

**Introduction to Economic History :**  
**Capital, Inequality, Growth**

*(Master APE & PPD)*

*(EHESS & Paris School of Economics)*

Thomas Piketty

Academic year 2021-2022

**Lecture 6: Post-communist societies (Russia, China, Eastern Europe) and the rise of global capitalism**

*(check [on line](#) for updated version)*

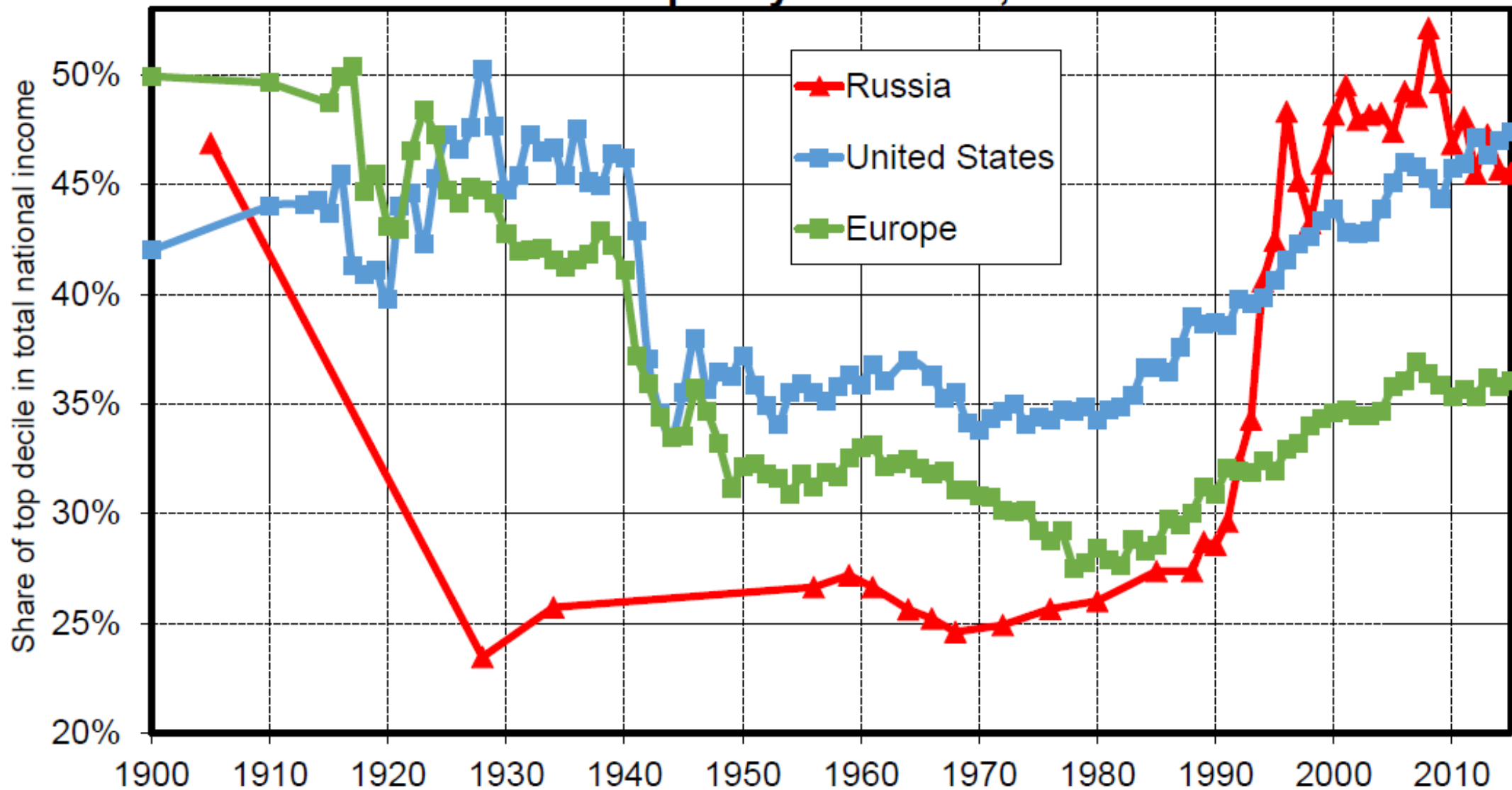
# Roadmap of the lecture

- Inequality & growth in communist societies: Soviet Russia
- Post-communist societies: the case of Russia
- From public to private property: the case of China
- Eastern Europe, foreign assets and the East-West divide in the EU
- Interest rates and the North-South divide in the Euro area
- Global inequality in the early 21c: between modernity & archaism
- Environmental inequality, financial opacity
- The (very) slow decline of gender inequality
- Uneven state building in developing countries
- The return of central banks and money creation: a long-run view

# Inequality & growth in communist societies: Soviet Russia

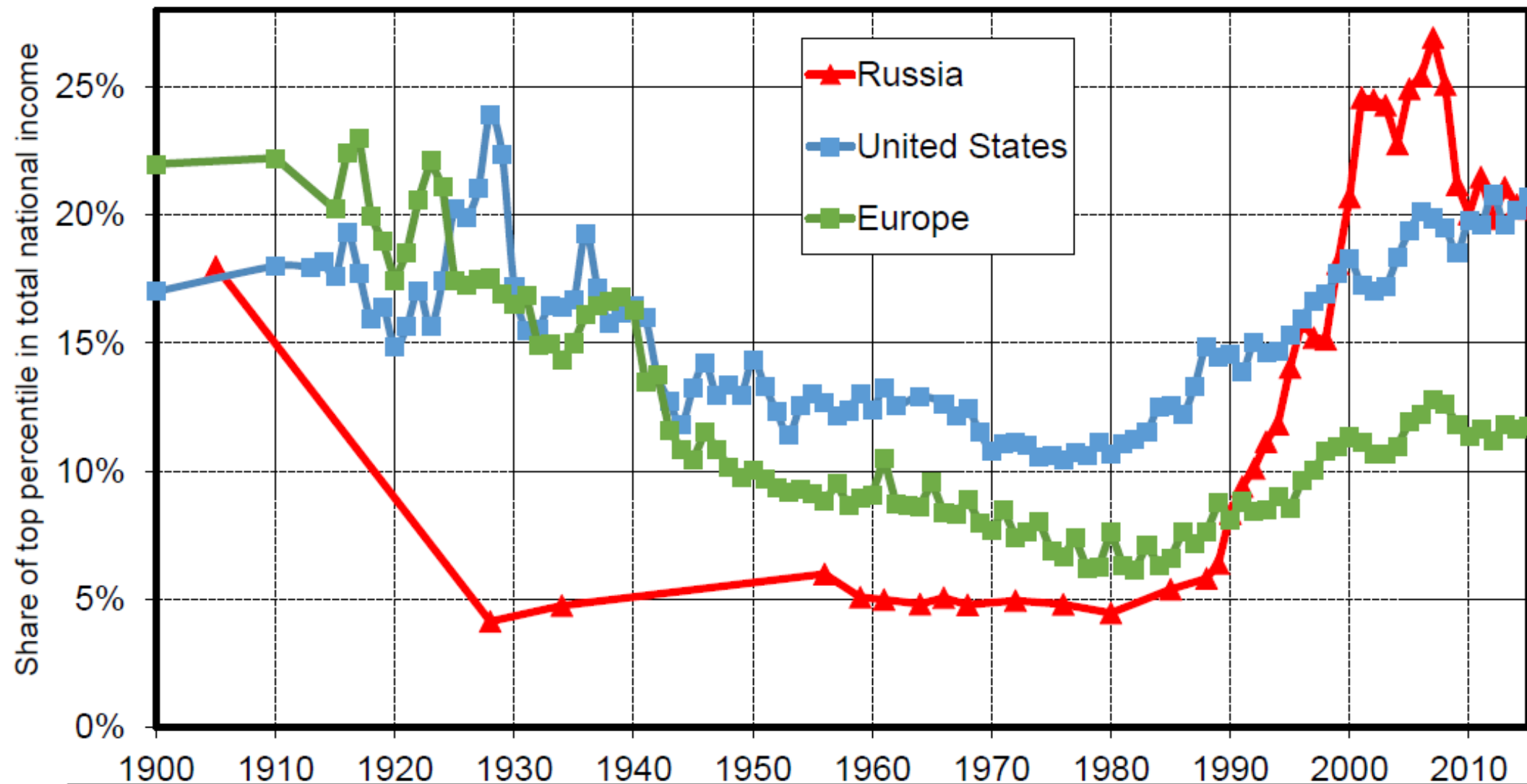
- Soviet Russia: complete abolition of private property of means of production in late 1920s-early 1930s (>>1936 Constitution)
- **Very low level of monetary inequality 1920s-1980s, but huge political repression & enormous non-monetary inequalities**
- 1950s: 5% of adult population in prison, vs 1% in USA today (5% for black males) and 0,1% in Europe today (see Cadiot 2019)
- **Living standards: catch-up with the West 1920s-1950s, but stagnation in 1960s-1980s** (even a slight decline in life expectancy: Todd 1976)
- See F. Novokmet, T. Piketty, G. Zucman, [From Soviets to Oligarchs: Inequality & Property in Russia 1905-2016](#), JOEI 2018 ([WID.world WP](#))

# Income inequality in Russia, 1900-2015



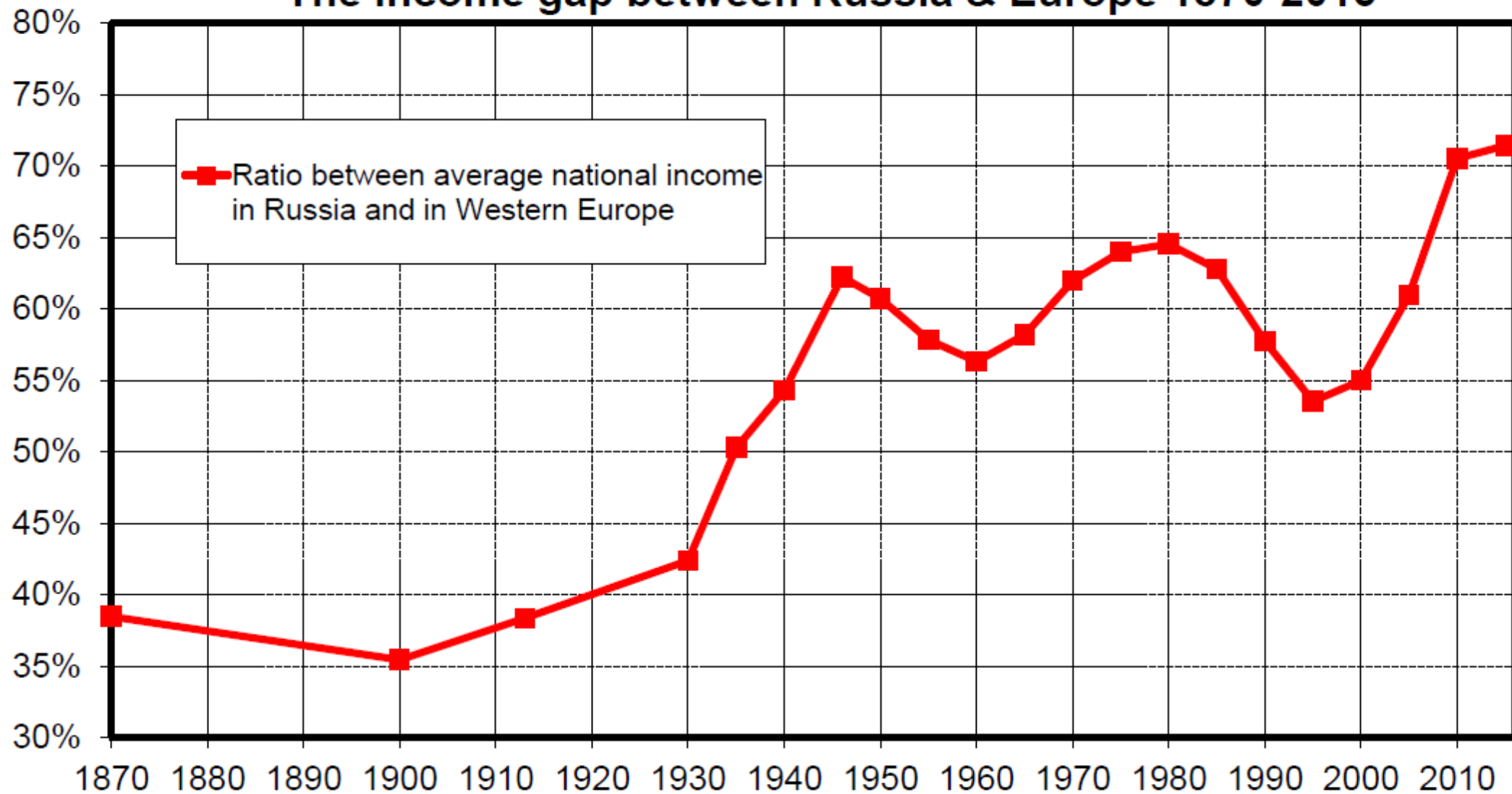
**Interpretation.** The share of the top decile (the 10% highest incomes) in total national income was on average about 25% in soviet Russia, i.e. at a lower level than in Western Europe and the U.S., before rising to 45%-50% after the fall of communism, surpassing both Europe and the U.S.. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.1).

## The top percentile in Russia 1900-2015



**Interpretation.** The share of the top percentile (the 1% highest incomes) in total national income was on average about 5% in soviet Russia, i.e. at a lower level than in Western Europe and the U.S., before rising to 20%-25% after the fall of communism, surpassing both Europe and the U.S.. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.2).

