



The elephant curve of global inequality and growth

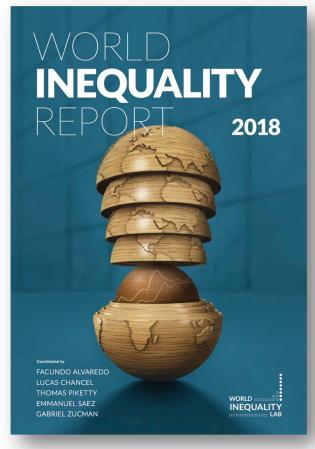
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Report edited by: Facundo Alvaredo, Lucas Chancel, Thomas Piketty, Emmanuel Saez, Gabriel Zucman



World Inequality Report 2018

- Income inequality growing within many countries over the globe... but emerging economies are catching up
- Is global income inequality increasing or decreasing?
- Hard question to answer due to:
 - Lack of comparable data across countries
 - Difficulty of measuring top incomes in surveys
- In this paper and in the World Inequality Report 2018 (Harvard U. Press; Le Seuil; Beck; + 11 other languages), we use new consistent data from World Inequality Database to generate global inequality estimates since 1980





History of the World inequality Database (WID.world)

- Based on the pioneering work of Kuznets in the 1950s, Atkinson and Harrison in the 1970s
 - Kuznets, 1953 and Atkinson and Harrison, 1978
- WID.world started with the publication of historical inequality series using tax data
 - Piketty 2001, 2003, Piketty-Saez 2003, Atkinson-Piketty 2007; 2010, Alvaredo et al., 2013.
- In 2011, we published the World Top Incomes Database, gradually extended to over sixty countries and to wealth
 - Alvaredo et al., 2013, Saez-Zucman , 2016, Alvaredo-Atkinson-Morelli, 2016, etc.







- Most extensive <u>database</u> on the historical evolution of income & wealth (110+ researchers; 60+ countries covered)
- 100% transparent, open source, reproducible data
- Available in English, Chinese, Hindi, French, Spanish (reaching 3bn people in their own language)
- New website <u>WID.world</u> launched January 2017: constantly evolving geographical and conceptual scope (gender inequality / environmental inequality, ...)





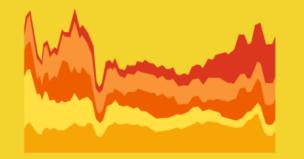
WORLD WORLD WORLD WORLD BY COUNTRY T DATA WEALTH & INCOME METHODOLOGY T ABOUT US T NEWS T

WORLD VIEW



Compare inequality between countries on an interactive world map

COUNTRY GRAPHS



Follow the evolution of inequality within countries with user-friendly graphs

DATA TABLES

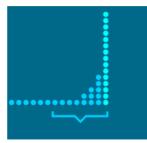
Download our open-access datasets

WID.world key novelty: we distribute national income

- We cover the full support of the distribution (not just the top)
- We distribute total national income (not just fiscal income) using tax data, surveys and national accounts → bringing together growth & inequality analysis
- We cover emerging countries (not just rich countries): China, India, Brazil, Russia, S. Africa
- We provide R/Stata tools for inequality research





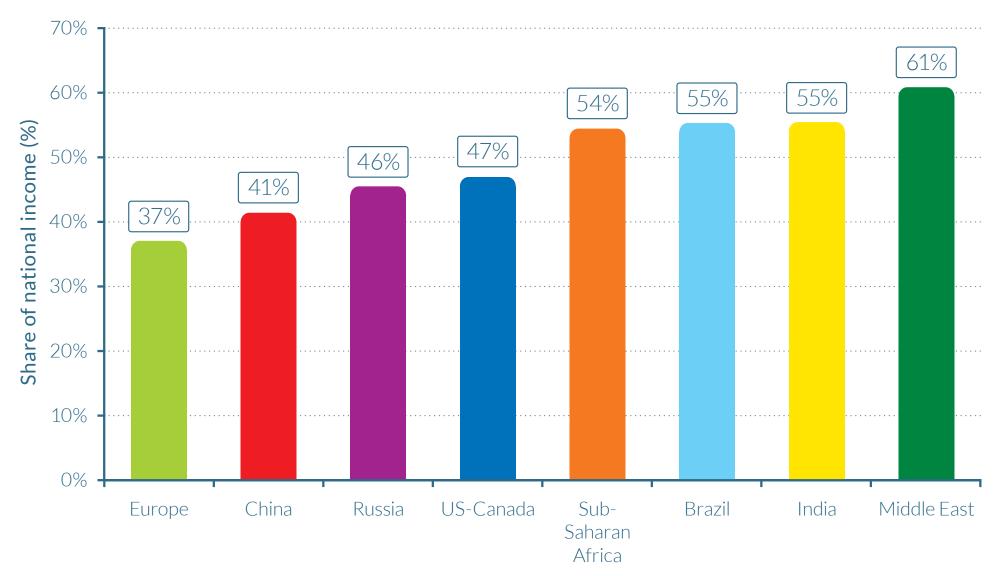






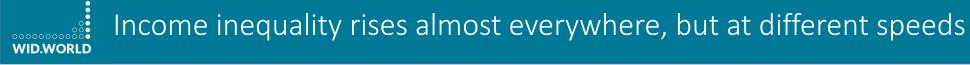
Income inequality varies widely across world regions

