Global inequality dynamics: New findings from WID.world

Facundo Alvaredo
PARIS SCHOOL OF ECONOMICS

Lucas Chancel
PARIS SCHOOL OF ECONOMICS

Thomas Piketty
PARIS SCHOOL OF ECONOMICS

Emmanuel Saez
UC BERKELEY & NBER

Gabriel Zucman
UC BERKELEY & NBER

American Economic Association Annual Conference
Chicago – January 7 2017

This presentation

1. History and prospects of the WID.world project

From WTID to WID.world & Distributional National Accounts (DINA)

2. Income inequality dynamics (USA, China, France)

Rising top income shares in all countries, but with substantial variations.
Large bottom 50% income growth in China, near-average growth in France, and negative growth in USA.

3. Private vs. public wealth-income dynamics (USA, China, France, UK, Germany, Japan)

Rising private wealth, falling public wealth-income ratios.
Negative public wealth in rich countries, declining but still large in China (35% national wealth).

4. Wealth inequality dynamics (USA, China, France, UK)

Rising top wealth shares in CN, US; less strong in FR, UK. Long-run steady-state?

1. History and prospects for the WID.world project

- WID.world started with historical top income shares for France, USA, Britain and was gradually extended to over thirty countries and to wealth (Piketty 2001, 2003, Piketty-Saez 2003, Atkinson-Piketty 2007, 2010, Alvaredo et al 2013, Saez-Zucman 2016)
- **New website WID.world launched January 2017**
- Three major extensions underway:
- **Emerging countries** and not only rich countries: new tax data recently made available for China, Brasil, India, South Africa, etc.
- **Wealth distribution** and not only income distribution
- **Bottom of the distribution** and not only the top
- Overall objective : **Distributional National Accounts (DINA)**

WID.WORLD

WORLD | BY COUNTRY | DATA | WORLD WEALTH & INCOME DATABASE BETA | METHODOLOGY | ABOUT US | NEWS

ADD A COUNTRY

KEY INDICATORS

AVERAGE INCOME
- Per adult national income
- Per adult GDP

AVERAGE WEALTH
- Per adult national wealth
- Wealth-income ratio

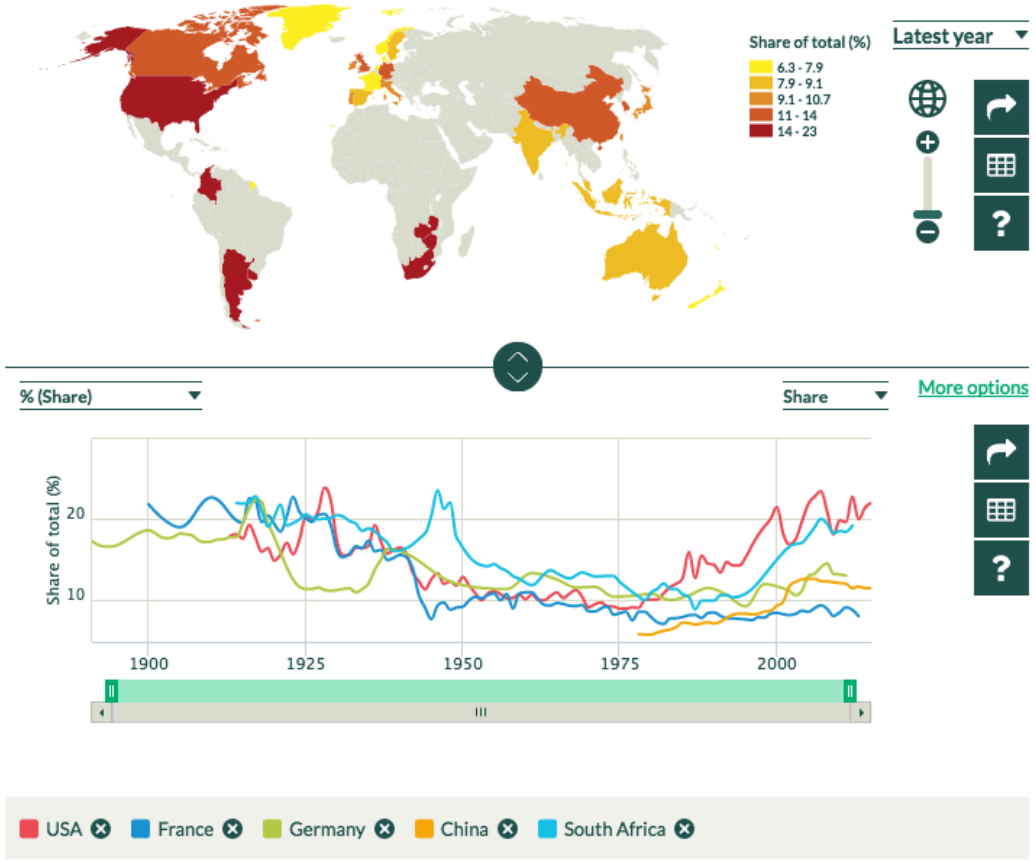
INCOME INEQUALITY
- Top 10% share
- Middle 40% share
- Bottom 50% share
- Top 1% share

WEALTH INEQUALITY
- Top 10% share
- Middle 40% share
- Bottom 50% share
- Top 1% share

