

# Global Inequality & Growth:

## *Inequality within countries*

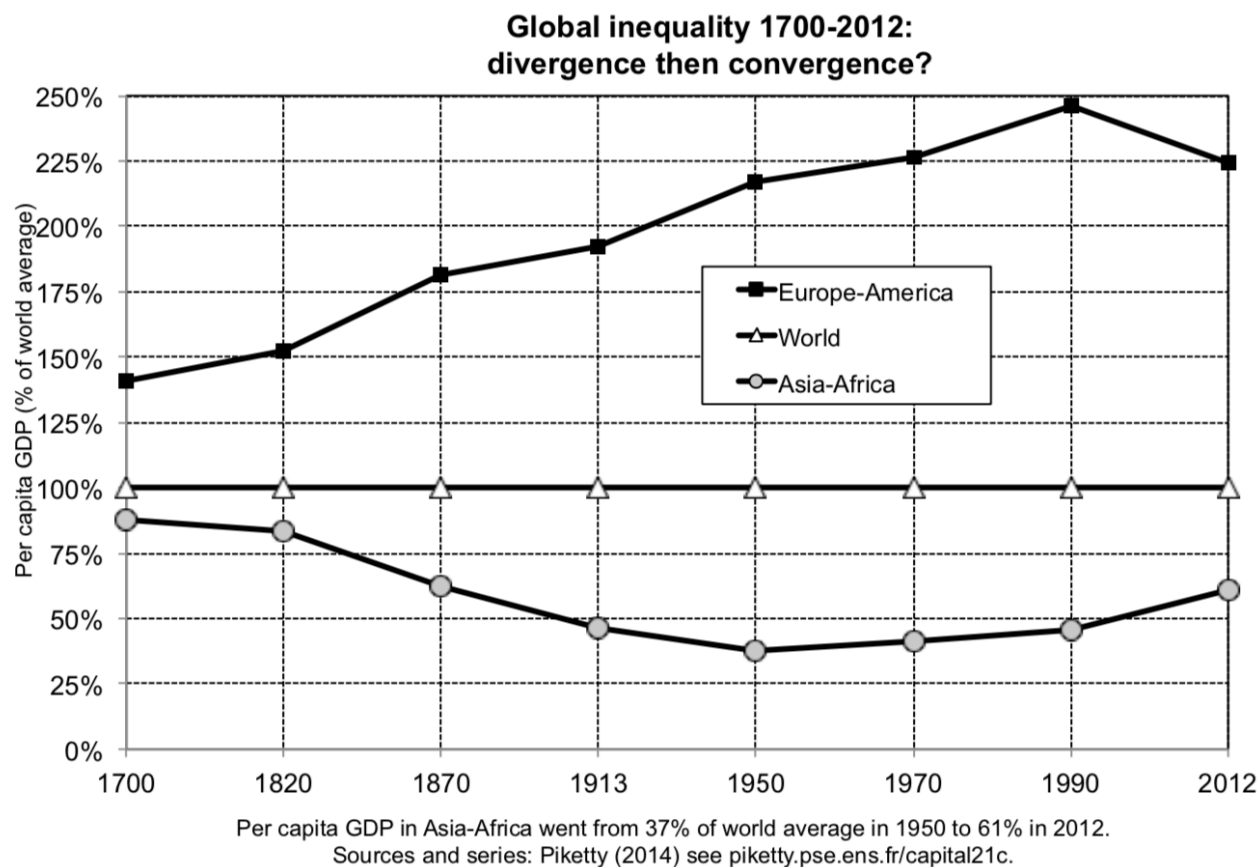
Ludvig Wier



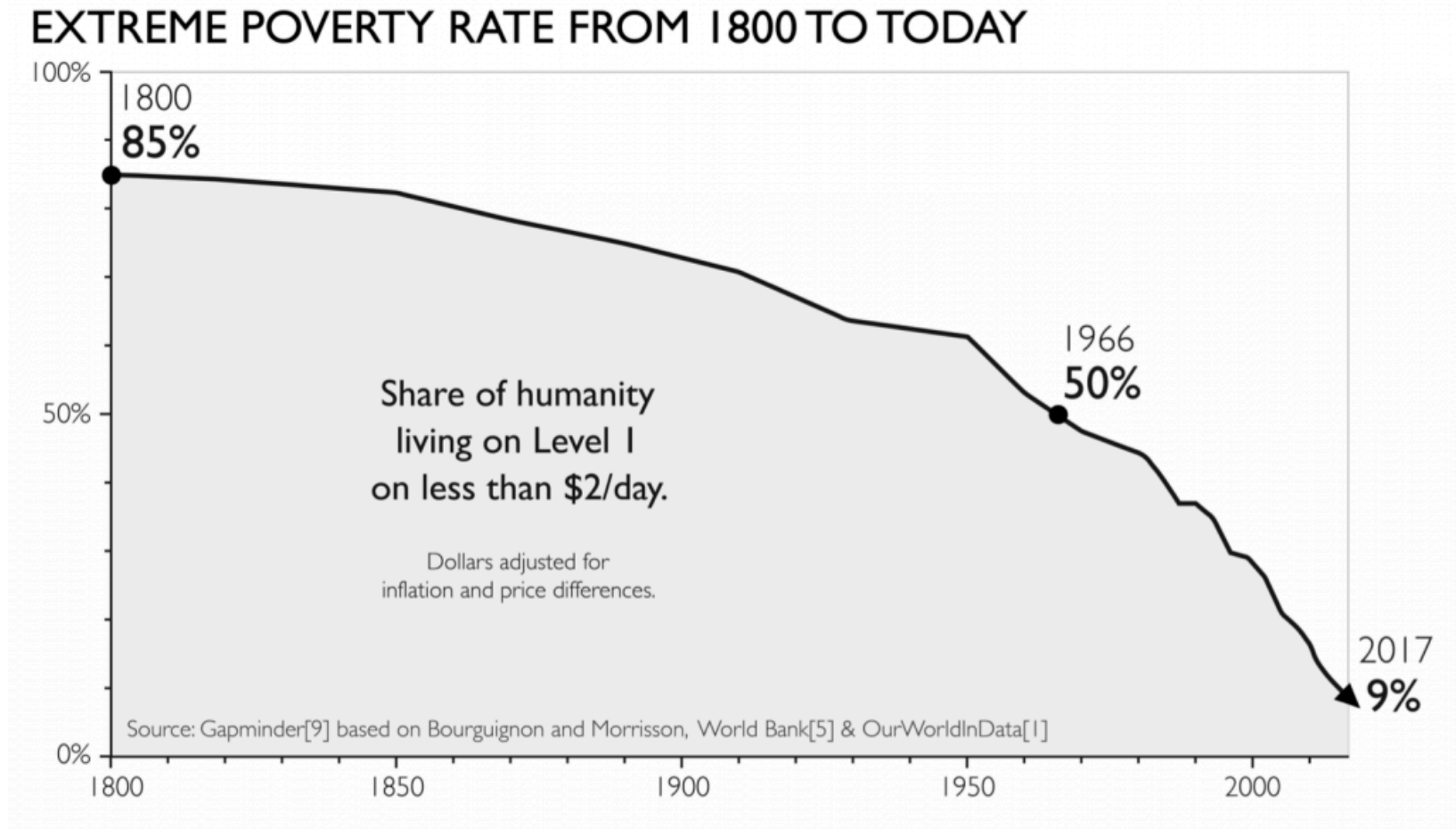
## Global inequality has two dimensions

1. Between country inequality: e.g. difference between Denmark and China (last time)
2. Within country inequality: e.g. top income shares in Denmark (now!)

# Main lessons from last time: after centuries of divergence, the world is now converging!



## Main lessons from last time: Extreme poverty is in free fall!

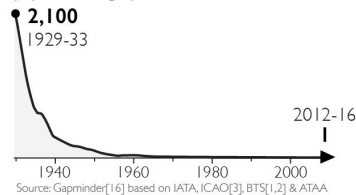




# Main lessons from last time: global development is better than most think

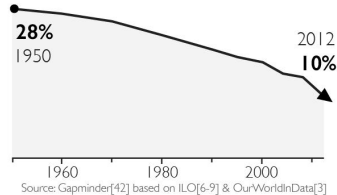
## PLANE CRASH DEATHS

Deaths per 10 billion passenger miles  
(5-year averages)



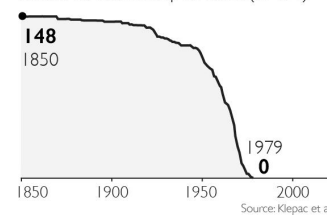
## CHILD LABOR

Share of children aged 5-14 who work  
full time under bad conditions



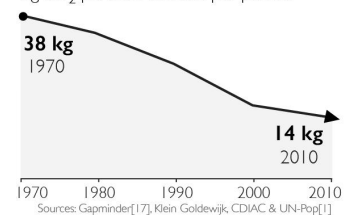
## SMALLPOX

Countries with smallpox cases (of 194)



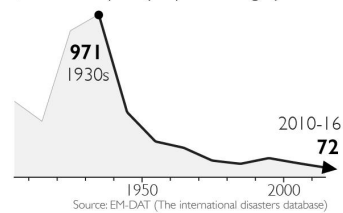
## SMOKE PARTICLES

Kg SO<sub>2</sub> particles emitted per person



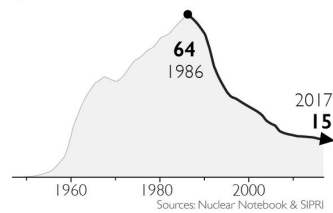
## DEATHS FROM DISASTER

1,000 deaths/year (10-year averages)



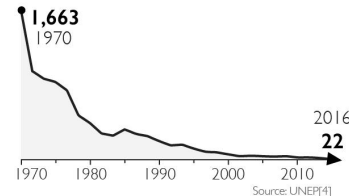
## NUCLEAR ARMS

1,000s of nuclear warheads



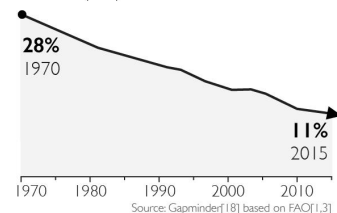
## OZONE DEPLETION

1,000 tons ozone-depleting substances  
used



## HUNGER

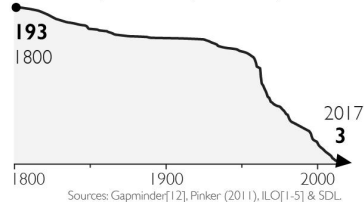
Share of people undernourished



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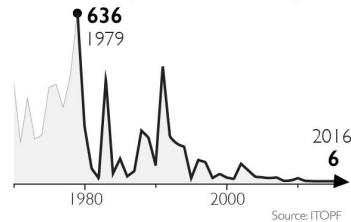
## LEGAL SLAVERY

Countries where forced labor is legal or practiced by the state (out of 194)



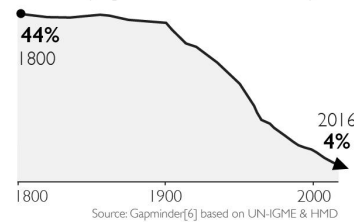
## OIL SPILLS

1,000 tons oil spilled from tanker ships



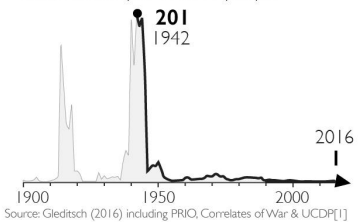
## CHILDREN DYING

Percent dying before their fifth birthday



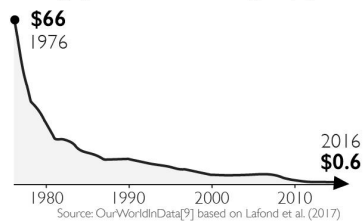
## BATTLE DEATHS

Battle deaths per 100,000 people



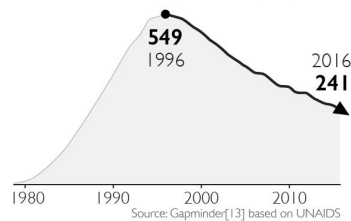
## EXPENSIVE SOLAR PANELS

Average price of PV modules (\$/Wp)



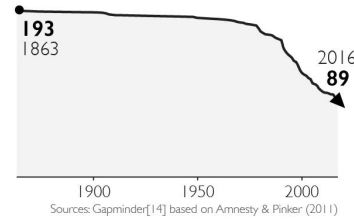
## HIV INFECTIONS

New HIV infections per million people



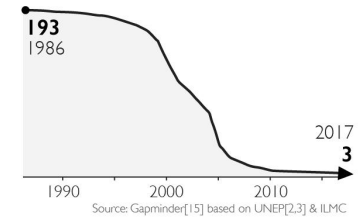
## DEATH PENALTY

Countries with death penalty (of 194)



## LEADED GASOLINE

Countries allowing lead in gasoline (of 194)

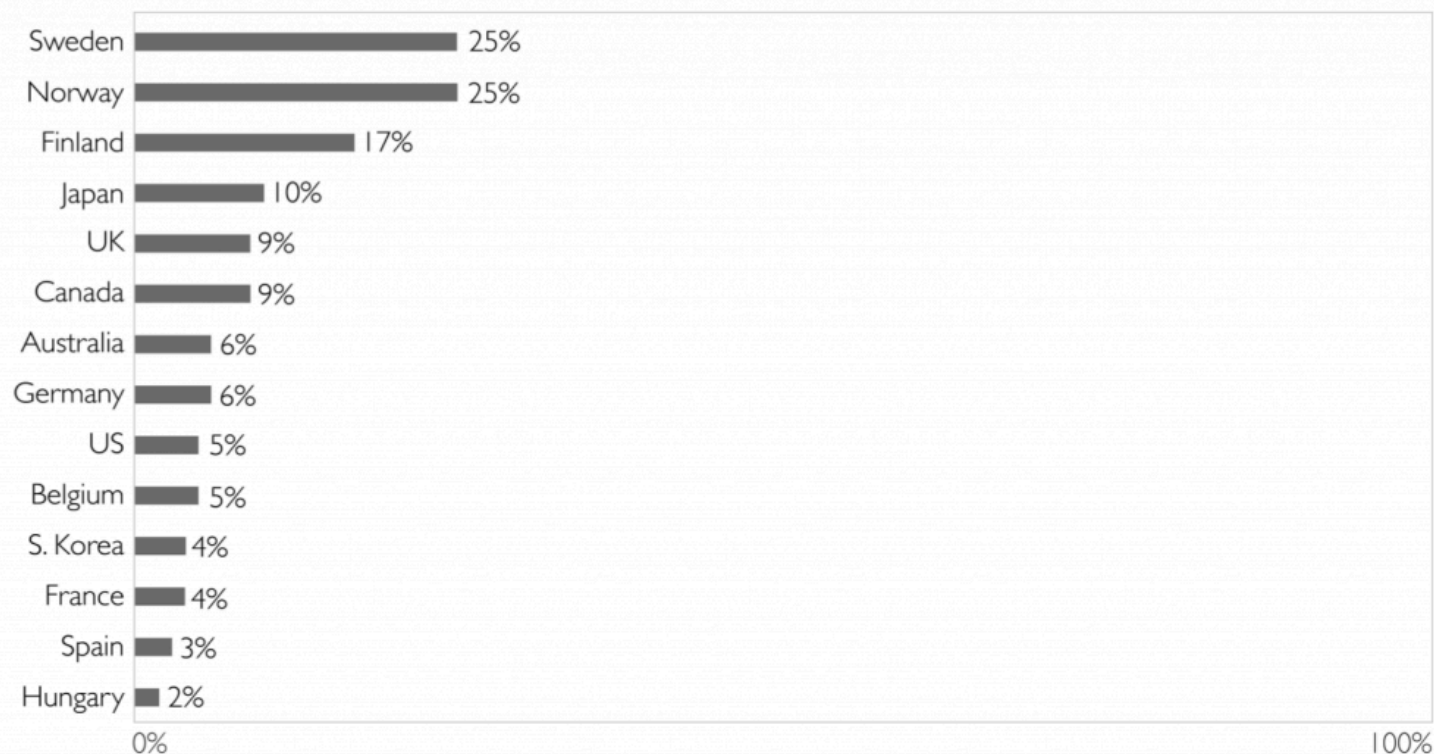


# Main lessons from last time: people misperceive development

FACT QUESTION THREE RESULTS: percentage who answered correctly.