## The income gap between Russia & Europe 1870-2015

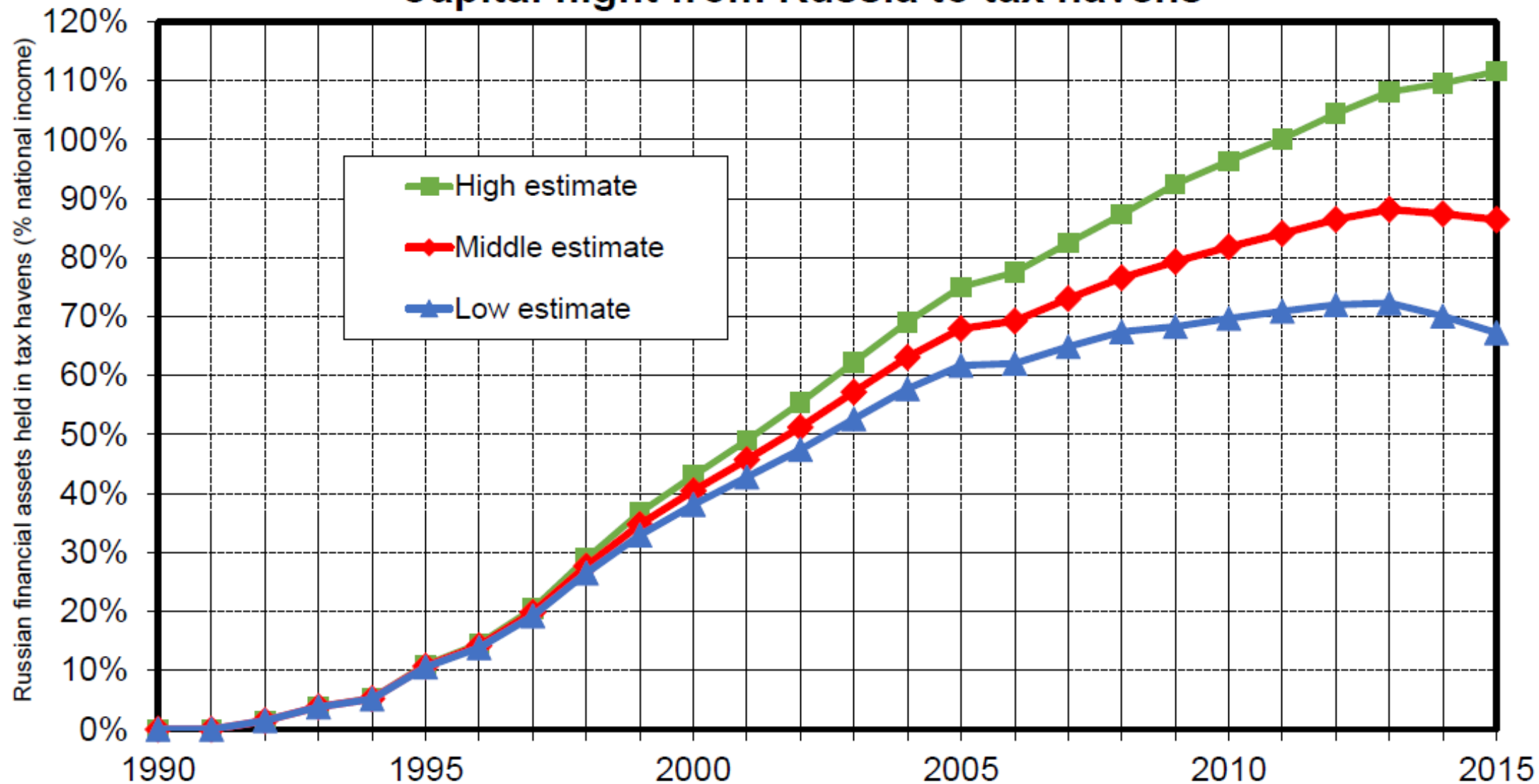


**Interpretation.** Expressed in purchasing power parity, average national income per adult in Russia was about 35%-40% of Western European average (Germany-France-Britain) between 1870 and 1910, before rising between 1920 and 1950, and stabilizing at about 60% of West European level between 1950 and 1990. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.3).

# Post-communist societies: the case of Russia

- **1990-1993: shock therapy, hyper-inflation, voucher privatization, loans-for-shares** >> transfer of ownership of large parts of Russia's national wealth and natural resources to a small group of « oligarchs »
- 1992-2018: 10% GDP of trade surplus per year on average (oil, gas), but only 20%-30% of foreign reserves by 2018, while they should be at least 200%-300% of GDP (like in Norway)
- Official Balance of Payment: huge negative returns on Russian foreign investment, huge positive returns on foreign investment in Russia
- But major anomalies: **missing wealth (capital flight) = at least 100% GDP**
- At least 50% of total financial assets held via tax havens: world's highest levels together with Gulf countries (oil-based monarchies)
- **Russia 1990s-2010s: flat income tax at 13%**

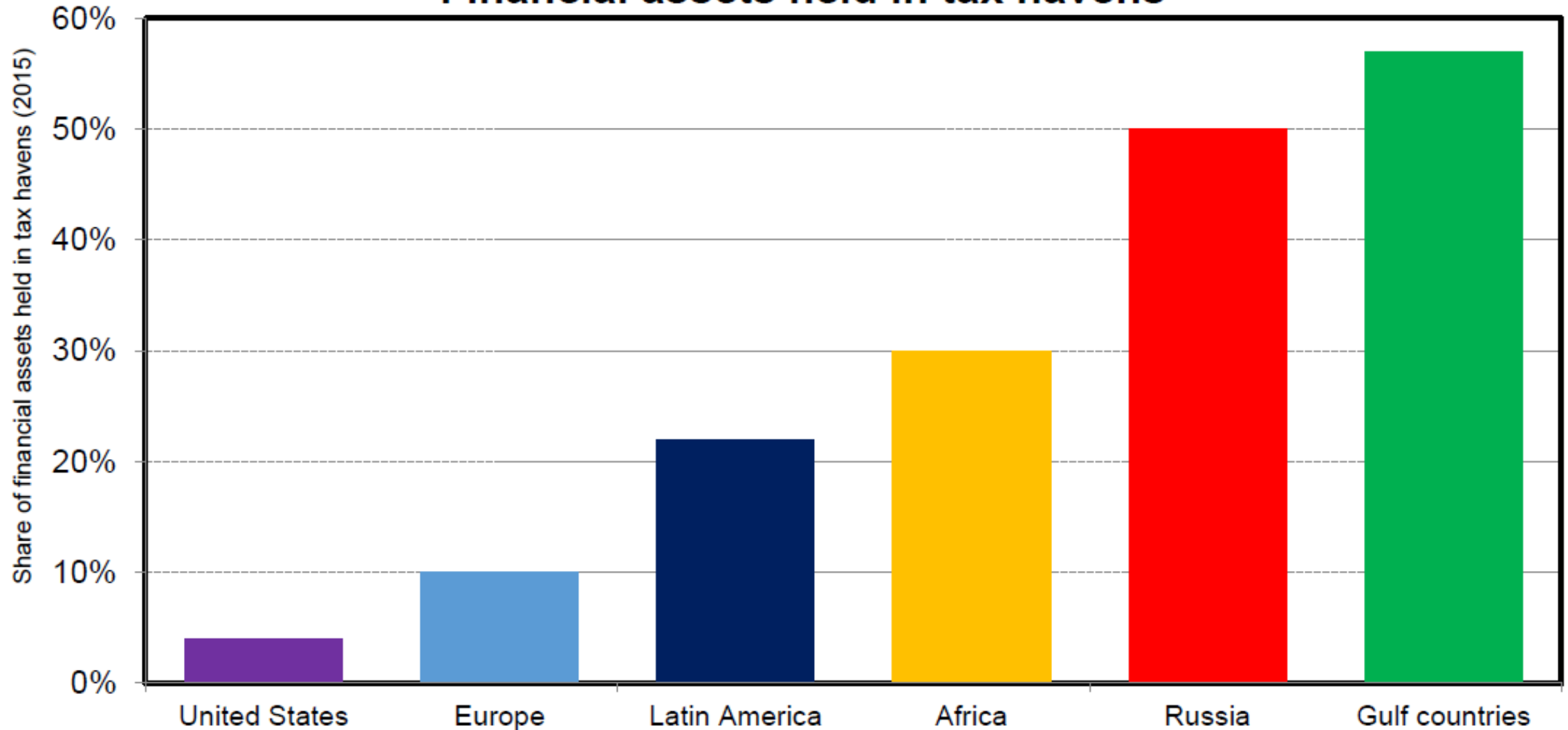
## Capital flight from Russia to tax havens



**Interpretation.** Given the rising gap between cumulated Russian trade surpluses (close to 10% of national income per year on average between 1993 and 2015) and official foreign reserves (only 30% of national income in 2015), and using various hypotheses on yields obtained, one can estimate that Russian financial assets held in tax havens are between 70% and 110% of national income in 2015, with an average value of 90%. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.4).



## Financial assets held in tax havens

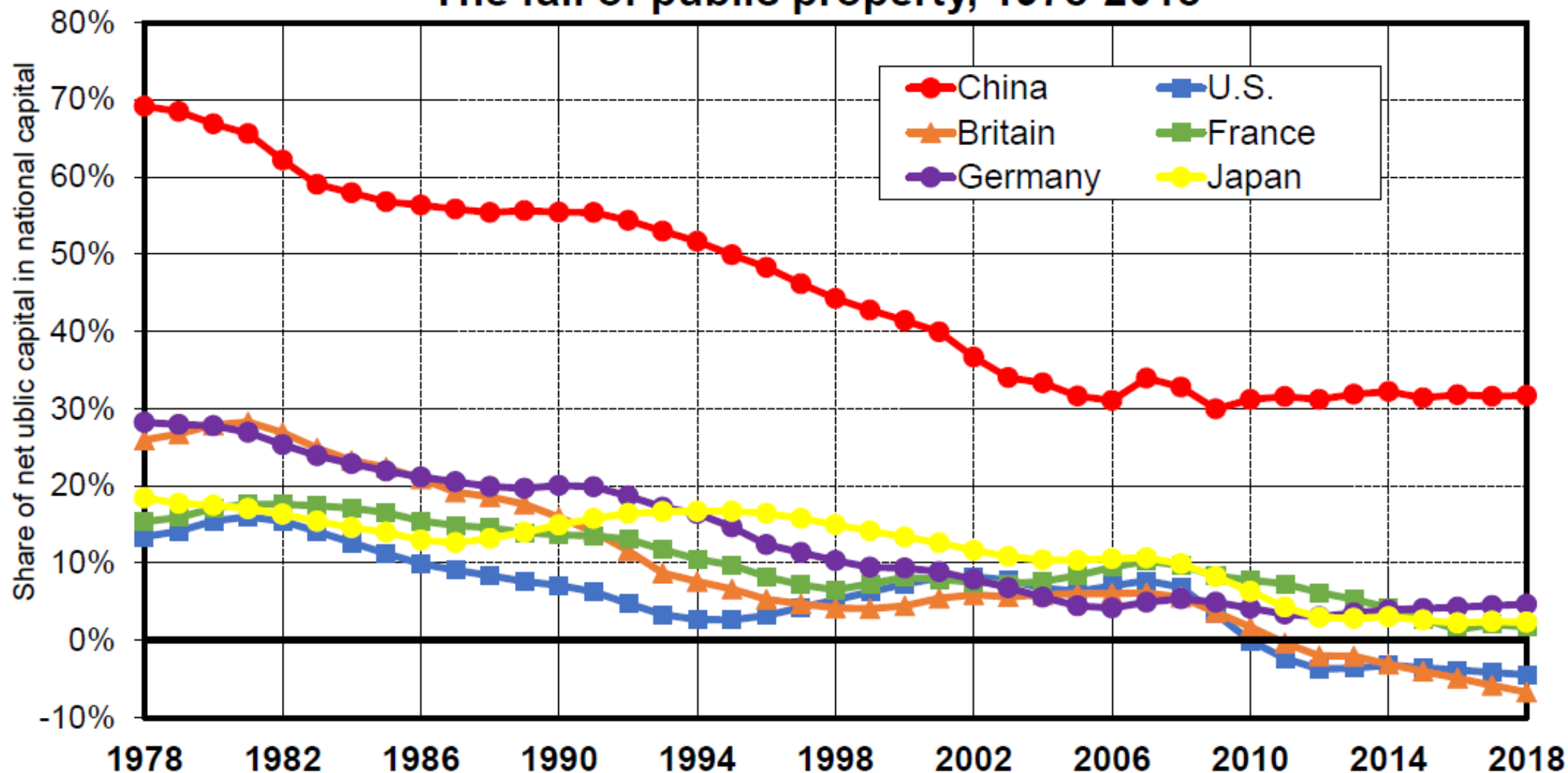


**Interpretation.** By exploiting anomalies in international financial statistics and the breakdowns by country of residence published by the Bank of International Settlements and the Swiss National Bank, one can estimate that the share of financial assets held via tax havens reaches 4% in the U.S., 10% in Europe and 50% in Russia. These estimates exclude non-financial assets (such as real estate) and financial assets unreported to BIS and SNB and should be considered minimum estimates. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.5).

# From public to private property: the case of China

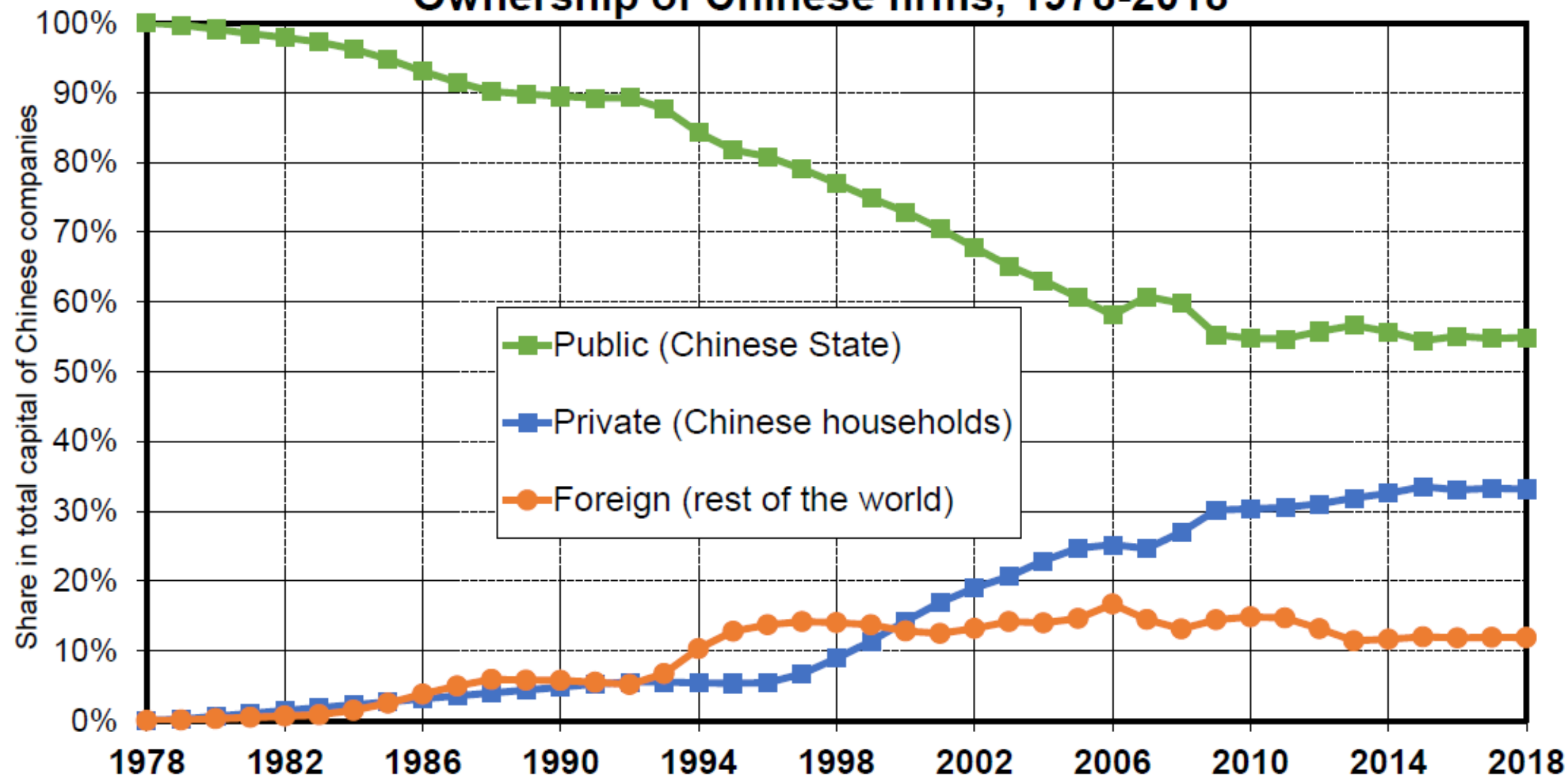
- The share of public property in national wealth seems to have stabilized at about 30% since 2007-2008: **China has become a mixed-property economy (comparable to Western countries in 1950s-1970s)**
- Inequality increased since 1980s, but still more equal than US (according to available sources)
- **But huge opacity: almost no data from progressive income tax system; complete absence of inheritance tax and registration system**
- See F. Novokmet, T. Piketty, L. Yang, G. Zucman, [From Communism to Capitalism: Private vs Public Property and Inequality in China and Russia](#), AEA PP, 2018 ([WID.world WP](#)); [Capital Accumulation, Private Property and Rising Inequality in China, 1978-2015](#), AER 2019 ([WID.world WP](#))