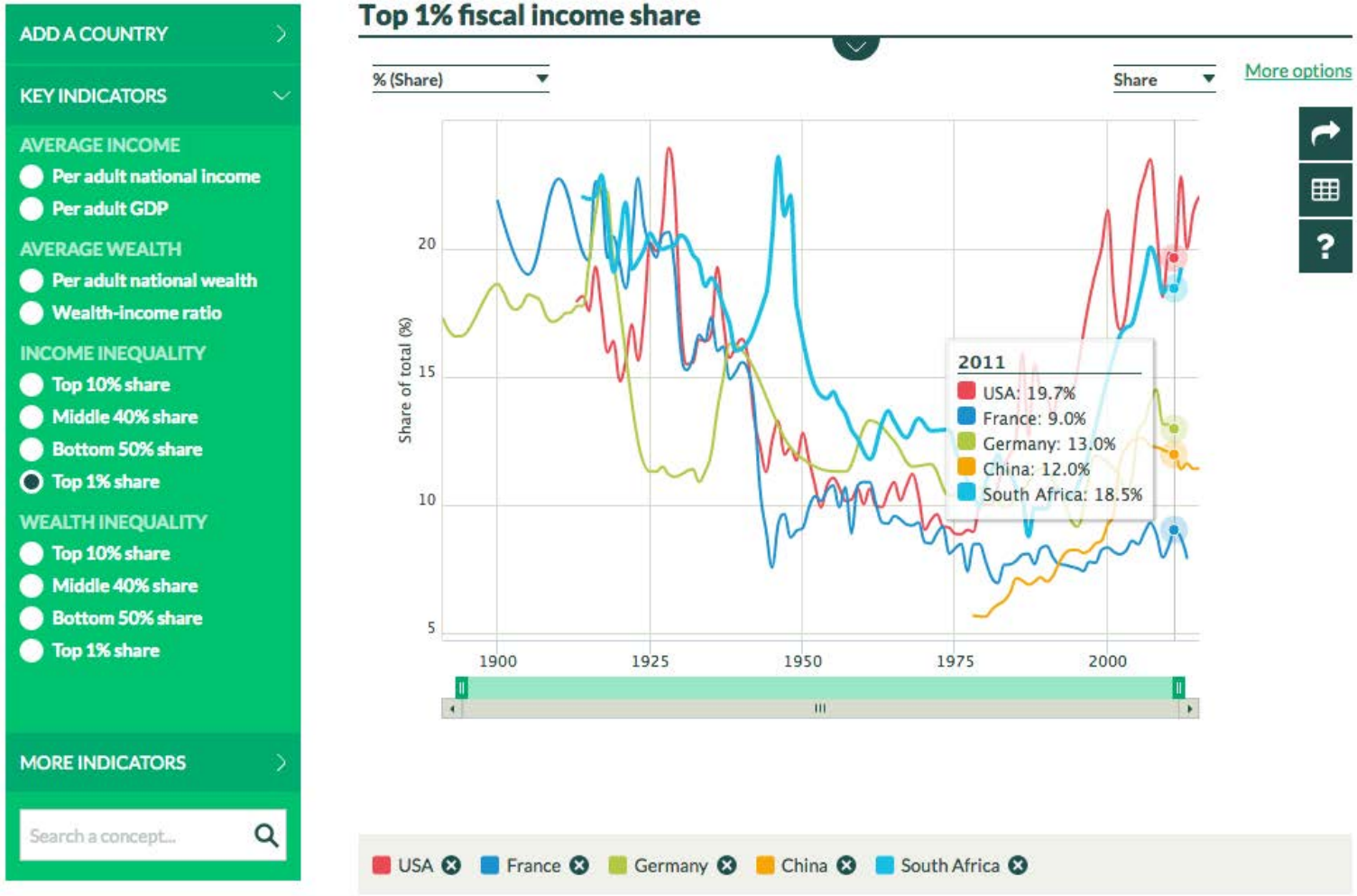
MORE INDICATORS

Search a concept...

