

Extreme inequality: evidence from Brazil, India, the Middle East and South Africa

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Abstract

This paper presents new findings about inequality dynamics in Brazil, India, the Middle East and South Africa from the World Wealth and Income Database (WID.world). We combine available tax data, household surveys and national accounts to produce estimates of the distribution of personal income, using concepts coherent with macroeconomic national accounts. We document an extreme level of inequality in these regions, with top 10% income shares above 50% of national income and a sharp division of average income levels across the population, depicting elites with comparable monetary incomes to elites in high-income countries and a much poorer mass of the population outside of top groups. We discuss the diversity of national contexts underlying the trends and levels observed, including racial or territorial discrimination in Brazil and South Africa, deregulation policies in India and concentration of oil resources in the Middle East.

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Introduction

Economic inequality has attracted growing interest in the recent years. One of the concrete implications of the debates that followed the publication of *Capital in the Twenty-First Century* (Piketty 2014) was the release of new administrative tax data by public authorities, particularly in emerging and developing countries. As a result, it is now possible to re-examine inequality in countries historically characterized by highly unequal distributions, or in regions where inequality statistics were previously rare and to obtain better insights on global inequality dynamics (Alvaredo et al. 2017). This paper presents new insights into extreme inequality as observed in Brazil, India, the Middle East and South Africa. We begin by describing the methodological challenges specific to the measurement of inequality in these regions. We then present the main findings on their levels of income concentration and their common distributional features, before providing a brief discussion on their multidimensional origins.

I. Dealing with data limitations to measure inequality in emerging countries

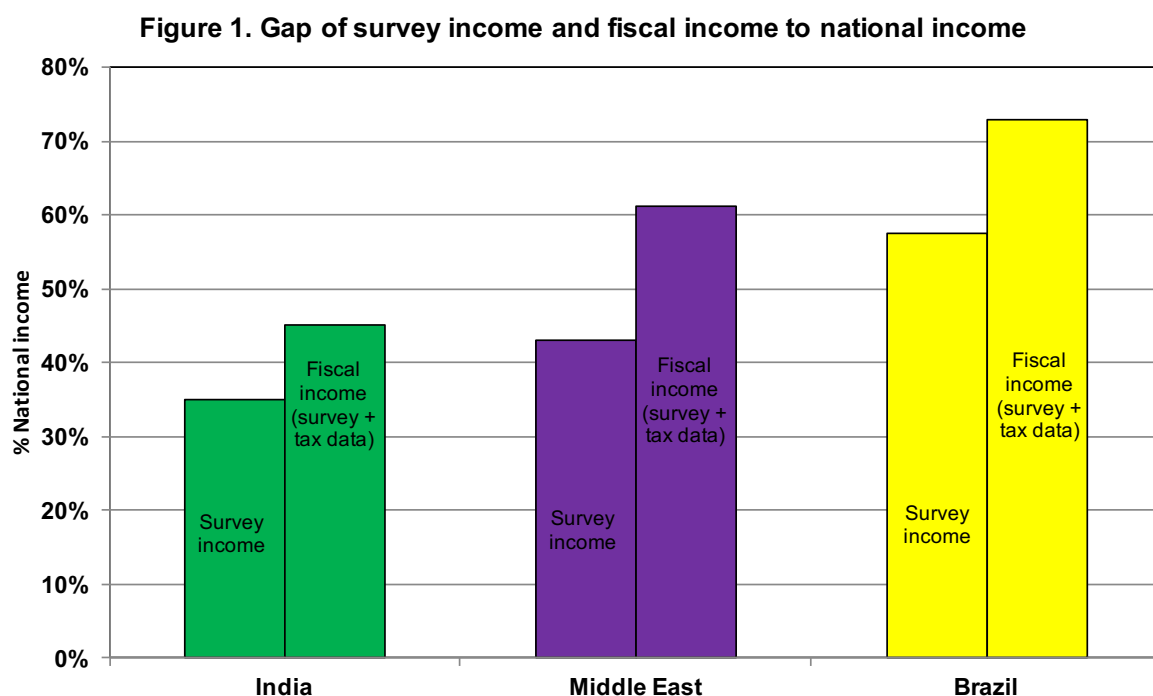
More fiscal data have become available in recent years, enabling the construction of income series in a growing number of regions beyond the Western countries. The series discussed in this paper follow the same general DINA guidelines (Alvaredo et al. 2016). We combine national accounts, surveys, and fiscal data in a systematic manner in order to estimate the full distribution of pre-tax national income¹.