## The fall of public property, 1978-2018



**Interpretation.** The share of public capital (public assets net of debt, all government levels and asset categories combined: companies, buildings, land, financial assets, etc.) in national capital (i.e. the sum of public and private capital) was about 70% in China in 1978, and it has stabilized around 30% since the mid-2000s. This share was around 15%-30% in capitalist countries in the 1970s and is near zero or negative in the late 2010s. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.6).

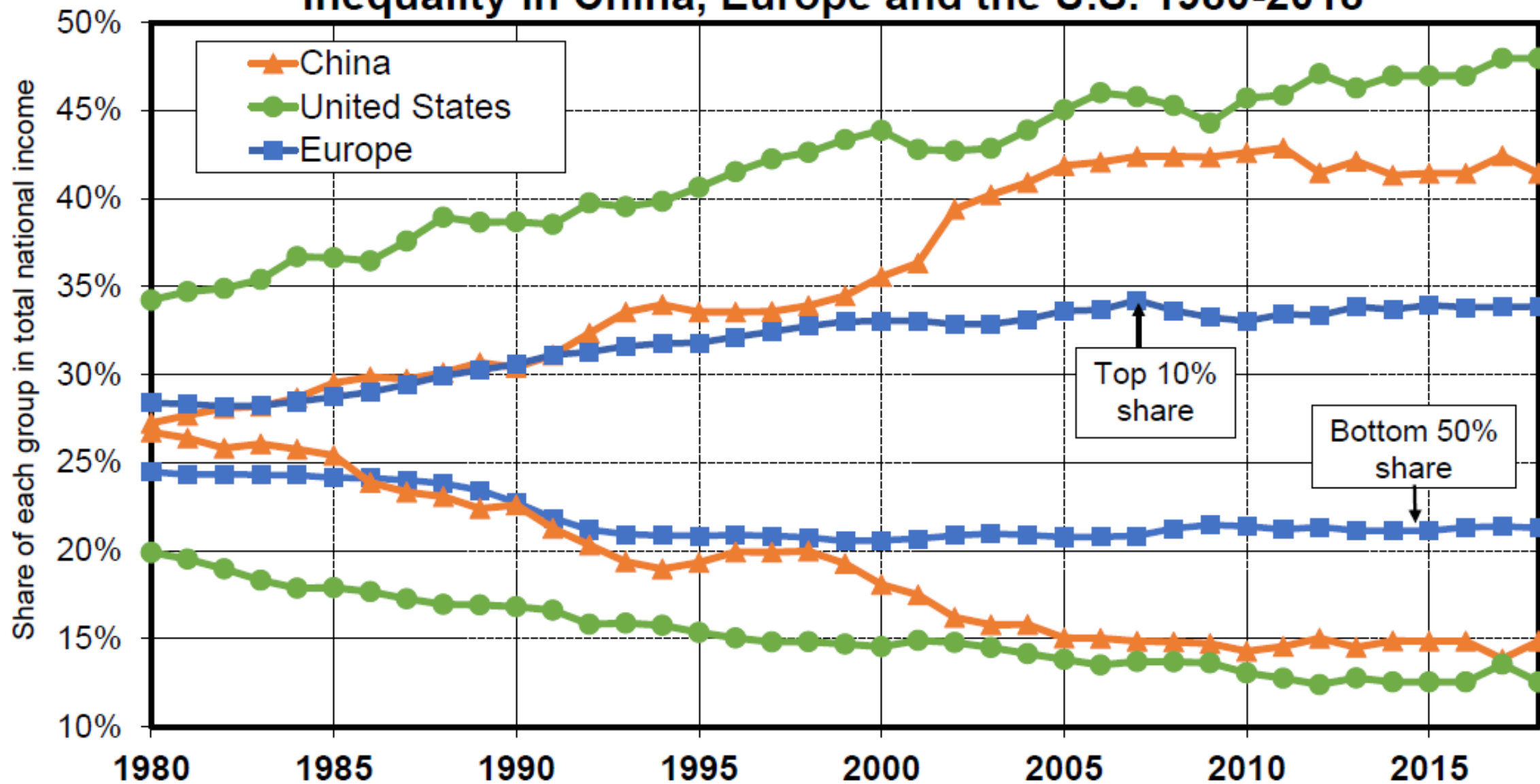
## Ownership of Chinese firms, 1978-2018



**Interpretation.** The Chinese State (all government levels combined) owned in 2017 about 55% of total capital of Chinese firms (both listed and unlisted, of all sizes and all sectors), vs 33% for Chinese households and 12% for foreign investors. The foreign share has diminished since 2003, and that of Chinese households increased, while that of the Chinese State stabilized around 55%.

**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.7).

## Inequality in China, Europe and the U.S. 1980-2018



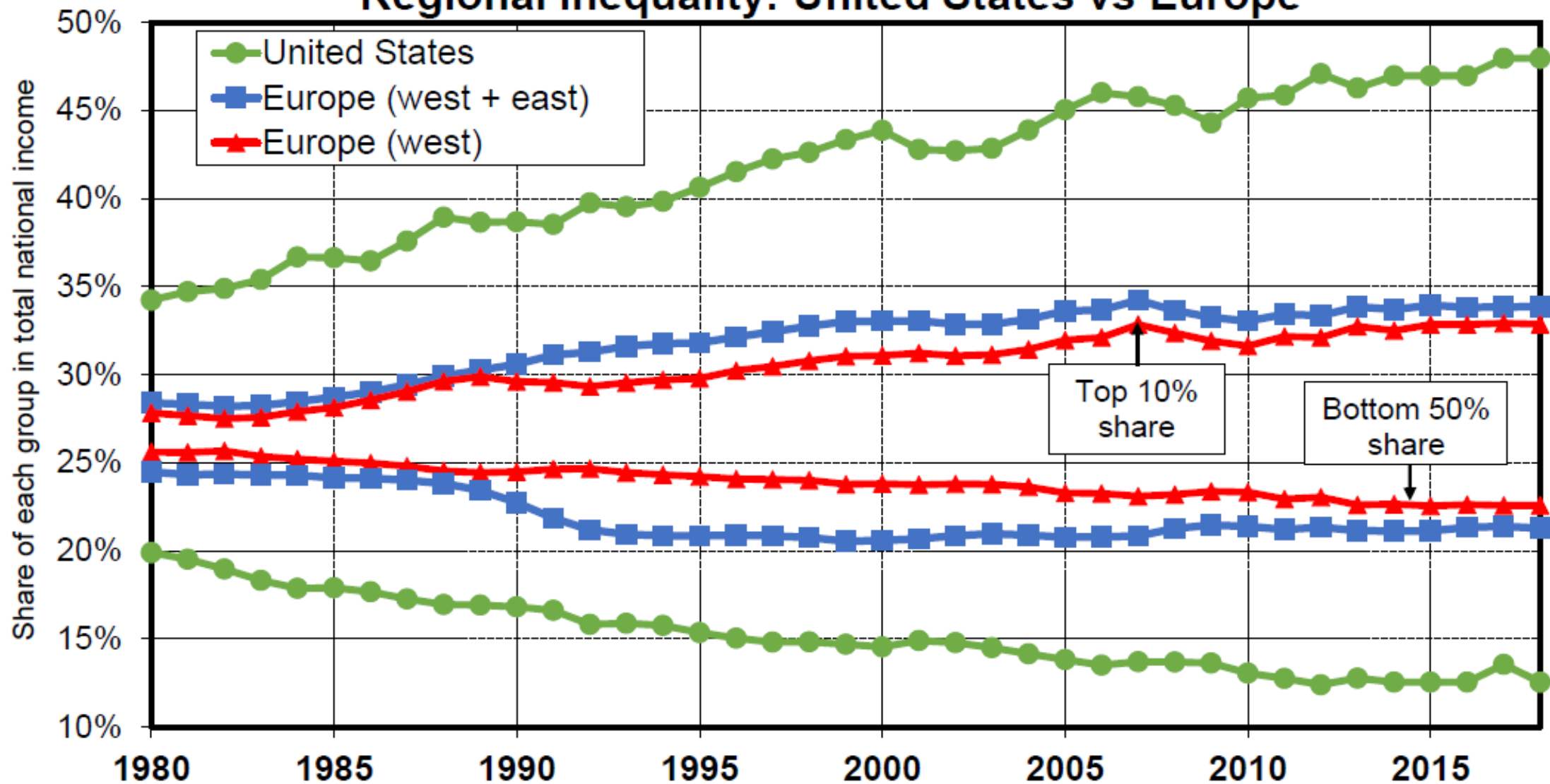
**Interpretation.** Income inequality increased strongly in China between 1980 and 2018, but remains according to available sources lower than in the U.S. (but higher than in Europe). **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.8).

# Eastern Europe, foreign assets and the East-West divide in the EU

- **Post-communist transition in Eastern Europe: more gradual than in Russia; the rise of inequality & oligarchs was less spectacular** (bigger share of foreign investment in privatized industries)
- **Total inequality in West+East Europe is still much smaller than in the USA** (and a lot smaller than in USA+Mexico+Canada)
- But Europeans do not compare their inequality levels to USA, Mexico or Brasil: they compare to previous decades in Europe
- **Eastern Europe 2010s: very large outflows of foreign profits** (stagnating wages >>> large profits for German or French investors), much larger than inflows of public EU transfers
- The view that market prices are always fair and that we should focus on public transfers is incomplete: market prices like wages and profits depend on bargaining power, legal system, etc. **A large federal community cannot rely on « market discipline » as the only coordinating device.**



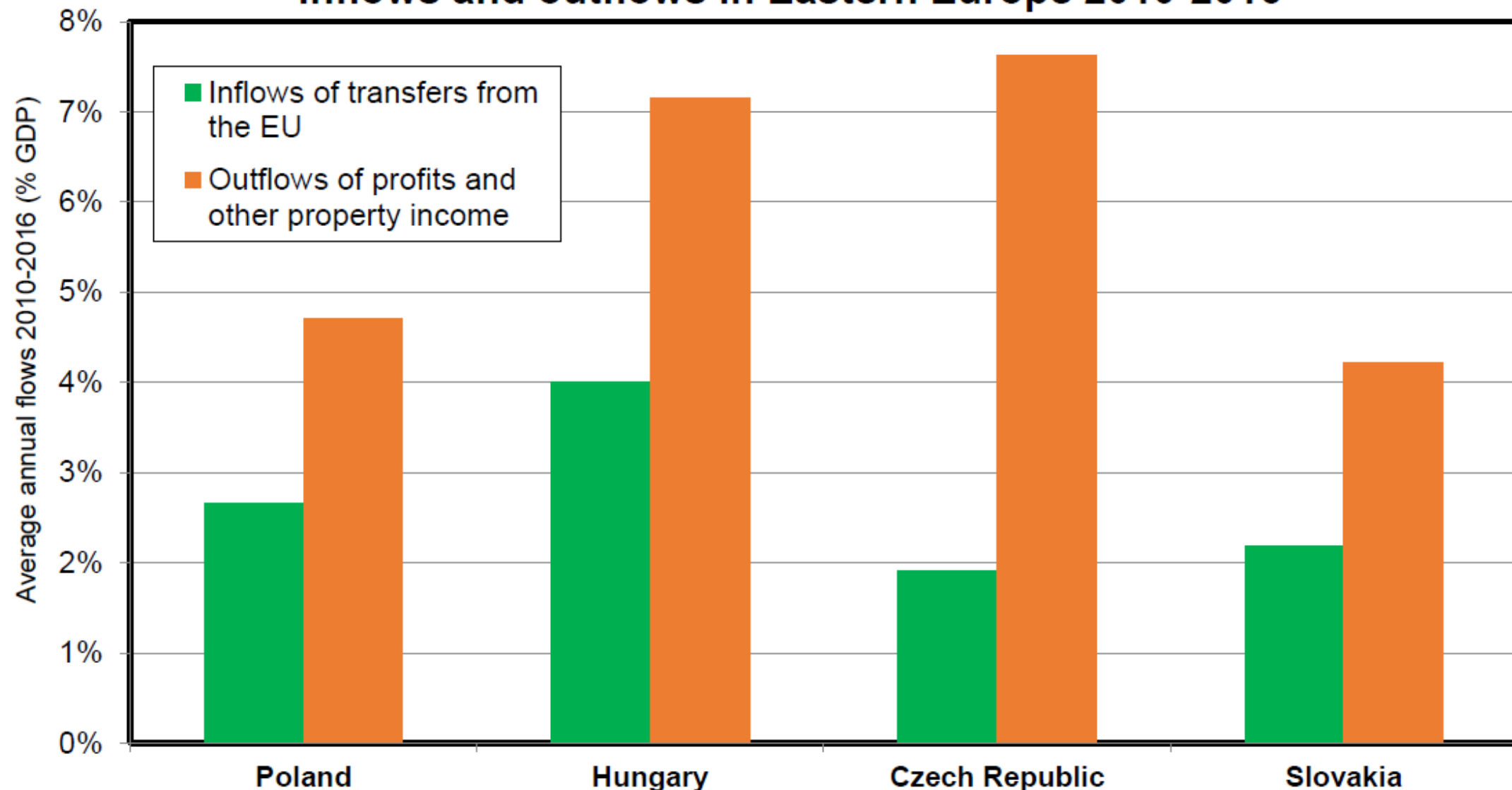
## Regional inequality: United States vs Europe



**Interpretation.** Income inequality is higher when one combines Western and Eastern Europe (population 540 millions inhabitants) than if one looks only at Western Europe (420 millions) and excludes Eastern Europe (120 millions), given the persistent average income gaps between West and East. In any case, inequality is much smaller than in the United States (320 millions inhabitants).

