

Marek Dabrowski
Non-Resident Scholar at Bruegel, Brussels
Professor, Higher School of Economics, Moscow
Fellow at CASE – Center for Social and Economic Research, Warsaw
e-mails: marek.dabrowski@bruegel.org, mdabrowski@hse.ru, marek.dabrowski@case-research.eu,
Mailing address: 4 Leżajska St., Apt. 19, 02-155 Warsaw/ POLAND
Telephone: +48 22 868-7080

Third version
September 8, 2017
Comments welcomed!

Examining interrelation between global and national income inequalities

Abstract

The recent few years brought the increasing attention to income and wealth inequalities in advanced economies, in particular, in the US triggered by both observations that inequalities are on the rise and by concerns on their negative social and political implications. However, this debate is most often limited to the single-country dimension, i.e., it disregards decreasing global income inequalities, i.e., inequalities between individuals in the entire world.

This paper focuses exactly on global dimension of the inequality trends. Furthermore, it tries to update statistics on recent national inequality trends which, contrary to the dominant narrative, seem to go in various directions depending on a concrete country. Finally, we try to analyze the potential interrelation and perhaps trade-off between decreasing global inequalities and increasing national inequalities, and the role of globalization, in its various forms, in such a tradeoff.

Keywords: income inequality, wealth inequality, income convergence, globalization

JEL codes: D31, D63, F16, F22, F61, F66

1. Introduction

The phenomenon of income and wealth inequalities and their various consequences has been always at the center of economic and social policy debate. Economists, starting from Lewis (1954) and Kuznets (1955), have been interested in the interrelation between income and wealth distribution and economic growth, i.e., to which extent income and wealth inequalities constitute inevitable side-effects of rapid economic growth, innovation and globalization versus their potentially damaging effect on future economic growth, eradicating poverty, equality of opportunities and social cohesion (see Ferreira, 1999 for a broader overview of theories of growth and distribution).

Social policy researchers and practitioners usually include inequality into poverty analysis, assuming that under given income-per-capita level more inequality means more poverty (see Maskin, 2015). This is a standard approach in several publications and statistical databases of international development institutions (see, e.g., UNDP, 2013; 2014; World Bank, 2016).

Politically, income and wealth inequalities have been always an important topic and hot issue in national debates in many countries of the world, both advanced (AEs) and emerging-market economies (EMEs). In the political economy and political science analyses, they have been seen as the factor, which damages democracy (Muller, 1988), leads to political instability (Alesina and Perotti, 1996) and encourage populist policies, especially in developing countries. For example, repeated episodes of populist policies in Latin America in the 20th century were attributed to very high income and wealth inequalities in this region (Sachs, 1989; Dornbusch and Edwards, 1991).

The recent few years brought the increasing attention to the inequality topic. On the professional ground, this debate was triggered by the broadly publicized but controversial book of Thomas Piketty (2014) and new series of inequality statistics (e.g., UNDP, 2013; World Bank, 2016), which pointed to an increasing income inequality within many countries.

The recent wave of populism (of various political colors) in Europe and the US, which led, among others, to the victory of the 'Leave' vote in the Brexit referendum, Donald Trump's victory in the US presidential elections, and increasing popularity of populist parties and movements in many other countries has been also attributed, among other factors, to increasing income and wealth inequalities (see Darvas, 2016a; Darvas and Efstathiou, 2016) and disappearance of a middle class, which has been a traditional social base of a political center.

This short policy essay aims to address two specific questions that, in our opinion, have been largely missed in the inequality debate. The first one concerns decreasing global income inequalities, i.e., inequalities between individuals in the entire world (disregarding national borders), even if they still remain on a relatively high level. The second question relates to the potential interrelation and perhaps trade-off between decreasing global inequalities and increasing national inequalities, and the role of globalization in its various forms in such a tradeoff.

The paper is structured as follow. In Section 2, we provide a brief overview of the recent debate and point to its one-sided character. In Section 3, we discuss changes in global income inequality trends and present their various estimates. Section 4 provides recent estimates of

within-country (national) income inequalities, with special focus given to AEs. In Section 5, we discuss a potential trade-off between decreasing global inequalities and increasing national inequalities, and the role of economic globalization in its various forms in such a tradeoff. Section 6 offers conclusions from our analysis.

When we analyze the above-mentioned trade-off we concentrate on AEs despite the fact that inequalities in several EMEs are also on the rise. There are four reasons of such a choice. First, the current inequality debate, including its political dimension, is very much concentrated on AEs (see Section 2). Second, changes in inequality level in EMEs go in various directions (World Bank, 2016), therefore, it is harder to detect a single trend than in the case of AEs. Third, while globalization may play a role in determining inequality level in EMEs (Maskin, 2015) there are many other factors in play, often country specific. Fourth, quality of population's income data in EMEs is, on average, lower than in AEs and available cross-country comparable data series are shorter.

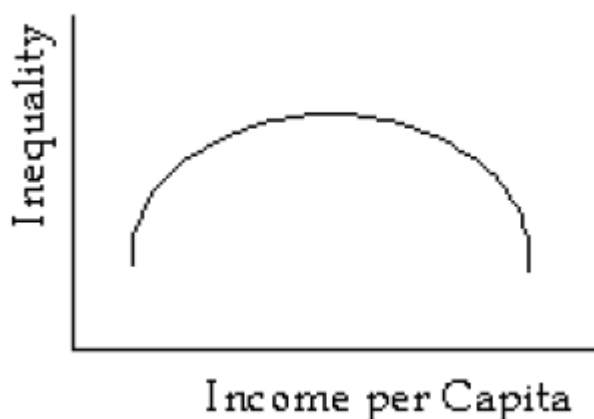
The subject of our analysis (global vs. national inequalities) also determines the data choice. Even if the Gini coefficient of income inequality is not a perfect measure (because it remains sensitive to tail distribution – see Slay et al., 2014 for discussion of alternative measures) this is the only available way to make a broader cross-country comparison over longer period of time.

2. The recent inequality debate and its shortcomings

As mentioned in Section 1, the recent round of inequality debate has been triggered by Piketty (2014). His study focused on increase in income and wealth inequalities in AEs, especially in the US and other Anglo-Saxon countries. He attributed this phenomenon to rather rigid class structures of those societies and privileged position of capital as compared to labor.

Although both Piketty's 'patrimonial capitalism' diagnosis and, even more, his recipes (a progressive global tax on capital) met criticism (see e.g. Rognlie, 2014; Milanovic, 2014) other researchers and reports (UNDP, 2013; Pichelmann, 2015; World Bank, 2016) confirmed increasing income inequality within most of AEs and many EMEs.