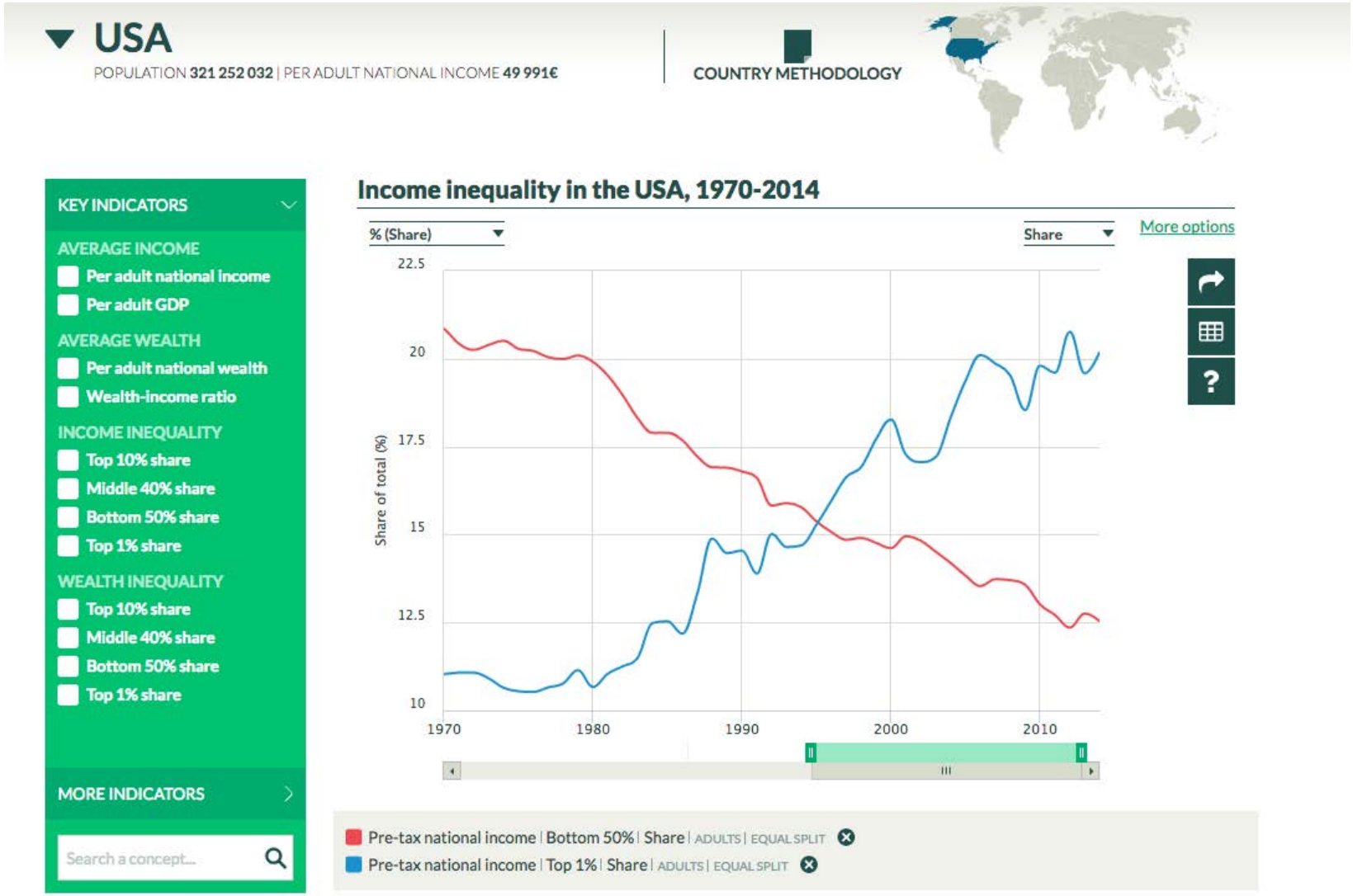
Top 1% fiscal income share



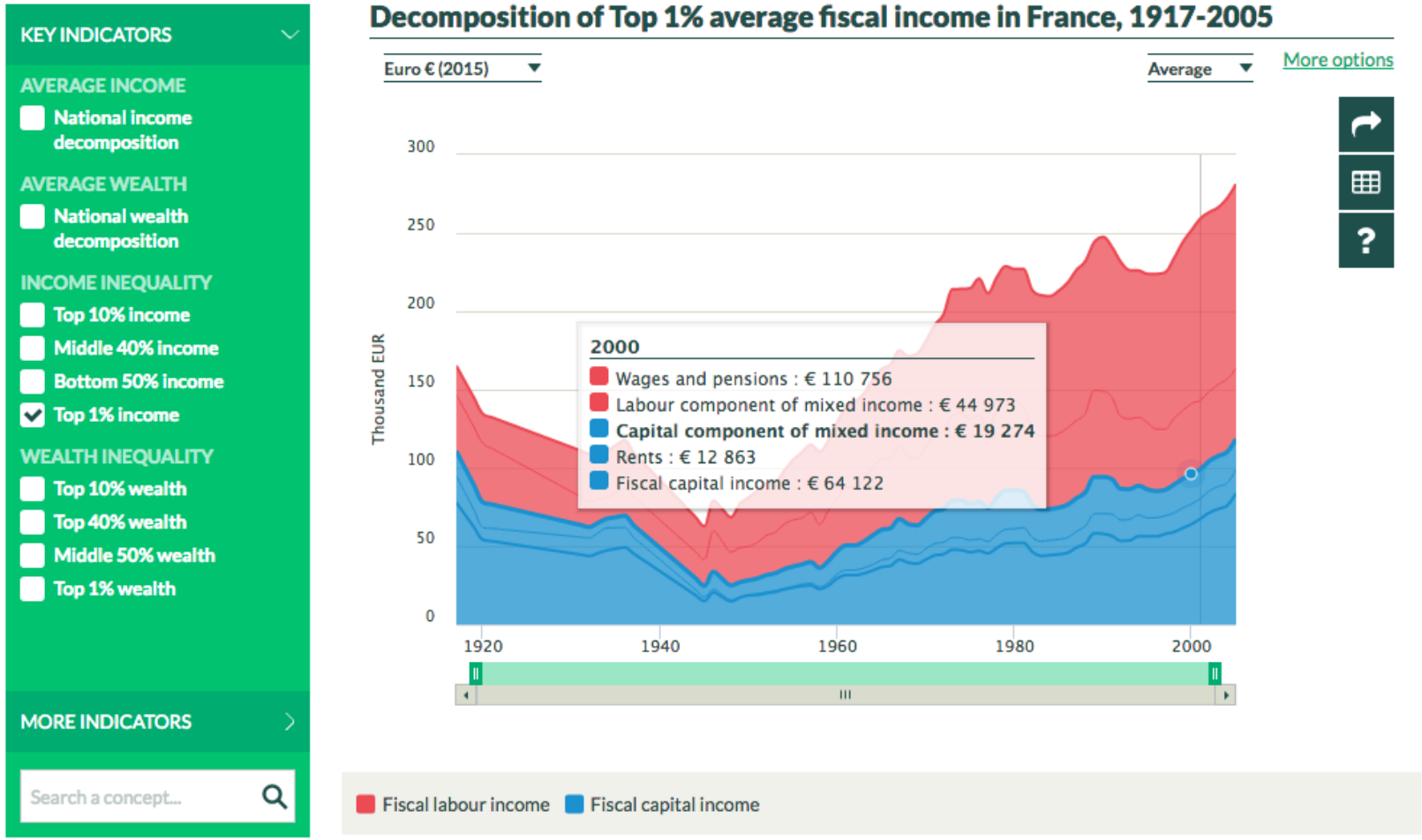
New WID.world website



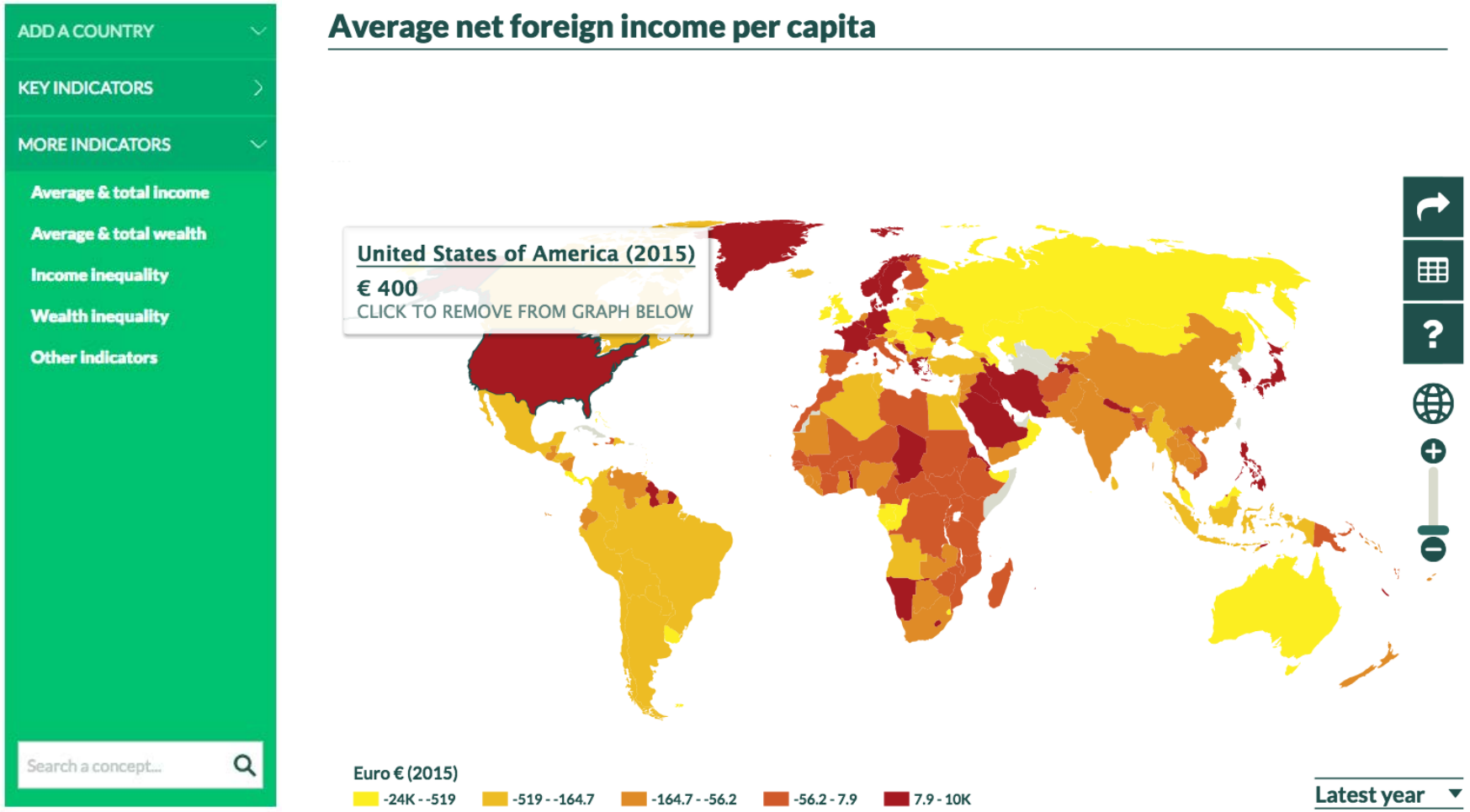
New WID.world website



New WID.world website



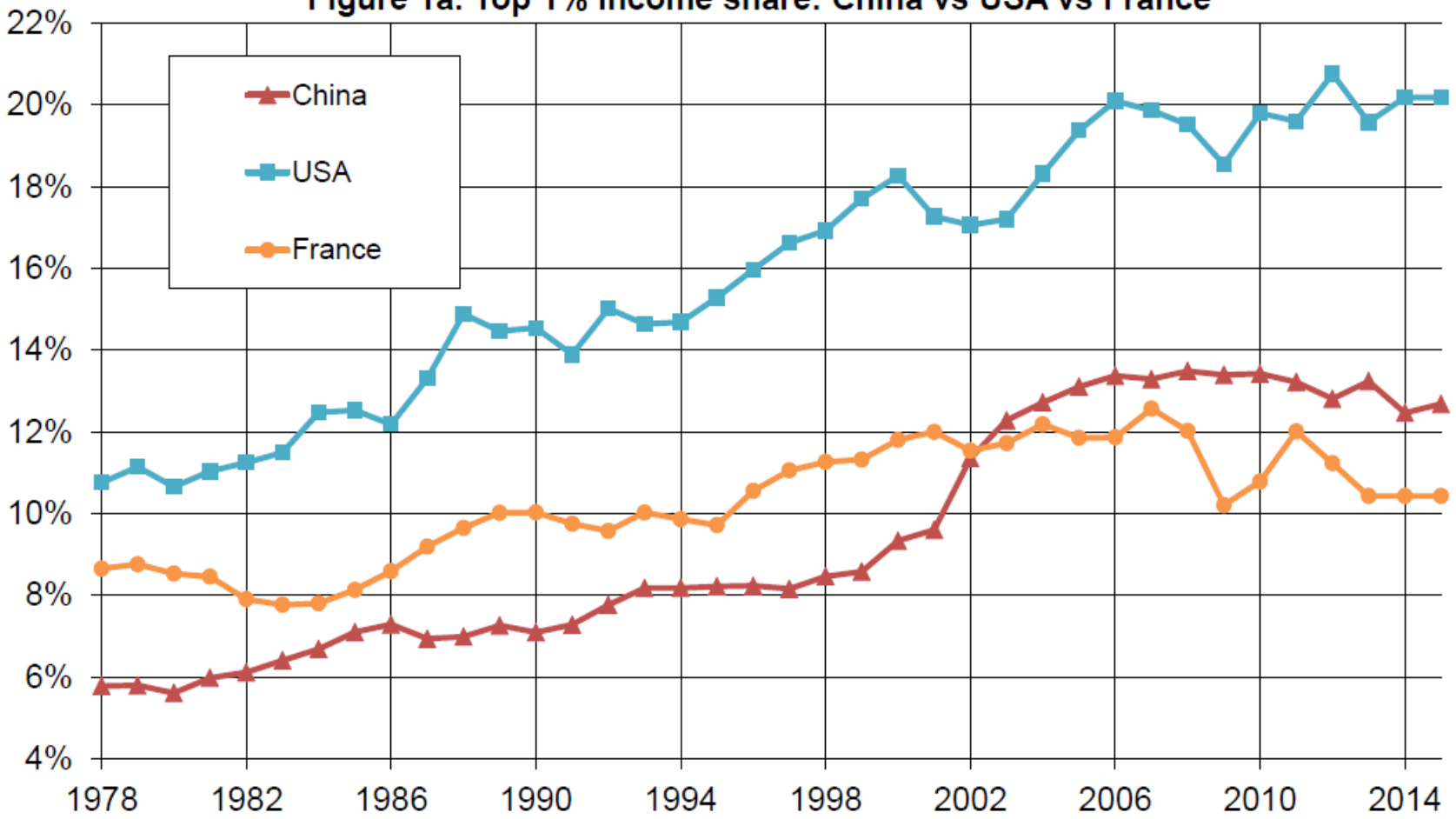
New WID.world website



2. Income inequality dynamics (USA, China, France)

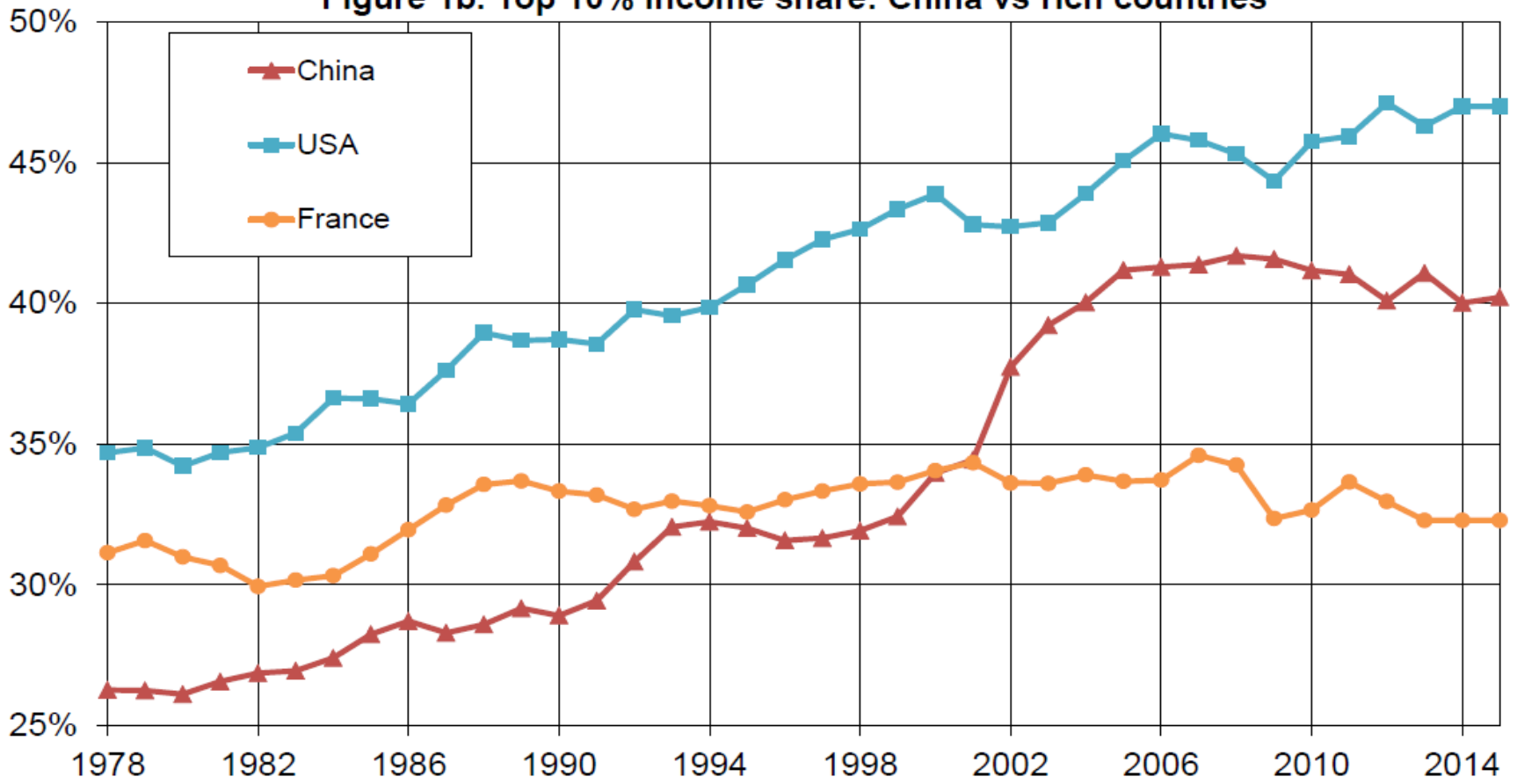
- **First findings from Distributional National Accounts (DINA)**
- We combine national accounts, survey, wealth and fiscal data in a systematic manner in order to estimate the full distribution of national income (including tax exempt income, undistributed profits, etc.)
- New data recently released by China on high-income taxpayers
- By combining tax data with survey and wealth data, we significantly revise upwards official Chinese inequality estimates.
  E.g. top 1% share ≈ 13% of total income in 2015, vs. 6.5% in survey data.
- **China used to be very equal and is now approaching US inequality levels**
- Our estimates should be viewed as lower bounds (tax evasion, etc.). But this is already better than survey-based estimates.

