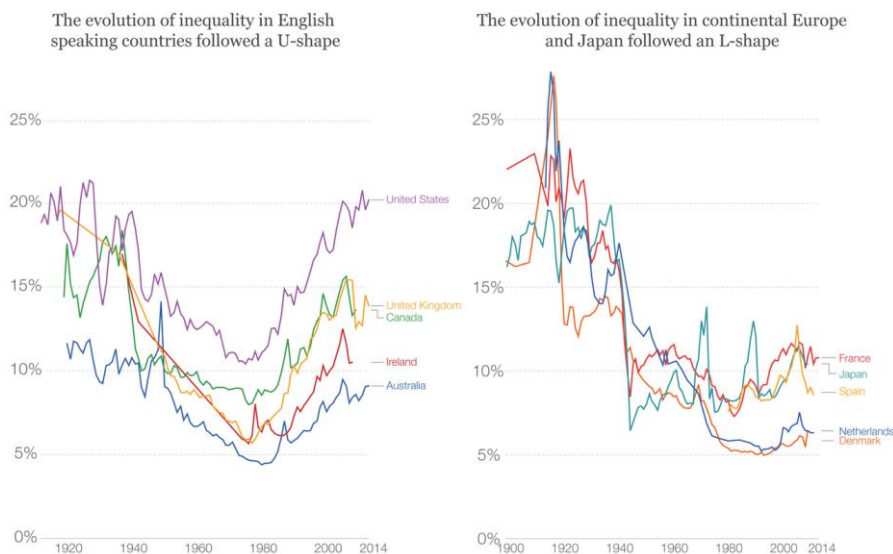


Figure 3 – Share of total income going to the top 1% since 1900
(Roser & Ortiz-Ospina, 2019)

This change in the behavior of inequality levels in developed countries has raised critics to the usage of Kuznets approach to explain the “rising inequality that occurred after 1980” (Milanovic, 2016, 48). The theory Simon Kuznets presented in 1955 argued that there was an inverse-U shaped pattern of inequality in the development process. First, a “long swing in the inequality characterizing the secular income structure” in early period of economic growth “when the transition from the pre-industrial to the industrial

civilization was most rapid”, followed by a shorter stabilization period and then a “narrowing in the later phases” (Kuznets, 1955, 18).

One most relevant elements of economic development in the period after 1980 was the exponential growth of international trade globally, much helped by the astounding decline of transport and communication costs. Sea freight costs in 1980 were only 40% of their cost in 1930, and after 1990 they were little more than 20%. Air travel transport costs dropped even further, amounting since the middle 1970s to less than 20% relative to 1930. Communication saw an even more radical decrease in costs, becoming after 1980 merely residual when compared to 1930s. Not counting the emergence in the last decades of the internet and the growing capacity of doing video calls, share documents or even manage remotely other sites at very low costs. Given the above, much research began to look into the impact of globalization on inequality to try to understand these unpredicted changes in inequality at a country level.

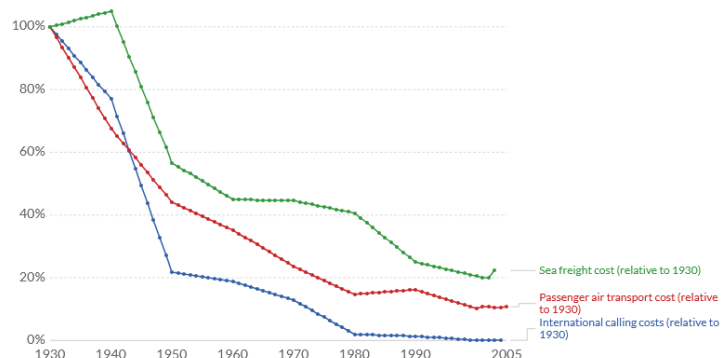


Figure 4 – The decline of transport and communication costs relative to 1930
(Ortiz-Ospina, Beltekian & Roser, 2019)

The impact of globalization: Traditional approach

With rising inequality in many countries since the late 1970s and early 1980s, the focus of many researchers was on the growing disparity in labor income. Wage premium, i.e. the difference between how much a college graduate and a high school graduate earn, was the first focus of attention. Katz and Murphy concluded in 1992 that despite the increase in the number of college relative to high school graduates the college wage premium “rose sharply in the 1980s” (Helpman, 2018, 24). This rise continued, even while the number of college graduates continued increasing permanently until the early 2000s, as can be seen in fig 5. Then it seems to have “plateau” after 2005 (Autor, 2014, 847).