Figure 1: A stylized Kuznets curve



Source: Ferreira (1999)

These findings in fact challenge the so-called Kuznets (1955) reverse U-shaped curve (Figure 1). Kuznets considered increase in income inequalities as the only temporary phenomenon associated with the early stage of economic development and catching up growth. Consistently with his empirical analysis and contrary to Kuznets, Piketty (2014) presents normal U-shape curve of income distribution over time, i.e. increasing inequalities after temporary post-WWII period of their reduction. In turn, Milanovic (2016) suggests ‘Kuznets waves’, i.e., periodic fluctuation in national inequality levels.

Examination of the recent empirical studies (e.g., World Bank, 2016, Chapter 4) may lead to conclusion that high and sometimes increasing national income inequalities in several EMEs, for example, in the BRICS¹ countries may be seen as broadly consistent with Kuznets hypothesis while, increase in income inequalities within AEs (after few decades of their moderating) contradicts it. We will come to this question in Section 4.

Of course, the increasing in-country inequalities have fueled political and ideological debate, very often with high emotional content. This effect has been additionally strengthened by the finding that the share of top 1% income earners in the total population income increased in several countries (both AEs and EMEs) between 1980 and 2008. In the US and South Africa it doubled over 30 years, approaching the level of 20% of total population income (Alvaredo et al., 2013; World Bank, 2016, Figure 4.2, p. 76; Economist, 2012).

The similar political and emotional effect has been generated by analyses of wealth inequality, which looks even greater than income inequalities² and also tends to increase in the recent period (Credit Suisse, 2016a). It is worth to note, however, that wealth inequality analyses face numerous methodological problems such as short and incomplete data series, their limited cross-country comparability, choice of exchange rate, phenomenon of hidden wealth and others (Credit Suisse, 2016b). Thus, one should be careful with drawing far-reaching conclusions (especially in respect to cross-country comparison and global outlook) based on the existing databases.

The biggest weakness of the current and past inequality debates, however, is related to their narrow character: they have concentrated on inequalities within individual countries³. Furthermore, sometimes they create impression that the global inequality trend just reflects some sort of average of national inequality trends, which is wrong both conceptually and factually (because it misses income-per-capita differences between countries and their changes – see Wolf, 2005). In particular, this may happen when authors try to move from country-level analyses to regional or global ones using either a weighted or unweighted average, or median of national Gini coefficients (e.g., Li, Squire and Zou, 1998; IMF, 2007; UNDP, 2013; World Bank, 2016).

It does not mean that cross-country comparison of national Gini coefficients does not make sense. On the contrary, it may illustrate differences in income distribution in individual countries and help determine factors staying behind those differences. Nevertheless, a very careful interpretation of such cross-country comparisons is always highly recommended. Otherwise, one risks generalizations, which lead to wrong conclusions like those that the

¹ BRICS stands for Brazil, Russia, India, China and South Africa.

² Most likely, this is an effect of higher saving rate of higher-income groups of population.

³ Credit Suisse (2016a; 2016b) analysis of global wealth inequalities and Darvas (2016b) analysis of global and European inequalities are exceptions; they try to present the global picture, disregarding national borders.

entire world economy suffers from more inequality because national inequalities in most countries are increasing⁴.

One can imagine the hypothetical situation of 200 national economies, each perfectly equal internally (that is, with national Gini coefficients equal to zero) but differing between themselves in terms of income per capita. As result, global income inequality remains high and even increases if high-income countries grow faster than low-income countries. On the contrary, in situation when low-income countries grow faster than high-income countries global income inequality may decrease even if national inequalities are growing. And this exactly happened in the world economy since 1980s as documented by Milanovic (2016) and Darvas (2016b) and recognized by Piketty (2014) himself.

3. What do we know about global income inequality?

The major obstacle to measuring global inequality trends comes from the absence of respective statistics. The household budget surveys (HBS), a key instrument to collect statistical data on income and wealth inequality are conducted only nationally. There is no global HBS. As result, global or regional inequality can be analyzed only indirectly via cross-country differences in income-per capita, using various statistical methods and based on various assumptions on intra-country income distribution⁵.

Limited cross-country comparability of national inequality statistics, their various quality, irregularity of some national HBS, short data series in several countries, and incomplete global coverage pose another methodological challenge (World Bank, 2016). Some countries use consumption surveys while other – income surveys with the latter generating higher Gini coefficients of income inequality than former.

Furthermore, cross-country comparability of GDP per capita level in purchasing power parity (PPP) terms is not so obvious as one could imagine. For example, the new PPP international survey of 2011 led to increase of global GDP in PPP terms by current international USD10 trillion, mainly in EMEs, as compared to the previous 2005 PPP conversion rates (Kharas, 2017). Some large EMEs also recalculated (upward) their nominal GDP. Given importance of cross-country differences in GDP-per-capita level in determining global income inequality (see below) both factors may influence its eventual estimates.

Within the EU, while there is a harmonized EU-SILK survey, the way in which the Eurostat aggregates national Gini coefficients (weighting them only by the size of population in individual countries but not by income-per-capita levels) raises serious methodological doubts (Darvas, 2016b).

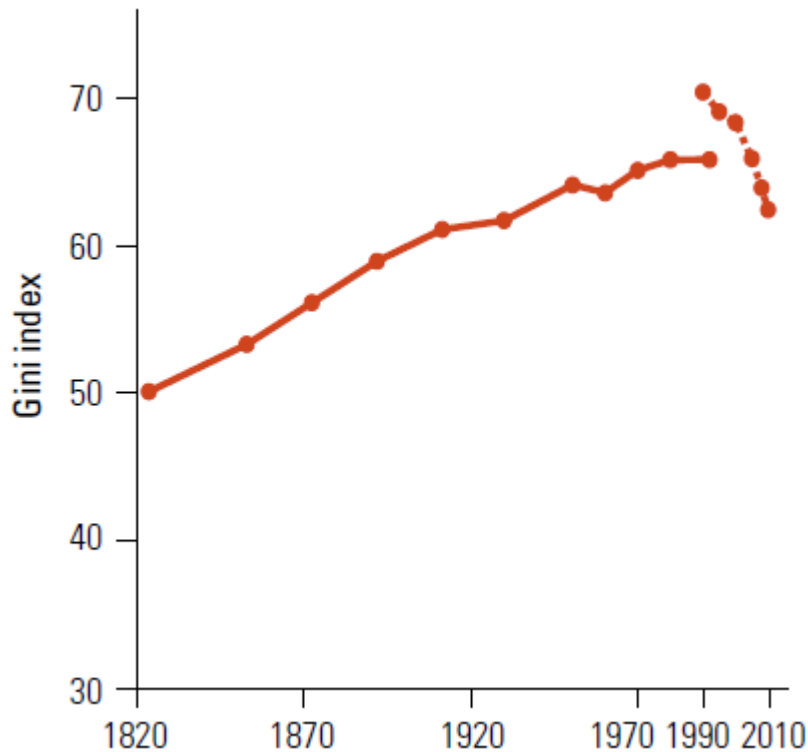
Regardless statistical obstacles and methodological uncertainties in estimating global income inequality trends such attempts have been undertaken since the end of 20th century. One can mention, among others, works of Bourguignon and Morrisson (2002), Sala-i-Martin (2006), Anand and Segal (2008), Atkinson and Brandolini (2010), Milanovic (2012), which

⁴ This is exactly the message that one can get from the UNDP (2013) report, starting from its title ‘Humanity Divided’. In particular, see ‘Overview’.