In the last 20 years, the proportion of the world population living in extreme poverty has ... ?

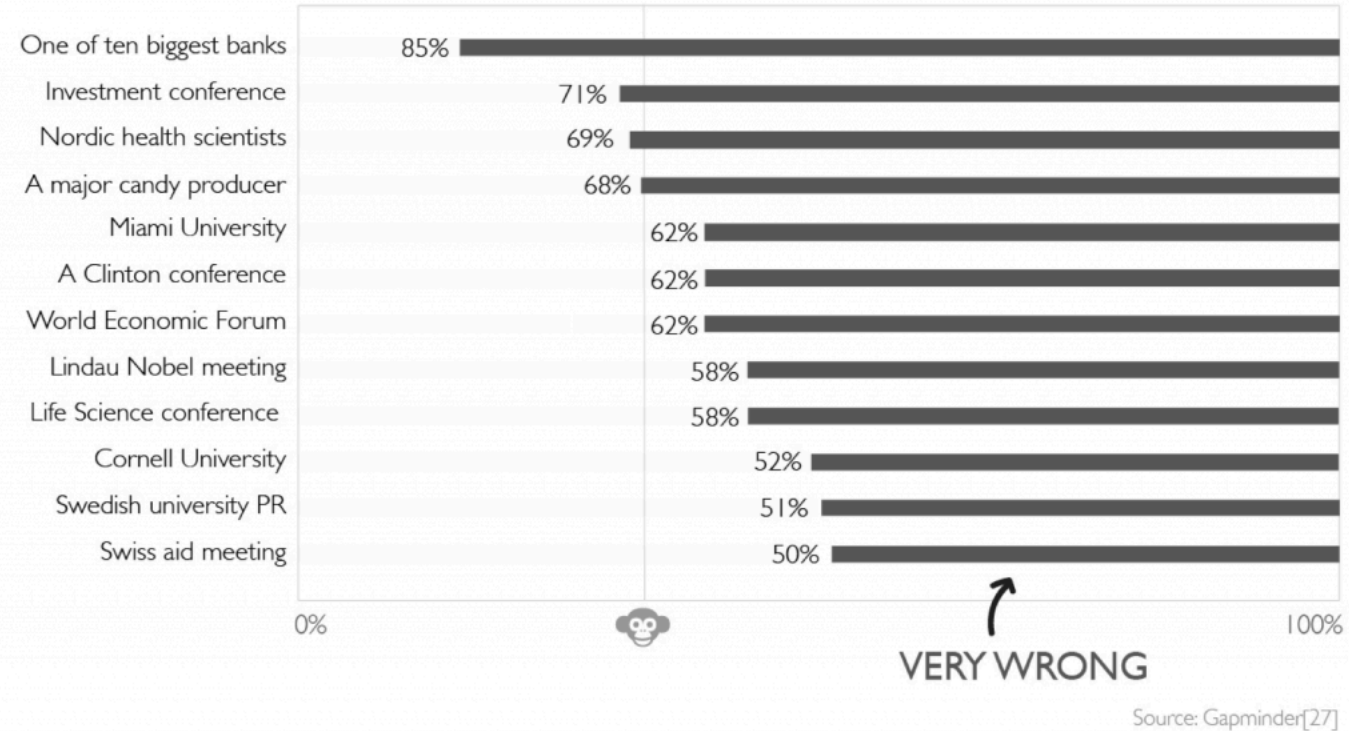
(Correct answer: almost halved.)



Sources: Ipsos MORI[1] & Novus[1]

# Main lessons from last time: people (including very smart people) misperceive development

FACT QUESTION 2 RESULTS: percentage who answered very wrong.  
How many of the world's 1-year-old children today have been vaccinated against some disease?  
(Correct answer: 80%. Very wrong answer: 20%.)

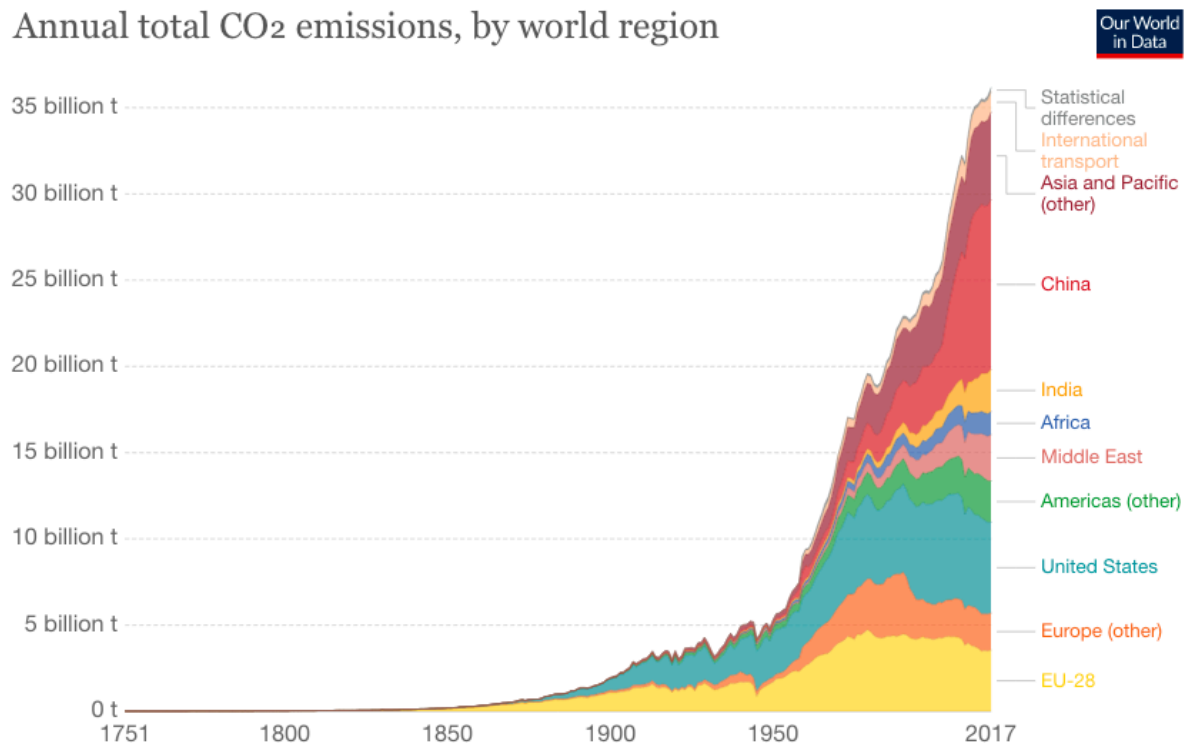


**Main lessons from last time:** This guy is optimistic!

- <https://www.youtube.com/watch?v=jbkSRLYSojo>

# Main lessons from last time: one point for pessimism

Annual total CO<sub>2</sub> emissions, by world region

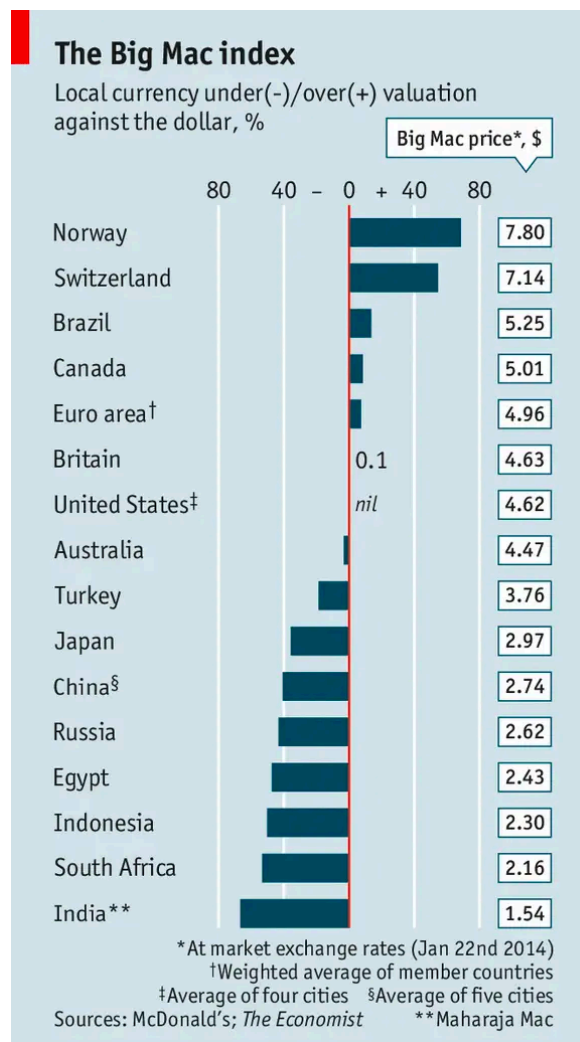


Source: Carbon Dioxide Information Analysis Center (CDIAC); Global Carbon Project (GCP)

Note: The difference between the global estimate and the sum of national totals is labeled "Statistical differences".

OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

# Technical lesson from last time: remember to correct for purchasing power!



# Tonight: Inequality within countries!



Inequality snapshot



Trends since 1980's



A long-run perspective



# Inequality snapshot

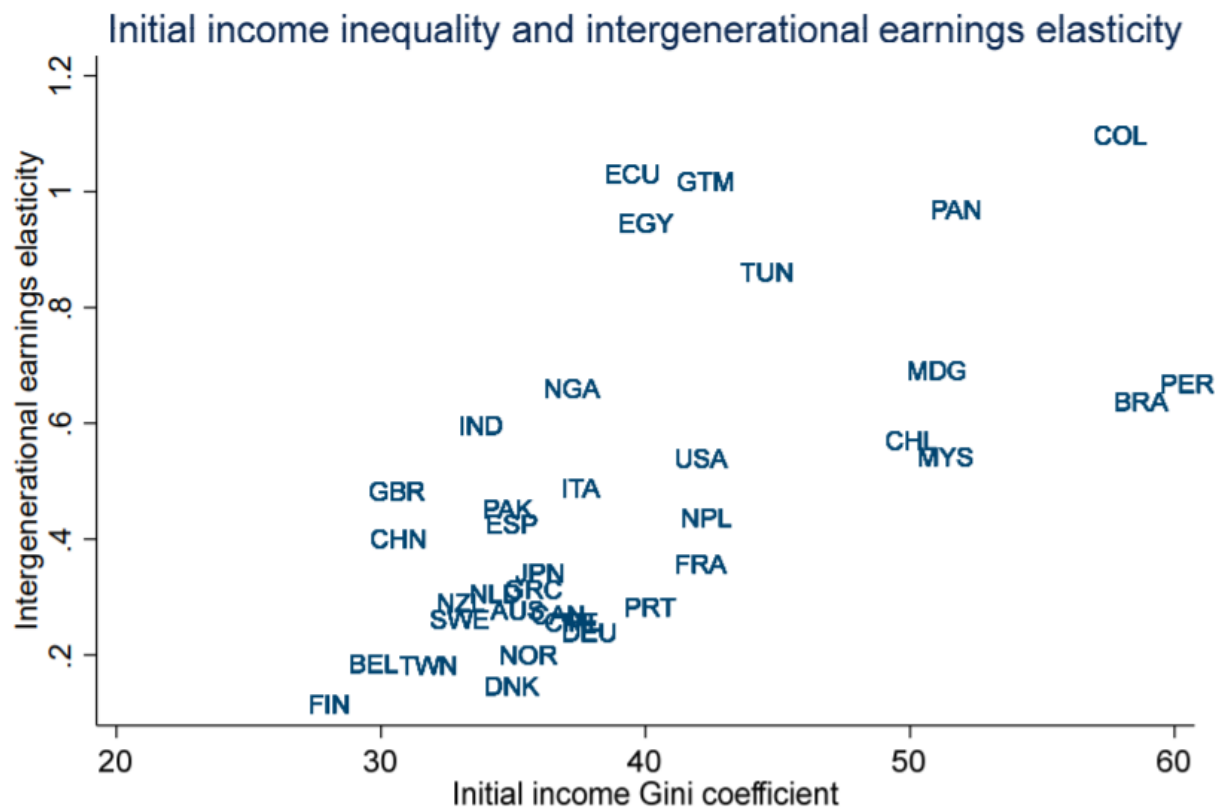




## Inequality snapshot today

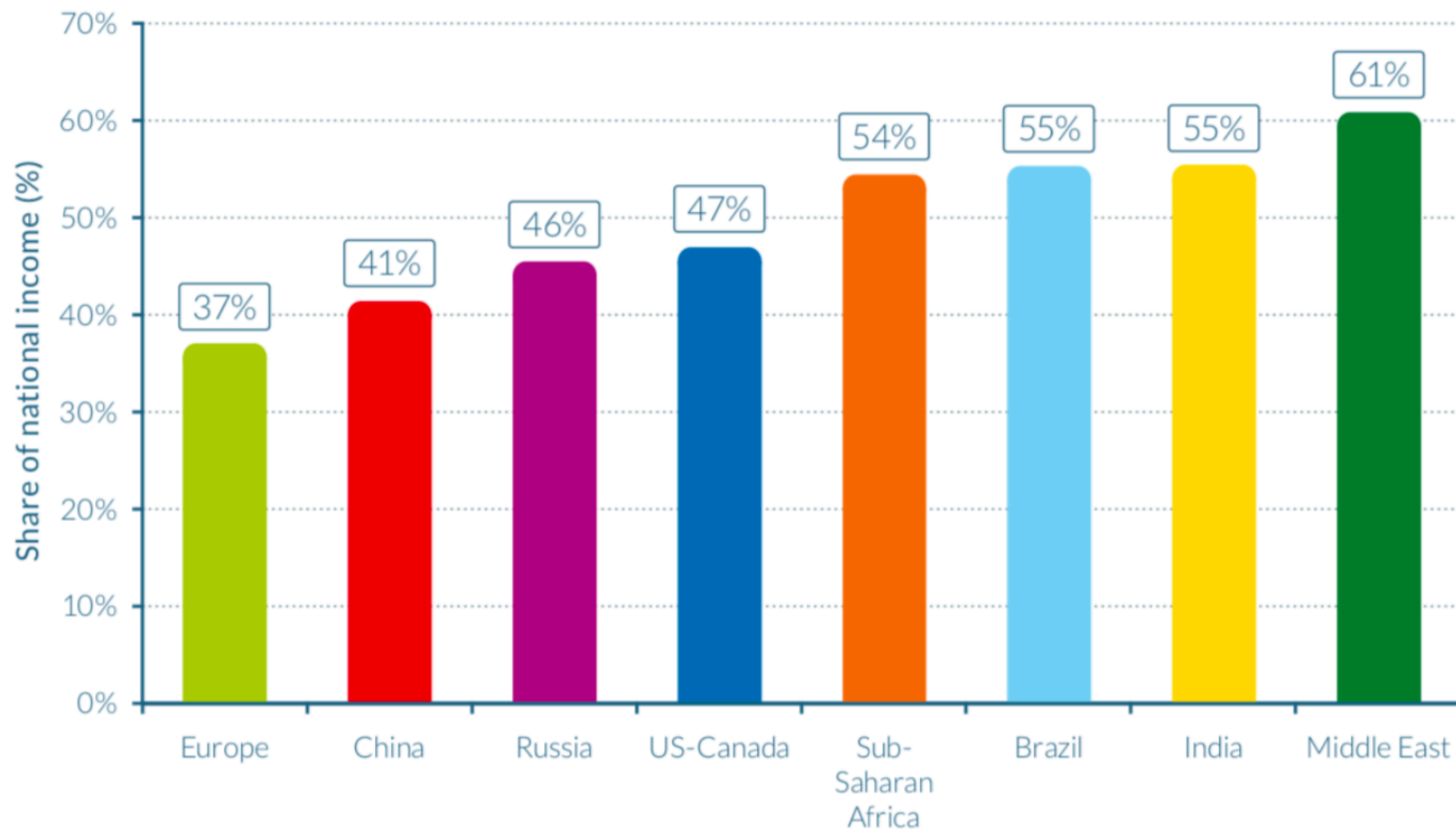
- Most unequal countries: Middle-East, sub-Saharan Africa, Brazil, India = top 10% share 55%–60%
  - Legacy of status-based inequality systems (slavery, castes, colonial system)
- Less unequal countries: Continental Europe = top 10%  $\approx$  35%