Figure 1a. Top 1% income share: China vs USA vs France



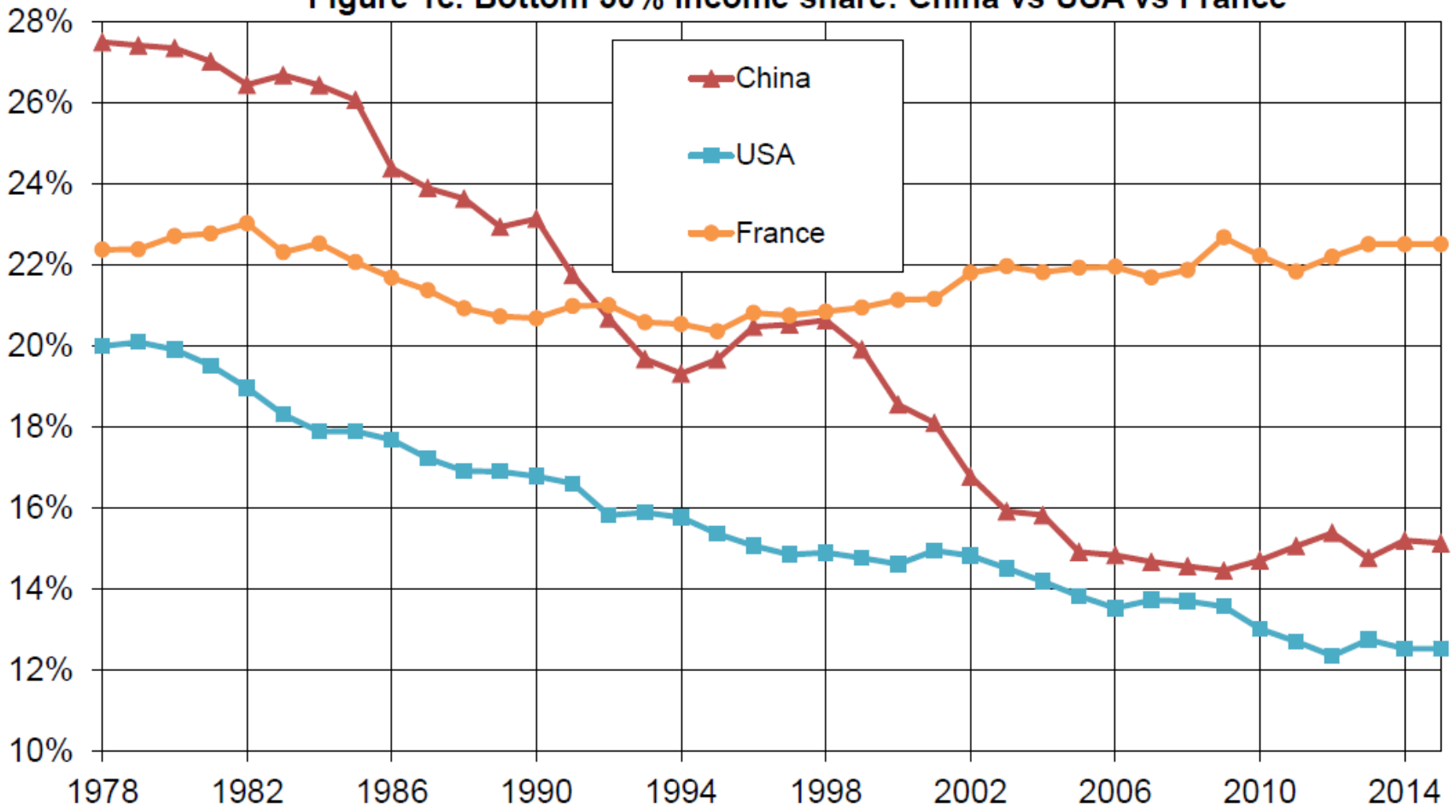
Distribution of pretax national income (before taxes and transfers, except pensions and UI) among adults. Corrected estimates combining survey, fiscal, wealth and national accounts data. Equal-split-adults series (income of married couples divided by two).
USA: Piketty-Saez-Zucman (2016). France: Garbinti-Goupille-Piketty (2016). China: Piketty-Yang-Zucman (2016).

Figure 1b. Top 10% income share: China vs rich countries



Distribution of pretax national income (before taxes and transfers, except pensions and UI) among adults. Corrected estimates combining survey, fiscal, wealth and national accounts data. Equal-split-adults series (income of married couples divided by two).
USA: Piketty-Saez-Zucman (2016). France: Garbinti-Goupille-Piketty (2016). China: Piketty-Yang-Zucman (2016).

Figure 1c. Bottom 50% income share: China vs USA vs France



Distribution of pretax national income (before taxes and transfers, except pensions and UI) among adults. Corrected estimates combining survey, fiscal, wealth and national accounts data. Equal-split-adults series (income of married couples divided by two).
USA: Piketty-Saez-Zucman (2016). France: Garbinti-Goupille-Piketty (2016). China: Piketty-Yang-Zucman (2016).

2. Income inequality dynamics (USA, China, France) (continued)

- **Distributional National Accounts (DINA) allow us to analyze the distribution of macroeconomic growth across income classes**
- Illustration with USA vs. China vs. France 1978-2015
- Rising inequality in all three countries: top income groups enjoyed bigger growth than aggregate macroeconomic growth
- But large variation across countries:
- China: large bottom 50% real growth (+401%)
- France: near-average bottom 50% real growth (+39%)
- USA: negative bottom 50% real growth (-1%)

Table 1 : Income growth and inequality 1978-2015

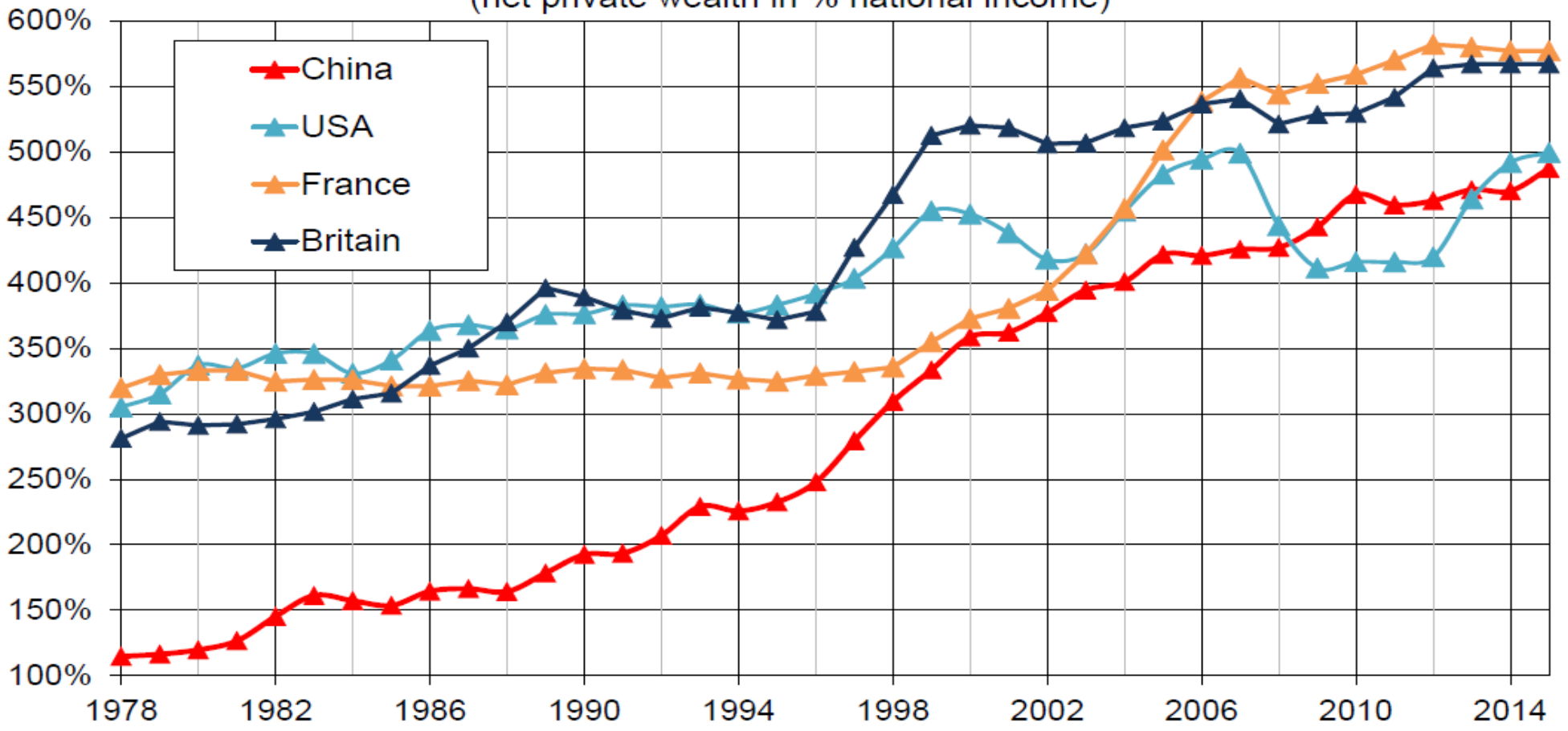
Income group (distribution of per-adult pre-tax national income)	Total cumulated real growth 1978-2015		
	China	USA	France
Full Population	**811%**	**59%**	**39%**
Bottom 50%	**401%**	**-1%**	**39%**
Middle 40%	**779%**	**42%**	**35%**
Top 10%	**1294%**	**115%**	**44%**
incl. Top 1%	*1898%*	*198%*	*67%*
incl. Top 0.1%	*2261%*	*321%*	*84%*
incl. Top 0.01%	*2685%*	*453%*	*93%*
incl. Top 0.001%	*3111%*	*685%*	*158%*