⁵ Darvas (2016b) provides a comprehensive overview of most frequently used statistical methods and test their accuracy based on four countries (the US, Australia, Canada and Turkey), which have both national and subnational inequality statistics. He comes to conclusion that the method of two-parameter distribution is more accurate than others and uses this method to compute global and regional Gini coefficients.

developed step-by-step methodology of estimating global income inequality and attempted its statistical estimation for various time periods. Studies of Milanovic (2016), Lakner and Milanovic (2016), World Bank (2016) and Darvas (2016b) represent the newest and most comprehensive assessments of this phenomenon.

Figure 2: Global Income Inequality, 1820-2010



Source: World Bank (2016), Figure 4.3, p. 76 based on Bourguignon (2015b)

Despite methodological differences all the above-mentioned studies give a similar picture. After a century and half increase of global inequality by approximately 15 Gini points as result of industrial revolution in most of today AEs, legacy of colonialism, etc., global Gini coefficient stabilized in 1980s and then started to decline (Figure 2). The lack of continuity in inequality trend in Figure 2 results from adoption of various PPP conversion rates for the period until 1990 and after.

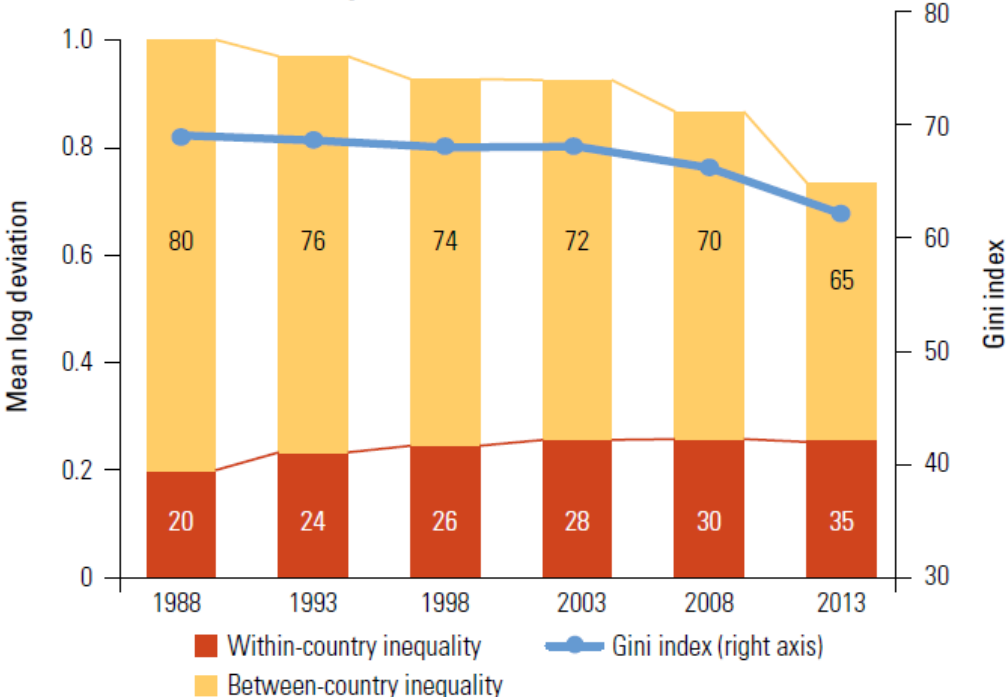
Interestingly, aftermath the global financial crisis of 2007-2009 the declining global inequality trend accelerated as result of slower growth of AEs, continuous fast growth of EMEs, and partial reversal of the previous growth of national inequalities or their stabilization (Figures 3 and 4).

The above findings remain broadly in line with the continuous global decline of absolute poverty, including the extreme poverty (World Bank 2016, Chapter 2) and growing middle class worldwide, especially in EMEs (Kharas, 2017).

Nevertheless, despite its reduction, in 2013 global income inequality remained on a relatively high level (Gini coefficient of 62.5 according to World Bank, 2016, and 59 according to Darvas, 2016b), similarly to the most unequal countries such as South Africa, Namibia or Haiti.

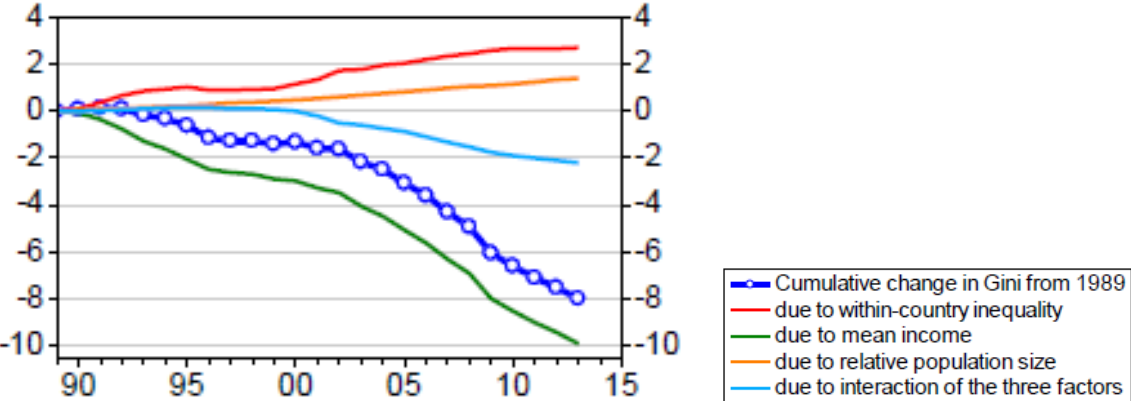
As seen in Figures 3 and 4 and confirmed by all the above-mentioned studies, decrease of global income inequality has been driven predominantly by convergence in GDP-per-capita level (in PPP terms) between countries, i.e., catching up growth in most of EMEs, especially the most populous ones such as China and India. On the other hand, increasing within-country inequalities reduced somewhat effect of GDP-per-capita convergence.