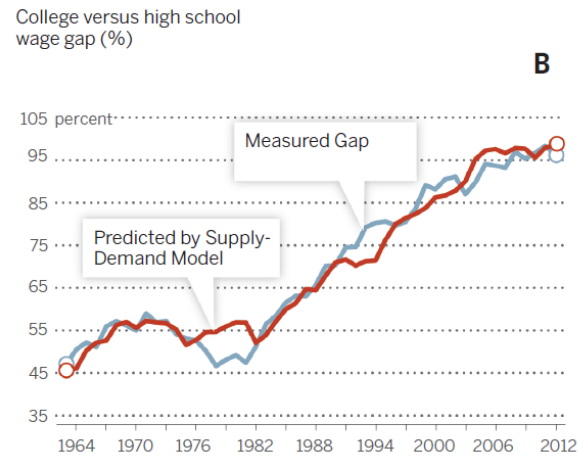
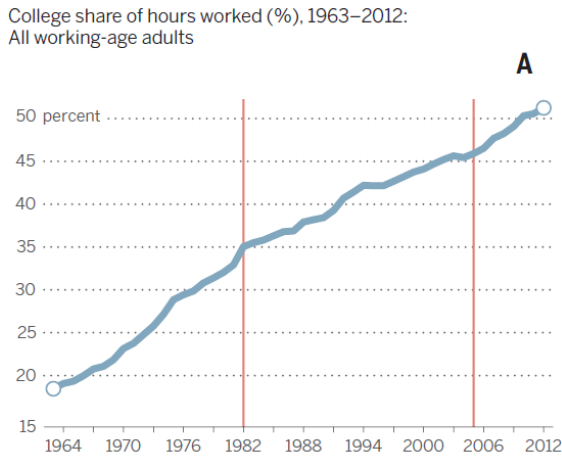


Figure 5 – The supply of college graduates and the U.S. college/high school wage premium, 1963-2012

(Autor, 2014, 846)

These early studies used as starting point the factor proportions trade theory, developed by Heckscher and Ohlin, and the Stolper-Samuelson theorem. The factor proportions trade theory states that a country produces relatively more high-skilled-intensive products if it has more skilled relative to unskilled workers. With low trade barriers and low transport cost, relative prices are the same in a rich as in a poor country. This makes the rich country export the above mentioned high-skilled-intensive products while the poor country exports low-skilled-intensive products, since it has a relative larger endowment of unskilled workers, in case the two countries have the similar expenditure shares when faced with similar prices. Additionally, the Stolper-Samuelson theorem states that an increase in the relative price of high-skill-intensive products leads to a raise in the real wages of the skilled workers while reducing the real wages of the unskilled workers. In this case, “the college wage premium increases” (Helpman, 2018, 28).

Katz and Murphy discovered that the above changes in the college wage premium were influenced by changes in the US trade flows that had modified factor content in a way that raised the demand for skilled relative to unskilled workers. However, even if “trade-induced changes in relative demand move in the correct direction” to support the explanation of rising wage differences, “they are quite small relative to the increases in the relative supplies of more-educated worker over the same period” (Katz & Murphy, 1992, 65). Further studies based on the same methodology corroborated the finding that “globalization had a small impact on the college wage premium” (Helpman, 2018, 36). Moreover, they noticed that in practice the increase relative demand of college graduates was linked with an increase in within rather than between sector demand. With this, Katz

and Murphy suggested that the main force behind this rise was the skilled-biased technical change that was taking place.