**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.9).

## Inflows and outflows in Eastern Europe 2010-2016



**Interpretation.** Between 2010 and 2016, the annual flow of net transfers from the EU (difference between total spending received and total contributions paid to EU budget) was equal to 2,7% of GDP per year on average in Poland. Over the same period, the outflow of profits and other property income (net of the corresponding inflow) was 4,7% of GDP. For Hungary, the same figures were 4,0% and 7,2%.

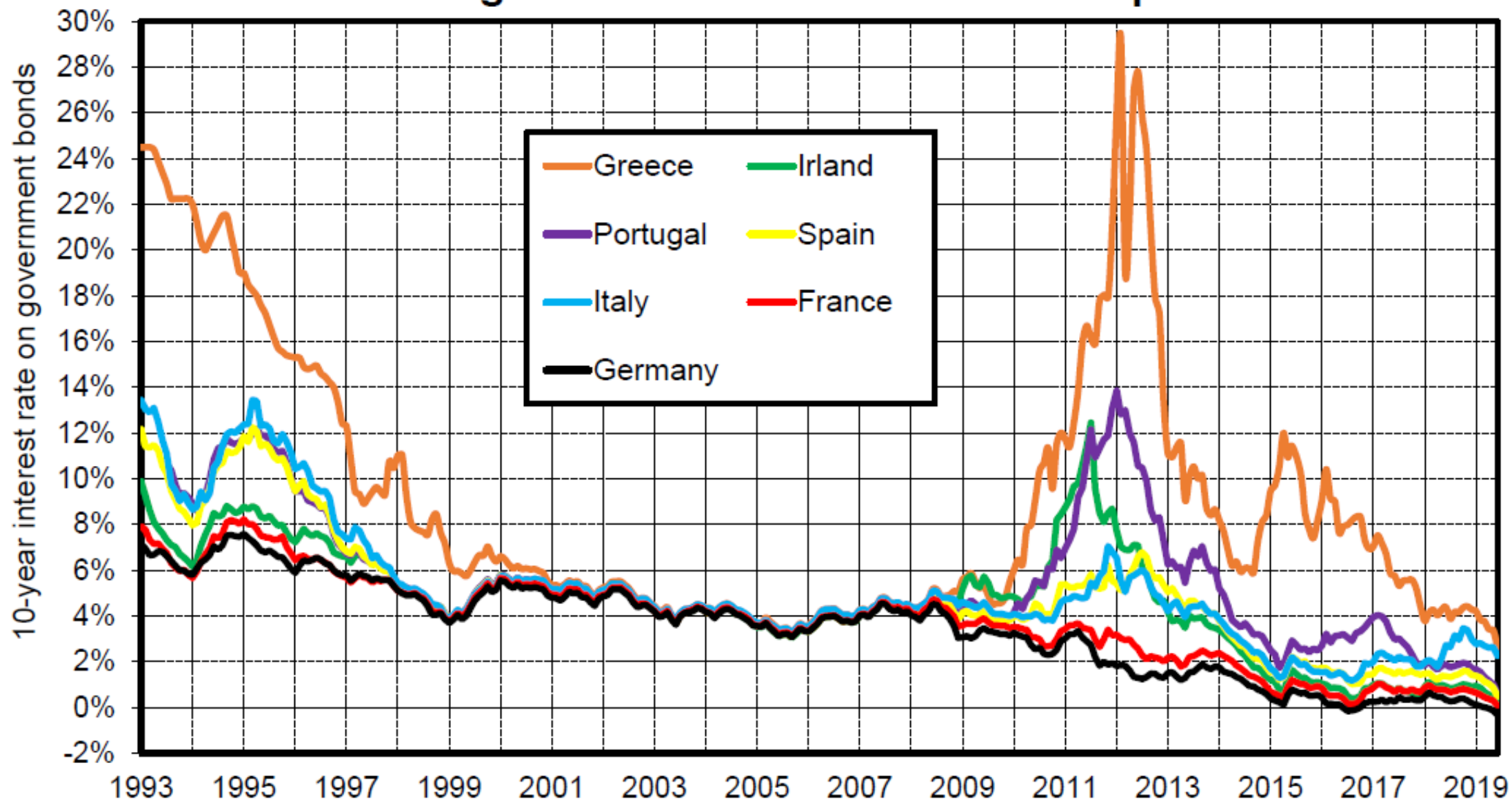
**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.10).



# Interest rates and the North-South divide in the Euro area

- **Same problem of market sacralization with public-debt interest rates**
- 2000-2009: same interest rate for all public debts in Euro area
- 2009-2019: speculative attacks on Southern Europe, following 2009 announcement that ECB will not support Greece if rating agencies downgrade the country
- New budgetary treaties (TSCG, ESM) in 2012-2013, stabilization of Euro area by ECB, but new recession and sluggish recovery
- The winners of the market equilibrium often tend to present market prices as being fair and balanced, but most markets need to be regulated, and some need to be closed. **It is difficult to have a single currency without a common budget and public debt (i.e. a single interest rate).**

## Political integration and interest rates: Europe 1993-2019

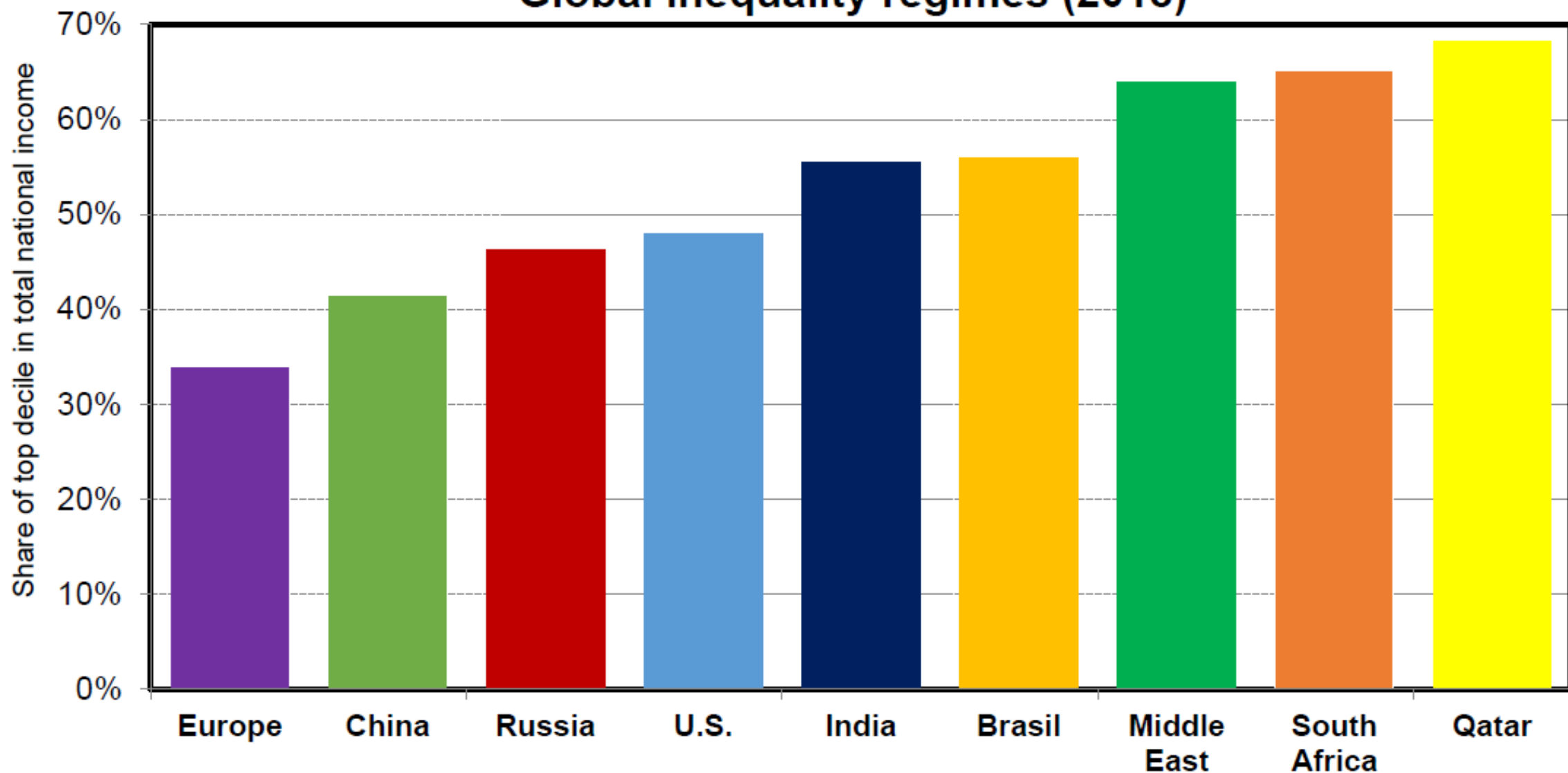


**Interpretation.** Nominal interest rates on 10-year government debt had converged within the euro area following the introduction of the euro in 1999-2002, before diverging following the 2008 financial crisis (Lehman bankruptcy in september 2008) and the euro area debt crisis in 2010-2012. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure S12.11).

# Global inequality in the 21c: between modernity & archaism

- **Extreme inequality in the early 21c: legacies of ancient inequality regimes** (slavery, discrimination: South Africa, USA, Brasil, India, etc.) **and modern economic forces** (Middle East: highest inequality level in the world, based upon the transformation of oil resources into global financial wealth funds via international legal system and capital markets) (also: key role of colonial frontier system)
- F. Alvaredo, L. Assouad, T. Piketty, [Measuring Inequality in the Middle East, 1990-2016: the World's Most Unequal Region?](#), RIW 2019 ([WID.world WP](#))

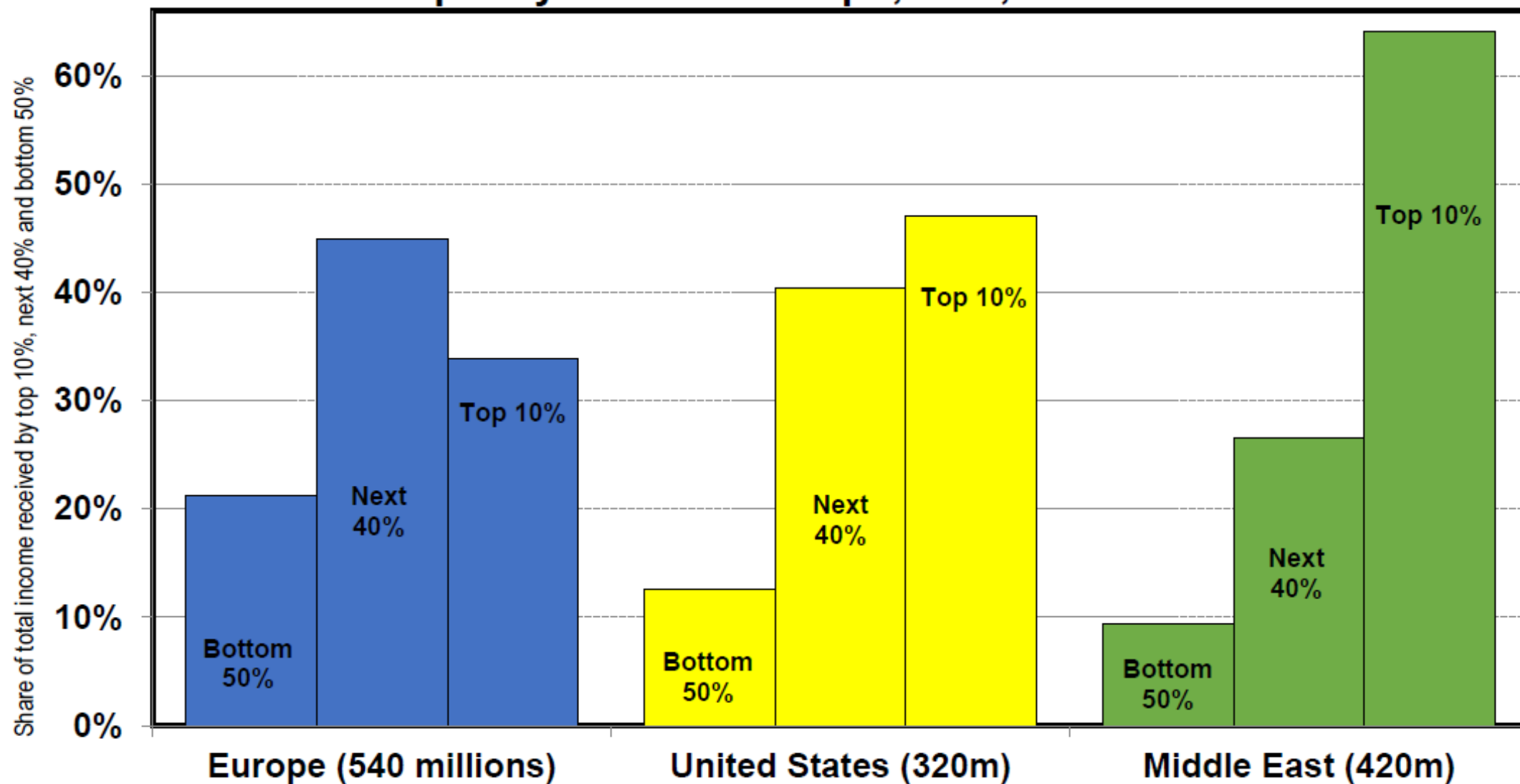
## Global inequality regimes (2018)



**Interpretation.** In 2018, the share of the top decile (the 10% highest incomes) in national income was 34% in Europe (EU+), 41% in China, 46% in Russia, 48% in the U.S., 55% in India, 56% in Brasil, 64% in the Middle East, 65% in South Africa and 68% in Qatar.