Figure 3: Global Inequality, 1988-2013



Source: World Bank (2016), Figure 4.5, p. 81 based on Lakner and Milanovic (2016) and Milanovic (2016)

Figure 4: Changes in the global Gini coefficient of income inequality and their decomposition, 1989-2013/2015

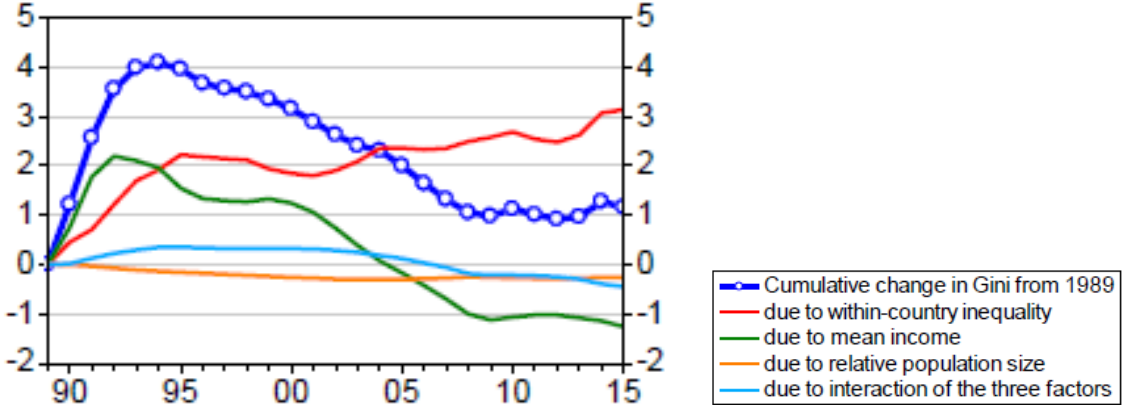


Source: Darvas (2016b), Figure 12A

Using the same method as that applied to computing global Gini coefficients, Darvas (2016b) estimated inequality between citizens of the EU28 (Figure 5). While income inequality within the EU28 remains on much lower level than the global one (Gini coefficient of 33 in 2015) it increased in early 1990s, then gradually declined between 1994 and 2008 and stabilized after. As in the case of global inequality, GDP-per-capita convergence between individual member states has been a major driving force of this decline while increasing within-countries

inequalities has worked in the opposite direction. Overall, results of Darvas (2016b) estimation offer a different picture of the EU28 income inequality than the Eurostat data, which are based on a wrong methodology and, therefore, are misleading (see above).

Figure 5: Changes in EU28 Gini coefficient of income inequality and their decomposition, 1989 – 2013/2015

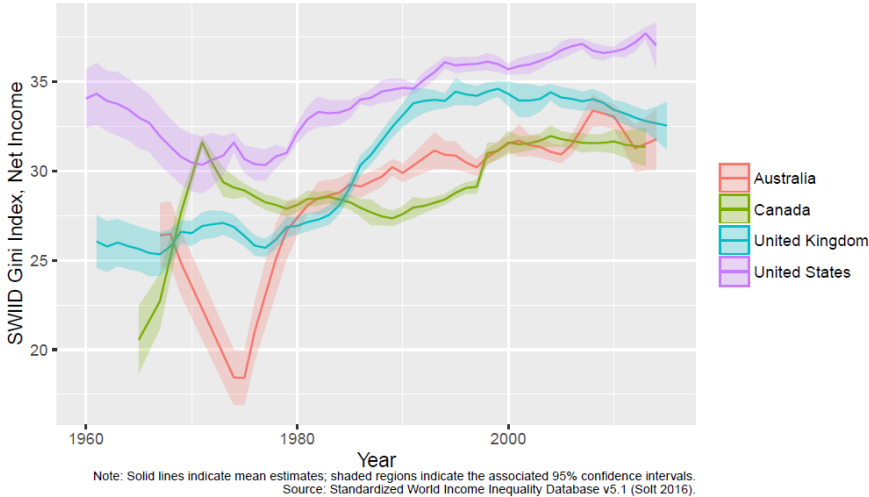


Source: Darvas (2016b), Figure 12B

4. Changes in national income inequality

Figures 6-9 present a set of long-term national inequality trends in selected economies based on the Standardized World Income Inequality Database (SWIID) – see Solt (2016). Figure 6 presents changes in Gini coefficient of income inequality for four Anglo-Saxon economies (the US, UK, Australia and Canada), Figure 7 - for four European continental economies (France, Italy, Germany and Sweden), Figure 8 – for BRIC countries (Brazil, Russia, India and China) and Figure 9 – for the so-called MINT (Mexico, Indonesia, Nigeria and Turkey).

Figure 6: Gini coefficient of net income inequality: Anglo-Saxon countries, 1960-2013



The picture obtained is not so clear and straightforward as one might expect based on the Piketty’s (2014) analysis and headlines from public debate. Indeed, Piketty was right in respect to the Anglo-Saxon economies (Figure 6), in particular, the US where Gini coefficient has been systematically increasing since late 1970s. However, the UK does not match fully the US trend. After the period of increase (from late 1970s until late 1990s) its income inequality started to decrease in 2000s and 2010s.

Figure 7: Gini coefficient of net income inequality: continental Europe, 1960-2013

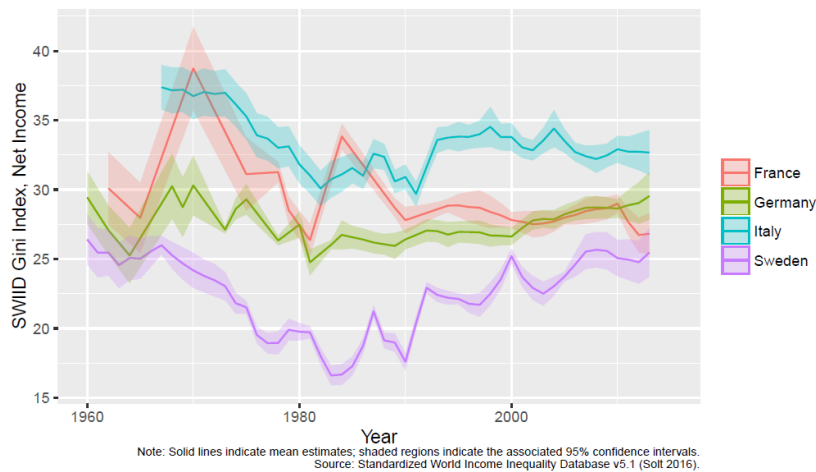
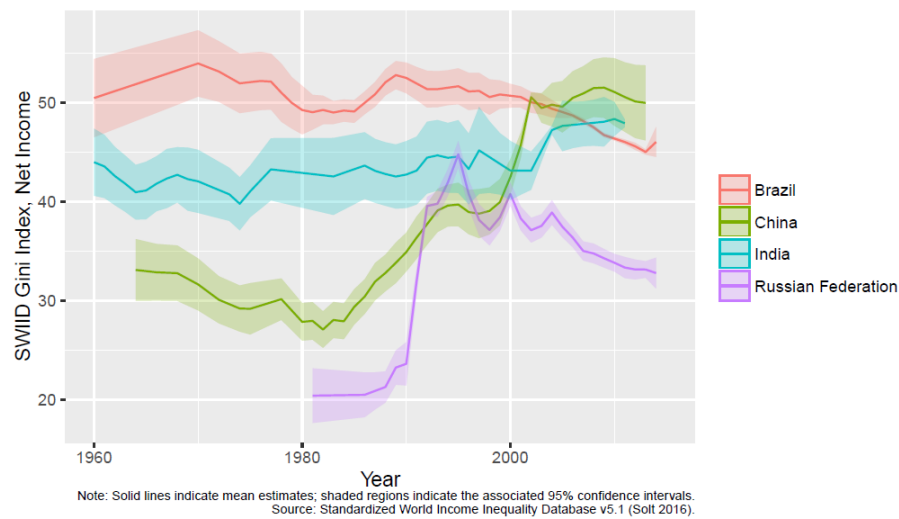