Despite our best efforts at approximating the DINA framework, we emphasize that the series produced for these regions are far from perfect due to major data limitations. First, in all these countries, a very substantial fraction of national income is missing from self-reported household survey income. The ratio between total survey income and national income is typically around 40%-50%, with the exception of Brazil in the last few years, where it is closer to 60%. The ratios are as low as 20%-30% for Gulf countries. Additionally, inequality trends in surveys and DINA may differ. In Brazil, for instance, surveys indicate a clear decline in inequality whereas the DINA series depicts a more stable picture. In India, the gap between growth in national accounts and growth in household surveys remains an unresolved puzzle (Deaton and Kozel, 2005). To the extent that this missing income may accrue to relatively small groups of the population, this implies that official statistics based on survey data may severely underestimate income inequality in these countries. Some studies have tried to overcome the gap by attributing all missing income to certain population groups identified in the survey, such as the top 10% income recipients (Lakner and Milanovic,

¹ For methodological details, see Morgan (2017) for Brazil; Chancel and Piketty (2017) for India; Assouad (2017) and Alvaredo, Assouad and Piketty (2017) for Lebanon and the Middle East. For the specific case of South Africa, we use national accounts and fiscal data (from Atkinson and Alvaredo, 2010) to derive top shares of fiscal income, re-scaling the estimated fiscal incomes to national income. We fill in the rest of the distribution using household survey shares for the bottom 50% and middle 40%, assuming that they represent the same share of the bottom 90% in the national income distribution as in the survey distribution, for the same income concept and unit of observation.

2013), while others use Pareto-type imputations to distribute the missing income (Lakner and Milanovic, 2013; Burkhauser et al. 2016; Jenkins, 2017). Our preferred strategy, where possible, is to merge surveys and fiscal data using a “generalized Pareto” interpolation (Blanchet, Fournier and Piketty, 2017). This strategy arguably leads to more realistic estimates of inequality as it relies on more empirical data and on better estimation techniques for the very top of the income distribution.

Figure 1 illustrates the gap between survey income and national income, even after having corrected the top of the distribution using fiscal data. In the absence of further information on the distribution of income or wealth we attribute the missing portion of national income proportionally to the entire distribution, which by construction has no impact on the shares (as in the case of India and South Africa). For regions with usable income or wealth data (such as Brazil and the Middle East) we allocate the missing portion of private national income according to distributions of certain classes of income/wealth variables (see the individual country studies for further details).



Survey income is the total income from raw survey data. Fiscal income is the total income from the combination of survey and income tax data. Presented are the countries for which raw data from surveys, tax records and national accounts have been combined for the estimation of inequality. Latest years available (2012-2016). Source: WID.world.

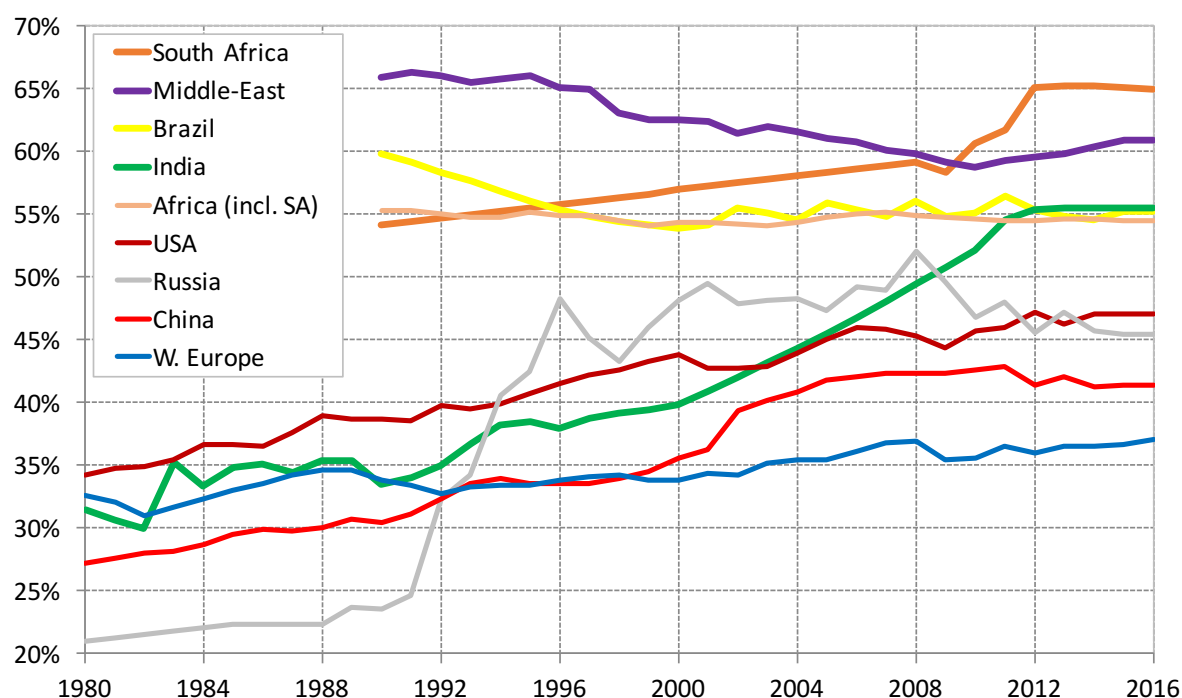
Second, fiscal data and national accounts also suffer from substantial limitations in these regions. Income tax records often cover a minority of the total adult population, ranging from 1% in Lebanon (used for the Middle East estimations), to 6-7% in India, 14-15% in South Africa and 20% in Brazil. These levels of coverage are close to the ones observed in the USA or France up to the interwar period, but much lower than the levels observed in the decades following World War II (50% or more) (Piketty 2001; Piketty and Saez, 2003). In addition, income variables in the tax statistics are often less detailed, which increases the need for additional assumptions to link them to national accounts. Similarly, national accounts in these countries tend to present varying degrees of disaggregated information, which makes it difficult to precisely