Top 10% national income share across the world, 2016

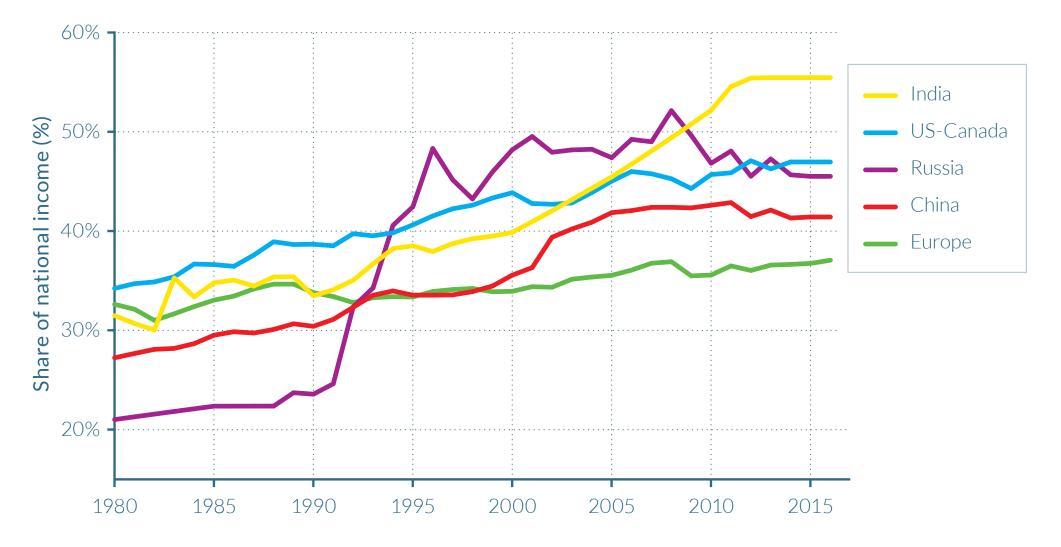




Source: World Inequality Report 2018, Figure 2.1.1. See wir2018.wid.world for data sources and notes.



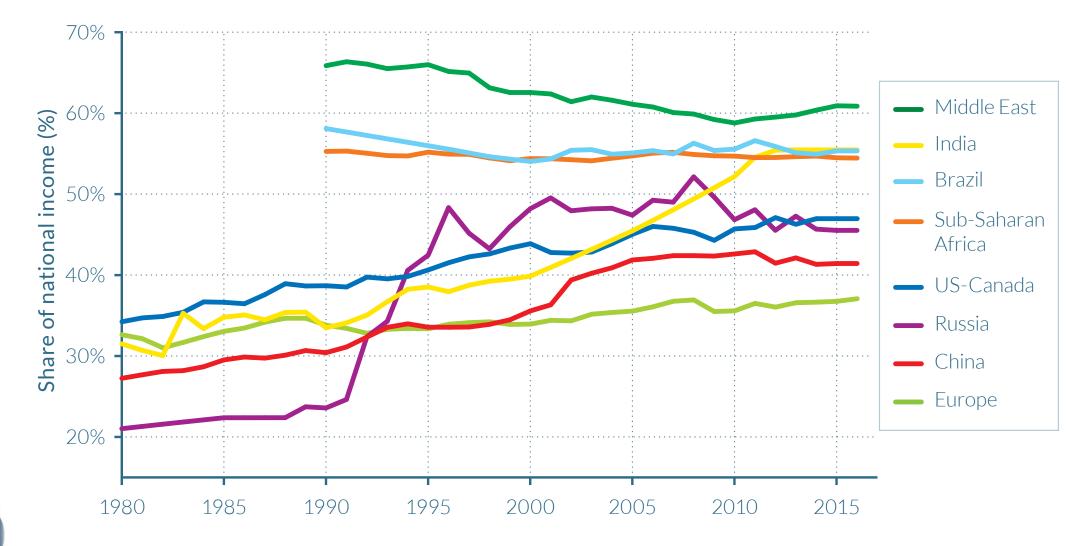
Top 10% income shares across the world, 1980-2016



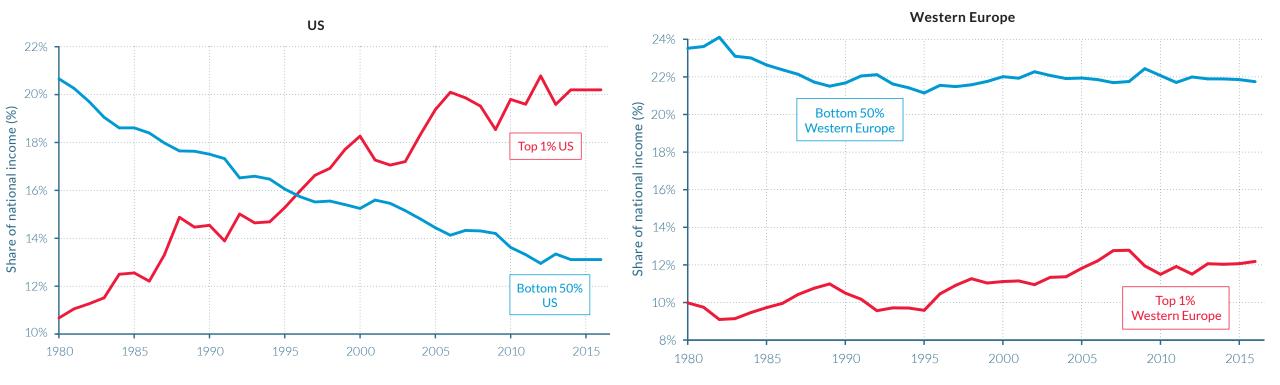




Top 10% income shares across the world, 1980-2016



WORLD INEQUALITY LAB US vs Europe: globalization and trade openness cannot fully explain the rise in pretax income inequality; little support for trickle down (huge top 1% US growth, near 0 at the bottom)