Distribution of pre-tax national income (before taxes and transfers, except pensions and UI) among adults. Corrected estimates combining survey, fiscal, wealth and national accounts data. Equal-split-adults series (income of married couples divided by two). USA: Piketty-Saez-Zucman (2016). France: Garbinti-Goupille-Piketty (2016). China: Piketty-Yang-Zucman (2016).

2. Private vs public wealth-income dynamics

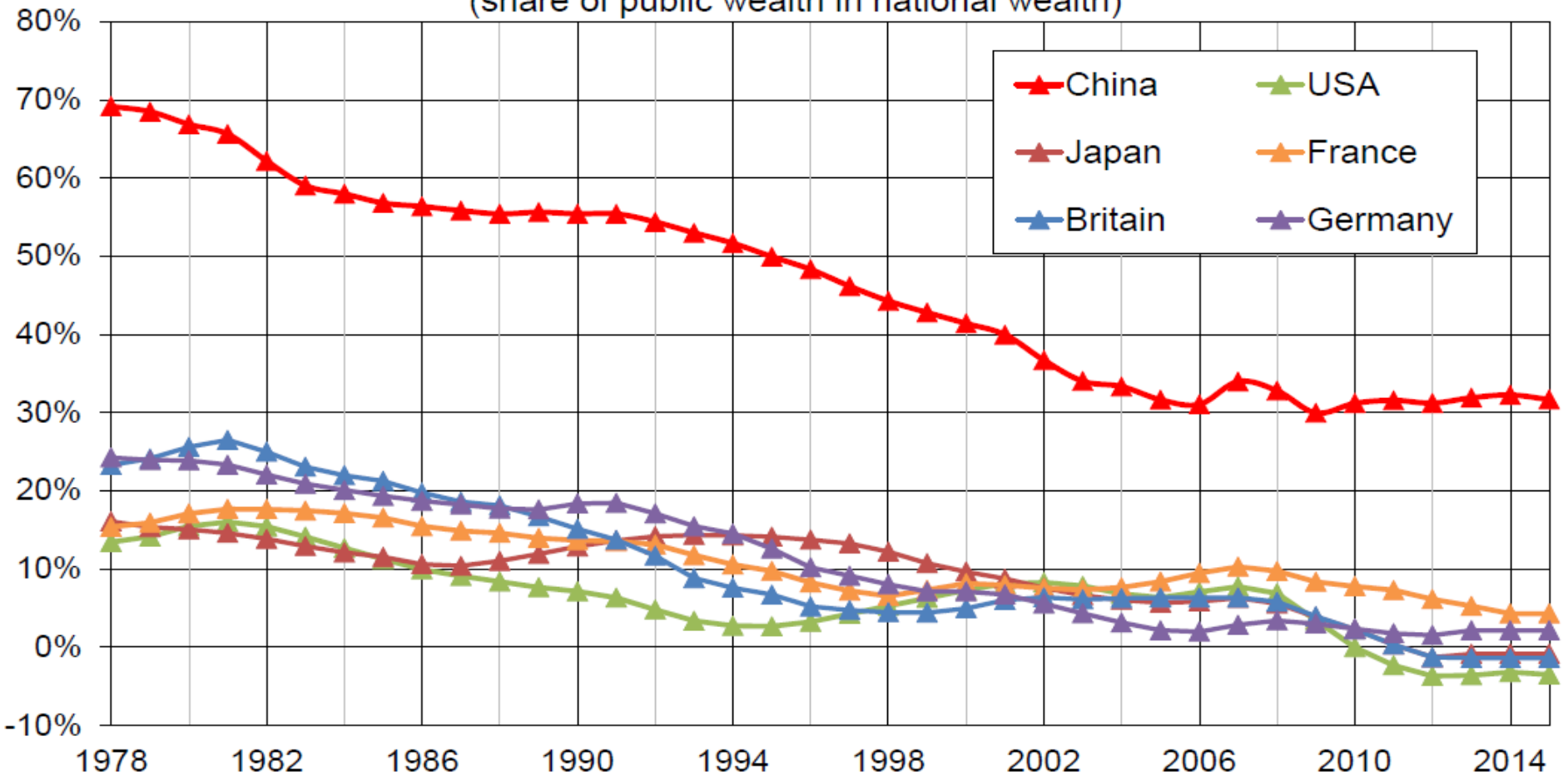
- **Strong rise of private wealth-income ratios in recent decades**
- Due to a mixture of factors (Piketty-Zucman 2014):
- **Pure volume factors**: combination of high saving rates (ageing, rising inequality) and growth slowdown
- **Relative asset prices and institutional factors**: rise of real estate prices (housing porfolio bias, lift of rent control) and stock prices (stronger shareholder rights and Tobin's Q ratios)
- **Gradual transfer from public wealth to private wealth**
- China: public share in national wealth ↓ from 70% (1978) to 35% (2015)
- Rich countries: public wealth (assets minus debts) is now negative
- There are exceptions: oil countries with sovereign funds (e.g. Norway)

Figure 2a: The rise of wealth-income ratios
(net private wealth in % national income)