identify income categories within each sector of the economy. This adds greater difficulty to impute missing components to the income distribution.²

In general, inconsistencies between micro data (survey data and tax records) and macro data (national accounts) are greater in these regions. In this context, our DINA estimates should be assessed with caution. Even if they are seen as second best, they enable us to gain better insights on income concentration in emerging countries. One of the contributions of these regional studies is to list available data, underline what is missing and present in novel inequality statistics using a transparent and standardized methodology. In general, this methodology systematically corrects upward the standard survey-based inequality statistics and provides more realistic estimates than official statistics based solely on self-reported surveys.³ We nevertheless recommend including estimation bounds that can act as confidence intervals to mitigate the more acute issues of measurement error faced in these countries. Each country-specific paper presents estimation bounds and justifies the choice of the benchmark series.⁴

II. The world inequality frontier and the structure of extreme inequality

Figure 2. Top 10% income share: 1980-2016



Distribution of national income (before taxes and transfers, except pensions and unempl. insurance) among adults. Corrected estimates combining survey, fiscal, wealth and national accounts data. Equal-split series (income of married couples divided by two), except for South Africa (individuals). Estimates for Africa include South Africa (SA). Latest years available (2012-2016). Source: WID.world.

² Brazil stands somewhat as an exception of the group, as detailed institutional sector accounts consistent with the latest UN SNA framework are available from 2000 onwards.

³ For example, previous survey-based estimates of income inequality in Egypt or Gulf countries are implausibly low and suggest that, at the eve of the Arab Spring, they were as egalitarian as Scandinavian countries in the 1980s.

⁴ See in particular the Indian study and its use of alternative estimation scenarios (Chancel and Piketty, 2017, Appendix 13).

Recent findings on global inequality dynamics from WID.world have enabled us to shed new light on the distributional characteristics of a subgroup of extremely unequal countries and regions, namely Brazil, India, South Africa and the Middle East.⁵ All these regions share a similar structure of economic inequality, despite the origins of this inequality varying among them. Two main results are worth noting.

First, new Distributional National Accounts (DINA) estimates show that their pre-tax income appears to be extremely concentrated. The top 10% income share is greater than 50% of total income, compared to 40-50% in other regions like the United States or China and less than 40% in Western Europe. Consequently, a lesser share of national income is left for groups in the bottom 90% (see Figure 2). As such, Brazil, India, South Africa and the Middle East seem to represent a “world inequality frontier”, i.e. regions that exhibit the highest income concentration currently observed anywhere in the world; and towards which other countries seem to be progressing at different speeds (Alvaredo et al. 2017).

The structure of inequality in these regions, expressed using average income levels, helps to better understand the degree of concentration observed from the income shares. While adults within the top 1% of the income distribution in these regions have an average level of income comparable to their counterparts in high-income regions, the rest is much poorer, making the overall average income in each emerging region lower than developed country levels (see Table 1). In all these emerging regions, except for the Middle East, the average income of the bottom 90% is below the average income of the bottom 50% in Western Europe and the USA. In general, the further one moves down the income distribution the more the gap in average income between these emerging regions and high-income regions increases. The extreme disparity in income levels reflects the absence of a broad “middle class” comparable in size to high-income countries. While the socio-economic concept of a “middle class” is salient in countries like Brazil and India, it comprises a much smaller share of their population than in the Western world.⁶ Moreover, it tends to be located closer to the top of the distribution than to the median in these countries, which squeezes the relative incomes of the middle 40% of the distribution. Whereas the middle 40% receives more than the share accruing to the top 10% in Western Europe, and a bit less in the USA (about 15% less), it is left with far less income than the top 10% in Brazil, India, South Africa and the Middle East (between 40-50% less), as Figure 3 shows.