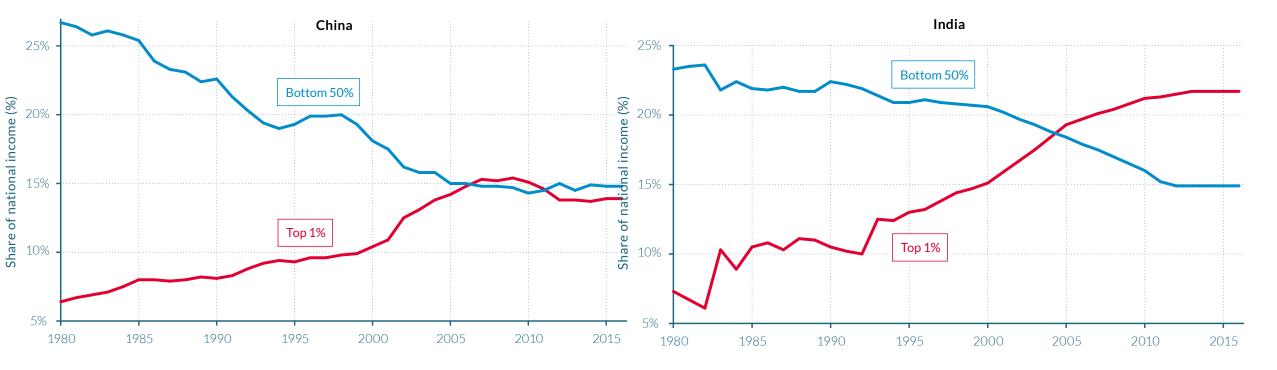
Top 1% vs. bottom 50% in the US and Western Europe, 1980-2016

Source: World Inequality Report 2018, Figure 2.1.3. See wir2018.wid.world for data sources and notes.



India vs. China: Similar growth rates at the top but v. different growth rates at the bottom since mid-2000s led to diverging inequality paths

Top 1% vs. bottom 50% in China vs. India, 1980-2016



Source: World Inequality Report 2018, Appendix Figure A4. See wir2018.wid.world for data sources and notes.





- US vs. EU: similar levels of development, size, exposure to globalization and to new technologies in 1980. Radically diverging inequality trajectories due to different institutional and policy choices (less progressive taxation, unequal education, falling minimum wage, etc.).
 - US-Canada: average income grew by 63% btw 1980 and 2016, and bottom 50% by 5%; Europe: average income grew by 40%, and bottom 50% by 26%.
- China vs. India: rise in inequality in both countries but was extreme in India, moderate in China. More investments in education, health, infrastructure for the bottom 50% in China.
 - China: average income grew by 831%, and bottom 50% by 417%; India: average income grew by 223%, and bottom 50% by 107%.
- NB: none of the above countries meets new SDG targets (bottom 40% is supposed to grow faster than the average)



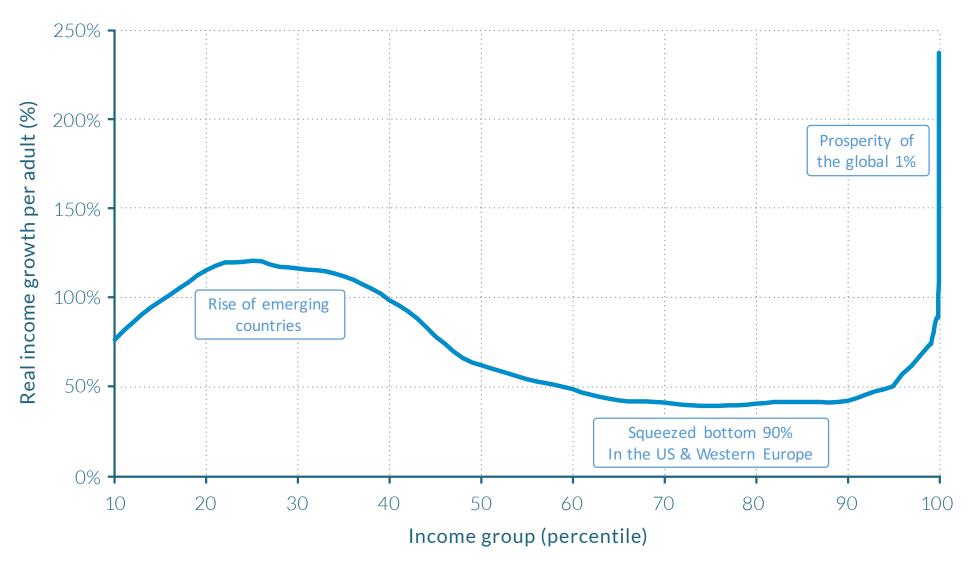


- We follow a step-by-step approach towards a consistent global distribution of income and wealth
- We start with countries for which we have Distributional National Accounts Income series (2/3 world population)
- For other countries, we use information on average national income per adult and survey data, or we assume distribution within countries is the same as other countries in same region
- We pool country distributions using PPP exchange rates



The global elephant curve of inequality and growth: scaling by population

Total income growth by percentile across all world regions, 1980–2016: Scaled by population