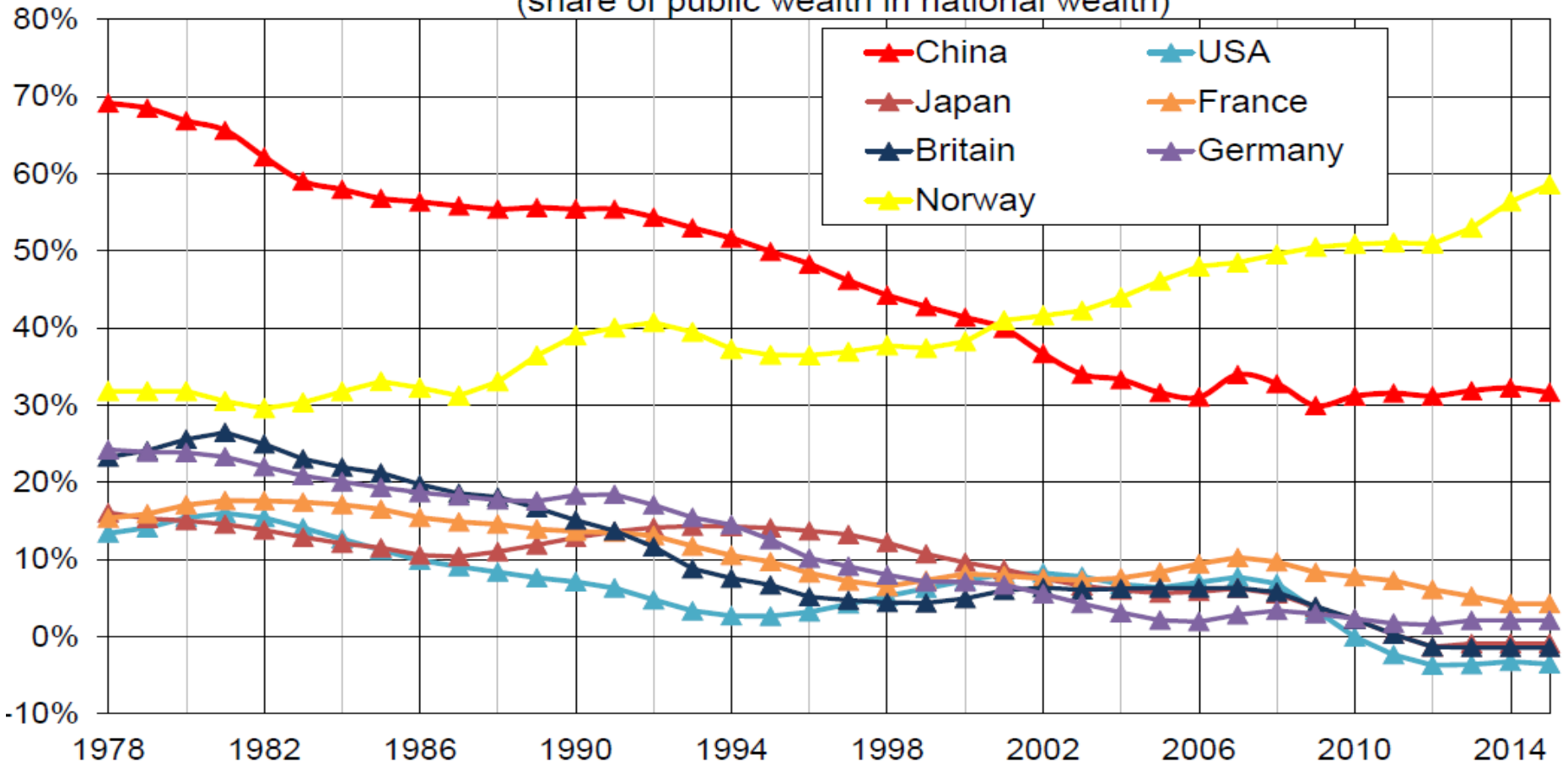
Net private wealth (personal + non-profit) as a fraction of net national income.
China: Piketty, Yang and Zucman (2016). Other countries: Piketty and Zucman (2014) and WID.world updates.

Figure 2b. The decline of public property
(share of public wealth in national wealth)



Share of net public wealth (public assets minus public debt) in net national wealth (private + public).
China: Piketty, Yang and Zucman (2016). Other countries: Piketty and Zucman (2014) and WID.world updates.

Figure 2c. The decline of public property vs. the rise of sovereign funds
(share of public wealth in national wealth)

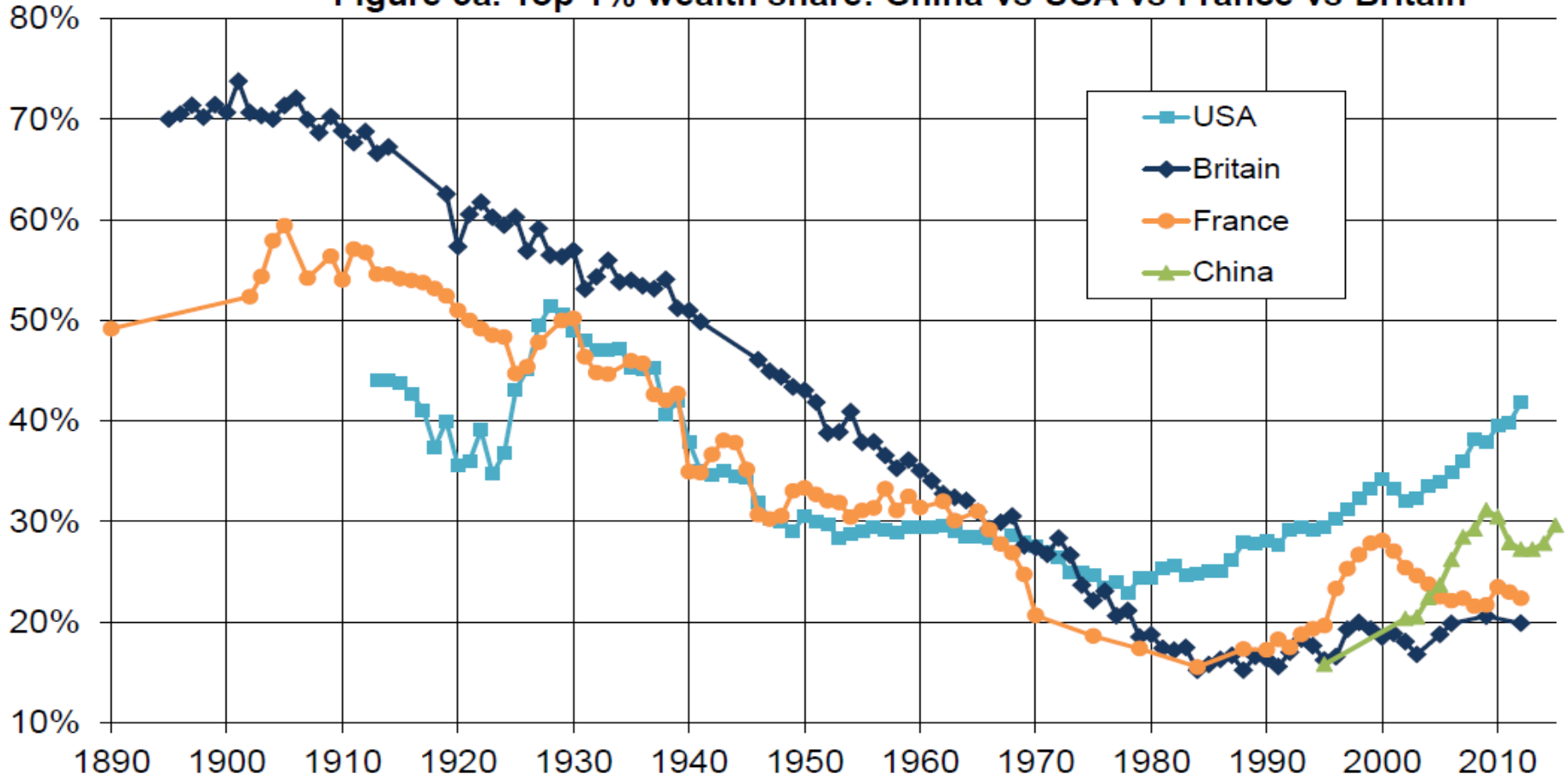


Share of net public wealth (public assets minus public debt) in net national wealth (private + public).
China: Piketty, Yang and Zucman (2016). Other countries: Piketty and Zucman (2014) and WID.world updates.