# Income inequality correlates with intergenerational inequality



Sources: World Bank and "All the Ginis Dataset (Branko Milanovic)"

## Top 10 national income share across the world, 2016

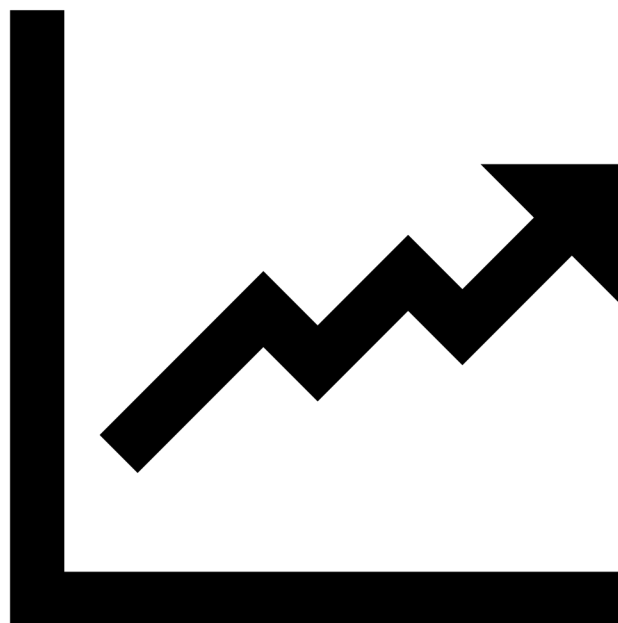


Source: WID.world (2017). See [wir2018.wid.world](#) for data series and notes.

## Labor income inequality vs capital income

- Labor income always less concentrated than capital income:
    - Top 10% share is 20-30% for labor income, 50-90% for capital
    - Bottom 50% share is 20-30% for labor income, 0-10% for capital
  - Gini coefficients: 0.2 – 0.4 for labor income, 0.6 – 0.8 for capital
- Capital income inequality large driver of inequality patterns

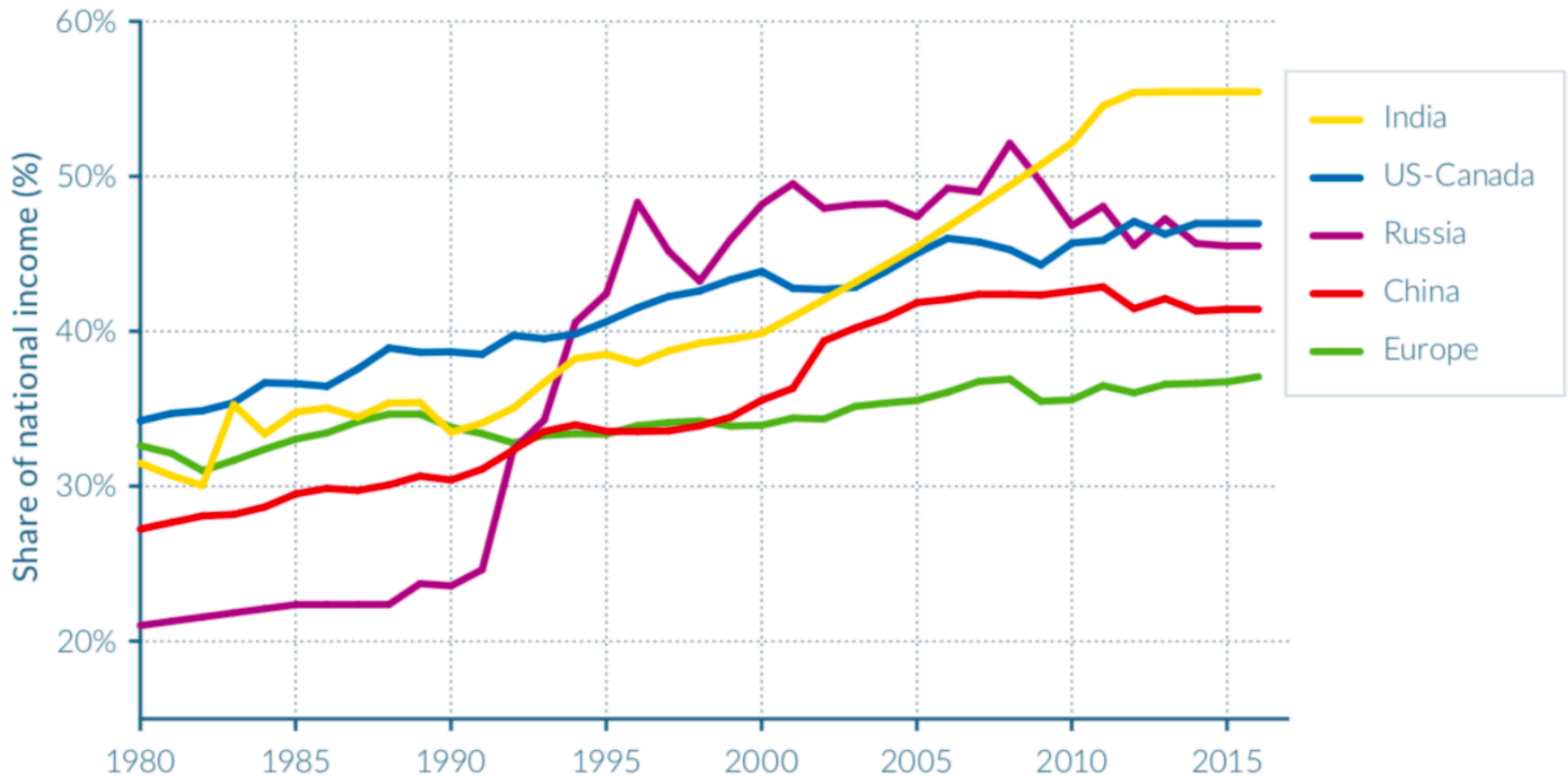
## Inequality trends since 1980's



## Inequality trends since 1980's

- Rising inequality is a global phenomenon
- But increase at different speeds, reflecting diversity of national institutions and policies
- Among developed countries: faster rise in Anglo-saxon countries
- Among emerging countries, variety of national trajectories; strongest rise in Russia

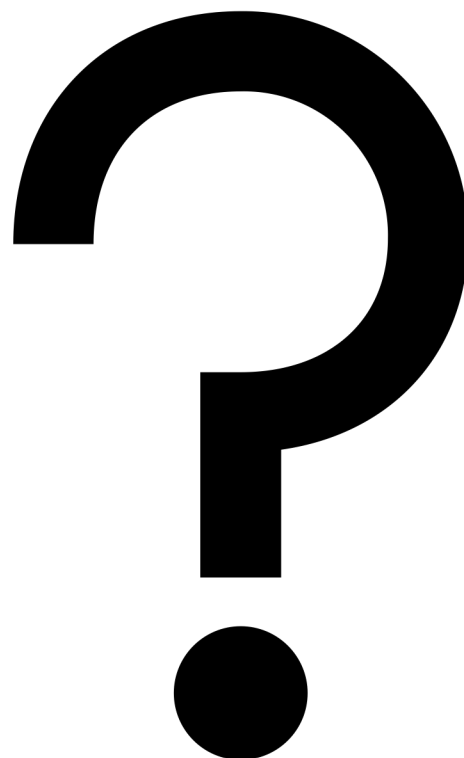
**Top 10% income shares across the world, 1980–2016: Rising inequality almost everywhere, but at different speeds**



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

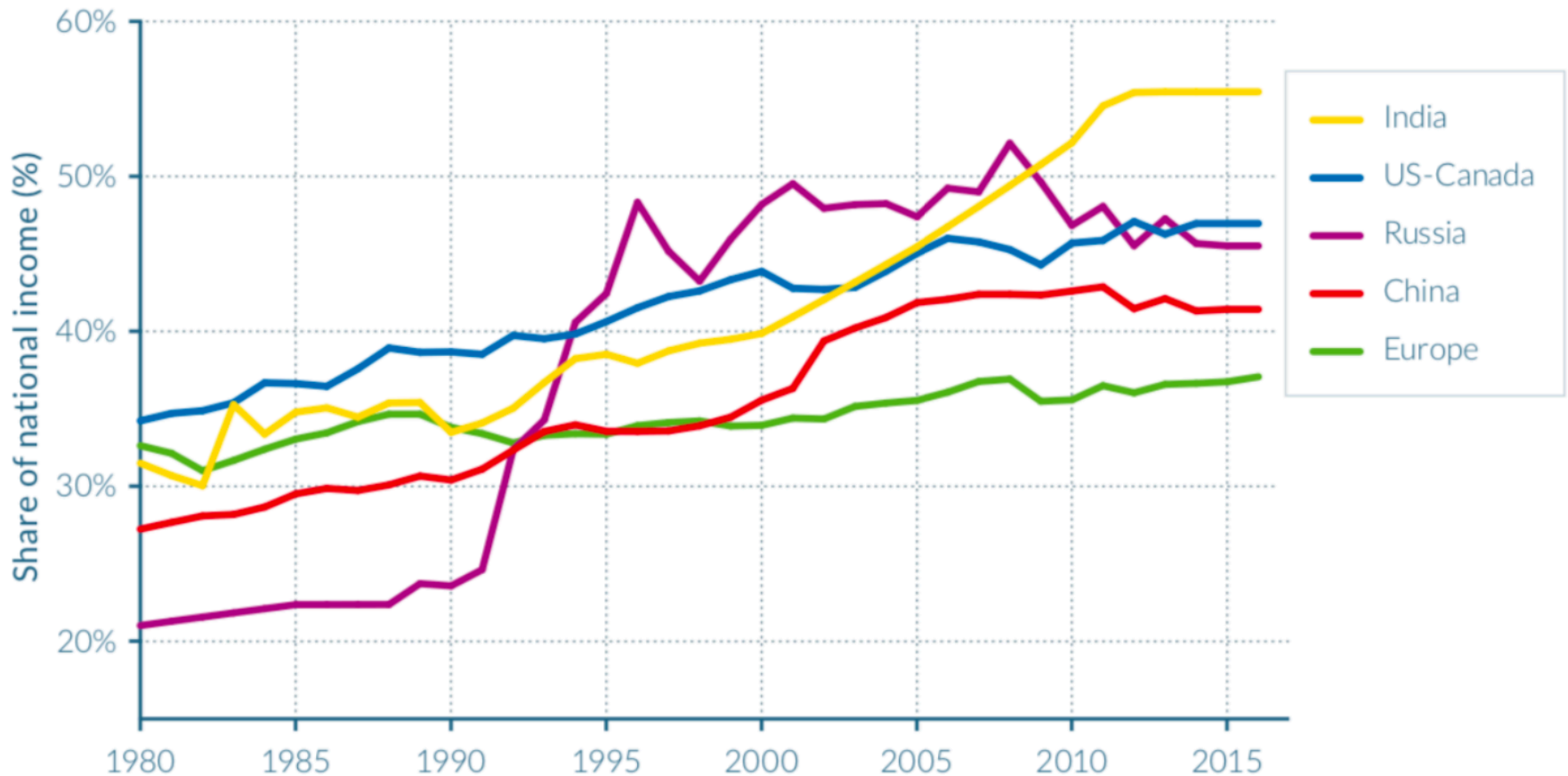


What happened since 1980?



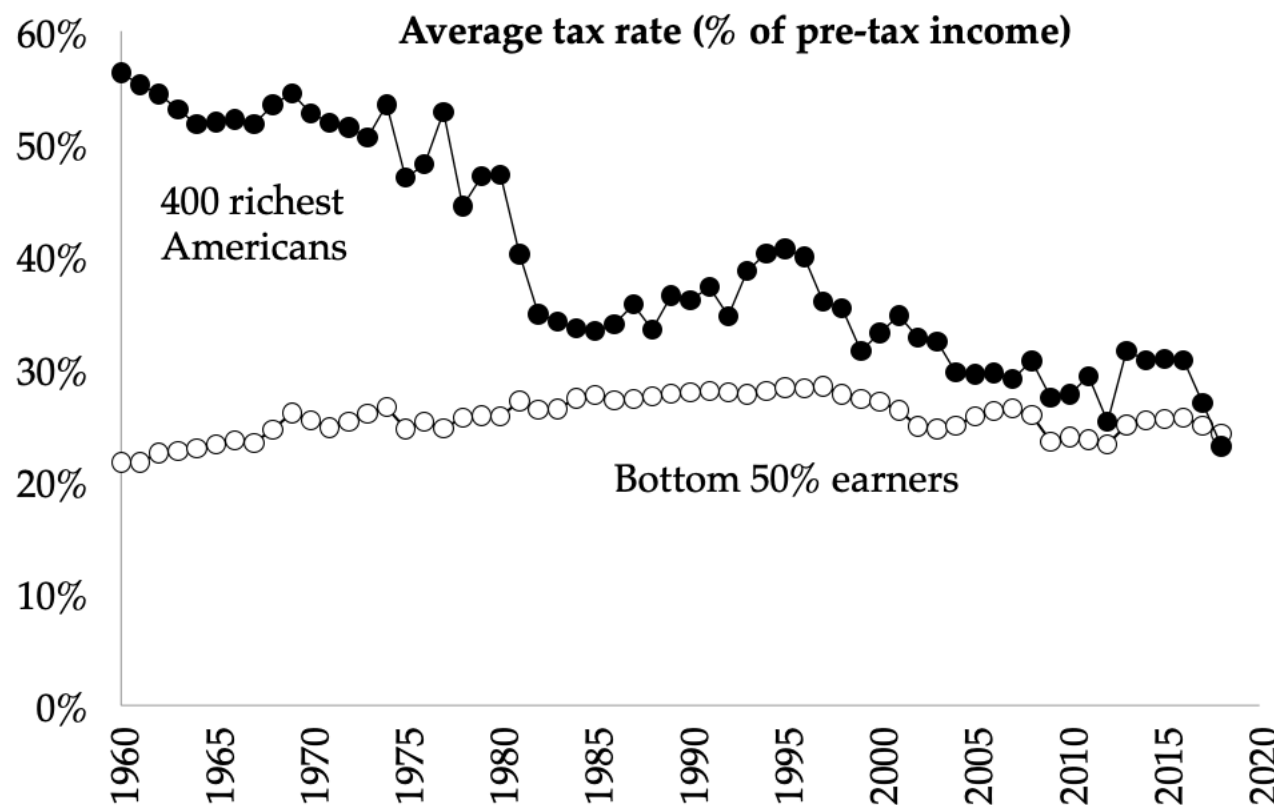
What happened since 1980?