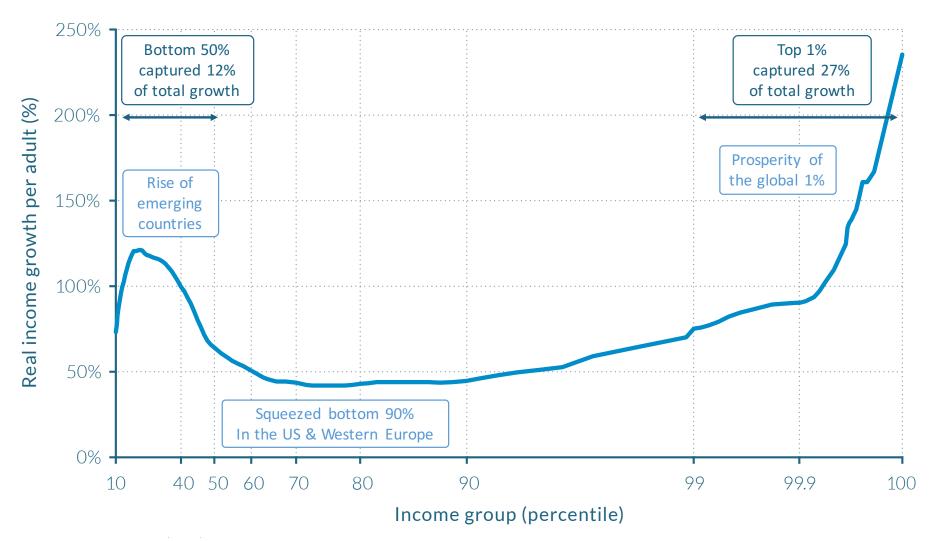




Source: World Inequality Report 2018, Appendix Figure A1. See wir2018.wid.world for data sources and notes.



Total income growth by percentile across all world regions, 1980–2016: Scaled by share of growth captured

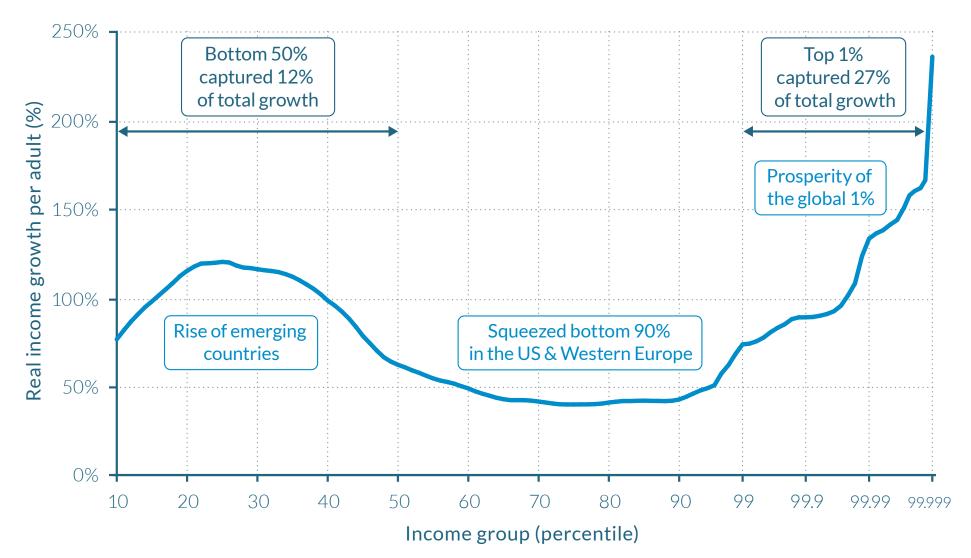




Source: World Inequality Report 2018, Appendix Figure A1. See wir2018.wid.world for data sources and notes.



Total income growth by percentile across all world regions, 1980-2016

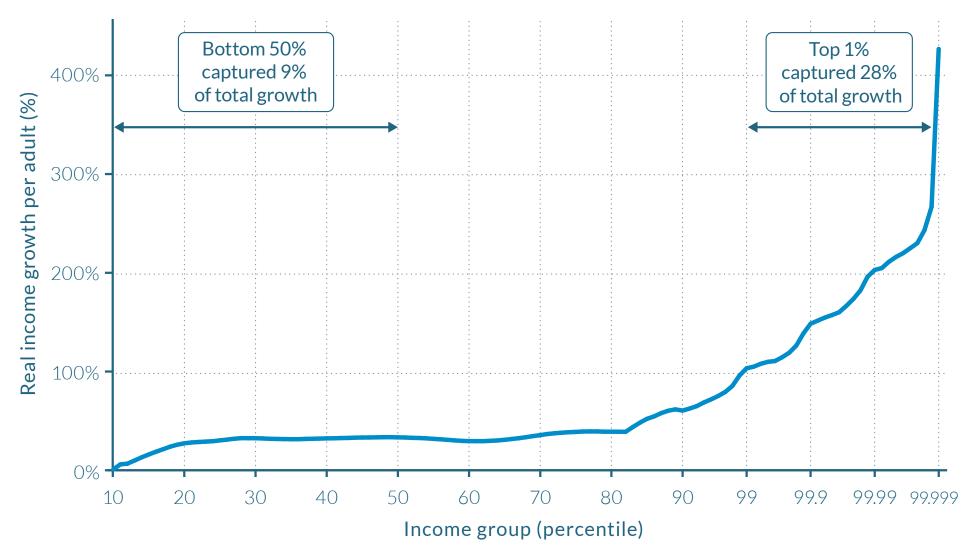




Source: World Inequality Report 2018, Figure 2.1.4. See wir2018.wid.world for data sources and notes.