3. Wealth inequality dynamics (USA, China, France, UK)

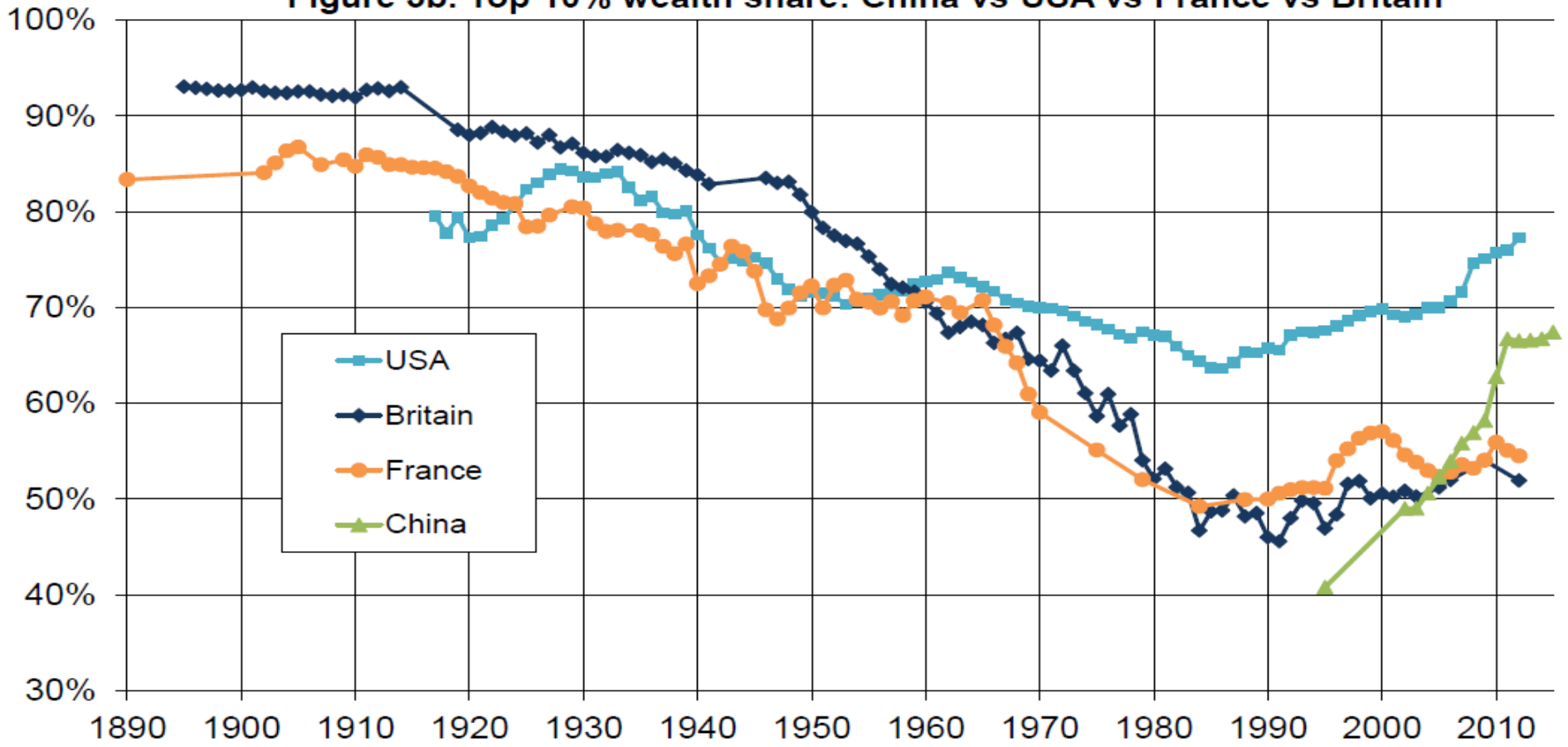
- **Sources on wealth inequality and cross-border assets are highly imperfect in today's global economy. More transparency and better access to administrative and banking sources are highly needed.**
- We combine different sources and methods in the most possible transparent manner in order to reach robust conclusions: income capitalization method (using income tax returns), estate multiplier method (using inheritance tax returns), wealth surveys, national accounts, wealth rankings, generalized Pareto curves, etc.
  But our series should still be viewed as imperfect and provisionnal.
- **Basic finding: large rise of top wealth shares in USA and China in recent decades; more moderate rise in France and Britain**

Figure 3a. Top 1% wealth share: China vs USA vs France vs Britain



Distribution of net personal wealth among adults. Corrected estimates (combining survey, fiscal, wealth and national accounts data). Equal-split-adults series (wealth of married couples divided by two). USA: Saez-Zucman (2016). Britain: Alvaredo-Atkinson-Morelli (2016). France: Garbinto-Goupille-Piketty (2016). China: Piketty-Yang-Zucman (2016).

Figure 3b. Top 10% wealth share: China vs USA vs France vs Britain



Distribution of net personal wealth among adults. Corrected estimates (combining survey, fiscal, wealth and national accounts data). Equal-split-adults series (wealth of married couples divided by two). USA: Saez-Zucman (2016). Britain: Alvaredo-Atkinson-Morelli (2016). France: Garbinto-Goupille-Piketty (2016). China: Piketty-Yang-Zucman (2016).

3. Wealth inequality dynamics (USA, China, France, UK) (continued)

- **Accounting for the cross-country differences**
- Higher income inequality and severe bottom income stagnation can naturally explain higher wealth inequality in the USA
- Unequal privatization and access to quoted & unquoted equity in China
- Mitigating impact of high real estate prices (middle class effect in FR UK)
- Long-run steady-state wealth inequality depends on inequality of saving rates across income and wealth groups, inequality of labor incomes and rates of returns to wealth, and progressivity of income and wealth taxes.
- Steady-state wealth inequality can respond hugely to relatively small changes in these structural parameters. See Saez-Zucman 2016 and Garbinti-Goupille-Piketty 2016 for simulations.

Concluding comments

- Global inequality dynamics involve strong and contradictory forces
- Rising top income and wealth shares in nearly all countries (USA, Europe, China, South Africa, etc.)
- **But the magnitude of rising inequality varies a lot across countries: policies and institutions matter**
- Large income growth in emerging countries reduces between-country inequality. But this in itself is not sufficient to make within-country inequality acceptable and to ensure the social sustainability of globalization.
- **Better data access is critical in order to monitor global inequality dynamics and to better understand which forces will dominate in the future and the possible policy responses**