Under the definition provided by John Hicks in 1932, an improvement in technology is low-skill saving when raising the demand for high-skilled workers relative to low-skilled, and it is high-skill saving when it raises demand for low-skilled workers instead. The technology advancement can also be “Hicks-neutral” if the increase in output it generates is equal for “every combination of inputs” (Helpman, 2018, 40). Both the first cases, of factor-biased technological improvement, as well as Hicks-neutral lead to a raise in total factor productivity. However, there is another, not equivalent, definition to understand technology change, named factor-augmenting. In this definition, high-skilled-augmenting, or low-skilled-augmenting, technical change means “an improvement in the production technology” that raises productivity of skilled, or unskilled, workers “by raising proportionately the “effective” number of such workers” (Helpman, 2018, 41). A technology change can make a set of workers proportionately more efficient, but it will lead to an increase or decrease of demand depending on the elasticity of substitution between the two sets of workers. For example, if elasticity is larger than 1, the skilled-augmenting change will be low-skilled-labor saving, while if it is below 1 it will be high-skilled-labor saving. Furthermore, besides factor-biased technological changes, there exists also sectoral-biased technological changes when a technology affects more intensely some sectors relative to others.

With these definitions at hand and trying to verify the possibility that technological changes were behind wage changes, several studies were conducted during the 1990s. However, these were not able to confirm that changes in trade and technology explained the rise of inequality in the studied periods. Furthermore, estimates attributing wage movement to technological change leaving aside foreign trade seemed to overstate the role of technology. Economists began to try to introduce into their models information about product price change and elasticities of factor rewards. For example, Paul Krugman in 2000 developed a model of the world economy where changes in technology happen at the same time globally. With it, he was able to show that factor-biased technological change “*alters* relative factor rewards” (Helpman, 2018, 50). If technological change is production-worker saving then the relative wage of nonproduction workers increases, and the skill premium rises regardless whether the sector is high-skilled or low-skilled-intensive.

Berman, Bound and Machin, on the other hand, claimed that “skill-biased technological change was pervasive” across the 1970s and 1980s and caused a shift in demand from “less-skilled to skilled workers throughout the developed world” (1998, 1246-1247). Additionally, they also claimed that the effects of skill-biased technological change on relative wages are “larger than those of increased trade with the developing world” (Berman, Bound & Machin, 1998, 1273). Furthermore, this took place mostly within industry instead of between industry, and those industries that experienced the largest shift towards skilled workers were linked with information technology. Further studies confirmed these findings and stressed that sectors with stronger shifts to skilled workers were more intensive in R&D and computer use. Wage inequality seemed then to be more influenced by technological biased change than by trade. However, these researches used a “simple and highly aggregative model of international trade” which raise several critics (Helpman, 2018, 53).

Technology change, improvement in communication and lower transport costs also enabled that some parts of the manufacturing chain can be located is different sites, either within the same country or in different countries altogether, i.e. offshoring. Offshoring, which can take the form of either arm’s-length trade and/or foreign direct investment, also affected factor prices. Until the beginning of the 1990s, the evolution of offshoring of manufactured products in the world economy increased only modestly. However, after that offshoring measures “increased rapidly” until 2008, even if varying considerably from country to country (Helpman, 2018, 56). Several studies attempted to analyze the impact of offshoring on wage inequality and reach the conclusion that offshoring does have an impact on wage inequality by increasing the skill premium, which might be around “one-fifth of the annual rise” (Helpman, 2018, 65). This meant that even if both technological change and offshoring seemed to affect wage inequality, none of them, nor both together were to be able to explain the full changes in inequality trends since the 1980s.

The impact of globalization: New approaches

Not being able to explain the most recent rise in inequality using the traditional models, economists began creating increasingly complex models for better explanations. One of the new directions economists focused on was how international trade influences the matching of workers with firms, and subsequently the distribution of earnings. At the

core of the models of worker-firm matches is the notion that a “high-ability worker is *relatively* more productive compared with a low-ability worker” in the usage of sophisticated technology when compare with simple technology, i.e. there is log supermodularity (Helpman, 2018, 71). This entails that high-ability workers will be matched with more technological firms, and consequently paid higher wages. The different wage increase rates will then determine the movements in inequality. This means that globalization’s influence on the worker-firm matching reshapes the structure of wages and inequality levels.