Constructing the elephant: the « cobra curve » of growth in the Western World

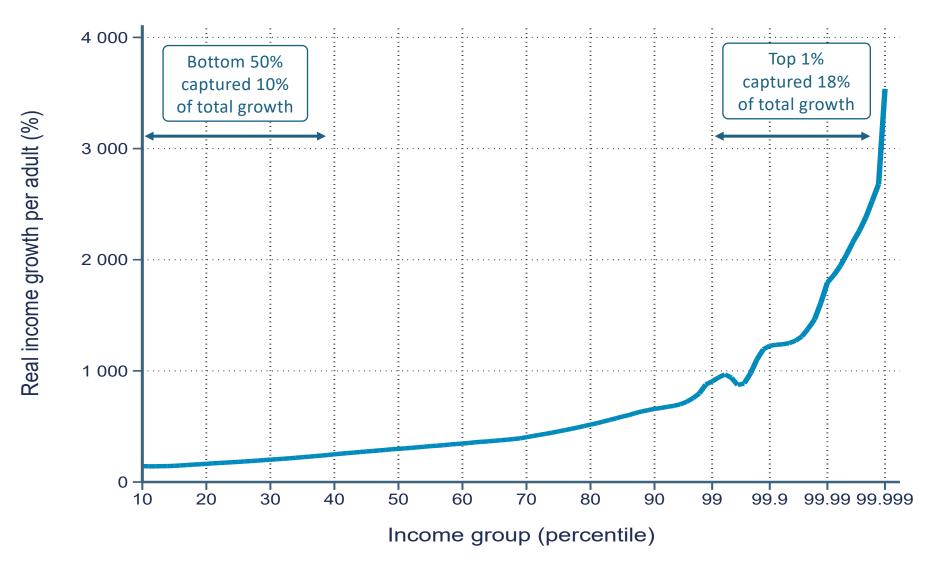
Total income growth by percentile in US-Canada and Western Europe, 1980–2016







Total income growth by percentile in India and China, 1980-2016

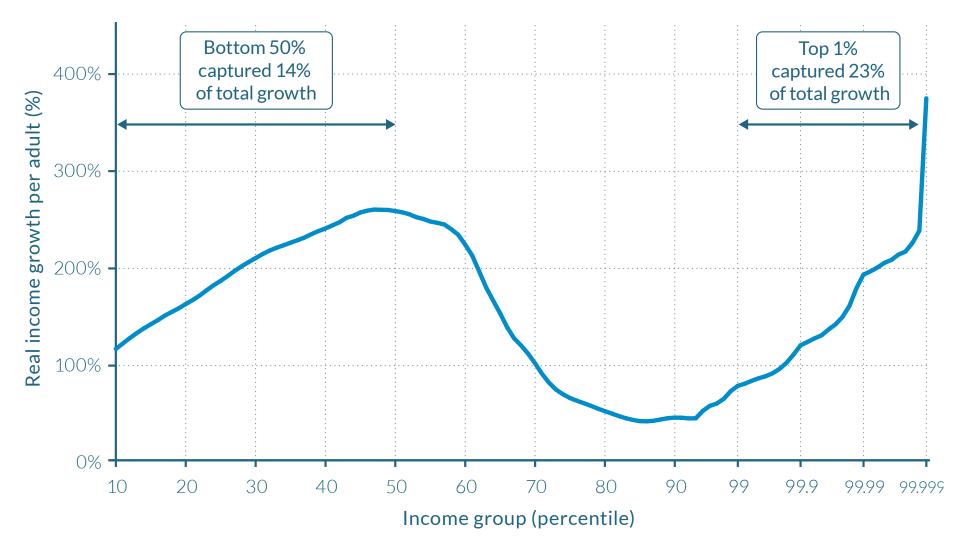




Source: World Inequality Report 2018, Figure 2.9.4. See wir2018.wid.world for data sources and notes.



Total income growth by percentile in China, India, US-Canada, and Western Europe, 1980–2016

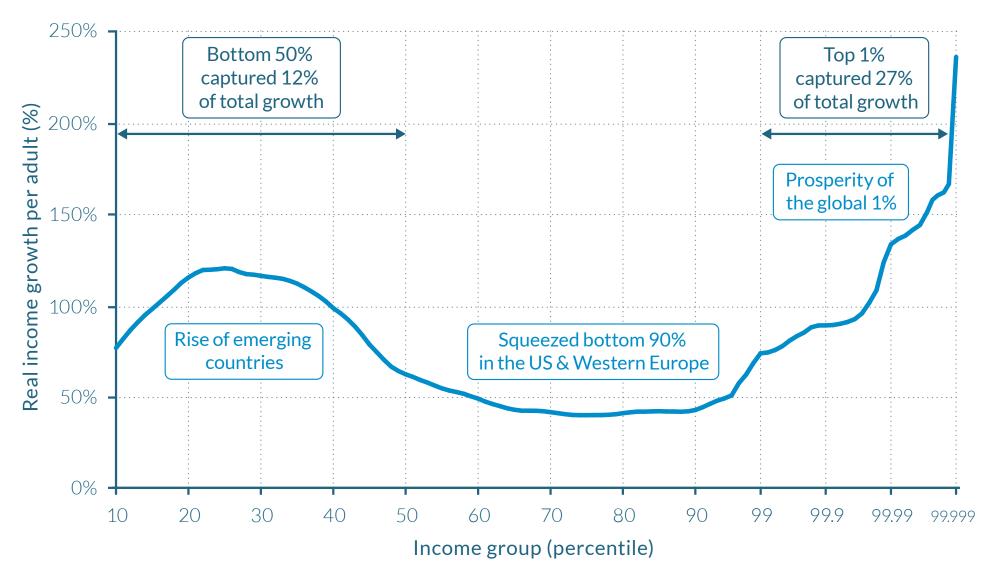




Source: World Inequality Report 2018, Figure 2.1.2. See wir2018.wid.world for data sources and notes.