Second, the trajectories of extreme inequality in these countries differ. While we observe rising top income shares in India and South Africa, as in nearly all countries in recent decades, Brazil and the Middle East seem to be defined by relatively stable levels of extreme inequality. The Indian case is the most striking: after a more egalitarian regime during the second half of the 20th century, income inequality has returned to pre-independence levels (see Figure 3).

⁵ See <http://wid.world/>

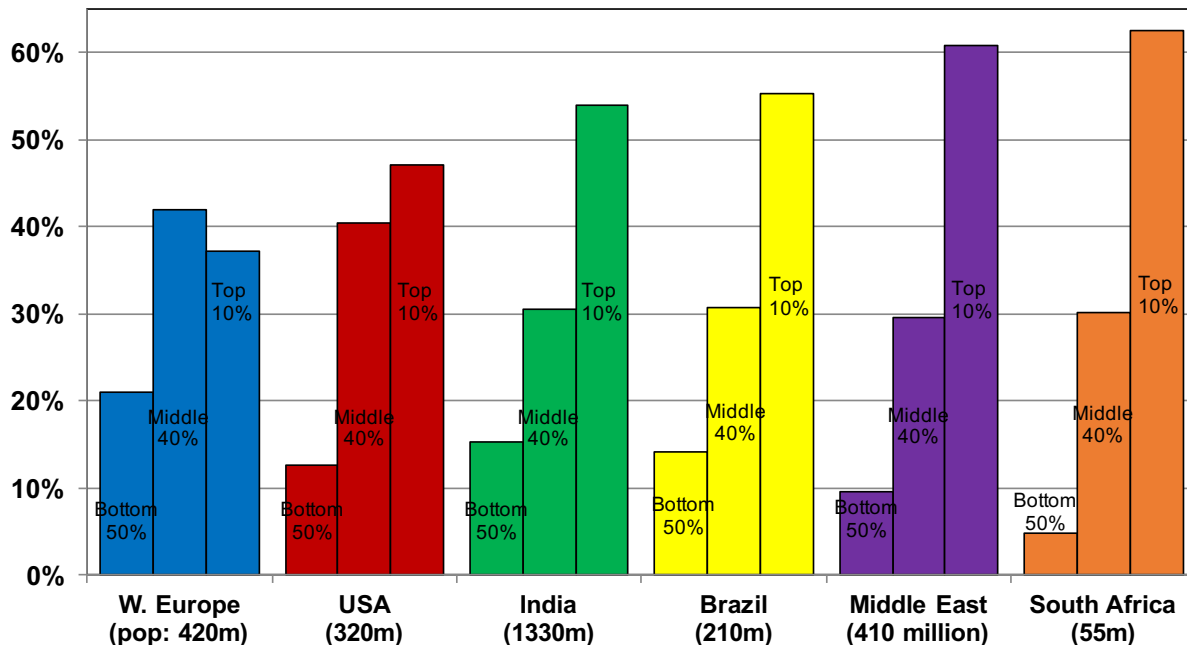
⁶ Rather than signifying a mid-range ordered position in the distribution of income (e.g. middle 40%), the term “middle class” is generally understood and used to refer to a particular group of people, in certain occupations, with certain levels of income, expenditure habits, lifestyles, etc., which can comprise a smaller group than the middle 40%, especially in the developing regions under consideration.

Table 1. Average incomes in Western Europe, USA, Brazil, India, Middle East and South Africa: 2016 Euros (PPP)

Income groups (distribution of per adult pre-tax income)	USA	Western Europe	Middle East	Brazil	South Africa	India
Adult Population	€37,938	€34,214	€22,760	€9,115	€8,439	€4,391
Bottom 50%	€9,560	€14,308	€5,002	€2,233	€810	€1,345
Middle 40%	€38,301	€35,916	€17,499	€7,387	€6,355	€3,343
Top 10%	€178,372	€126,938	€132,594	€50,432	€54,924	€23,808
incl. Top 1%	€766,341	€417,501	€553,321	€253,759	€162,139	€95,388
incl. Top 0.1%	€3,535,792	€1,553,248	€2,043,377	€1,313,729	€503,966	€378,319
incl. Top 0.01%	€16,514,272	€6,143,396	€8,999,447	€6,817,909	€1,516,121	€1,684,895
incl. Top 0.001%	€72,081,591	€24,494,358	€18,569,002	€35,399,859	€4,634,789	€17,278,335

Notes: The unit is the adult individual (20-year-old and over; income of married couples is split into two, except for South Africa which takes only individual income). Income corresponds to pre-tax national income. Fractiles are defined relative to the total number of adult individuals in the population. Corrected estimates combine national accounts, surveys and fiscal data.