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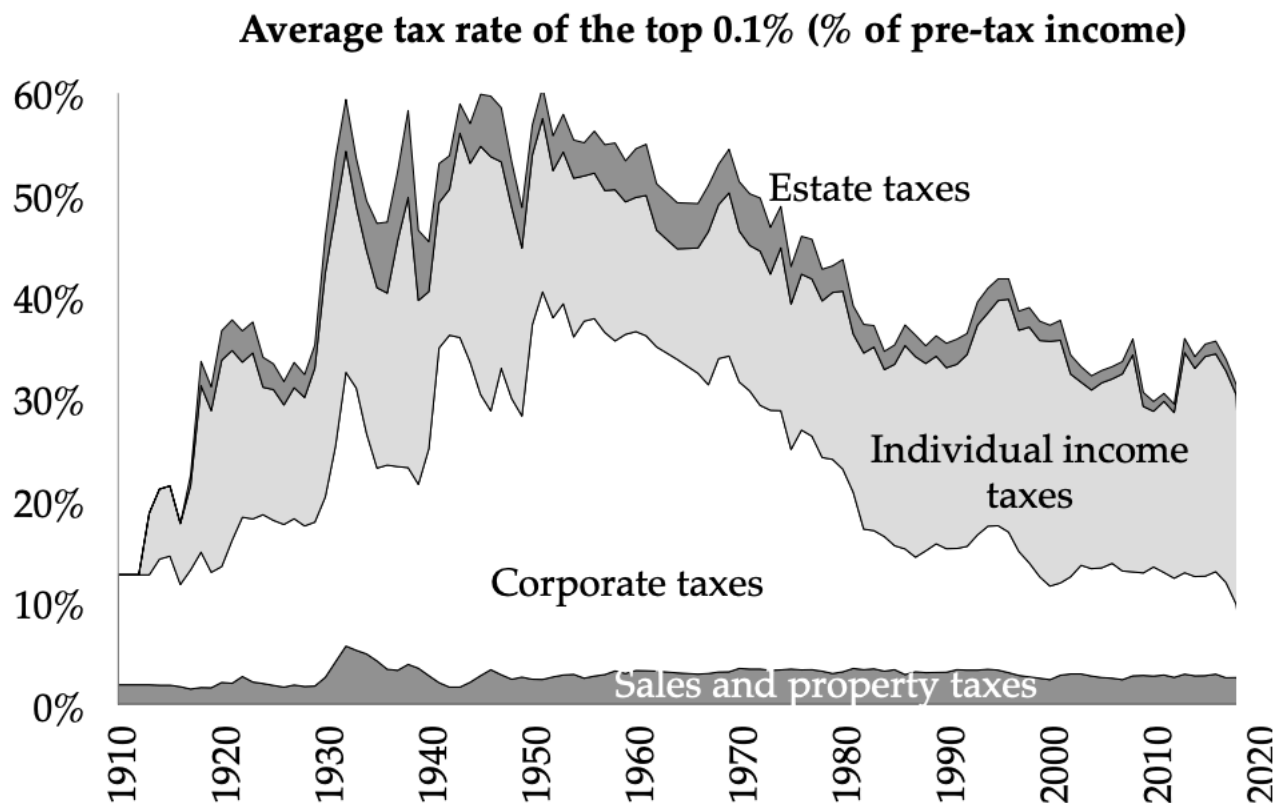


Source: WID.world (2017). See [wir2018.wid.world](http://wir2018.wid.world) for data series and notes.

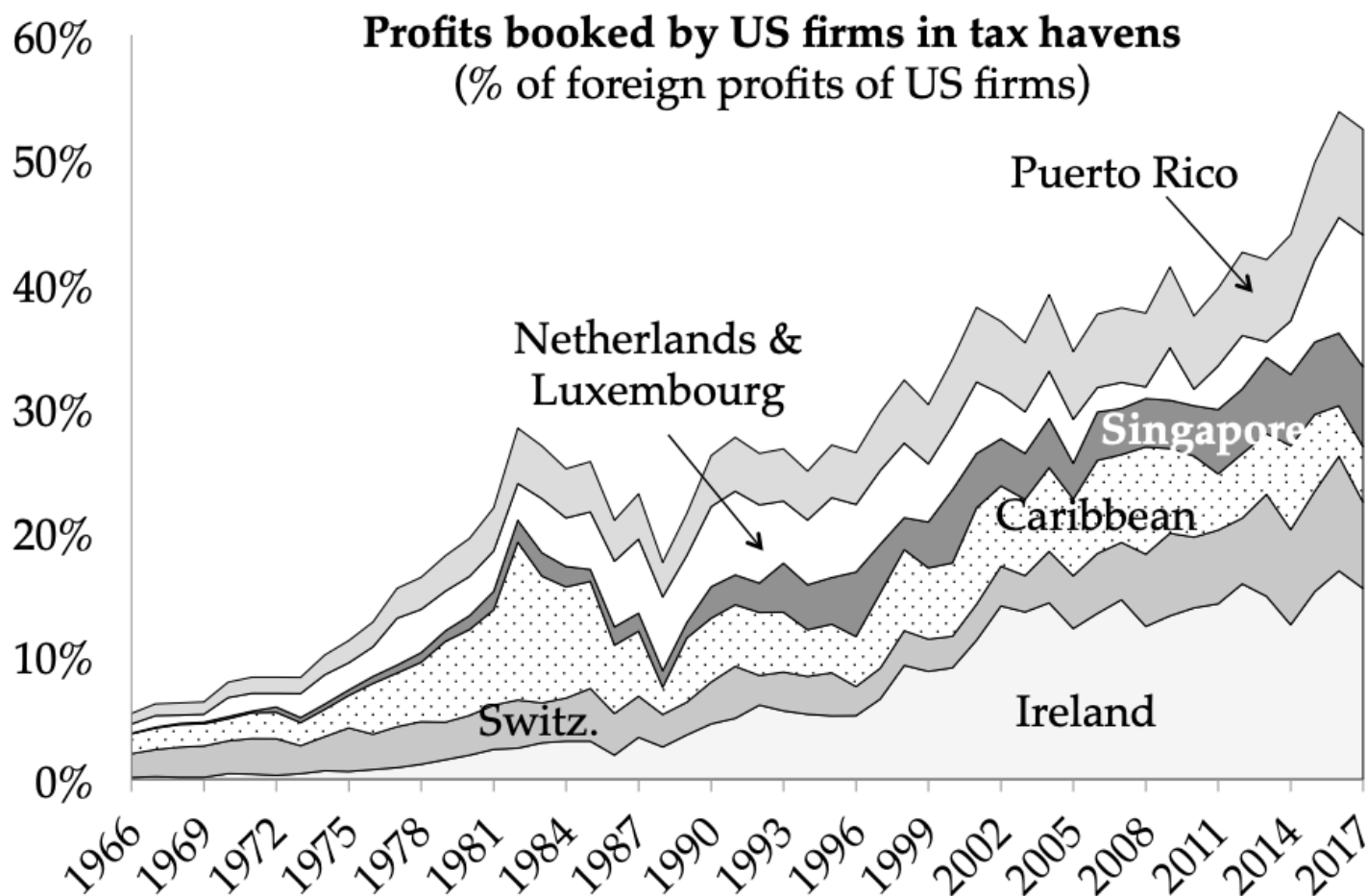
# The Triumph of Injustice: By Emmanuel Saez and Gabriel Zucman



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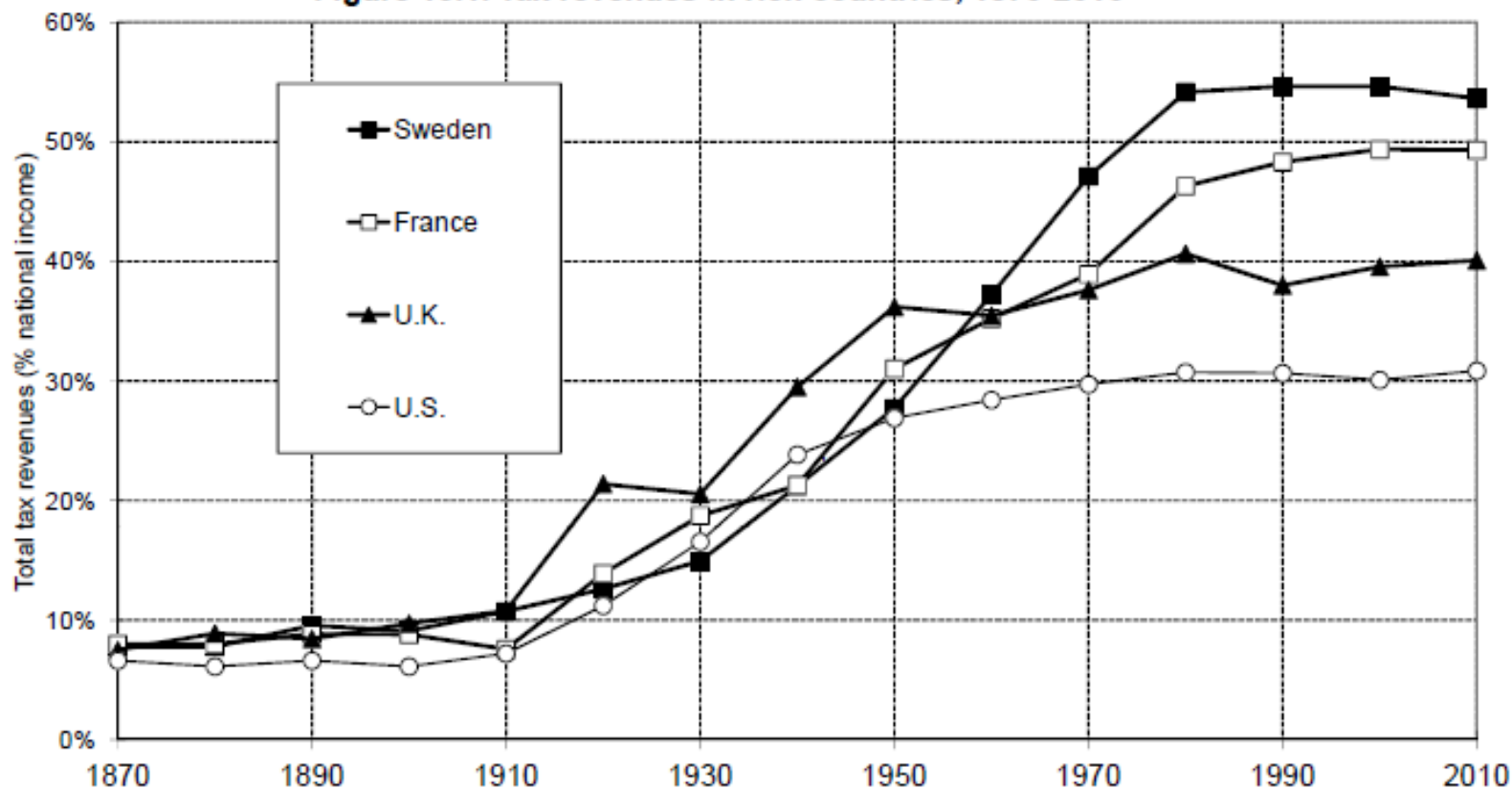


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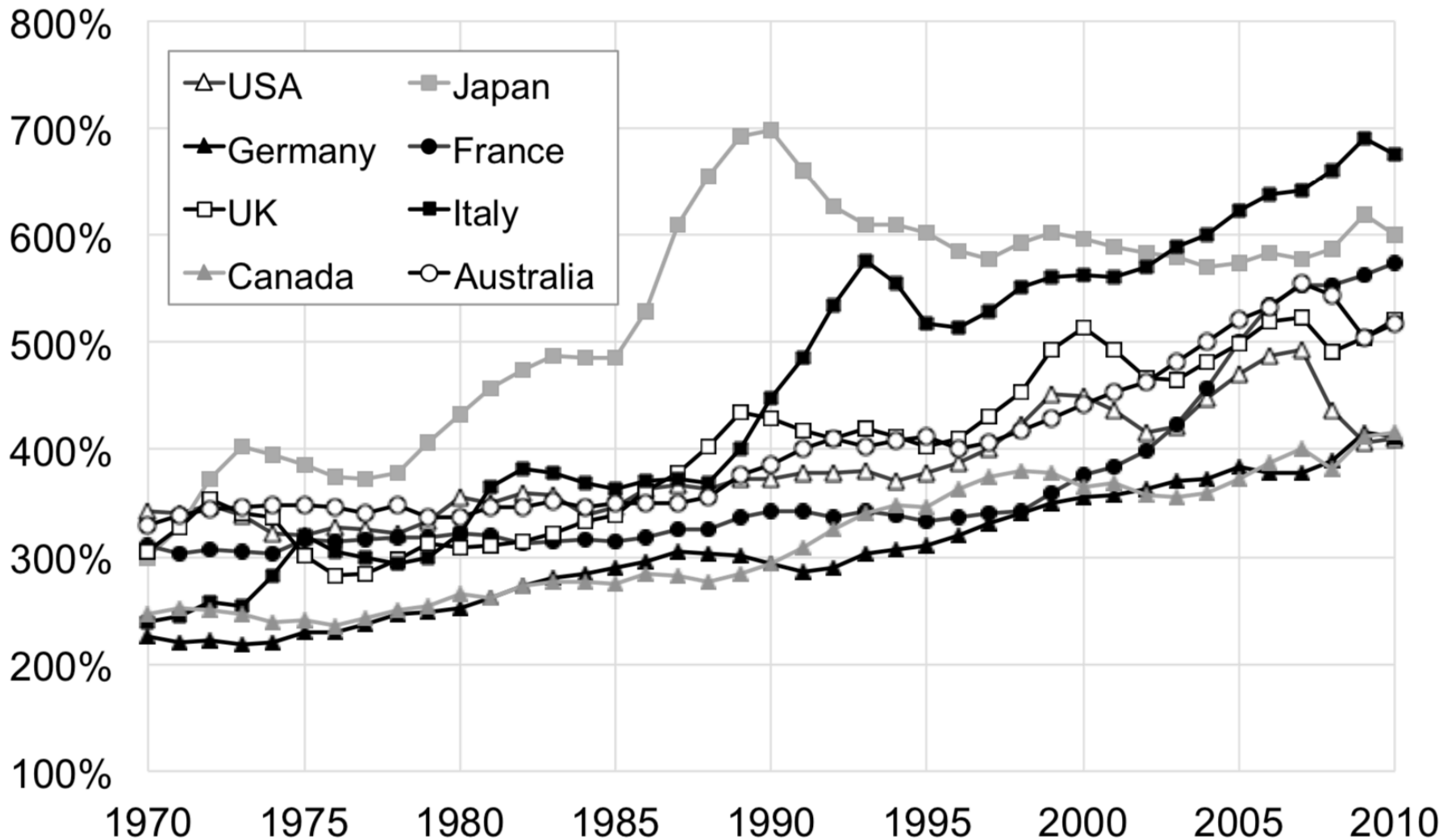
# The role of government

**Figure 13.1. Tax revenues in rich countries, 1870-2010**



Total tax revenues were less than 10% of national income in rich countries until 1900-1910; they represent between 30% and 55% of national income in 2000-2010. Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