Adding other world regions flattens the global elephant (lower growth in Africa)

Total income growth by percentile across all world regions, 1980–2016

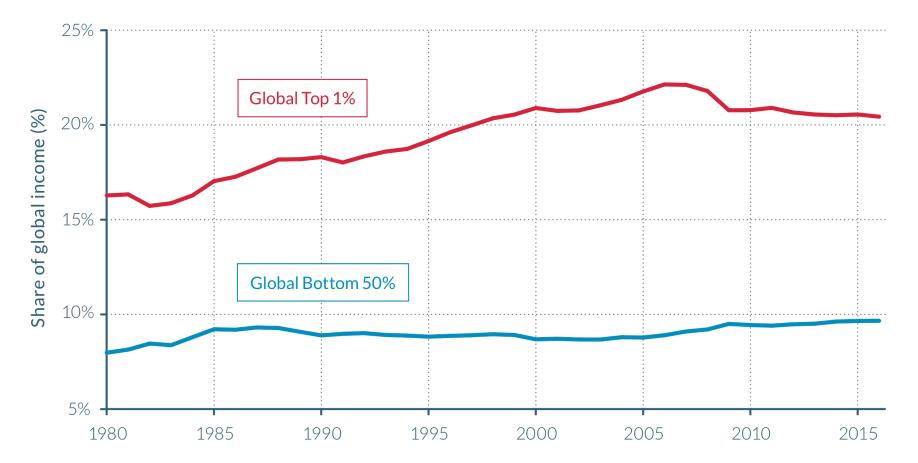




Source: World Inequality Report 2018, Figure 2.1.4. See wir2018.wid.world for data sources and notes.



Global top 1% and bottom 50% income shares, 1980–2016



Source: WID.world (2017). See wir2018.wid.world for data series and notes.

In 2016, 22% of global income was received by the Top 1% against 10% for the Bottom 50%. In 1980, 16% of global income was received by the Top 1% against 8% for the Bottom 50%.

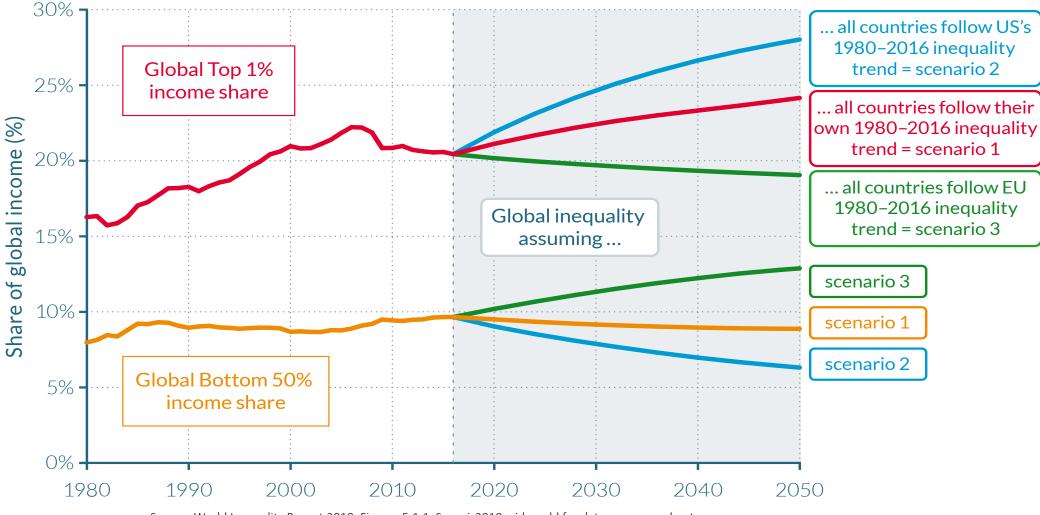


- Growth: UN and OECD produce long-term population and economic growth forecasts
- Distribution: We simulate dynamics of global inequality and growth between 2017-2050 following different scenarios
 - 1. **« Business as usual »:** we assume that income growth per adult will be distributed across percentiles within countries as in 1980-2016
 - 2. Very unequal growth in every country as in the US 1980-2016
 - 3. Relatively equal growth in every country as in the EU 1980-2016





Global income share projections of the Bottom 50% and Top 1%, 1980-2050



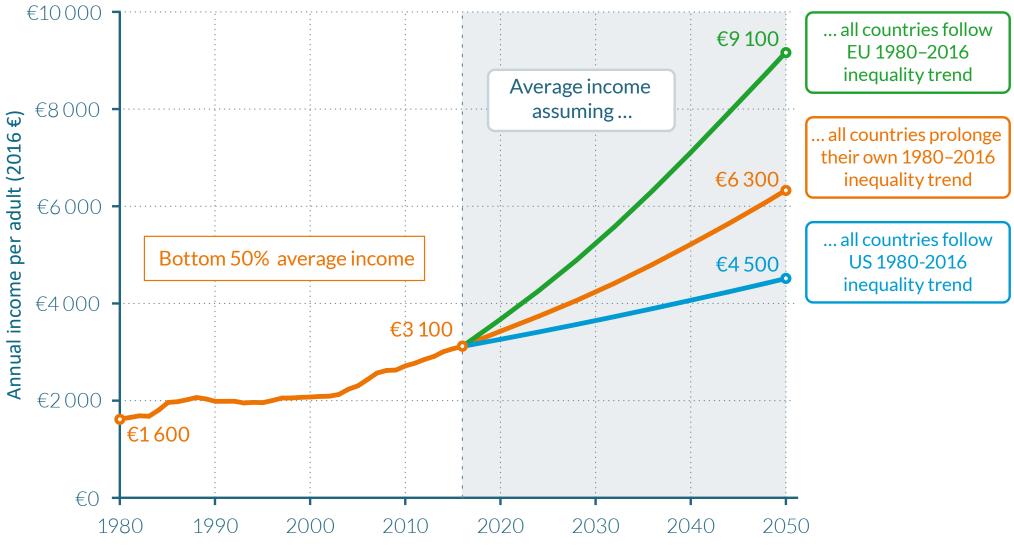


Source: World Inequality Report 2018, Figures 5.1.1. See wir2018.wid.world for data sources and notes.