Costinot and Vogel, for instance, developed a model in which workers are used to produce tasks in perfectly competitive markets, and the tasks are combined into a unique final good. In the model, a worker’s marginal product is independent of the set of workers employed in the task. With this model they were able to make five propositions. If the “Home” country is skill abundant relative to the “Foreign” country, and all else is equal, trade integration leads to “skill downgrading for all tasks at home and skill upgrading for all tasks abroad”, an increase in the “employment share of tasks with high skill intensity” at home and the opposite abroad, and a “pervasive rise in inequality” in the first case and a fall in the second case (Costinot & Vogel, 2010, 766). Secondly, if technology is skill biased in the home country relative to the foreign country, trade generates upgrading of skills at home and downgrading abroad, increase in employment share of tasks with low skill intensities in the first country and high skill in the second, and, finally, a fall of inequality at home and a rise abroad. Both propositions together mean globalization’s impact depends on the “correlation between supply and demand”, leading to the possibility of similar countries with different experiences of globalization and that the “overall effect of trade liberalization on factor allocation and factor prices tends to be small in practice” (Costinot & Vogel, 2010, 768). Thirdly, if the home country is more diverse, then trade induces skill upgrading in low intensity tasks at home and high intensity abroad, skill downgrading in high skill intensity tasks at home and low skill abroad, and “wage polarization at home and convergence abroad” (Costinot & Vogel, 2010, 769). Fourthly, global skill-biased technological change leads to skill downgrading for all tasks in both countries, a rise in inequality within each country and between countries. Finally, in the fifth proposition, offshoring in the world economy leads to skill downgrading for all tasks in both countries, as well as a “pervasive rise in inequality in both countries” (Costinot & Vogel, 2010, 772).

Further studies on matching showed that the total factor productivity of a firm employing a manager with workers who share a “common ability level” is then “higher the higher the ability” of the manager and the workers (Helpman, 2018, 77). Furthermore, sectors with managers earning higher wages pay higher wages to workers. With this, the sorting pattern arises and “more-able workers appear to sort to sectors with more-able managers” (Helpman, 2018, 79). Additionally, globalization leads to matching of workers across countries, which also changes the income distribution in the affected countries. All the above, means that globalization affects sorting and matching of workers with firms and sectors, an occupation’s production value and the distribution of wages.

Another direction of research economist took was to analyze how limitations in labor mobility, both internally and globally, condition the impact globalization has on inequality. Two assumptions underlined studies in this area, first, that workers do not change their residence in response to globalization, and, secondly, that globalization affects regions distinctly due to differences in the composition of each sector. This means that since each sector is affected differently, the average impact of trade liberalization depends on the sector located at each specific region or area, and how employment is distributed across sectors within that region or area. For example, after India’s 1991 trade liberalization, rural districts “exposed to larger sectoral tariff cuts” experienced “larger increases in poverty”, while districts “exposed to smaller tariff cuts” had “smaller increases in poverty”, and urban districts displayed no relationship between tariff cuts and poverty (Helpman, 2018, 99). In another case about how the German labor market was impacted, in the 1990s, by the opening of the East European markets, again the “differential impact on wages and employment” in each region was due to “differences in sectoral composition” (Helpman, 2018, 104).

Following studies went a step further and focused on the role of inter-sectoral linkages in this process. They showed that the impact of import competition was larger when introducing this element but that trade affected employment only in sectors directly exposed to it. They found that opening trade between the US and China explained a part of the decline in jobs in the US in the last decade, however, that impact was small relative to the total employment and should have been easily accommodated. The problem was that “geographic concentration” of firms and the lack of mobility made its impact on certain regions much more “painful” (Helpman, 2018, 109). This was in line with studies that found that “prolonged adjustments” to trade liberalization were caused by a “lack of

labor mobility across regions, sluggish adjustment of capital”, and “localized agglomeration economies” (Helpman, 2018, 96). The studies showed that even if inequality might change only modestly in a country due to globalization, its impact might be extremely concentrated in a region or sector, leading to a geographical concentration of positive and negative effects on inequality. This is particularly relevant for the built up of socio-political tensions within countries regarding globalization.