Figure 8: Gini coefficient of net income inequality: BRIC, 1960-2013



In the continental Europe (Figure 7) one can observe some sort of the convergence trend. While the Gini coefficient in the previously relatively equal societies (Sweden and, to lesser extent, Germany) has been growing systematically since the early 1980s it has started to decline in Italy and France which represented higher inequality levels in 1960s and 1970s.

Figure 9: Gini coefficient of net income inequality: MINT, 1960-2013



The situation in large EMEs (Figures 8 and 9) is even less homogenous in terms of both inequality levels and trends. Some traditionally high-inequality economies such as Brazil, Mexico and Turkey have noticed progress in bringing them down over the last 20-30 years. The same concerns Nigeria after the period of dramatic Gini increase (in 1980s and 1990s). On the other hand, previously less-unequal Indonesia has recorded a systematic increase of Gini coefficient since the beginning of the new Millennium. Starting from the second half of 1970s India has also increased its originally high (over 40) Gini coefficient to more than 48.

The two formerly centrally planned economies (China and Russia) noticed a dramatic increase of income inequality in the period of its market transition. Gini coefficient in Russia increased from close to 20 in 1985 to 45 in 1995, and in China from close to 30 in the early 1980s to over 50 in the early 2000s. However, since 1995 Russia managed to bring down Gini coefficient to the level similar to that of many EU countries (below 35), while China continues to record Gini above 50.

Despite heterogeneous trends in individual countries one cannot question the phenomenon of increasing national inequalities in the large part of the world. First, it concerns several largest economies: the US, China, Japan (omitted in Figures 6-9), Germany, India, and Indonesia. Second, this is confirmed by results of global inequality estimation discussed in Section 3. Both in Milanovic (2016) and Darvas (2016b) changes in within-countries inequalities reduce the effect of GDP-per-capita convergence, contributing to global inequality increase. That is, when changes in population-weighted national inequalities are taken into consideration one can observe their continued net increase.

Third, the summary analysis of changes in national income inequalities done by the World Bank (2016, Table 4.1, p. 86) suggests that between 1993 and 2008 the number of AEs with increasing Gini coefficient (12) was higher than those in which it decreased (5) or remained unchanged (4). These proportions changed in the post crisis period of 2008-2013 with 6 AEs where Gini further increased, 8 where it decreased and 6 where it remained unchanged. One must wait for more recent income inequality data to find whether this change in national inequality dynamics (indirectly confirmed by faster pace of decline in global inequality – see Chapter 3) signals a new trend or it is just temporary phenomenon reflecting side-effects of the global financial crisis, i.e., downturn in financial services (see Chapter 5).

Regarding EMEs, the proportion of countries where Gini increased to those where it decreased is different than in AEs (World Bank, 2016, Table 4.1, p. 86). Between 1993 and 2008, Gini increased in 30 EMEs, decreased in 34 and remained unchanged in 6 countries. Between 2008 and 2013, Gini increased in 13 countries, decreased in 33 countries, and remained unchanged in 15 countries. Nevertheless, in the following analysis we will concentrate on AEs, which are of key importance for discussing our main research question of whether one can face a trade-off between policies aimed at reducing global inequality and its side-effect in the form of increasing national inequalities in AEs.

5. Interrelation between global and national income inequality and the role of globalization

For the purpose of this analysis we define economic globalization as ‘...*the integration of economic activity across borders, through markets*’ (Wolf, 2005, p. 14). In practice, it is manifested by a free movement of goods, services, capital, people and information across national borders underpinned by removal of border-related regulatory and policy barriers,

national treatment of foreign physical and legal persons and technological progress, which lead to decreasing transaction and transportation costs. Of course, globalization also concerns other aspects of human activity such as security, education and science, culture, healthcare, environmental protection and climate change, and others but they seem to be less important for the subject of this particular analysis.

Rapid per-capita growth in most EMEs in the last 25 years (faster than in AEs) can be attributed, to large extent, to globalization process (Maskin, 2015) in all its incarnations. Obviously, globalization is not the only factor helping EMEs in their catching-up growth. One can also mention, for example, domestic economic and institutional reforms, education and health improvement, technological progress, presence of resource rent in the context of commodity boom in 2000s and early 2010s and, in many instances, peace dividend associated with terminating domestic and external conflicts. However, those domestic factors have been supported and multiplied by the openness of world markets.

Global trade liberalization allowed moving production of many goods and services from AEs to EMEs with welfare gains for both. Global financial integration improved global capital allocation and help EMEs to bring large-scale foreign direct investment (FDI) with associated new technologies, managerial and organizational know-how and employees skill upgrade, develop and modernize their financial sectors, etc. Increasing outward migration generated substantial remittance flows to many EMEs, helped building cross-border business contacts, upgrading skills and learning AEs culture and experience. Thus, one can conclude that globalization has had positive impact on decreasing global income inequalities by contributing to income-per capita convergence between lower- and higher-income countries (see Wolf, 2005).

On the other hand, in several AEs globalization is increasingly seen as the factor responsible for job losses (not only of blue-collar but also white-collar jobs), putting downward pressure on wages and salaries of low- and medium-skilled employees and, therefore, benefiting mainly better-off elites (Milanovic, 2016; Stiglitz, 2016; Sachs, 2017). Politically, globalization may lead to erosion of democratic accountability (Rodrik, 2011). While it helps in expansion of a middle class in EMEs (Milanovic, 2016; Kharas, 2017) it economically undermines part of the traditional middle class in AEs, which constitutes the political base of liberal democracy and a political center (Rodrik, 2011, Stiglitz, 2016). As result, globalization has been frequently blamed for generating populist backlash in both Europe and US, the point frequently raised in the 2016 US presidential election campaign⁶.