Figure 3. Bottom 50% vs Middle 40% vs Top 10% income shares



Distribution of national income (before taxes and transfers, except pensions and unempl. insurance) among adults. Corrected estimates combining survey, fiscal, wealth and national accounts data. Equal-split series (income of married couples divided by two), except for South Africa (individuals). Latest years available (2012-2016). Source: WID.world.

III. The multifaceted origins of inequality at the frontier

It is worth stressing that despite the commonalities in their income distribution, the origins of inequality vary across this group of regions. In South Africa, extreme inequality is closely related to the legacy of the Apartheid system – until the early 1990s, only the white minority (about 10% of the population, roughly corresponding to the top 10% income group today) had full mobility and ownership rights. While there is a small economic elite within the racial elite, which has benefitted from the end of international economic sanctions, what seems to matter more in South Africa is the historical persistence of this racial elite vis-à-vis the rest of the population.

In Brazil, the legacy of racial inequality also plays an important role. It was the last major country to abolish slavery in 1888, at a time when slaves made up about 30% of the population. Linked to this is the persistence of large regional inequalities that stem from the colonial and slave-owning period. Inequality was also influenced by the development of the Brazilian economy into the continent's industrial powerhouse in the 20th century. The politics of industrialization and nationalist development throughout the century favored only a minority of workers (in the formal sector), in a context of limited agrarian reform and weak taxation of accumulated and inherited fortunes from landed or industrial/financial activity. Even during the more progressive decade of the 2000s, persistent neglect of further tax and land reform meant that top income groups continued to capture most of the higher growth of the economy.

In India, extreme inequality derives directly from the caste system that institutionalized socio-economic legal and political disparities among citizens. Strikingly, we document a sharp rise in income inequality over the past decades which was concomitant to profound transformations in the Indian economy. From its independence to the 1980s, India's economy was highly regulated and the government pursued an explicit objective to limit the power of the economic elite. From the mid 1980s onwards, Indian governments implemented progressive deregulation and opening-up reforms, such as privatization of state-owned economies, price control deregulation, the opening of markets to international trade and strong decline in tax progressivity. Such transformations were followed by significantly higher national income growth rates since the 2000s than in the previous decades. This growth was, however, distributed very unequally, with the top 0.1% capturing as much total growth than the bottom half of the population since 1980.

In the case of the Middle East, extreme inequality is due to enormous between-country inequality, stemming from the geography of oil ownership and the transformation of oil revenues into permanent financial endowments in sparsely populated countries. However, within-country inequality is also large, particularly in Gulf countries, where migrant workers, working under highly exploitative conditions, represent a growing share of the population. It is striking to see that the Middle East, in spite of its greater racial and cultural homogeneity, has reached inequality levels that are comparable to – or even higher than – those observed in South Africa or Brazil.

IV. Final remarks

Brazil, India, South Africa, and the Middle East, are characterized by extreme levels of inequality, with top 10% income shares higher than 50% of national income. Such levels of income concentration have different origins, including racial or slavery legacy, economic policy shifts or the geography of oil ownership. Over the past decades these regions, to the exception of the Middle East, have been characterized by relatively high growth which did not reduce extreme inequality, quite the contrary. Such growth has been unequally distributed, benefitting top income groups more than the middle class or the bottom of the distribution.

The multifaceted origins of extreme inequality highlight the need for different policy responses to tackle extreme inequality: mechanisms of regional redistribution in the Middle East or major land reforms in Brazil and South Africa for instance. We

nevertheless stress a common characteristic of the five regions we have focused on: their tax systems rely overwhelmingly on indirect taxes, with only few components comprising of direct progressive taxes. In particular, it is striking to observe the absence (or near absence) of a progressive inheritance tax regime, which stands out as a powerful tool to limit the persistence of extreme income and wealth inequality levels over time and to finance much-needed welfare services for the poor and the middle class.

While our estimates, based on Distributional National Accounts guidelines, stand out as more robust and more accurate than official inequality data based solely on self-reported household surveys, we reiterate that measuring inequality in such countries is fraught with methodological difficulties. We thus stress that access to more and better data is critical in these countries where lack of transparency raises in itself a problem of democratic accountability, quite independently from the actual level of inequality observed.

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