Other lines of research placed firms at the center of the link between globalization and inequality. Firm heterogeneity and selection into trade within industries became the context for this interconnection. Samson, for example, found a “strong complementarity between worker skill and firm technology” integrated into the log supermodularity, signifying that when there is market equilibrium there a “positive assortative matching between worker skill and technology” (2014, 164). This in turn means that “any shock” causing workers in “some interval of skill distribution to match with higher technology firms” generates an increase in wage inequality “within any subset of workers belonging to that interval” (Samson, 2014, 169). When workers become employed by firms with higher technology then wage inequality increases. Furthermore, an increase in total employment in firms with technology above a threshold, means there is an increase in wage inequality for workers at that threshold point.

In an open economy equilibrium in which some firms export, “wage inequality is higher over all workers” because moving from autarky to the open economy leads to an increase in “the exit cutoff” (Samson, 2014, 173). This implies that intra-industry trade increases wage inequality regardless of the characteristics of an economy’s trading partners. Thus, if countries are symmetric, moving into further trade liberalization increases wage inequality, it is “independent of the variable trade cost” and it is always higher when “the fixed export cost is larger” (Samson, 2014, 176). The movement towards more openness and its impact on inequality can be further seen in inequality rising for workers in exporting firms, while remaining unchanged for workers in non-exporting firms. This difference leads to an increase in wage inequality between the two sets of workers above. Additionally, if variable trade costs fall, then inequality becomes higher between workers in exporting and non-exporting firms. More surprising is that, if fixed export costs fall then inequality is “lower for workers employed by exporters in the initial equilibrium” (Samson, 2014, 187).

Other studies looked into the impact of globalization on growth and inequality in an economy with heterogeneous workers and firms. They found that if there are “international R&D spillovers” the long-run outcomes were not dependent “on capital mobility” (Helpman, 2018, 130). Globalization accelerates growth in those countries involved and instills convergence of growth rates. Countries benefit from R&D trade spillovers and the ability threshold at which workers are sorted into innovation drops, increasing growth and inequality in all countries. Additionally, an increase in R&D spillovers between two countries in a globalized world leads to an acceleration of growth worldwide, and a rise in inequality in all countries. Finally, an increase in a country’s R&D subsidy, in a globalized world, raises its inequality relative to other countries while leading to faster growth to all countries integrated in the global economy. However, some countries can benefit from faster growth without modifying their rates of innovation or leaving autarky by taking advantage of the rates of innovation of those countries at the global forefront of innovation. Doing this they can try to keep their inequality levels constant, since these studies suggest that without R&D spillovers the countries in autarky do not see their inequality levels changed, or can even reduce them if there is only an integration of goods markets.

Similarly, further studies suggested that R&D is directed towards the creation of more specialized intermediaries and that with increasing intermediaries available in a sector labor productivity increases. Since these intermediate inputs have a cost when being created in skill-rich countries, where they are protected by property rights, inventors and innovators, in a globalized world, tend to decide to do it in the skill-rich countries where they can collect monopoly rents, irrelevant of whether the innovation is directed at high-skill or low-skill tasks. However, “low-skilled intermediates could also be offshored to the skill-poor country” depending on the existing costs of doing it (Helpman, 2018, 143). This means that a reduction of fixed cost of offshoring increases the scale of offshoring and by consequence the skill-bias of firms towards low-skill technologies. This in turn leads to a reduction of the wage difference between low-skilled workers in the two countries affected and a raise in the “skill premium in the skill-rich country” (Helpman, 2018, 145).

Despite all the research directions above, they seem to be able to clarify only a portion of the impact of globalization on wage inequality. There is still a “residual fraction” of wage variation unexplained (Helpman, 2018, 148). Nonetheless, this residual wage inequality seems to have a large role in the increasing wage differences. To solve this residual wage inequality, mechanisms like labor market frictions in the form of fair

wages or screening and matching have been proposed as possible answers. In the first possibility, studies suggest that “reductions in output tariffs” seem to increase “wages paid by exporters relative to nonexporters”, leading to a rise in “wage dispersion within industries”, while “cuts in tariffs on intermediate inputs” seem to increase “wages paid by importers relative to wages paid by nonimporting firms” (Helpman, 2018, 152). In the second case, globalization seems to modify the choices available to firms and the type of jobs available to workers. By changing these options, trade changes wages and employment. Since the screening process is costly, “more-productive firms have a stronger incentive to engage in screening” (Helpman, 2018, 154). Given this, more-productive firms will have better labor productivity not only due to higher core productivity of their technology but also due to a better matching of the workers to the tasks. If exporters are more-productive firms, these will then have more incentives to do better screening and so will increase the labor productivity relative to nonexporters. Furthermore, exporters pay higher wages than non-exporters to workers with the same characteristics, giving rise to residual wage inequality. Since trade liberalization increases the profitability of exports, it makes less-productive firms close to the threshold to decide to export, making them do better screening and raise wages. Simultaneously, the least productive firms are forced to close. Again as seen before, around the threshold point wage inequality rises.