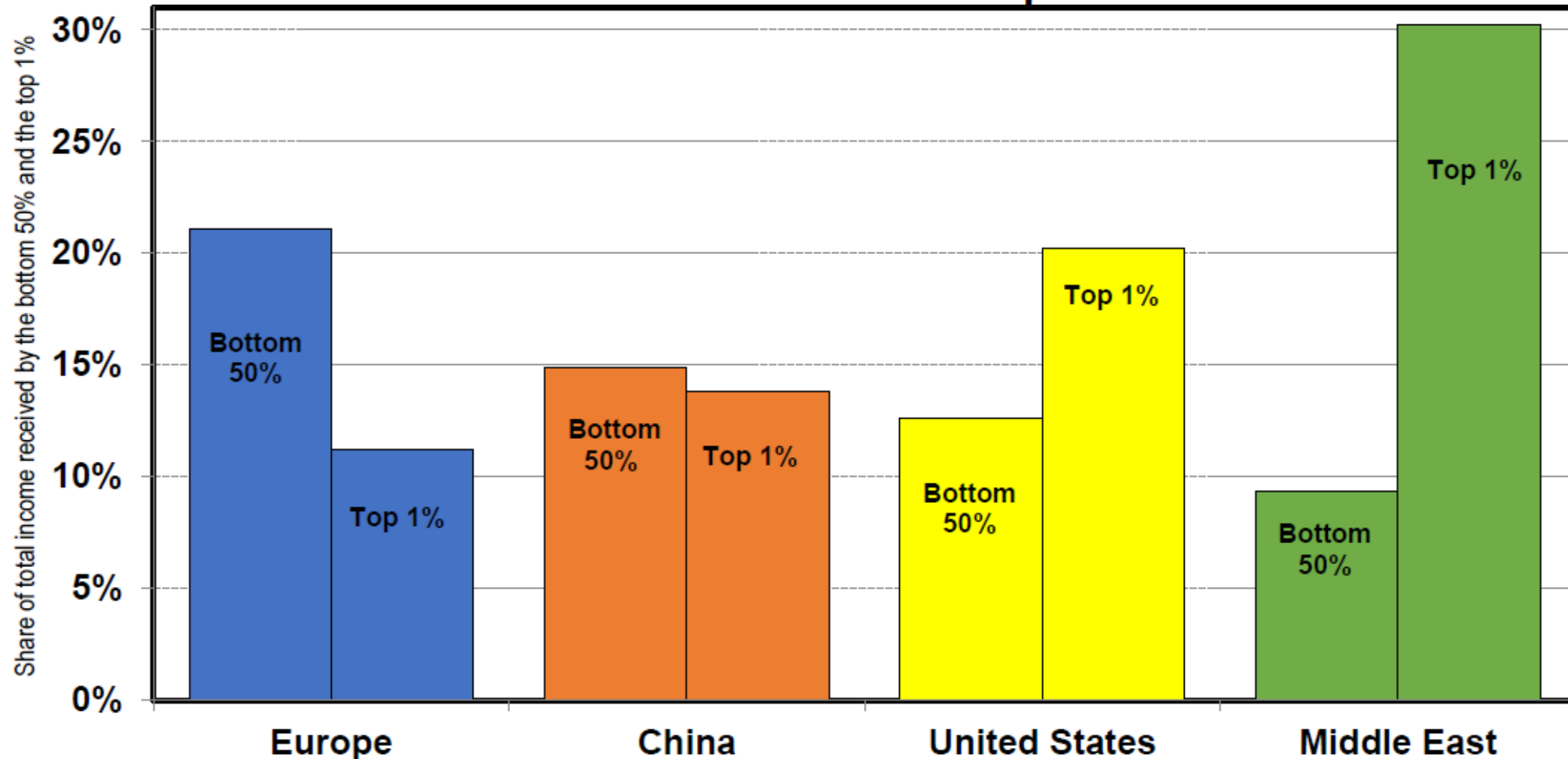
**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.2).

## Inequality in 2018: Europe, U.S., Middle East



**Interpretation.** The share of the 10% highest incomes is 64% of total income in the Middle East (pop. 420 million), compared to 9% for the bottom 50% share. In Europe (enlarged EU, pop. 540 million) these two shares are 34% and 21%. In the United States (pop. 320 million) they are 47% and 13%. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.3).

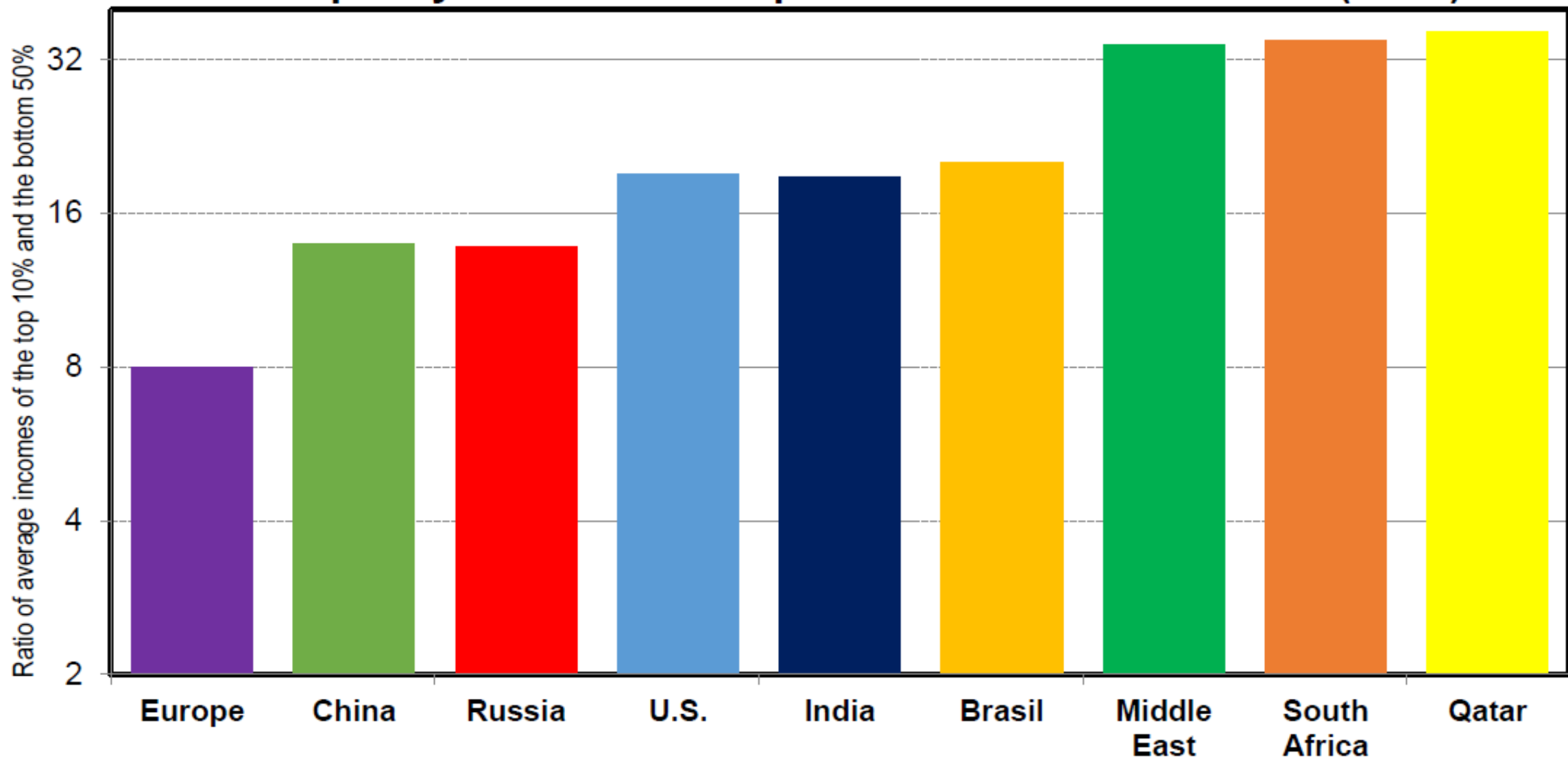
## Global inequality regimes (2018): the bottom 50% vs the top 1%



**Interpretation.** The share of bottom 50% highest incomes is only 9% of total income in the Middle East, vs 30% for the top 1% share. In Europe, these two shares are 21% and 11%. In China they are 15% and 14%, and in the U.S; they are 13% and 20%.

**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.4).

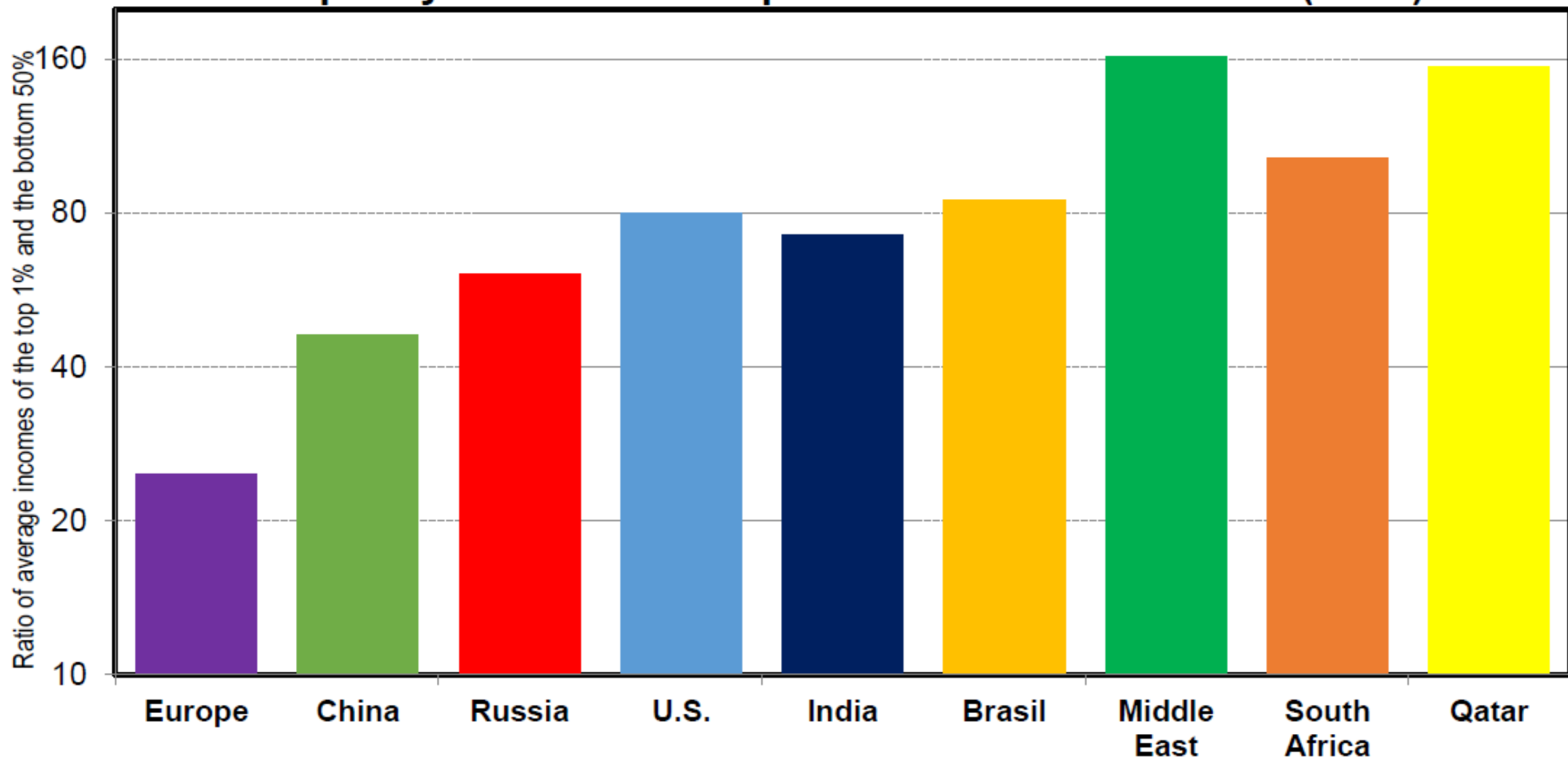
## Inequality between the top 10% and the bottom 50% (2018)



**Interpretation.** In 2018, the ratio of the average incomes of the top 10% and the bottom 50% was 8 in Europe, 14 in China and Russia, 19 in the U.S., 20 in Brasil, 34 in the Middle East, 35 in South Africa and 36 in Qatar.

**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.5).

## Inequality between the top 1% and the bottom 50% (2018)

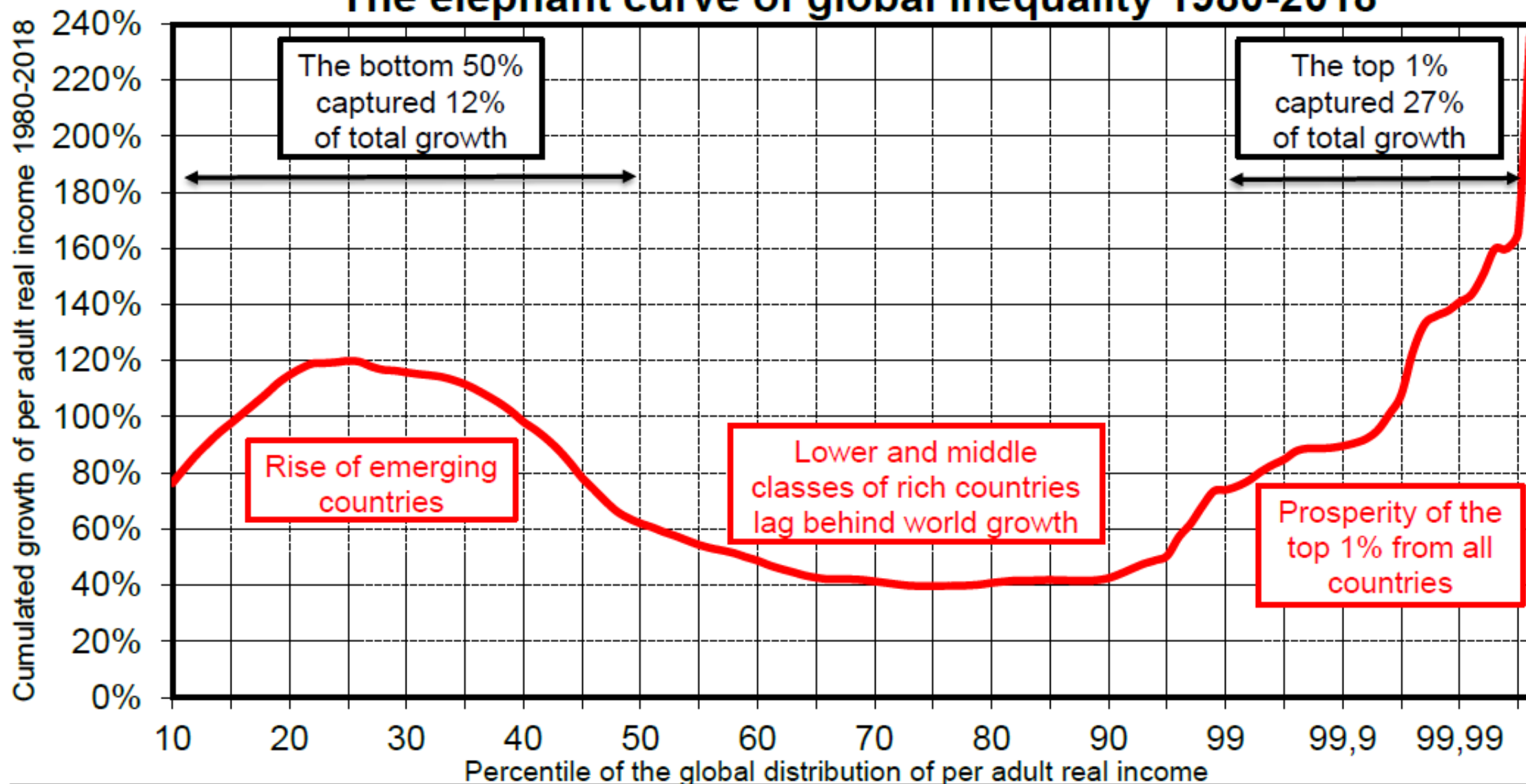


**Interpretation.** In 2018, the ratio of the average incomes of the top 1% and the bottom 50% was 25 in Europe, 46 in China, 61 in Russia, 80 in the U.S., 72 in India, 85 in Brasil, 161 in the Middle East, 103 in South Africa and 154 in Qatar.