## Private wealth / national income ratios 1970-2010



Source: Piketty and Zucman (2014). Authors' computations using country national accounts. Private wealth = non-financial assets + financial assets - financial liabilities (household & non-profit sectors)



# From socialists to oligarchs?

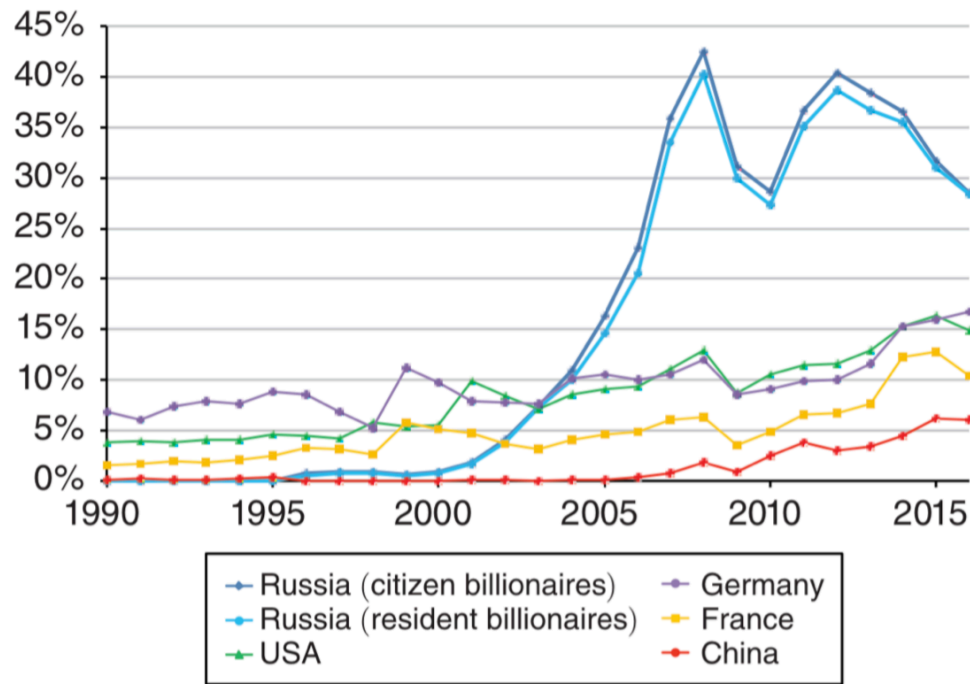
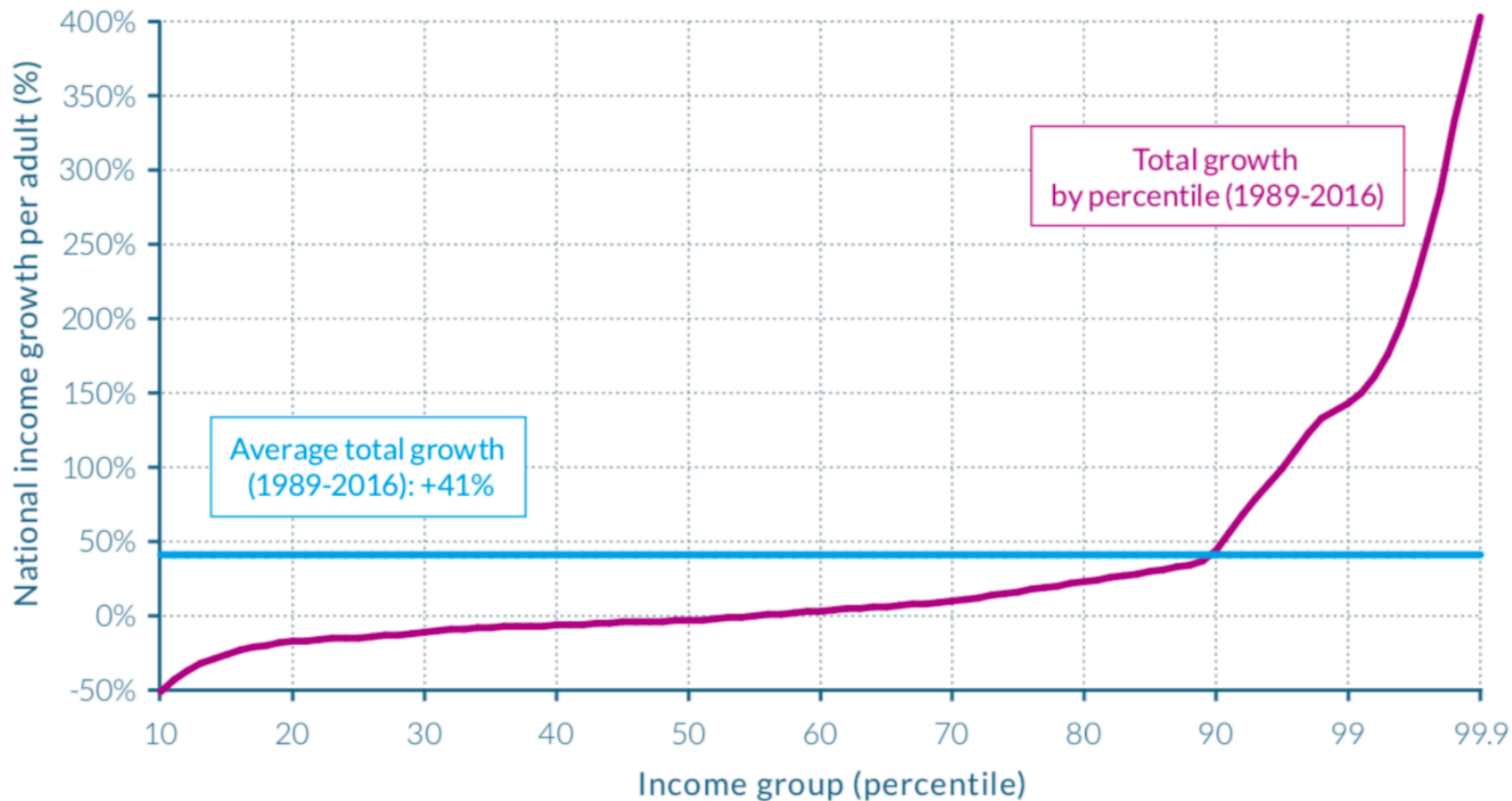


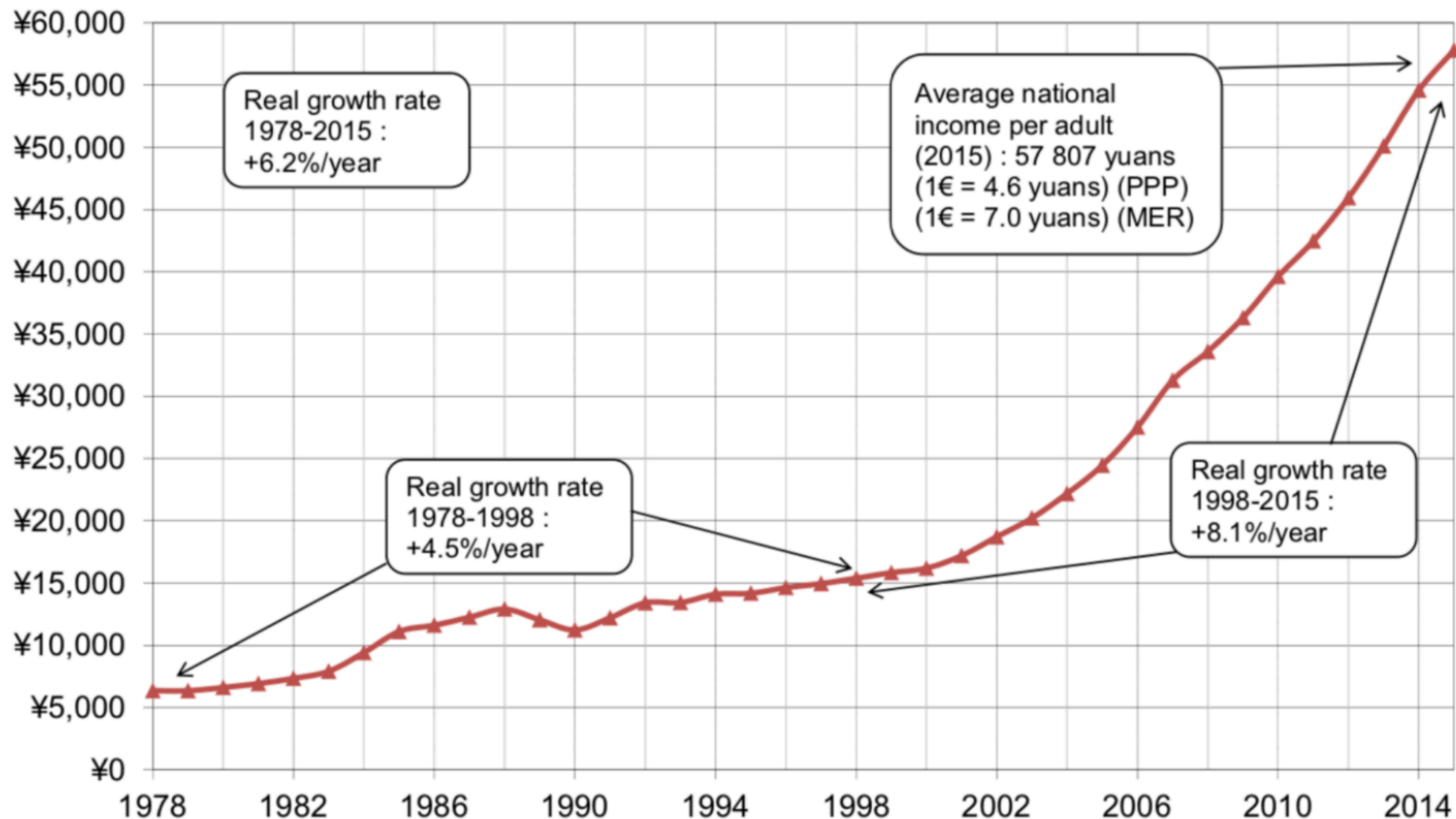
FIGURE 5. TOTAL FORBES BILLIONAIRE WEALTH:  
RUSSIA VERSUS OTHER COUNTRIES, 1990–2016  
(Percent national income)

## Total income growth by percentile in Russia, 1989-2016



Source: Novokmet, Piketty and Zucman (2017). See [wir2018.wid.world](https://www.wid.world) for data series and notes.

## B. The rise of per adult real national income, 1978-2015 (2015 yuans)



National income divided by adult population. National income = GDP - capital depreciation + net foreign income.

Panel B. Top 10 percent wealth share: China versus rich countries (%)

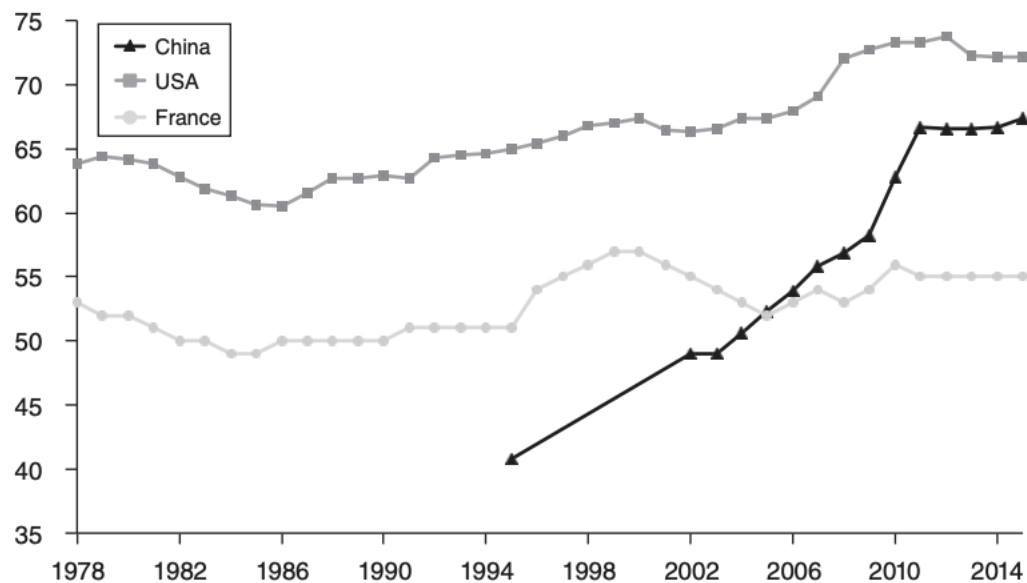


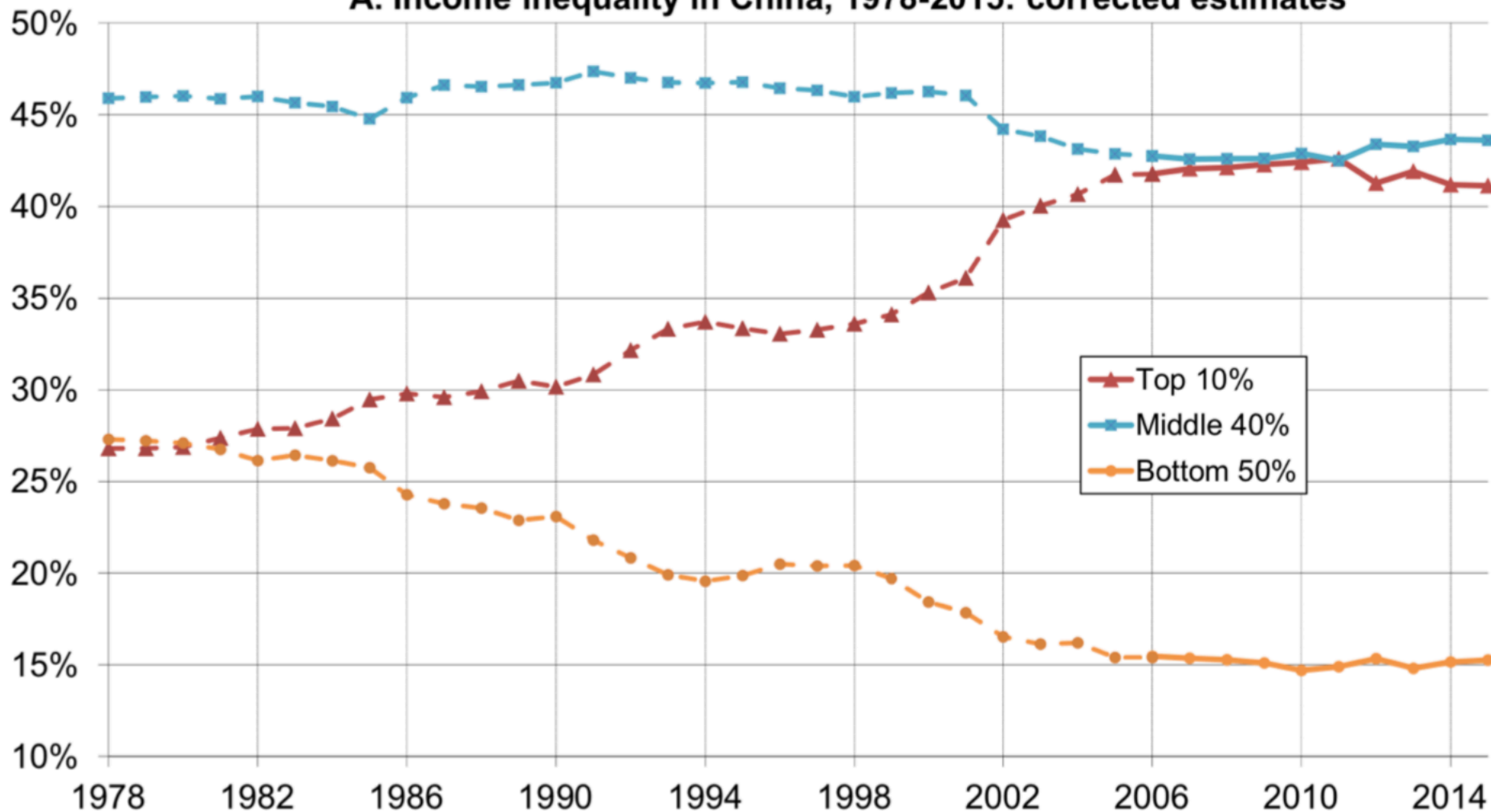
FIGURE 10

*Notes:* Distribution of net personal wealth among adults. Corrected wealth inequality estimates in China combine survey data and wealth rankings. Equal-split-adults series (wealth of married couples divided by 2).