All the above, shows that inequality is indeed affected by globalization, however, not in a simple direct way, but instead through several mechanisms not all working in the same direction. This raises the need to understand how in each country globalization is impacting inequality levels. Only in this way can public policy strategies be adjusted to mitigate those negative effects in certain regions or groups of workers.

Global inequality

While many economist have been trying to reveal the impacts of globalization on inequality at a country level, other economists have been looking at this relation from a global perspective. In this perspective, it is important to understand if inequality at a global level is due to a difference between individuals within a country or between individuals living in different countries. Both of them are components of global inequality but they have different impacts on global inequality levels. The first follows the patterns that the previous studies analyzed, while the second is generated by the growth trends of each country in relation to every other country. Since each country grows at different rates

and growth is linked with the wealth of those living within it, an “inequality gap among nations” appears (Milanovic, 2016, 130). As can be seen in fig. 6, GDP per capita growth levels of the developed countries increased drastically in the twentieth century relative to the rest of the world. This inequality gap gives rise to the notion that the location where an individual is born is determinant for his/her wealth, i.e. there a citizenship premium or penalty according to the place of birth. In 1820, the relevance of location was “negligible” to global inequality, since “only 20 percent” was due to differences between countries, while by the mid-twentieth century these proportions had inverted and now “80 percent of global inequality depended on where one was born” (Milanovic, 2016, 128).

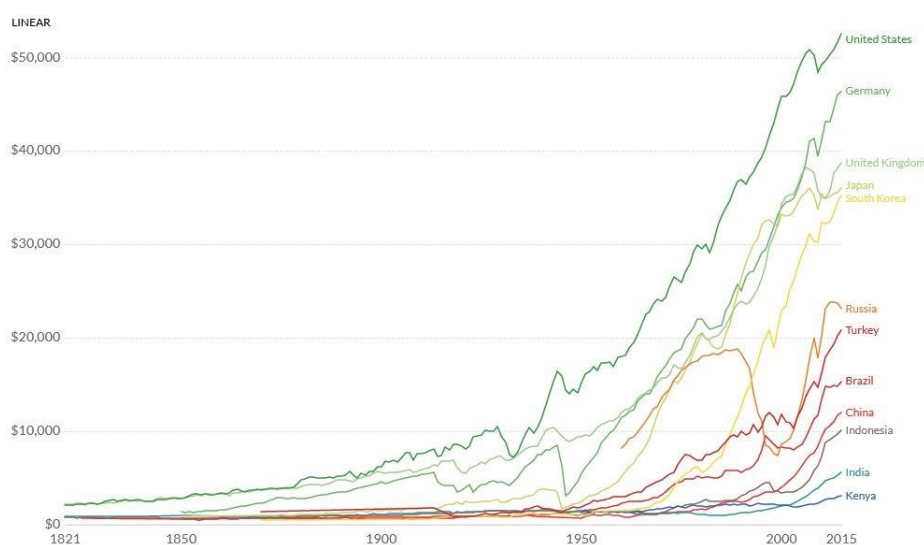


Figure 6 – GDP per capita, 1821-2015
(Roser, 2019)

The existence of a citizen premium or penalty is relevant because it is an exogenous circumstance. The individual’s capacities or efforts are irrelevant for it. It is a matter of pure chance. Furthermore, it means that individuals in a rich country are doing better than individuals in similar points of the income distribution in a poor country. Even more, that an individual in the lower parts of the income distribution of a rich country can do better relative to an individual in a middle or higher part of the income distribution of a poor country. This has special relevance with globalization, because individuals in poor countries become aware that by migrating to a rich country there is “the opportunity to double or triple or increase ten-fold their real incomes” (Milanovic, 2016, 134). The impact of this incentive can be seen in the fact that almost all places of tension due to migration are “where the poor and the rich world are in close physical proximity” (Milanovic, 2016, 144).