**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.6).



## The elephant curve of global inequality 1980-2018



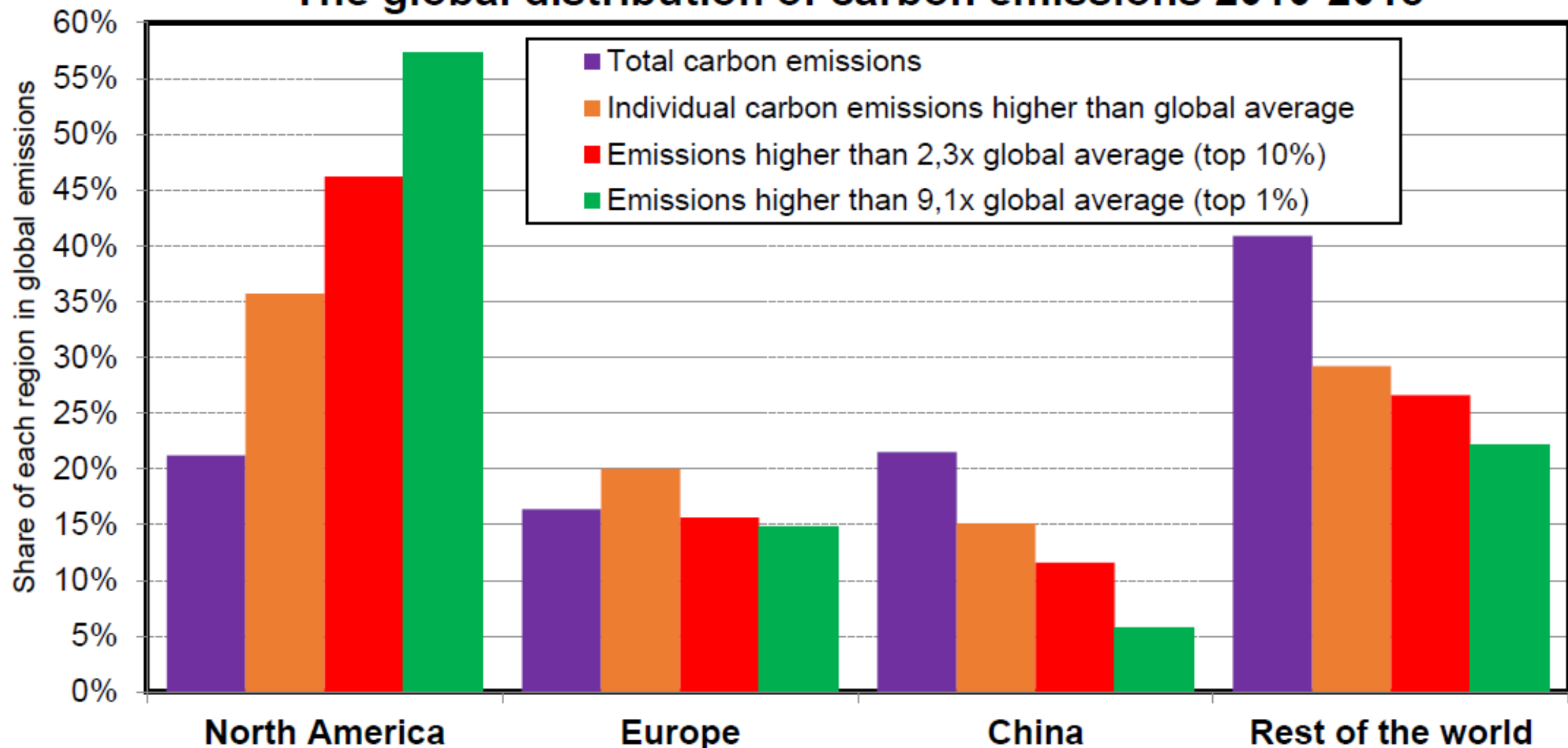
**Interpretation.** The bottom 50% incomes of the world saw substantial growth in purchasing power between 1980 and 2018 (between +60% and +120%). the top 1% incomes saw even stronger growth (between +80% and +240%). Intermediate categories grew less. In sum, inequality decreased between the bottom and the middle of the global income distribution, and increased between the middle and the top.

**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.5).

# Environmental inequality, financial opacity

- Two defining characteristics of the early 21c inequality regime:
- **Enormous environmental inequality:** top 10% carbon emitters are responsible for close to half of world emissions, top 1% carbon emitters emit more than the bottom 50% world emitters. In principle, corrective taxation of externalities should imply large sanctions on the US.
- **Extreme financial opacity:** the lack of transparency on international ownership patterns makes it very difficult to track the evolution of global wealth concentration. Legacy of the free-capital-flows treaty adopted in the 1980s-1990s. See e.g. K. Pistor, *The Code of Capital. How the Law Creates Wealth and Inequality*, Princeton UP 2019

## The global distribution of carbon emissions 2010-2018



**Interpretation.** The share of North America (U.S.-Canada) in total global emissions (direct and indirect) was 21% on average in 2010-2018; this share rises to 36% if one looks at emissions greater than global average (6,2t CO<sub>2</sub>e per year), 46% for emissions above 2,3 times the global average (i.e. the top 10% of world emitters, accounting for 45% of total emissions, compared to 13% for the bottom 50% of world emitters), and 57% of those emitting over 9,1 times the global average (i.e. the top 1% of world emitters, accounting for 14% of total emissions).

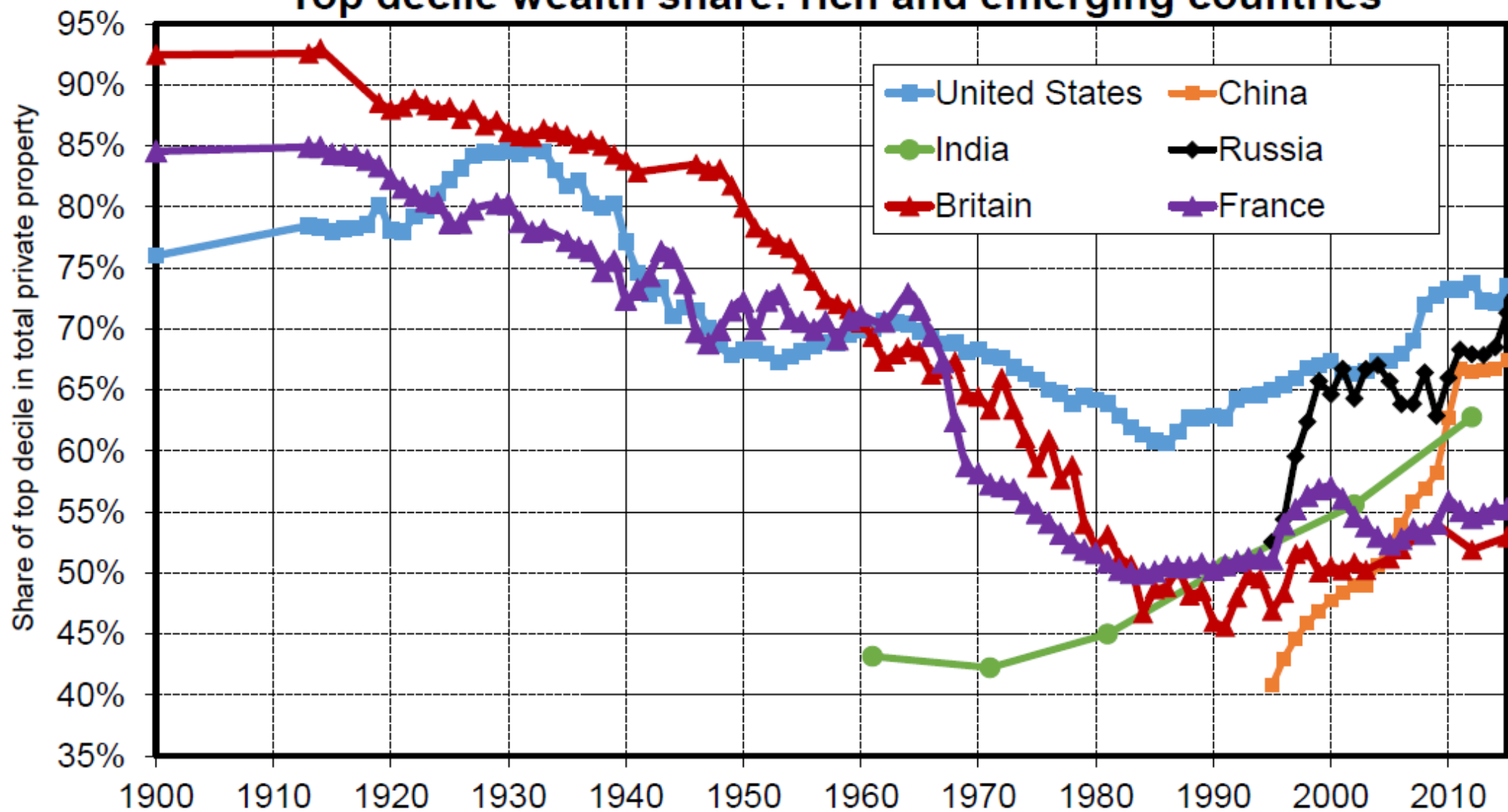
**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.7).

## The rise of top global wealth holders, 1987-2017

<i>Annual average real growth rate 1987-2017 (after deduction of inflation)</i>	World	U.S.-Europe-China
<b>The one hundred-millionth richest (Forbes)</b>	6,4%	7,8%
<b>The one twenty-millionth richest (Forbes)</b>	5,3%	7,0%
<b>The top 0,01% (WID.world)</b>	4,7%	5,7%
<b>The top 0,1% (WID.world)</b>	3,5%	4,5%
<b>The top 1% (WID.world)</b>	2,6%	3,5%
<b>Per adult average wealth</b>	1,9%	2,8%
<b>Per adult average income</b>	1,3%	1,4%
<b>Total adult population</b>	1,9%	1,4%
<b>GDP or total income</b>	3,2%	2,8%

**Interpretation.** Between 1987 and 2017, the average wealth of the one hundred-millionth richest individuals in the world (i.e. about 30 individuals out of 3 billions adults in 1987, and 50 out of 5 billions in 2017) grew by 6,4% a year globally; the average wealth of the 0,01% richest individuals (about 300 000 individuals in 1987, 500 000 in 2017) grew by 4,7% a year, and average global wealth by 1,9% a year. The rise of very top wealth holders has been even more marked if we concentrate on U.S.-Europe-China. Sources: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (table 13.1).

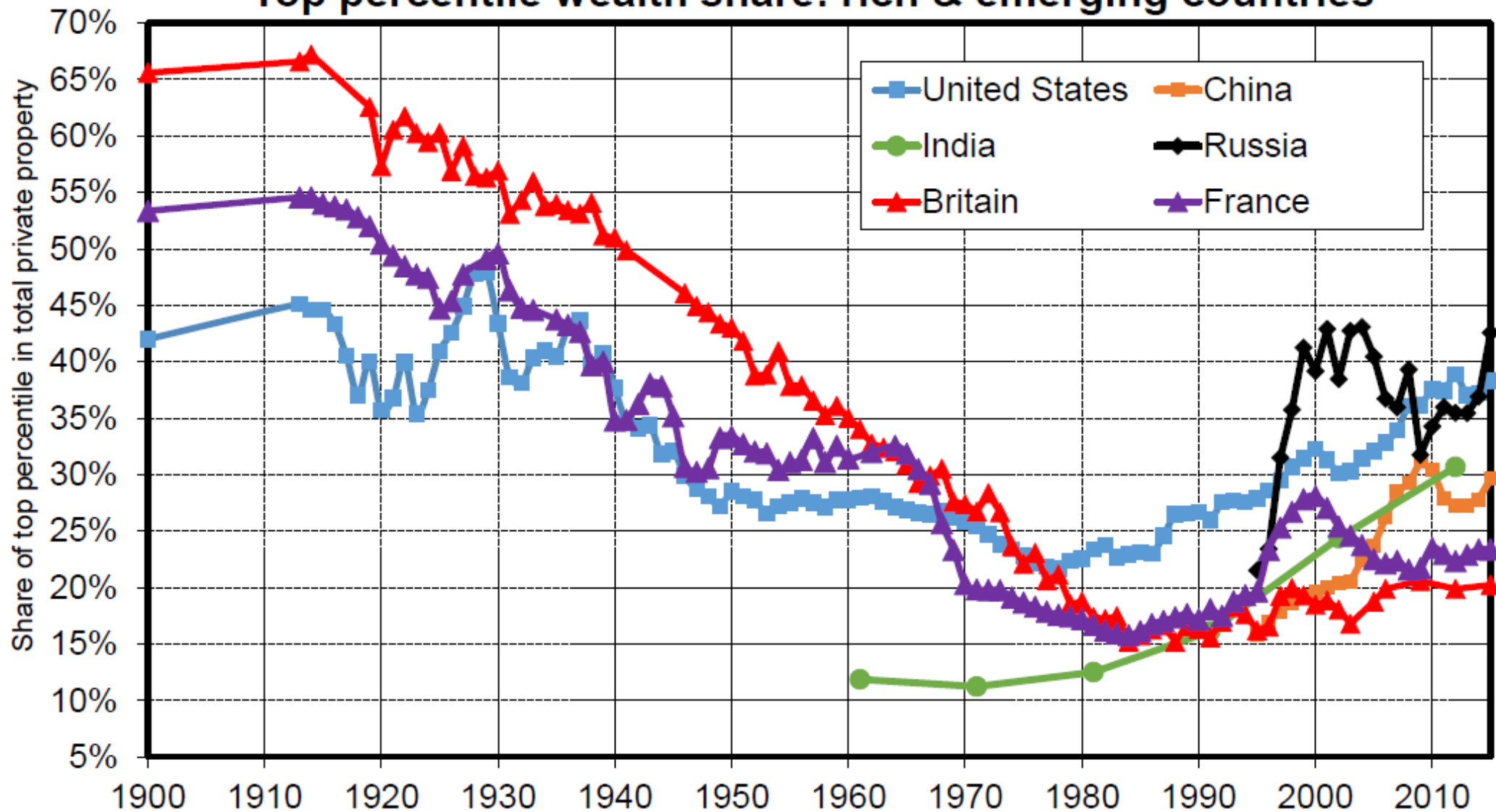
## Top decile wealth share: rich and emerging countries



**Reading.** The share of the top decile (the 10% largest wealth owners) in total private property (all assets combined: real estate, business and financial assets, net of debt) increased strongly in China, Russia, India and the United States since the 1980s-1990s, and to a lesser extent in Britain and France. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.8).