Piketty et al. (2018)

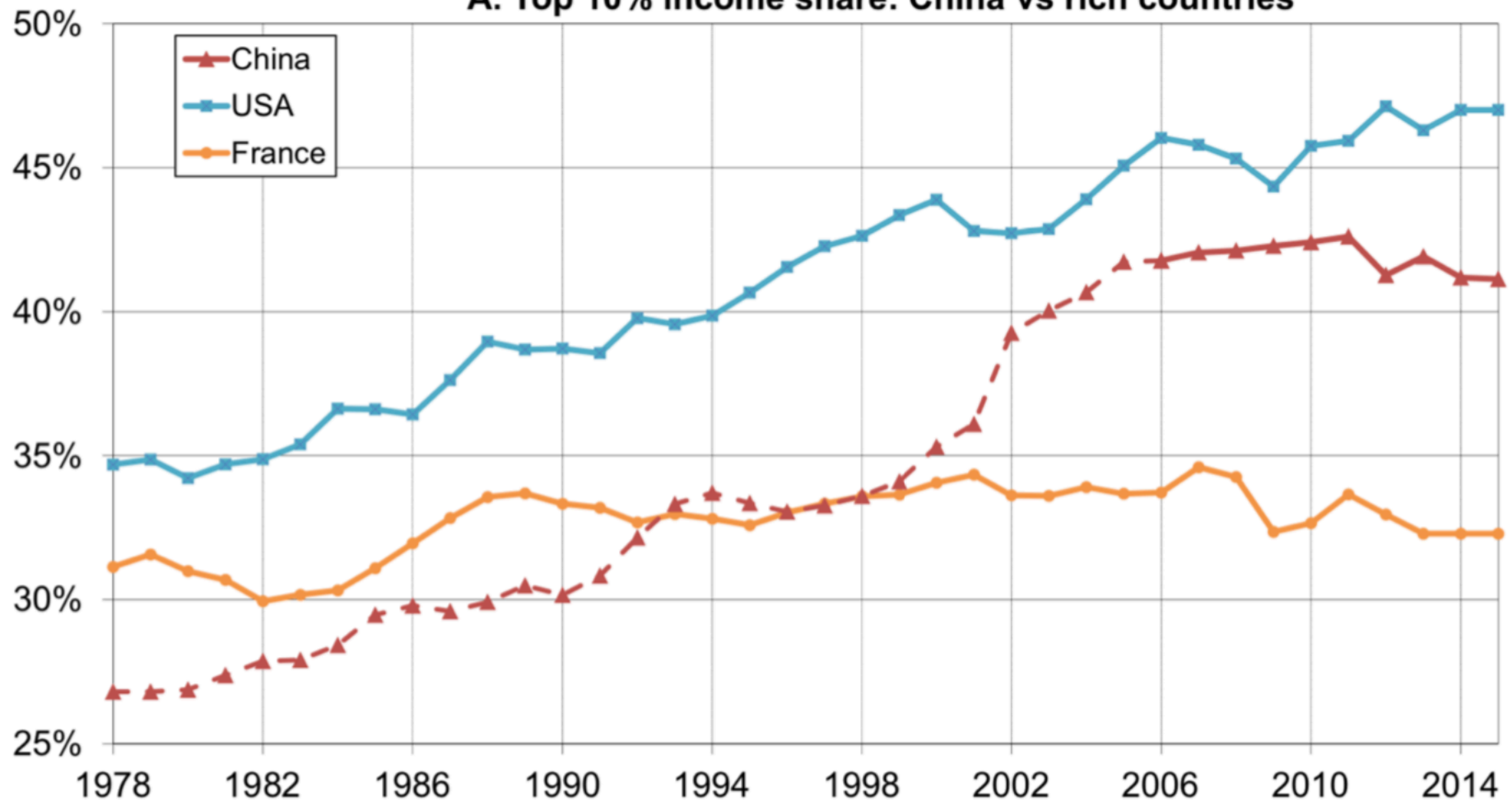


# A. Income inequality in China, 1978-2015: corrected estimates



Distribution of pretax 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-adults series (income of married couples divided by two). Pre-2006 series assume that the tax/survey upgrade factor is the same as the one observed on average over the 2006-2010 period when national-level tax data exist.

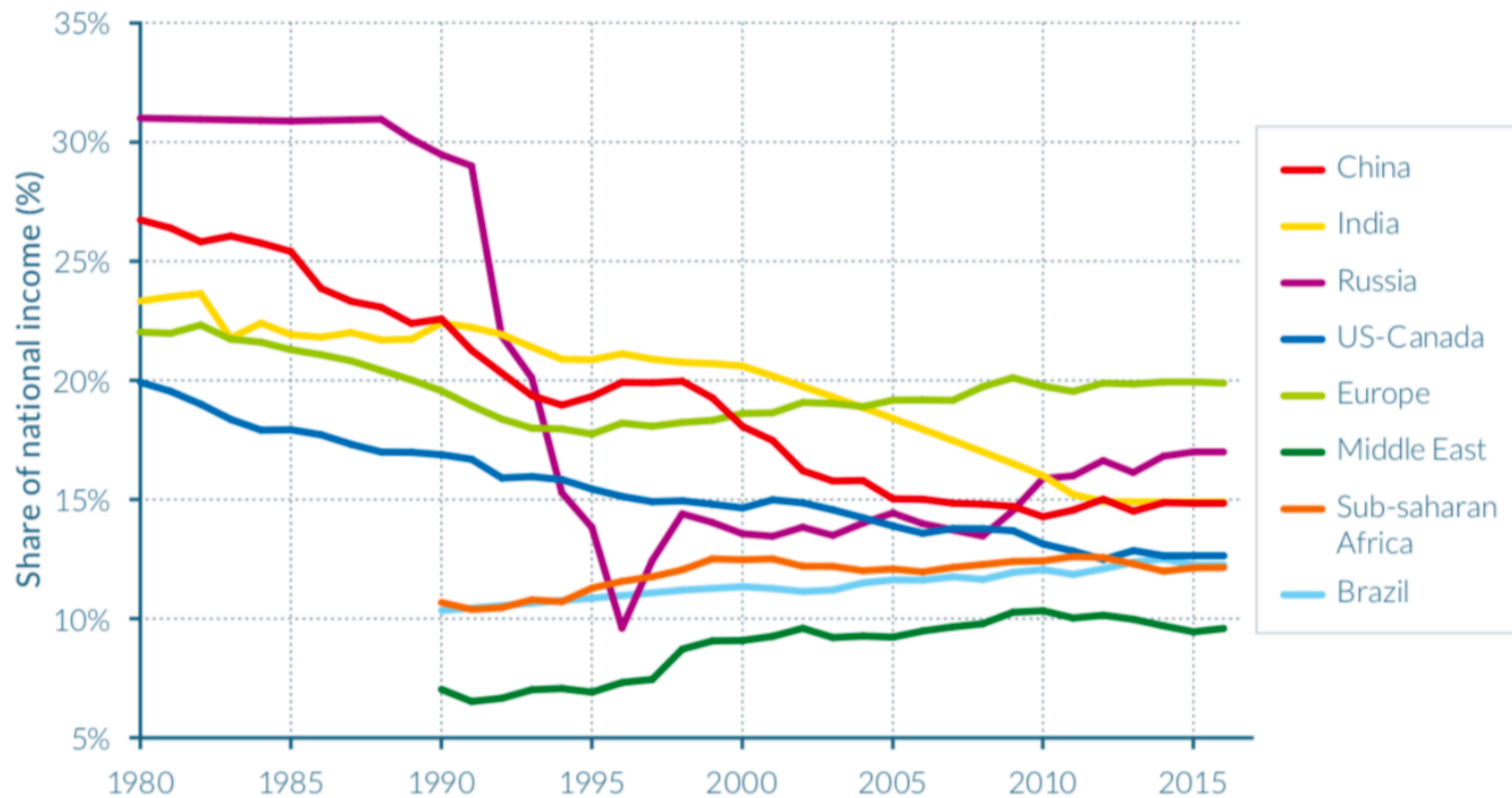
### A. Top 10% income share: China vs rich countries



Distribution of pretax 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-adults series (income of married couples divided by two). Pre-2006 series assume that the tax/survey upgrade factor is the same as the one observed on average over the 2006-2010 period when national-level tax data exist



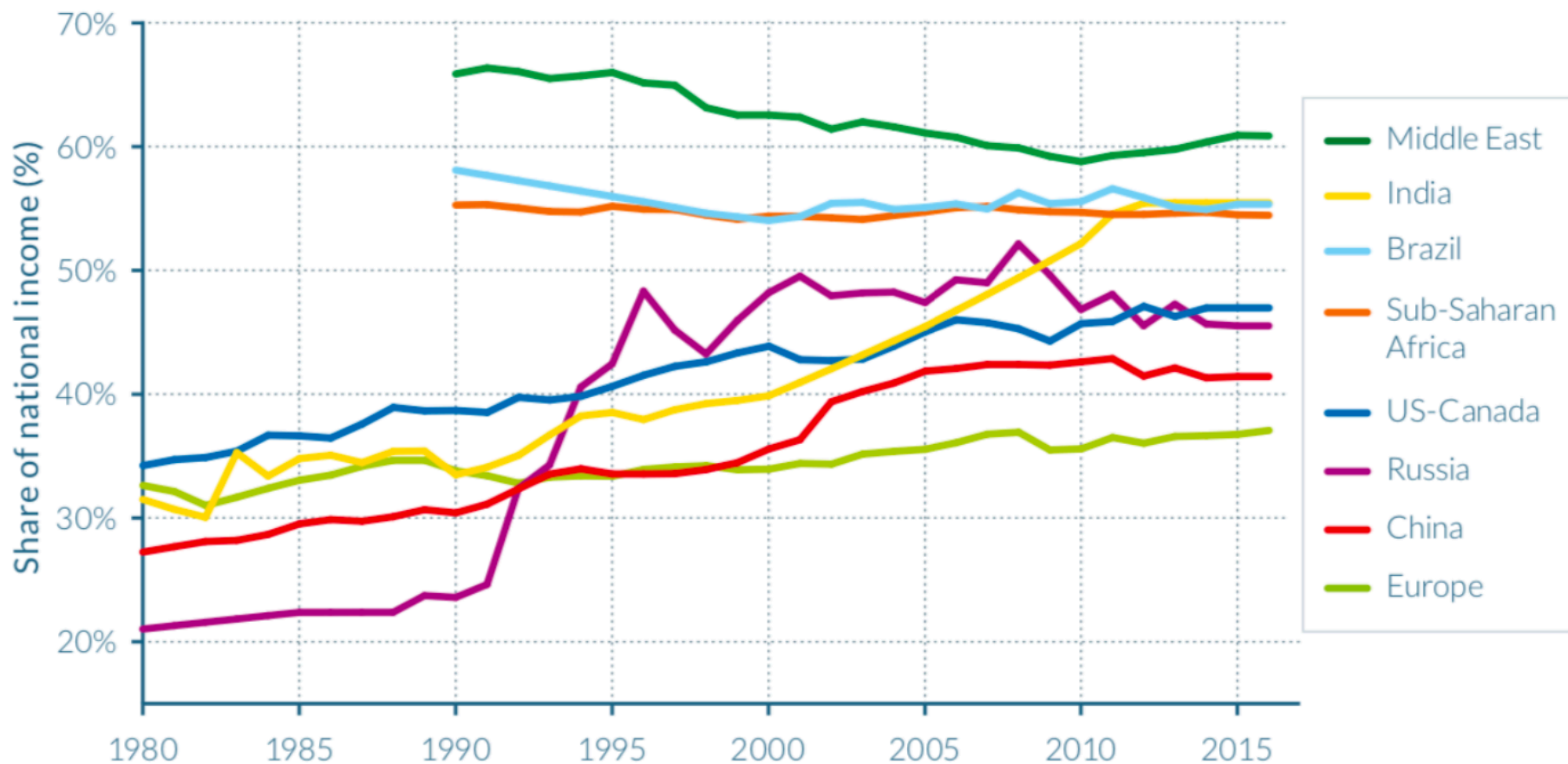
## Bottom 50% income shares across the world, 1980-2016