Discussion of all potential advantages and disadvantages of globalization goes beyond remit of this policy essay. Instead globalization in our analysis serves as a phenomenon potentially responsible for both decreasing global inequalities (via GDP-per-capita convergence between countries) and increasing national inequalities in AEs, that is, phenomenon linking both trends into a causal relationship and policy trade-off.

To answer the question whether there is a trade-off between decreasing global inequality (due to globalization and its positive impact on catching-up growth in EMEs) and increasing within-country inequalities in AEs we will consider various channels through which globalization may contribute to the latter, partly in response to Stiglitz (2016) arguments:

- Free movement of goods and services leads to competition of lower-cost goods and

⁶ See, e.g., Gros (2016) for critical commentary.

services produced in EMEs against domestic production and, therefore, to cutting the number of jobs in AEs (especially in a manufacturing sector) and putting the downward pressure on wages and salaries in case of remaining jobs in tradeable sector.

- In addition, free movement of capital allows large corporations to optimize their localization decisions in respect to production and employment within global value chains (GVCs). As result, many low- and medium-skilled jobs are moved to EMEs (de-location) while high-skilled and high-paid but limited in numbers jobs in management, research and development, product design and marketing, finance, and other business related services are expanding in AEs. In many of this activities agglomeration effect, as explained by the new economic geography (NEG) theory (Krugman, 1991), leads to additional territorial concentration of high-paid jobs⁷. All this causes income polarization in AEs⁸.
- Formation of large trans-national companies and integration of financial markets leads to concentration of capital income in few global business and financial centers. This concerns, in first instance, financial sector but also commodity producers and traders, and large non-financial corporations (see above).
- Incoming migration from lower-income countries allows employment of low-paid foreign labor in agriculture, construction, manufacturing, retail, catering and other low-skill services etc., demand for which rapidly increases due to changing lifestyles and population aging in AEs. This is additional factor, which puts downward pressure on wage level, especially in case of illegal or informal employment where it is possible to circumvent domestic labor market and social policy regulations.
- Increasing global cost competition and migration flows make traditional tax and welfare state instruments aimed at reducing national income inequality (progressive personal income taxes, various social benefits, generous public pension schemes) in AEs unsustainable.
- The same effect is caused by the relative easiness to move business activity (at least its formal residence) across border to lower-tax and less-regulated jurisdiction (tax and regulatory arbitrage).

The above list of globalization related effects, potentially responsible for more unequal income distribution in AEs, has the status of a set of hypotheses, which are not easy to be verified empirically.

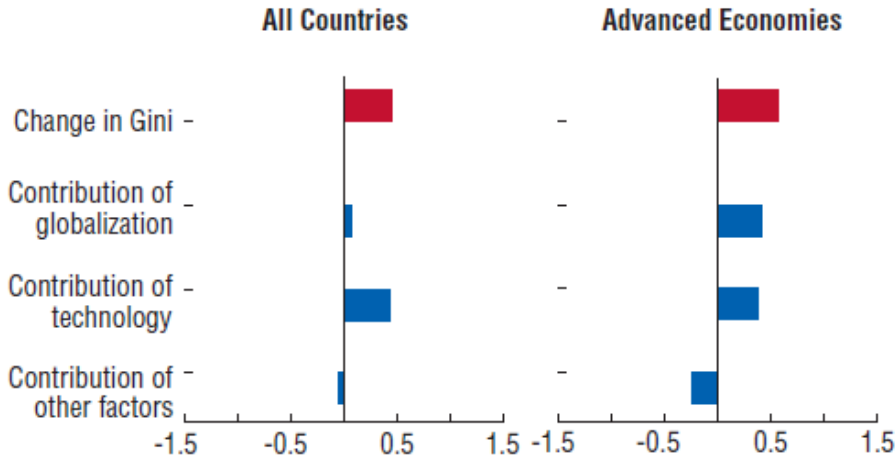
The IMF (2007) and Jaumotte, Lall, and Papageorgiou (2008) studies are rare examples of quantitative assessment of the impact of globalization on within-country inequalities, for the period of 1981-2003. Conclusions from these studies can be summarized as follows:

- Globalization had a positive impact, along with technological progress on increasing national income inequalities, especially in AEs (Figure 10)
- When disaggregating the globalization phenomenon, trade globalization helped narrowing income inequalities both in AEs and EMEs, while inward and outward FDI increased those inequalities, especially in AEs (Figure 11); this may indirectly confirm the hypothesis that de-location (associated with outward FDI) reduces number of low- and medium-skilled jobs and puts downward pressure on labor income in AEs

⁷ Think about the role of Silicon Valley, Wall Street or City of London.

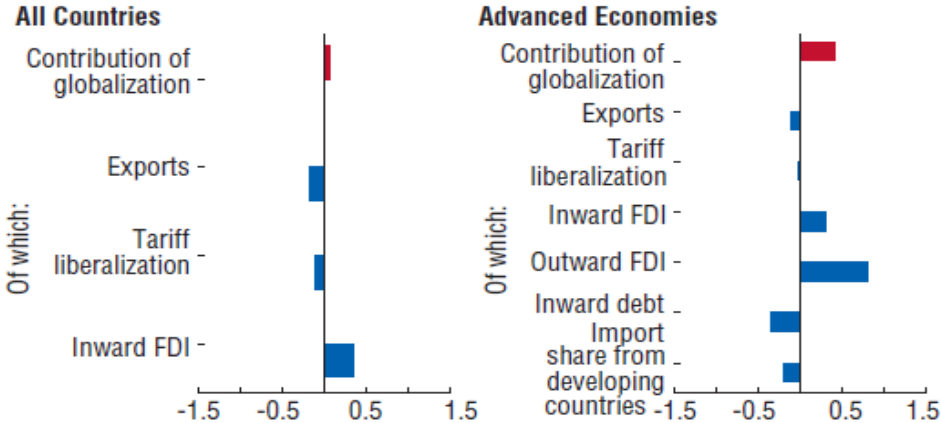
⁸ Michael Kremer and Eric Maskin developed a theoretical model which explains income polarization in EMEs as result of what they call 'internationalization of the production process', i.e., division of labor within GVC (Maskin, 2015). The same model can be used to explain income polarization in AEs.

Figure 10: Decomposition of change in income inequality, 1981-2003 (average annual percentage change)



Source: IMF (2007), Figure 4.9, p. 49

Figure 11: Decomposition of globalization effect on inequality, 1981-2003 (average annual percentage change)



Source: IMF (2007), Figure 4.10, p. 50

It is worth to remember that results and conclusions of the IMF (2007) analysis and study of Jaumotte, Lall, and Papageorgiou (2008) covered the early period of globalization (1980s and 1990s), and situation might change since then.