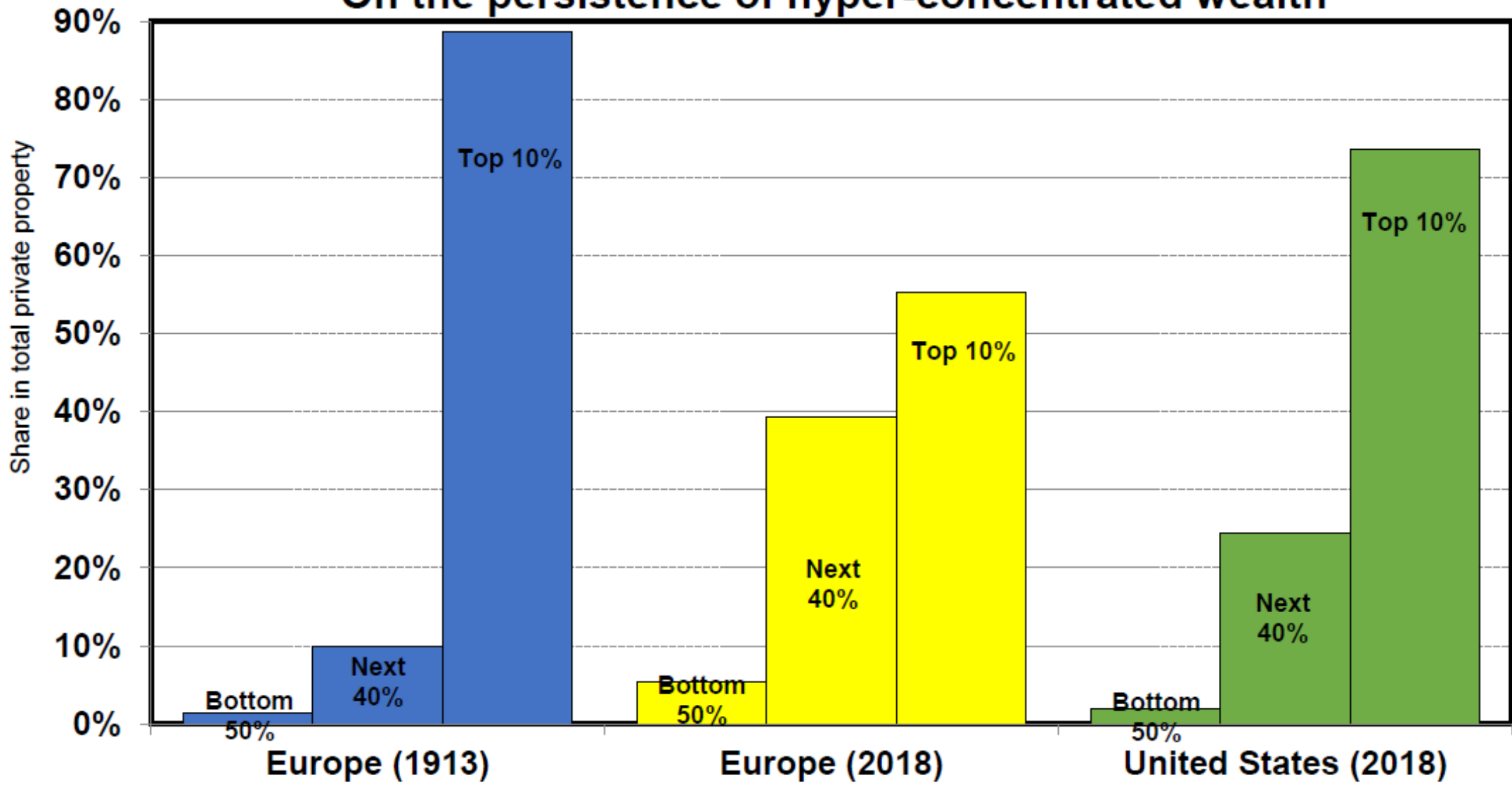


## Top percentile wealth share: rich & emerging countries



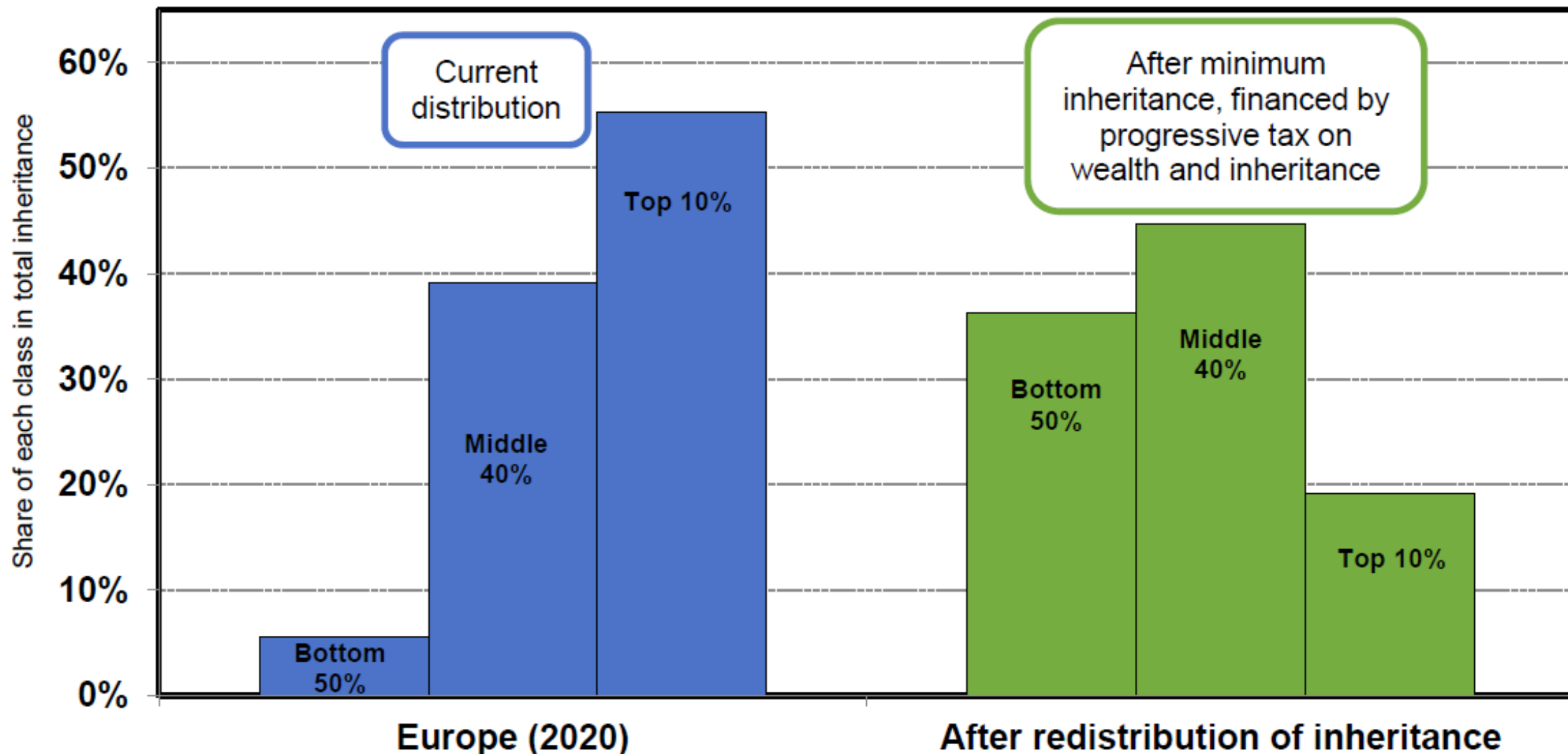
**Reading.** The share of the top percentile (the 1% largest wealth owners) in total private property (all assets combined: real estate, business and financial assets, net of debt) increased strongly in China, Russia, India and the United States since the 1980s-1990s, and to a lesser extent in Britain and France. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.9).

# On the persistence of hyper-concentrated wealth



**Reading.** The share of the richest 10% in total private property was 89% in Europe (average of Britain, France and Sweden) in 1913 (compared with 1% for the bottom 50%), 55% in Europe in 2018 (compared to 5% for the bottom 50%) and 74% in the United States in 2018 (compared to 2% for the bottom 50%). **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.10).

# The redistribution of inheritance



**Interpretation.** The share of the poorest 50% in total inheritance is 6% in Europe in 2020, vs 39% for the next 40% and 55% for the richest 55%. After implementation of inheritance for all (minimum inheritance equal to 60% of average wealth, allocated at 25-year-old), financed by a progressive tax on wealth and inheritance, this share would be equal to 36% (vs 45% and 19%).

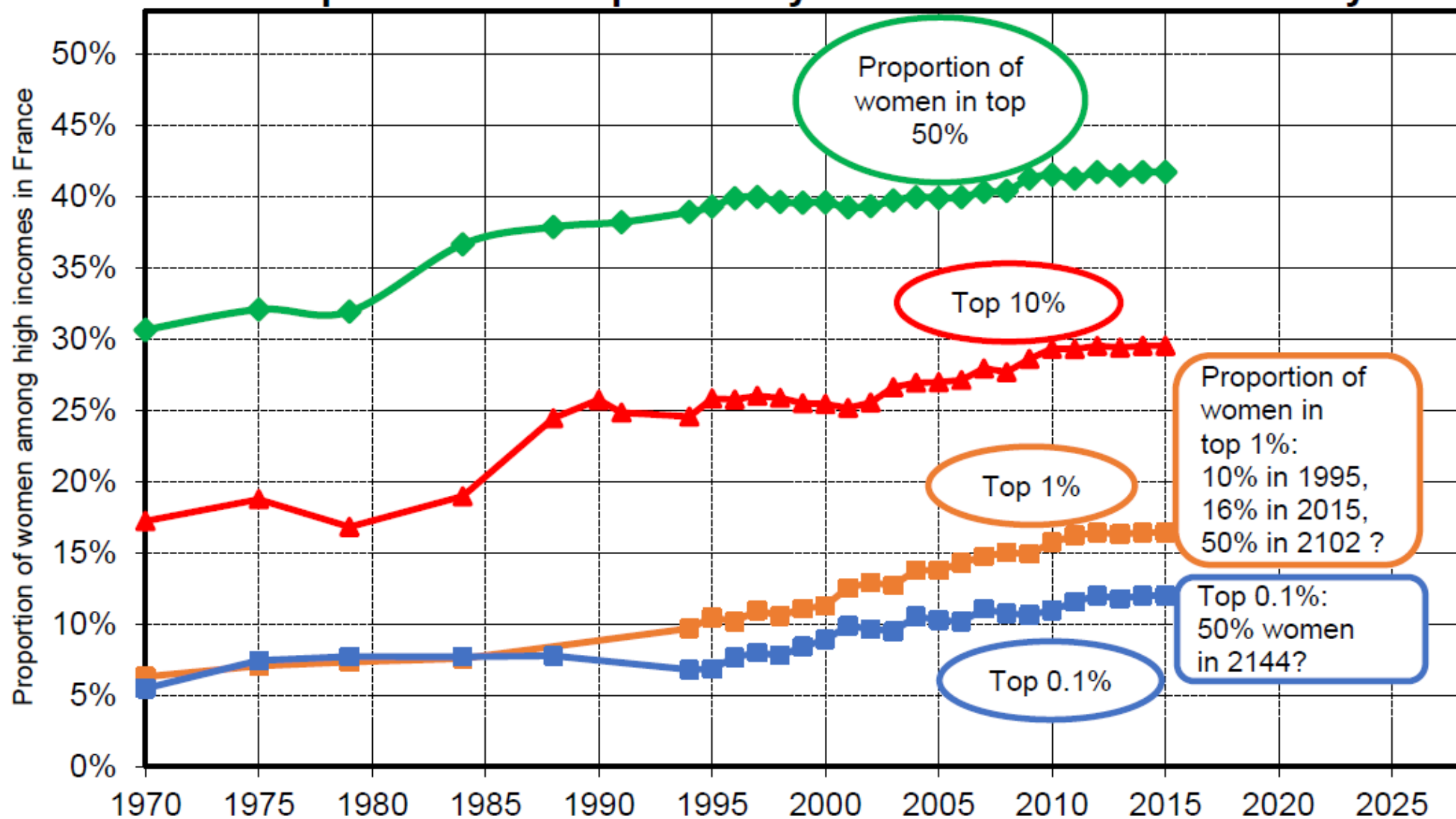
**Note:** Europe: average Britain-France-Sweden. **Sources and series:** see [piketty.pse.ens.fr/equality](http://piketty.pse.ens.fr/equality)



# The (very) slow decline of gender inequality

- Female suffrage: New Zealand 1893, Britain 1928, Turkey 1930, Brasil 1932, France 1944, Switzerland 1971, Saudi Arabia 2015...
- **Very slow access of women to high ranking occupations and high paying jobs. Without quotas/reservations, this might never work.**
- Female share in top 1% earnings in France: 10% 1995, 16% 2015, 50% in 2102?
- Same slow evolution in the US
- See DINA series for [France](#) and [the US](#)