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

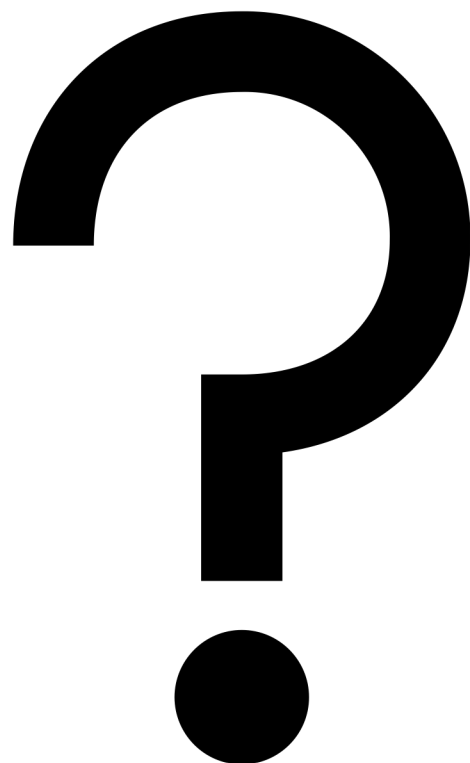


## Top 10% income shares across the world, 1980–2016: Is world inequality moving towards the high-inequality frontier?

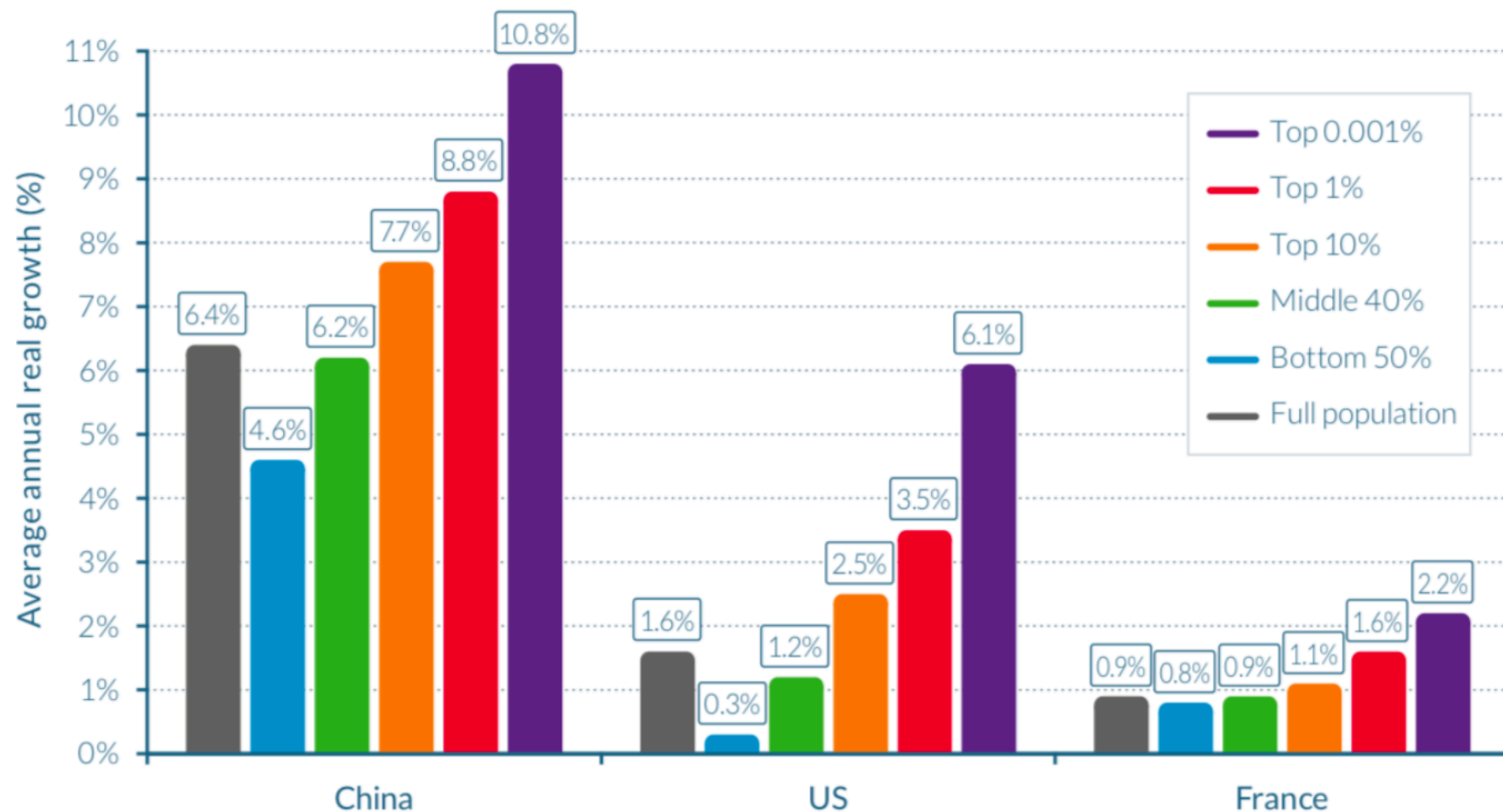


Source: WID.world (2017). See [wir2018.wid.world](http://wir2018.wid.world) for data series and notes.

What does the increase in inequality imply for the global growth miracle since 1980?

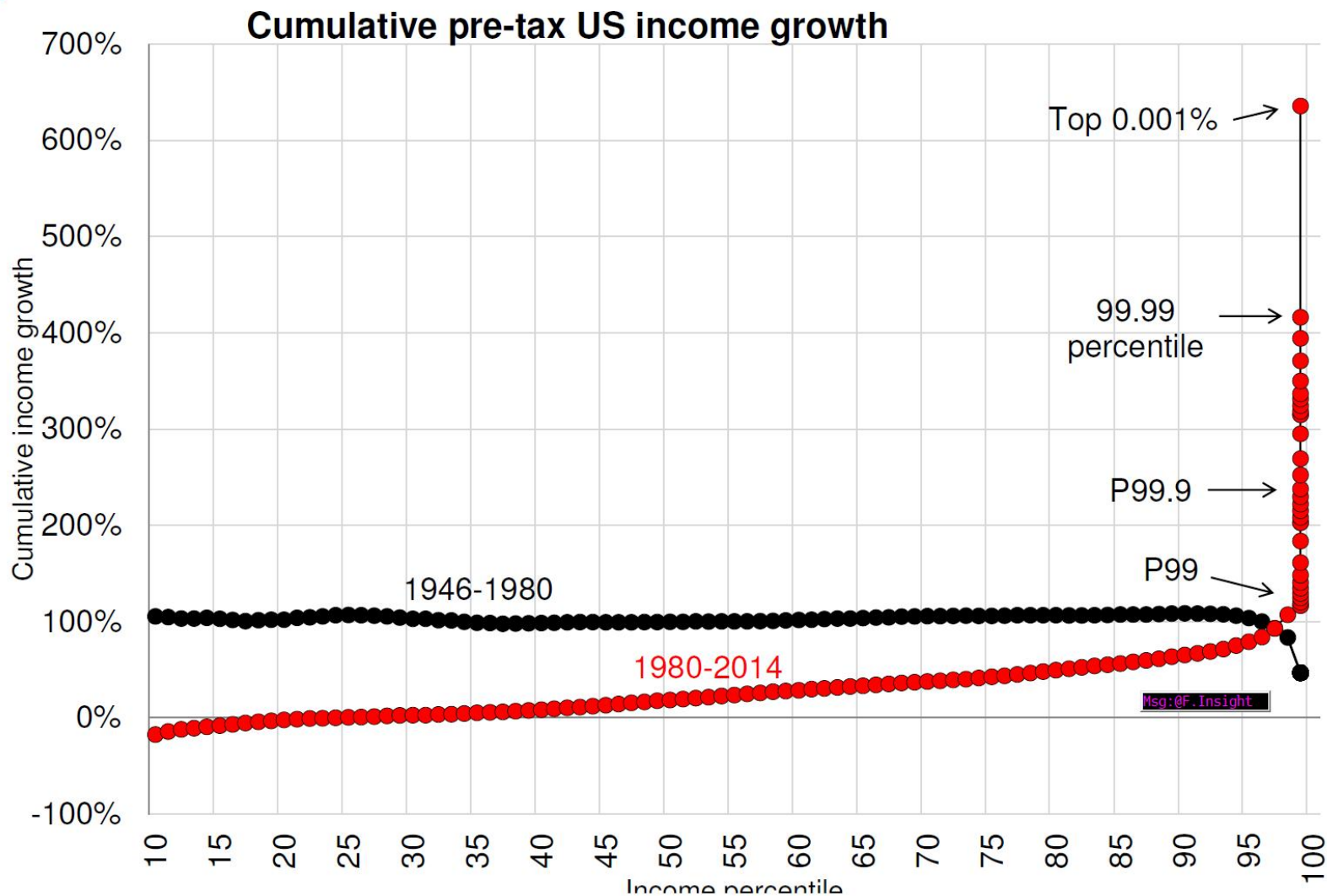


## Average annual national income growth by income group in China, France and the US, 1980–2015



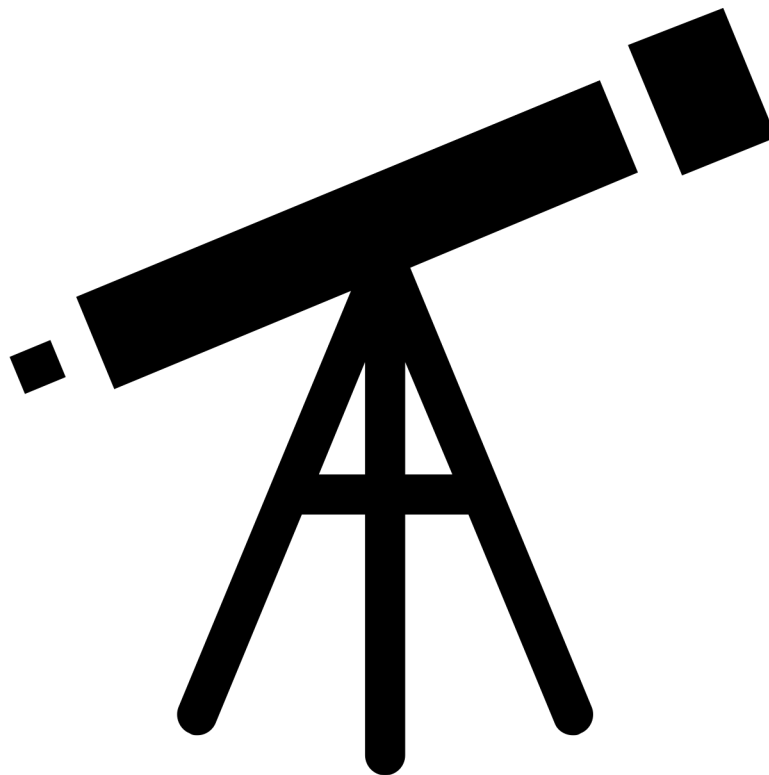
Source: Piketty, Yang and Zucman (2017). See [wir2018.wid.world](http://wir2018.wid.world) for data series and notes.

## 8: US growth has been extremely unevenly distributed



Source: Deutsche Bank and Figure FS40 in data spreadsheet of Piketty, T., Saez E., Zucman G., "Distributional National Accounts: Methods and Estimates for the United States", September 2017, Quarterly Journal of Economics

# A long-run perspective



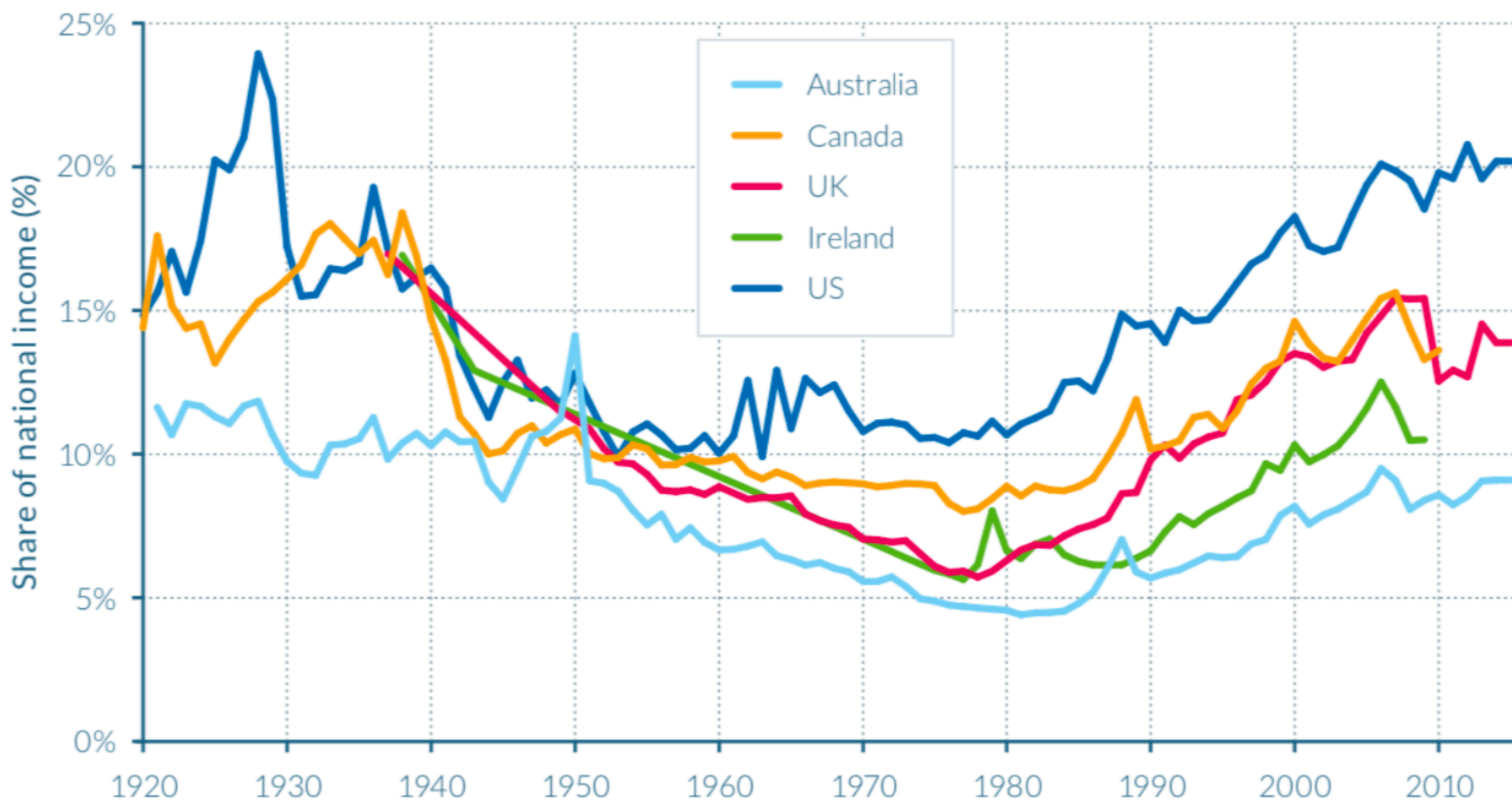
## The decline of income inequality 1920s–1970s

- Rise in inequality since 1980 contrast sharply with general decline in inequality between 1920s and 1970s
- However, large differences across countries

## The decline of income inequality 1920s–1970s: developed countries

- 1920s-1970s combination of political, social, and economic shocks
- Followed by egalitarian policies: Social Security, public education, pro-labor policies, progressive taxation
- Large shocks to top fortunes 1913-1945

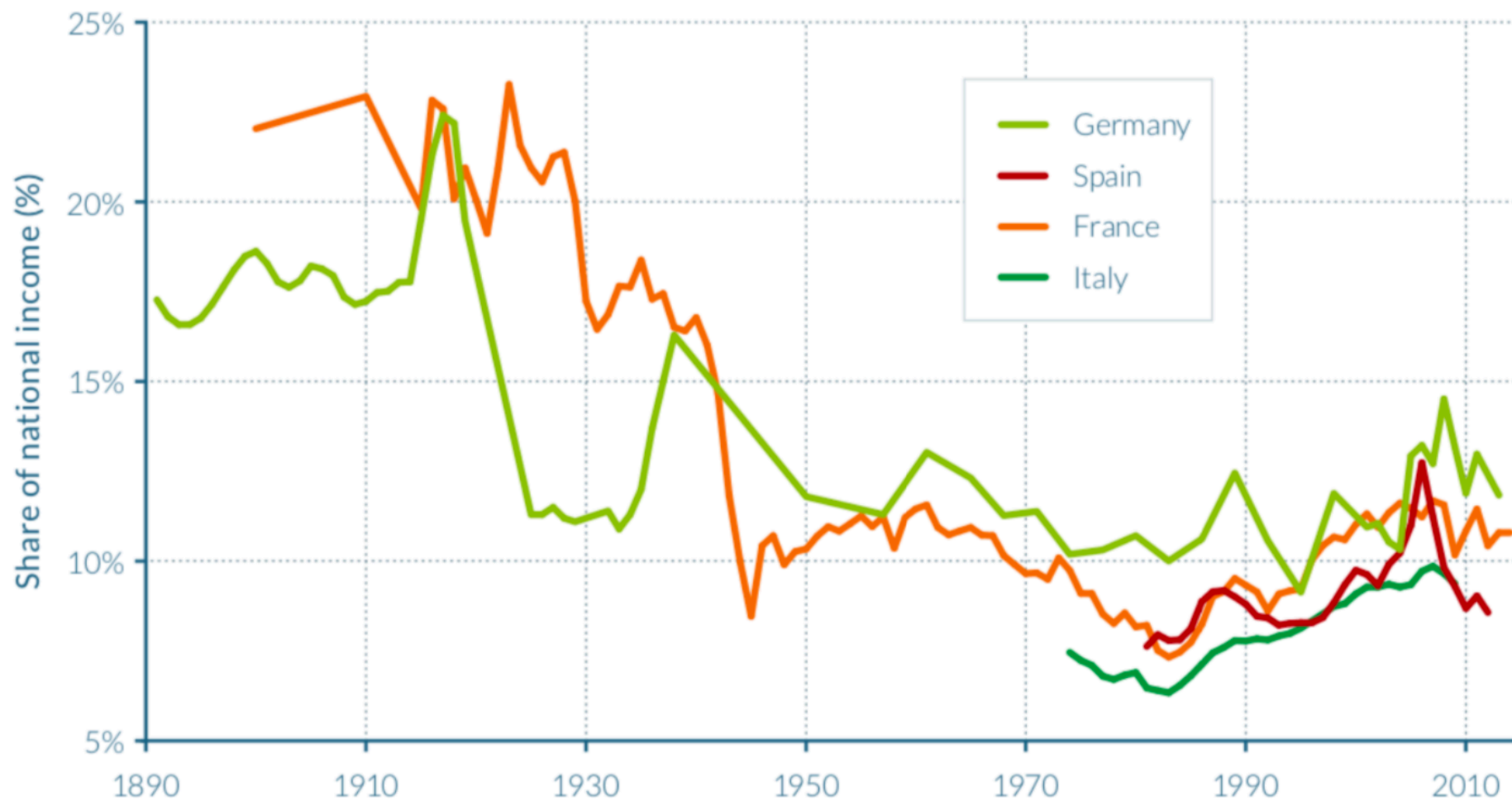
## Top 1% national income share in Anglophone countries, 1920–2015



Source: Novokmet, Piketty & Zucman (2017). See [wir2018.wid.world](#) for data series and notes.