Attempts to go beyond IMF (2007) findings require to rely on fragmental and rather indirect evidence and arguments:

- Perhaps the post-WWII period of lower income inequalities in the US and other AEs can be associated with the relative regress in global economic integration (especially in the financial sphere) which created more policy space for aggressive income redistribution within individual AEs. Once global trade and financial integration resumed in 1980s it became increasingly difficult to sustain many of those instruments against pressure of external competition. Increasing migration flows increased this pressure even further.
- Change in national inequality trends in the aftermath of the 2007-2009 global financial crisis discussed in Chapter 4 (stabilization or even decrease of Gini coefficient in

several countries) may indirectly support the IMF (2007) and Jaumotte, Lall, and Papageorgiou (2008) finding on the positive impact of financial globalization on income polarization.

- The high share of top corporate managers, financial market specialists and other highly skilled professionals in the top 1% income earner group in both the US (Economist, 2012) and several European countries (Denk, 2017) seems to confirm the hypothesis on the impact of globalization on job polarization in AEs as result of new international division of labor (see above). However, such job polarization may also result from technological changes, especially progressing automation and robotization (see Sachs, 2017).

One should admit, however, that neat decomposition of the impact of each individual factor such as globalization, technological progress, changes in education, population aging, macroeconomic policies, labor market policies, market access for various professions and activities, domestic income distribution policies, social welfare, etc. on income inequalities is not fully possible due to their partial overlaps (co-integration) and lack of the detail statistical evidence (Ferreira, 2016).

This leads us to conclusion that further empirical research are required to confirm a positive impact of globalization on income inequalities in AEs (using a more recent dataset) and investigate detail channels of such an impact.

6. Conclusions

The paper's main purpose was to put attention to conceptual and methodological shortcomings of the mainstream income inequality debate, which concentrates on increasing national inequalities in some AEs, especially in the US, while disregards decrease in global income inequality (between citizens of the world) since late 1980s. We have also tried to discuss whether there is trade-off between decreasing global inequality and increasing national inequalities in many AEs, and what is the role of globalization in its various forms in this tradeoff.

While definite empirical verification of the trade-off hypothesis is not possible at this stage of research we cannot exclude its existence (based, among others, on results of the IMF, 2007 study). In particular, the role of financial globalization should be further investigated.

In the light of our discussion, globalization process, which helps reducing income-per-capita gap between low- and high-income countries may also contribute to increasing national income inequalities in some AEs. Such a potential trade-off offers a new perspective to the inequality debate. While one cannot downplay the negative economic, social and political side-effects of excessive national inequalities, at the same time, it is not possible to ignore positive effects of reducing global inequality (see Bourguignon, 2015b). That is, in the increasingly interconnected and interdependent world benefits of having more equal national income distribution in AEs will be problematic if they come at the cost of stopping economic convergence of low-income countries. Such a world will be neither just nor safe. Putting in other words, perhaps more unequal income distribution in AEs is the price worth to pay for economic and human development progress in the developing world.

In our analysis, we have also found that not all AEs suffer from continuous increase of in-country income inequality. Furthermore, several countries managed to stop this trend or even

reverse it in recent years. This means, country-specific factors and national policies continue to play an important role, despite powerful impact of globalization.

References

Alesina, A., and Perotti, R. (1996): *Income Distribution, Political Instability and Investment*, European Economic Review, Vol. 40, Issue 6, June, pp. 1203-1228, [https://doi.org/10.1016/0014-2921\(95\)00030-5](https://doi.org/10.1016/0014-2921(95)00030-5)

Alvaredo, F, Atkinson, A.B., Piketty T., and Saez E. (2013): *The Top 1 Percent in International and Historical Perspective*, Journal of Economic Perspectives, Vol. 27 No. 3 (Summer), pp.3-20, www.aeaweb.org/atypon.php?return_to=/doi/pdfplus/10.1257/jep.27.3.3

Anand, S., and Segal, P. (2008): *What Do We Know about Global Income Inequality?*, Journal of Economic Literature, Vol. 46, No. 1: pp. 57–94, <https://www.aeaweb.org/atypon.php?doi=10.1257/jel.46.1.57>

Atkinson, A.B., and Brandolini, A. (2010): *On Analyzing the World Distribution of Income*, The World Bank Economic Review, vol. 24, Issue 1, pp. 1–37, <https://doi.org/10.1093/wber/lhp020>

Bourguignon, F. (2015a): The Globalization of Inequality, Princeton University Press

Bourguignon, F. (2015b): *Inequality and Globalization: How the Rich Get Richer as the Poor Catch Up*, Foreign Affairs, December 14, <https://www.foreignaffairs.com/articles/2015-12-14/inequality-and-globalization>

Bourguignon, F., and Morrisson, C. (2002): *Inequality among World Citizens: 1820-1992*, The American Economic Review, Vol. 92, No. 4, September, pp. 727-744, <http://piketty.pse.ens.fr/files/BourguignonMorrisson2002.pdf>

Credit Suisse (2016a): Global Wealth Report 2016, Credit Suisse Research Institute, November, <http://publications.credit-suisse.com/tasks/render/file/index.cfm?fileid=AD783798-ED07-E8C2-4405996B5B02A32E>

Credit Suisse (2016b): Global Wealth Databook 2016, Credit Suisse Research Institute, November, <http://publications.credit-suisse.com/tasks/render/file/index.cfm?fileid=AD6F2B43-B17B-345E-E20A1A254A3E24A5>

Darvas, Z. (2016a): *Brexit vote boosts case for inclusive growth*, Bruegel blog, July 13, <http://bruegel.org/2016/07/brexit-vote-boosts-case-for-inclusive-growth/>

Darvas, Z. (2016b): *Some are more equal than others: new estimates of global and regional inequality*, Bruegel Working Paper, No. 8/2016), November 8, http://bruegel.org/wp-content/uploads/2016/11/WP_08_16-1.pdf

Darvas, Z., and Efstathiou, K. (2016): *Income inequality boosted Trump vote*, Bruegel blog, November 9, <http://bruegel.org/2016/11/income-inequality-boosted-trump-vote/>

Denk, O. (2017): *Who Are the Top 1 Percent Earners in Europe?*, paper presented at the 14th

EUROFRAME Conference on Economic Policy Issues in the European Union – Growth and Inequality: Challenges for EU Economies, Berlin, June 9, 2017, http://www.euroframe.org/files/user_upload/euroframe/docs/2017/conference/Session%202/EUROF17_Denk.pdf

Dornbusch, R., and Edwards, S. (1991): *Macroeconomic Populism in Latin America*, NBER Working Paper, No. 2986, <http://www.nber.org/papers/w2986.pdf>