Different inequality trajectories at the national level matter enormously for global poverty eradication

Global average income projections of the Bottom 50%, 1980-2050





Source: World Inequality Report 2018, Figures 5.1.3. See wir2018.wid.world for data sources and notes.

CONCLUSION: need for **distributional national accounts** for informed public debates on growth and inequality

- The WID.world project: more than 100 researchers over the five continents. All the data is entirely open source + transparent to feed public debates.
- This report: first systematic assessment of globalization in terms of inequality. Global top 1% captured twice as much growth as bottom 50% since 1980. Under Business as usual, even with optimistic growth assumptions in the emerging world, global inequality will continue to rise.
- Rising inequality is not inevitable: different types of policies can be implemented to promote equitable growth pathways in the coming decades.

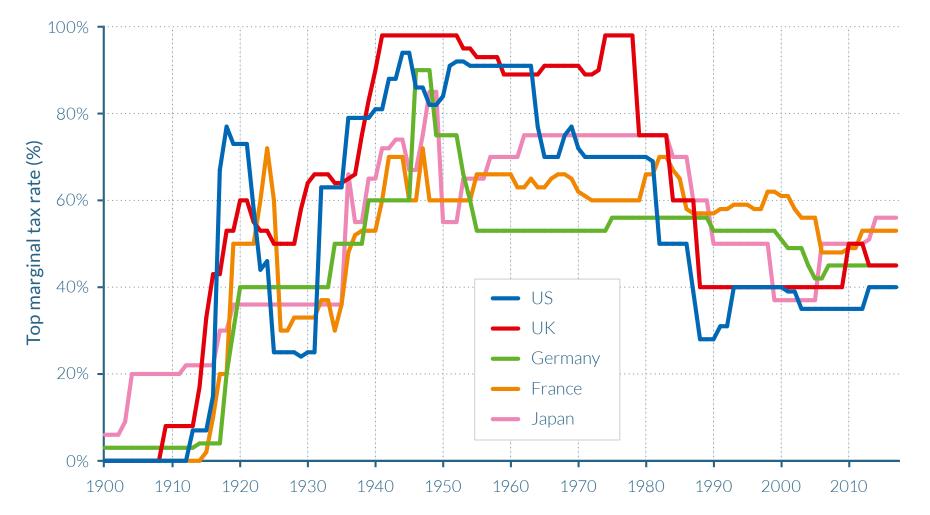


VISIT **WIR2018.WID.WORLD** FOR THE ONLINE VERSION OF THE REPORT.



Figure 5.2.2

Top income tax rates in rich countries, 1900–2017



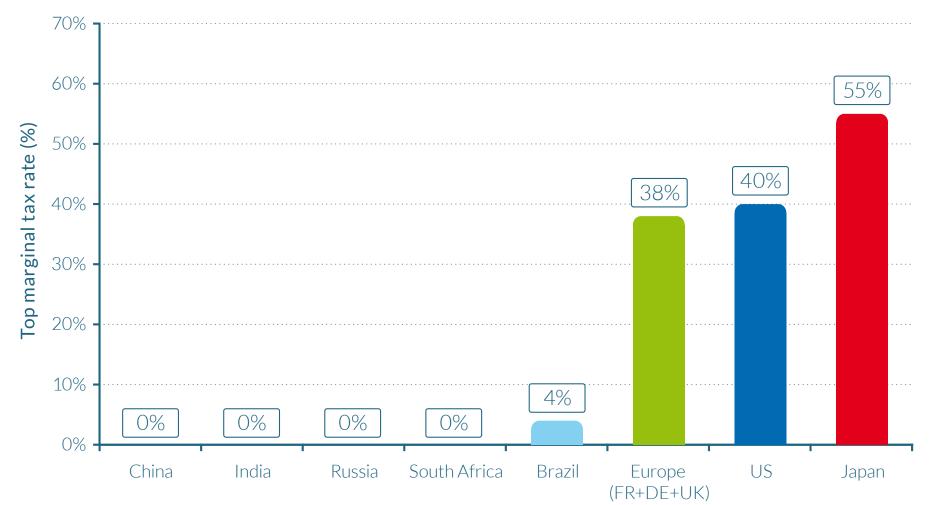
Sources: Piketty (2014) and updates. See wir2018.wid.world for data series and notes.

Between 1963 and 2017, the top marginal tax rate of income tax (applying to the highest incomes) in the US fell from 91% to 40%.



Figure 5.2.4







Source: WID.world (2017). See wir2018.wid.world for data series and notes.

In 2017, the top marginal tax rate of inheritance tax (applying to the highest inheritances) was 55% in Japan, compared to 4% in Brazil. Europe is represented by France, Germany and the UK.