## The persistence of patriarchy in France in the 21<sup>st</sup> century

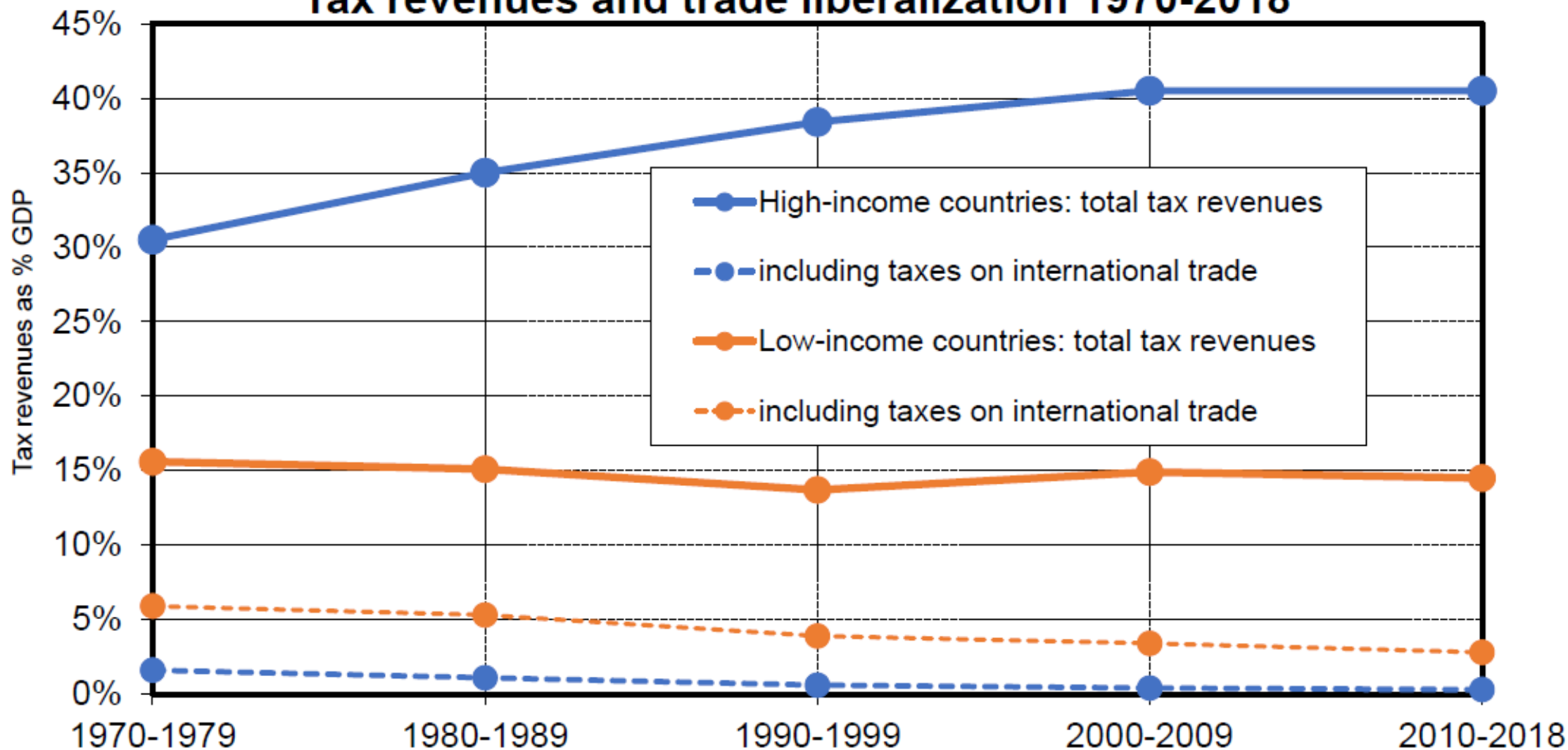


**Interpretation.** The proportion of women in the top percentile (top 1%) of the distribution of labour income (wages and self-employment income) increased from 10% in 1995 to 16% in 2015, and should reach 50% by 2102 if the trend continues at the same speed as during the 1995-2015 period. For the top 0,1%, parity could wait until 2144. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.11).

# Uneven state building in developing countries

- **In 15c-20c Europe, the process of state building has been a central and complex component of the process of modernization and socioeconomic development.** It involves the construction of shared norms of trust and justice across territories and social classes.
- **In many world regions, e.g. Africa, Middle East, etc., the process of state building is still going on.** And it is taking new routes in Europe (EU) and with the rise of transnational governance.
- **In low-income countries, state capacity declined during the 1980s-1990s due to accelerated trade liberalization (>> loss in trade tax revenues) without sufficient investment in alternative fiscal capacity**
- See Cage-Gadenne, « Tax revenues and the fiscal cost of trade liberalization (1792-2006) », [EEH 2018](#)

## Tax revenues and trade liberalization 1970-2018



**Interpretation.** In low-income countries (bottom third: Sub-Saharan Africa, South Asia, etc.), tax revenues dropped from 15,6% of GDP in 1970-1979 to 13,7% in 1990-1999 and 14,5% in 2010-2018, partly due to the uncompensated fall in customs duties and other taxes on international trade (which raised 5,9% of GDP in 1970-1979, 3,9% in 1990-1999 and 2,8% in 2010-2018). In high-income countries (top third: Europe, North America, etc.), customs duties were already very small at the beginning of the period and tax revenues kept rising before stabilizing. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.12).

# The return of central banks and money creation: a long-run view

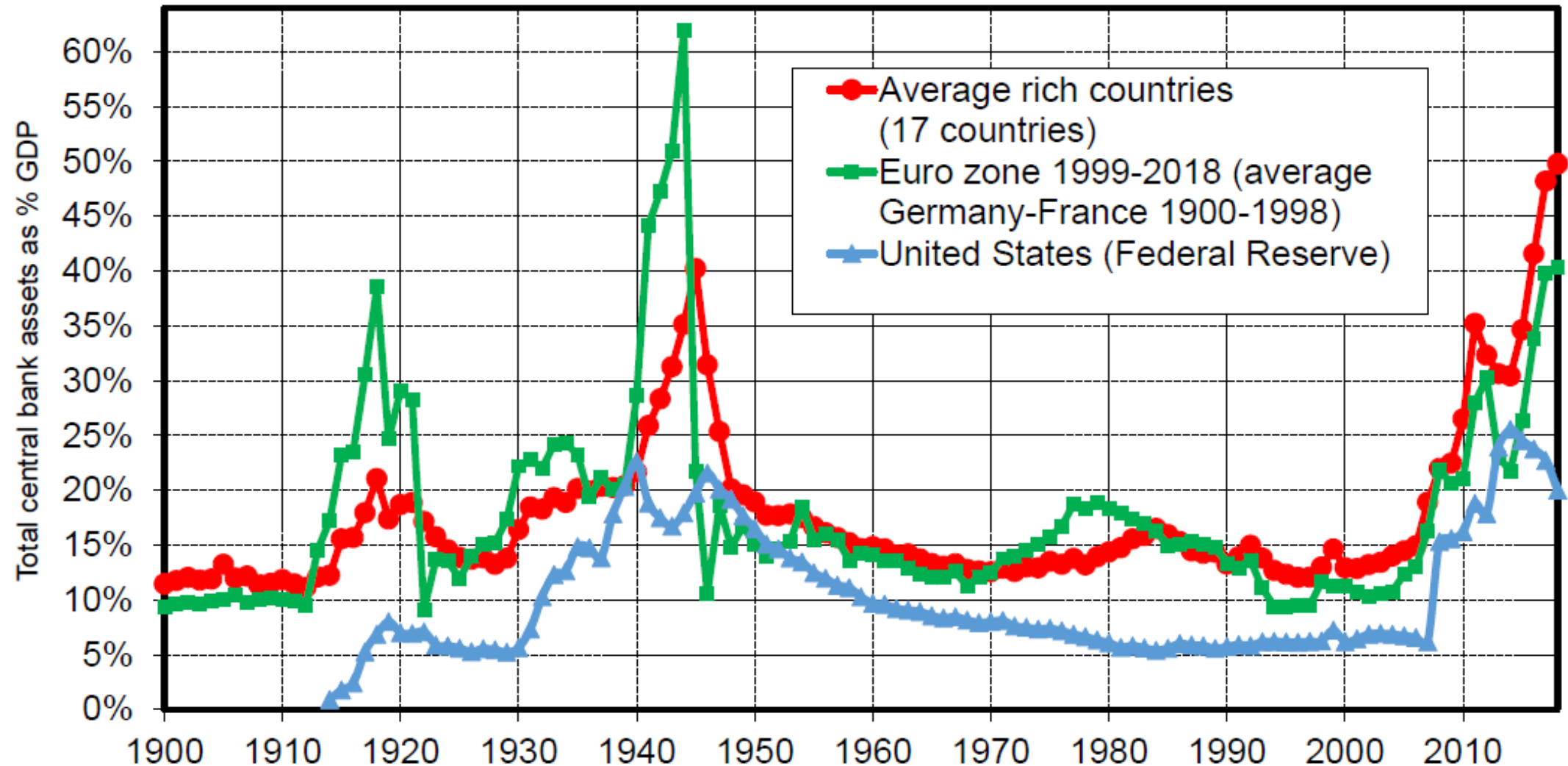
- **Post-2008 money creation: back to central bank balance sheet size observed after WW1 and WW2**
- Central banks are the only public institutions which can create resources instantaneously and intervene immediately if needed
- **Large post-2008 intervention: legacy of 1929 trauma**

(post-Friedman consensus: both the right and the left concluded from the experience of 1930s that central banks should play a role of banker of last resort) ( $\neq$  orthodox liquidationist view)

(see M. Friedman, *A Monetary History of the US 1867-1960*, PUP 1963)

- **But the large post-2008 intervention also reflects a lack of consensus about other public policies: progressive taxation, Green New Deal, transnational democracy in Europe & elsewhere, etc. >> too much is asked to central banks**

## The size of central bank balance sheets 1900-2018

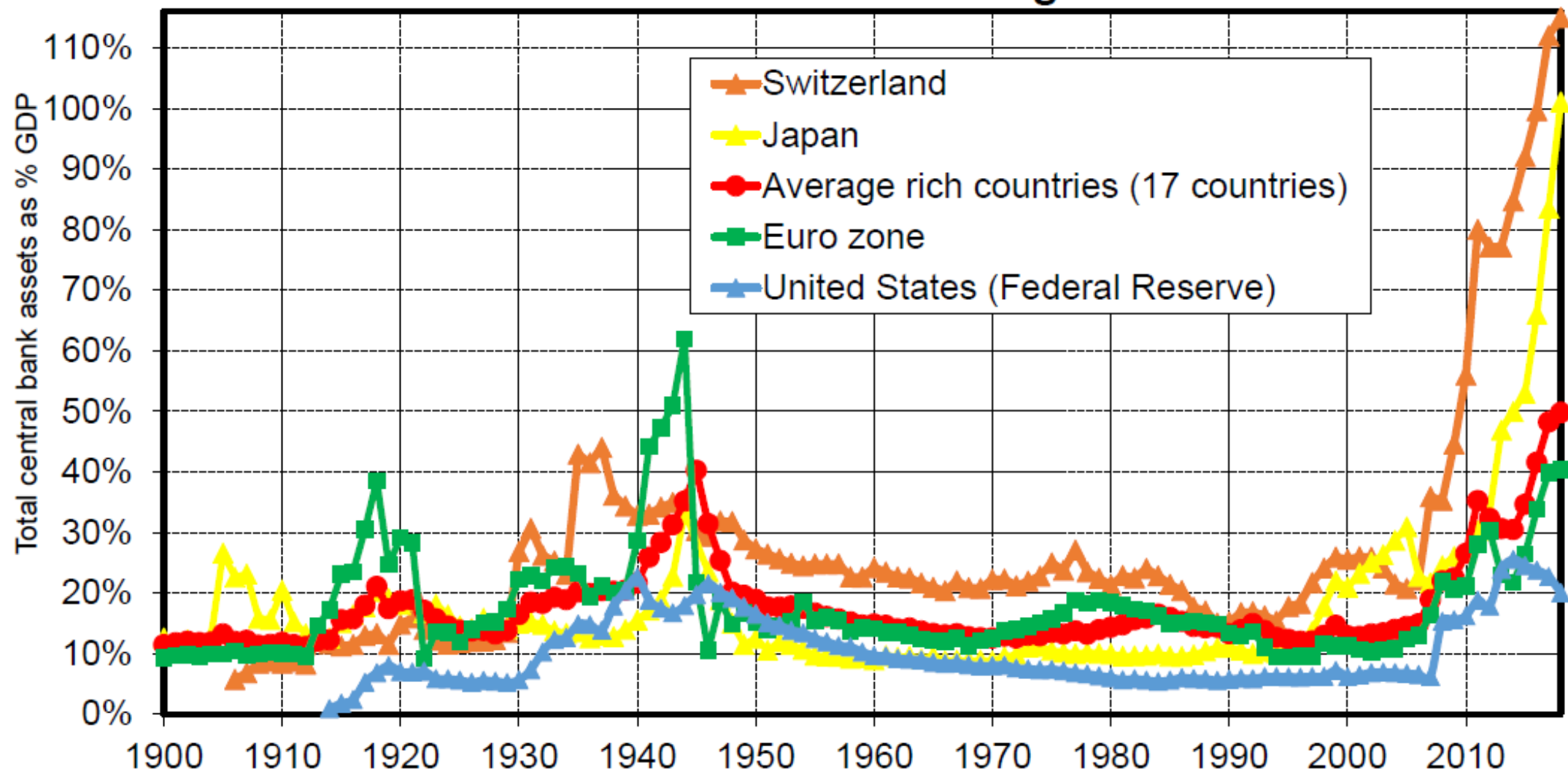


**Interpretation.** Total assets of the European Central Bank (ECB) rose from 11% of euro zone GDP on 31/12/2004 to 41% on 31/12/2018. The evolution 1900-1998 indicates the average obtained for the balance sheets of the German and French central banks (with peaks equal to 39% in 1918 and 62% in 1944). Total assets of the Federal Reserve (created in 1913) rose from 6% of GDP in 2007 to 26% at the end of 2014.

**Note.** The average of rich countries is the arithmetic average of the 17 following countries: Australia, Belgium, Britain, Canada, Denmark, France, Finland, Germany, Holland, Italy, Japan, Norway, Portugal, Spain, Sweden, Switzerland, U.S.). **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.13).



## Central banks and financial globalization



**Interpretation.** Total assets of the central banks of rich countries rose from 13% of GDP on 31/12/2000 to 51% on 31/12/2018. The assets of the central banks of Japan and Switzerland exceeded 100% of GDP in 2017-2018. **Note.** The average of rich countries is the arithmetic average of the 17 following countries: Australia, Belgium, Britain, Canada, Denmark, France, Finland, Germany, Holland, Italy, Japan, Norway, Portugal, Spain, Sweden, Switzerland, U.S.). **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.14).