Economist (2012): *Income inequality: Who exactly are the 1%?*, The Economist, January 21, <http://www.economist.com/node/21543178>

Ferreira, F.H.G. (1999): *Inequality and Economic Performance. A Brief Overview to Theories of Growth and Distribution*, Text for World Bank's Web Site on Inequality, Poverty, and Socio-economic Performance, June, <http://siteresources.worldbank.org/INTPGI/Resources/Inequality/ferreira.pdf>

Ferreira, F. (2016): *Kuznets Waves and the Great Epistemological Challenge to Inequality Analysis*, Development Impact, the World Bank, April 27, <http://blogs.worldbank.org/impac-tevaluations/kuznets-waves-and-great-epistemological-challenge-inequality-analysis>

Gros, D. (2016): *Is Globalization Really Fueling Populism?*, Project Syndicate, May 6, <https://www.project-syndicate.org/commentary/understand-factors-behind-rising-populism-by-daniel-gros-2016-05>

IMF (2007): *Globalization and Inequality*, in: World Economic Outlook: Globalization and Inequality, Chapter 4, Washington, DC: International Monetary Fund, October, <https://www.imf.org/external/pubs/ft/weo/2007/02/pdf/c4.pdf>

Jaumotte, F., Lall, S., and Papageorgiou, C. (2008): *Rising Income Inequality: Technology, or Trade and Financial Globalization?*, IMF Working Papers, WP/08/185, July, <http://www.imf.org/~media/websites/imf/imported-full-text-pdf/external/pubs/ft/wp/2008/wp08185.ashx>

Kharas, H. (2017): *The Unprecedented Expansion of the Global Middle Class: An Update*, The Brookings Global Working Paper Series, No.100, February 28, https://www.brookings.edu/wp-content/uploads/2017/02/global_20170228_global-middle-class.pdf

Krugman, P. (1991): Geography and Trade. MIT Press: Cambridge, Mass.

Kuznets, S. (1955): *Economic growth and income inequality*, American Economic Review, Papers and Proceedings, Vol. 45, pp. 1-28, <http://www.jstor.org/stable/1811581>

Lakner, C., and Milanovic, B. (2016): *Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession*, The World Bank Economic Review, Vol. 30, Issue 2, pp. 203-232, <https://doi.org/10.1093/wber/lhv039>

Lewis, W.A. (1954): *Economic Development with Unlimited Supplies of Labour*, The Manchester School, Vol 22, Issue 2, May, pp. 139-191,

<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9957.1954.tb00021.x/epdf>

Li, H., Squire, L. and Zou, H-f. (1998): *Explaining International and Intertemporal Variations in Income Inequality*, The Economic Journal, Vol. 108, No. 446, January, pp. 26-43, <http://www.jstor.org/stable/2565735>

Maskin, E. (2015): *Why Haven't Global Markets Reduced Inequality in Emerging Economies?*, The World Bank Economic Review, Vol 29, Supplement, pp. S48-S52 https://scholar.harvard.edu/files/maskin/files/world_bank_econ_rev-2015-maskin-s48-52.pdf

Milanovic, B. (2012): *Global Income Inequality by the Numbers: in History and Now*, The World Bank, Development Research Group, Poverty and Inequality Team, Policy Research Working Paper, WPS6259, November,

Milanovic, B. (2014): *The Return of "Patrimonial Capitalism": A Review of Thomas Piketty's Capital in the Twenty-First Century*, Journal of Economic Literature, Vol. 52, No. 2, June, pp. 519–534

Milanovic, B. (2016): Global inequality: a new approach for the age of globalization, Cambridge, Ma: Harvard University Press

Muller, E.N. (1988): *Democracy, Economic Development, and Income Inequality*, American Sociological Review, Vol. 53, No. 1, February, pp. 50-68. <http://www.jstor.org/stable/2095732>

Pichelmann, K. (2015): *When 'Secular Stagnation' meets Piketty's capitalism in the 21st century. Growth and inequality trends in Europe reconsidered*, European Economy – Economic Papers, No. 551, June, http://ec.europa.eu/economy_finance/publications/economic_paper/2015/pdf/ecp551_en.pdf

Piketty, T. (2014): Capital in the Twenty-First Century, Cambridge, Ma: Harvard University Press

Rodrik, D. (2011): The Globalization Paradox. Democracy and the Future of the World Economy, W.W. Norton & Company, Inc.: New York, NY and London

Rognlie, M. (2014): *A note on Piketty and diminishing returns to capital*, http://www.mit.edu/~mrognlie/piketty_diminishing_returns.pdf

Sala-i-Martin, X. (2006): *The World Distribution of Income: The Falling Poverty and ...Convergence, Period*, The Quarterly Journal of Economics, Vol. CXXI, Issue 2, May, pp. 351-397, www.columbia.edu/~xs23/papers/pdfs/qjec.2006.121.2.pdf

Sachs, J.D. (1989): *Social Conflict and Populist Policies in Latin America*, NBER Working Paper, No. 2897, March, <http://www.nber.org/papers/w2897.pdf>

Sachs, J.D. (2017): America, we still have a jobs problem, CNN.com, July 7, <http://edition.cnn.com/2017/07/07/opinions/americas-jobs-problem-sachs/index.html>

Slay, B., Danilova-Cross, E., Papa, J., Peleah, M., Marnie, S., and Henrich, C. (2014):

Poverty, Inequality, and Vulnerability in the Transition and Developing Economies of Europe and Central Asia, UNDP Regional Bureau for Europe and CIS, UNDP Bureau for Policy and Programme Support, October,

<http://www.eurasia.undp.org/content/dam/rbec/docs/Poverty%20Inequality%20and%20Vulnerability.pdf?download>

Solt, Frederick (2016): *The Standardized World Income Inequality Database*, Social Science Quarterly, Vol. 97, SWIID Version 5.1, July 2016,

Stiglitz, J. (2016): *Globalization and its New Discontents*, Project Syndicate, August 5,

<https://www.project-syndicate.org/commentary/globalization-new-discontents-by-joseph-e--stiglitz-2016-08>

UNDP (2013): Humanity Divided: Confronting Inequality in Developing Countries, New York, NY: United Nations Development Programme, Bureau for Development Policy, October,

http://www.undp.org/content/dam/undp/library/Poverty%20Reduction/Inclusive%20development/Humanity%20Divided/HumanityDivided_Full-Report.pdf?download

Wolf, M. (2005): Why Globalization Works, Yale Nota Bene, Yale University Press: New Haven, CT and London

World Bank (2016): Poverty and Shared Prosperity 2016: Taking on Inequality, Washington, DC: World Bank, <http://www.worldbank.org/en/publication/poverty-and-shared-prosperity>