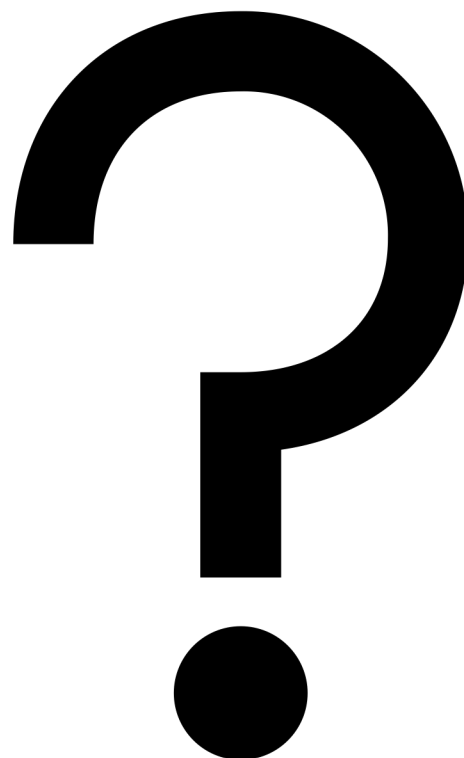


## Top 1% national income share in European countries, 1890–2014



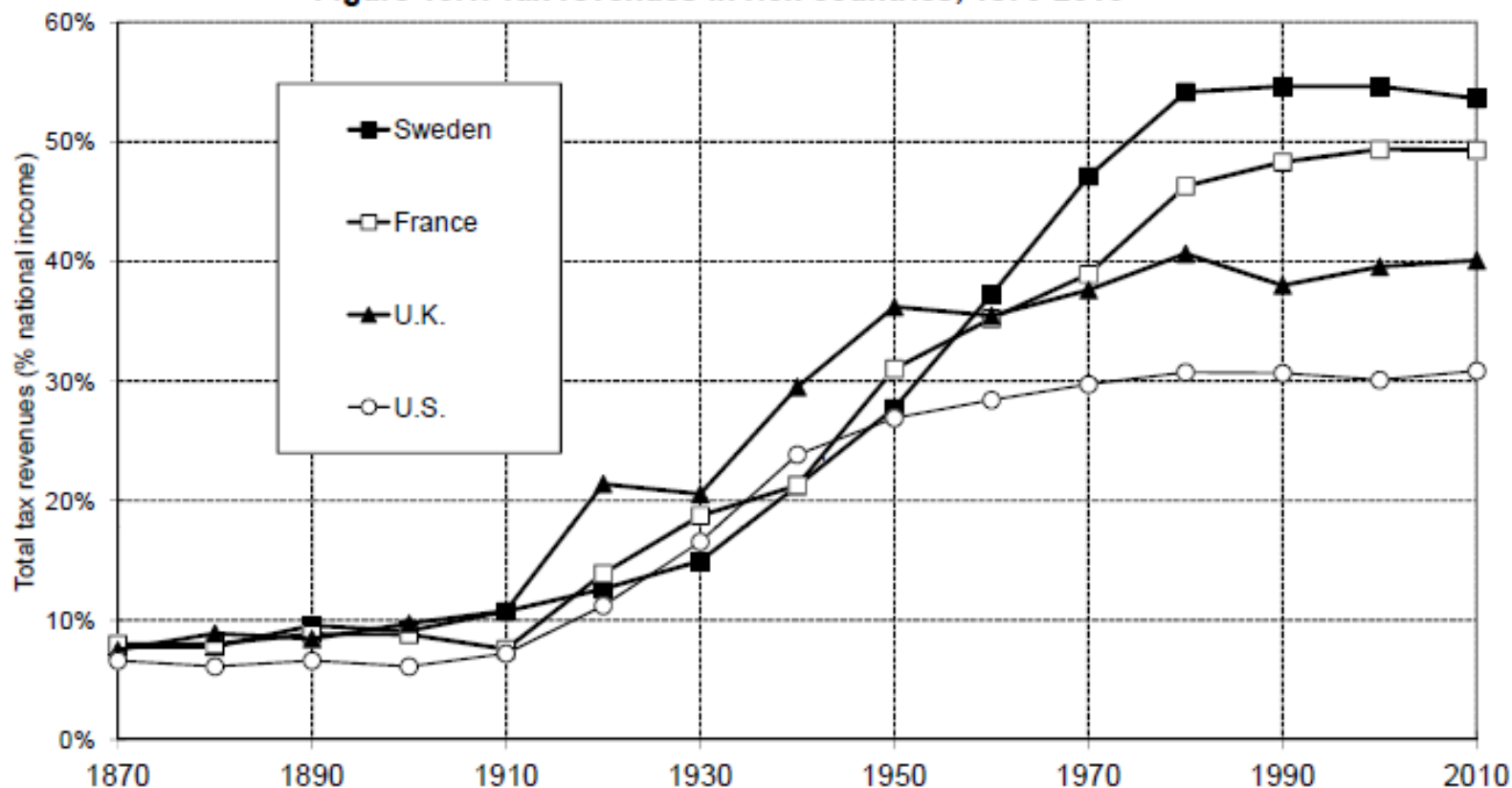
Source: WID.world (2017). See [wir2018.wid.world](#) for data series and notes.

# Why the different paths for developed countries



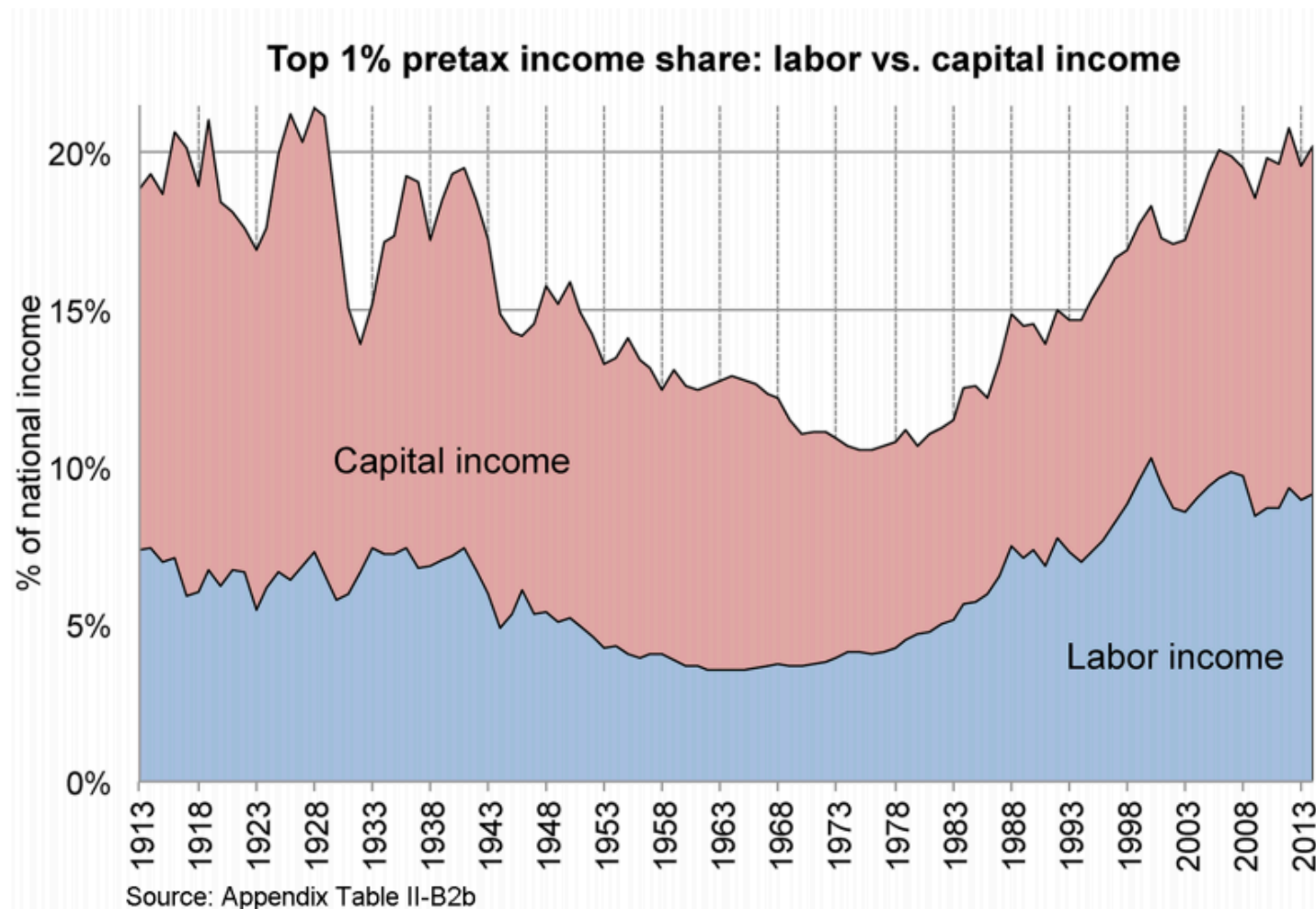
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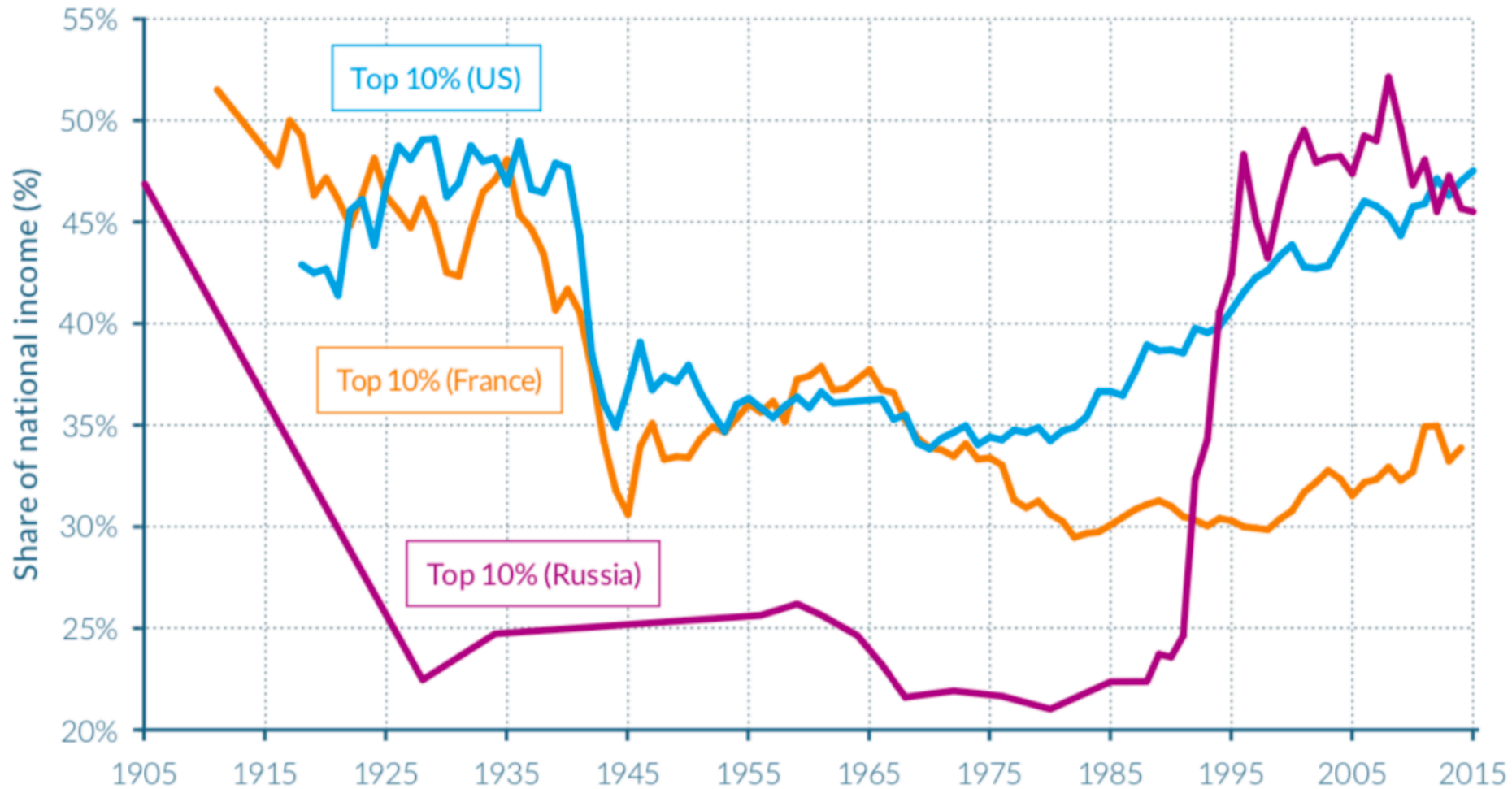
# The role of capital income: case of US



## The decline of income inequality 1920s–1970s: developing countries

- Political and social shocks led to even more radical reduction of inequality:
- Abolition of private property in Russia, plans, education, land redistribution
- Socialist policies in India post-independence

## Top 10% income share in France, Russia and the US, 1905–2015



## How to define wealth and derived income in past socialist economies?

- <https://glineq.blogspot.com/2020/02/what-is-wealth.html>

Functions of wealth in different societies

	In despotic societies of the past	In “high” communism	In today’s commercialized societies
To command people’s labor	Yes	Yes	Yes
To move resources (in a macroeconomic way)	Yes	Yes	Only if combined with political power
To live luxuriously	Yes	Yes (but not quite)	Yes
To leave it to your heirs	Yes	No	Yes

## Summary

- After historical decline in most parts of the world from 1920s to 1970s, income inequality is on the rise in nearly all countries.
- But variety of national pathways, highlighting key role of political and institutional factors
- Among rich countries, Anglo-Saxon countries have experienced a sharp rise in inequality since the 1980s.



## Summary

- In China, Chile, India, and Russia, three formerly communist or highly regulated economies, inequality surged with opening and liberalization policies.
- Steepest rise occurred in Russia, where the transition to a market economy was particularly abrupt
- For most developing countries we have an imperfect view on the long-run trend