Additional slides





Part III PUBLIC VERSUS PRIVATE CAPITAL DYNAMICS

- Economic inequality is largely driven by the unequal ownership of capital, which can be either privately or public owned.
- We show that since 1980, very large transfers of public to private wealth occurred in nearly all countries, whether rich or emerging.
- While national wealth has substantially increased, public wealth is now negative or close to zero in rich countries. Arguably this limits the ability of governments to tackle inequality; certainly, it has important implications for wealth inequality among individuals.

800% Value of net public and private wealth (% of national income) 700% **Private capital** Spain 600% UK Japan 500% France US 400% Germany 300% 200% **Public capital** 100% 0% -100% 1975 1970 1980 1985 1990 1995 2000 2005 2010 2015

Source: World Inequality Report 2018, Figure E6. See wir2018.wid.world for data sources and notes.

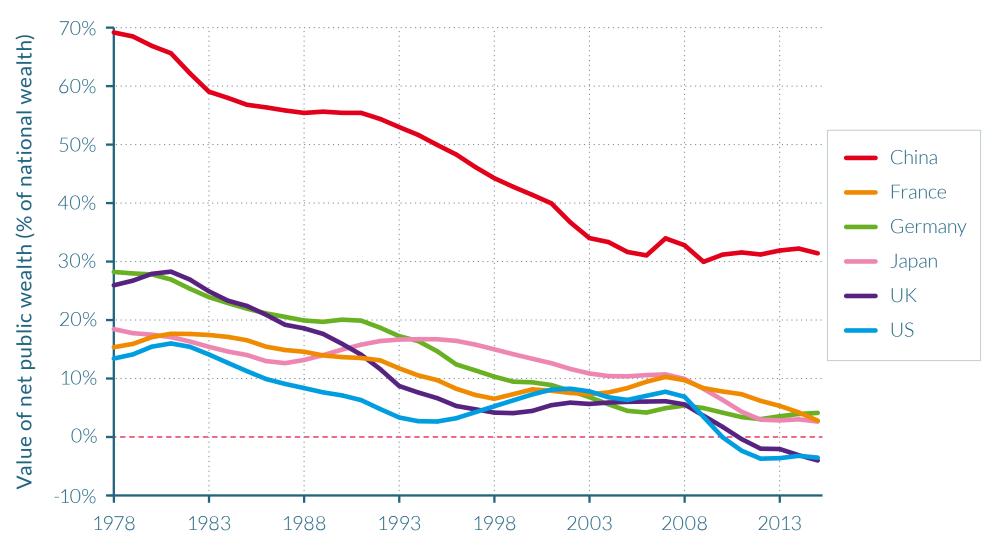
The rise of private capital and the fall of public capital in rich countries, 1970–2016

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... in China the share of public capital in national capital is now comparable to rich countries during the mixed-economy period (1950-1980).

The decline of public capital, 1970–2016



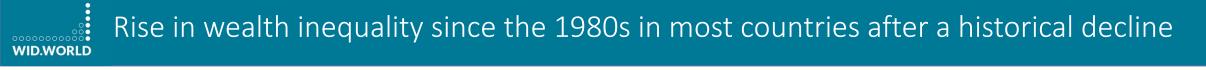


Source: World Inequality Report 2018, Figure E7. See wir2018.wid.world for data sources and notes.

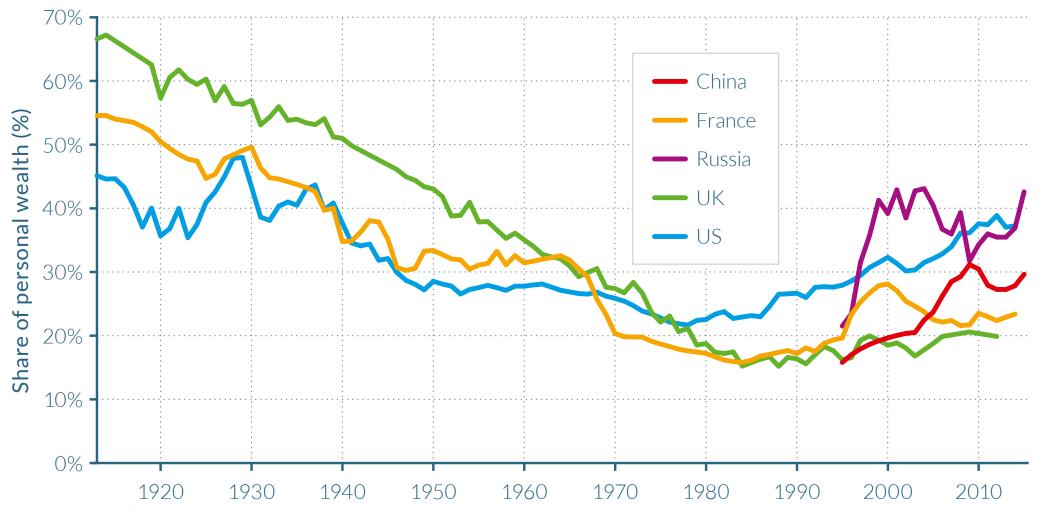


Part IV GLOBAL WEALTH INEQUALITY DYNAMICS

- The combination of rising income inequality and large transfers of public to private wealth contributed to the steep rise in wealth inequality. Wealth data however remains particularly opaque.
- We observe a rise in global wealth inequality over the past decades. At the global level (China, Europe, and the US) the top 1% share of wealth increased from 28% in 1980 to 33% today, while the bottom 75% share hovered around 10%.



Top 1% personal wealth share in emerging and rich countries, 1913–2015





Source: World Inequality Report 2018, Figure 4.2.1. See wir2018.wid.world for data sources and notes.