However, if globalization, with technology, have made individual living in poorer countries more aware of their citizen penalty, and in some areas, like the European Union, made circulation easier between countries, the inequality gap between countries is mostly a consequence of fast and unequal growth and not necessarily globalization. As can be seen in fig. 6, with the fall of the Bretton Woods system and the acceleration of globalization in the 1980s we saw almost for the first time GDP per capita growth expanding to other countries. This period when there was simultaneously an opening of “peripheral” markets and the possibility of offshoring might be considered “the most globalized years in human history” (Milanovic, 2016, 18). The period saw, then, the continuous growth of the developed countries but also for the first time the growth of other countries, particularly some highly populated countries, e.g. China.

This situation generated by globalization led to rather surprising results. Between 1988 and 2008 those that felt more gains in real income were the global middle classes. In fig. 7, we can see how the households between 20th percentile and the 70th percentile of the global income distribution all gained more, or much more, than 40% cumulative gains in income. Those that actually gained less were the households around the higher 80th and lower 90th percentiles, gaining less than 10%.

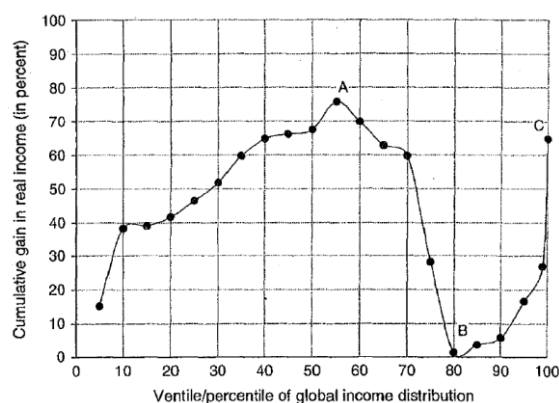


Figure 7 – Relative gain in real per capita income by global income level, 1988-2008

(Milanovic, 2016, 11)

This trend was even further strengthened with the global financial crisis of 2008, since it led to a stagnation of incomes not only for the middle classes of rich countries but also extended this “towards the top” (Milanovic, 2016, 31). Such is leading to the creation of a global middle class, as already visible in fig. 8. In this movement, it is crucial the fast growth levels of china. However, the role of China in reducing global inequality is only temporary, since once its income levels surpass the global average, its fast growth will begin to add to global inequality” (Milanovic, 2016, 213). Still, it is clear from fig. 8 that

there is a movement from a majority of the population with very low-income levels towards a global majority of the population with middle-income levels.

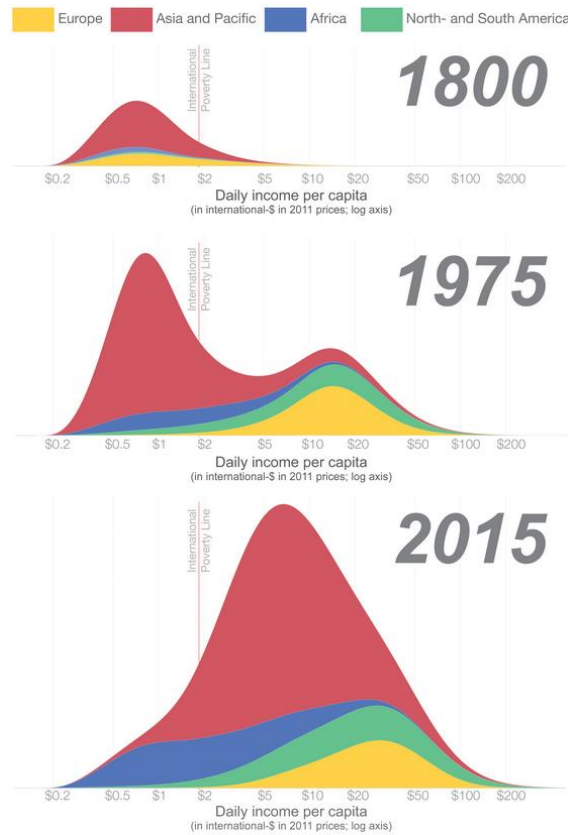


Figure 8 – Relative gain in real per capita income by global income level, 1988-2008
(Roser & Ortiz-Ospina, 2019)

Simultaneously, however, there is also a real income gain in this globalization period of the top 1 percent of households. In fig. 9, we can see how when looking at income gains between 1988 and 2008 in absolute terms, the top 5% of households actually accumulated 44% of the absolute gains. On the other hand, households at the lower 70% of income only gained 20% of the absolute gains.

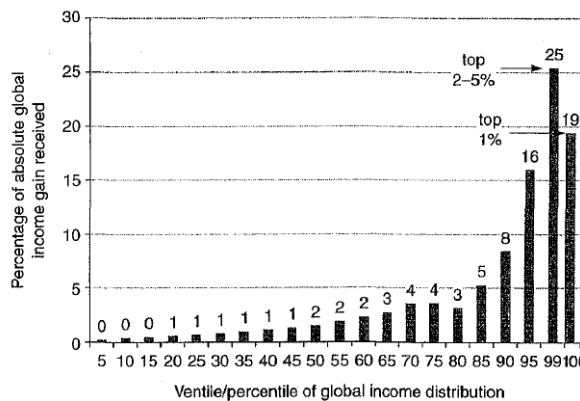


Figure 9 – Percentage of absolute gain in real per capita income received, by global income level, 1988-2008
(Milanovic, 2016, 25)

Both movements above, make sense in regards to the studies we mentioned previously about the impact of globalization in countries. We saw that globalization can lead to a reduction of wage inequality between low-skilled workers in high-skill-intensive countries and low-skill-intensive countries. We also saw that high-skilled workers can take advantage of globalization and increase their wage relative to low-skilled workers in rich countries. Additionally, high-skilled workers can take advantage of exporting firms in rich countries by becoming more productive and gaining the benefits from it in income, just like low-skilled workers gain from offshoring in poor countries. Additionally, this is also instigated by technology, increasing the skill-bias in screening and matching. Specially, as we see global monopolist firms appear in technology.

This leads us to the critics of looking at inequality through a global perspective. Some economists question such practice, since realities are so distinct from country to country. Bhagwati, for instance, states that “these households”, used to get global inequality measurements, “do not belong to a “society” in which they compare themselves with others, and so a measure that includes all of them is practically a meaningless construct” (2004, 67). More, actual policies are enacted at country level not globally, just as public opinion and pressures work within that framework. Still, as globalization advances and further integration between economies and societies becomes a reality, a new awareness of the interconnectedness of events grows. Especially as both globalization and technology are guiding us towards continuously more complex societies. These will in turn require new political structures capable of influencing these more global views on inequality, as is for instance the case with the European Union. However, nothing will advance without facing the rising within country inequality levels and the social tensions they are creating.

Conclusion

Has we saw globalization does influence inequality levels in countries. Economists have been trying to understand how this works, especially since the 1980s when inequality began unexpectedly to rise in several developed countries. They first tried to understand those impacts through traditional trade models and then in the last decades moved to heterogeneous models. We now know that globalization’s impact on inequality works through several mechanisms and so can lead to somewhat different outcomes across countries. Still, there is a general push towards rising inequality in rich countries

by increasing the wage premium through technology bias, screening and innovation, while reducing the income differences between low-skilled workers of rich and poor countries through offshoring, technology bias and matching.

These results enable a better understanding of how further integration into the world economy affect inequality in a country and help to set up better public policy plans to reduce the negative impacts that globalization is having in each country. This is especially important because, as we saw, even if the impact of opening a country to further international trade seems low compared to the gains the country receives, those negative impacts might be geographically concentrated in certain regions and generate very high personal hardship for individuals in those areas. Given this, a society needs to be able to focus its efforts in those regions and populations to enable the gains of globalization to be better distributed.

Finally, we saw that globalization has changed the landscape of global inequality. Even if it is at the country level that actual decisions are made, we should not neglect that an increasingly complex and integrated world will required more awareness of these global trends.

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