

## Technical appendix to the book « Capital et ideology »

Thomas Piketty

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<http://piketty.pse.ens.fr/ideology>

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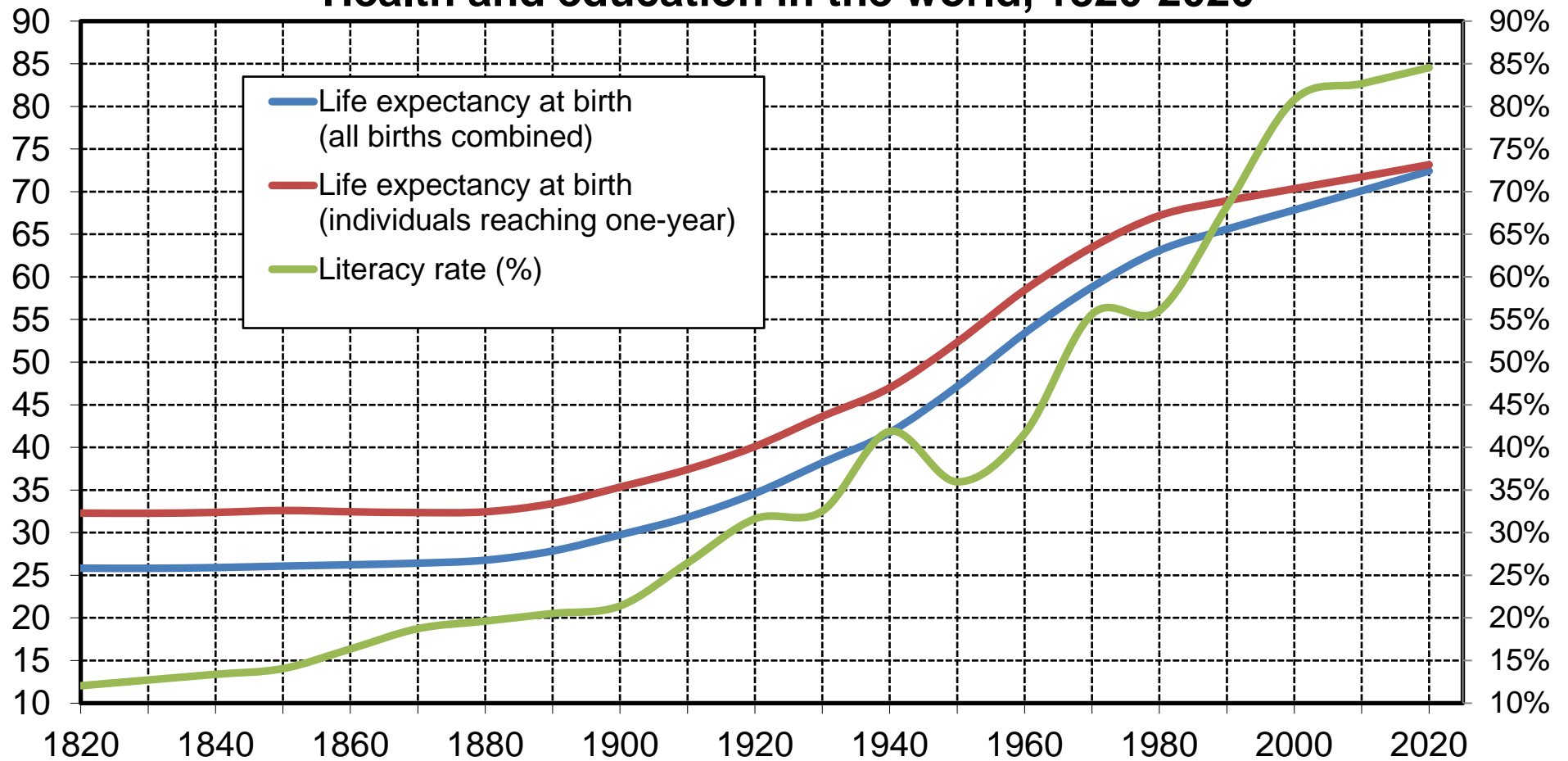
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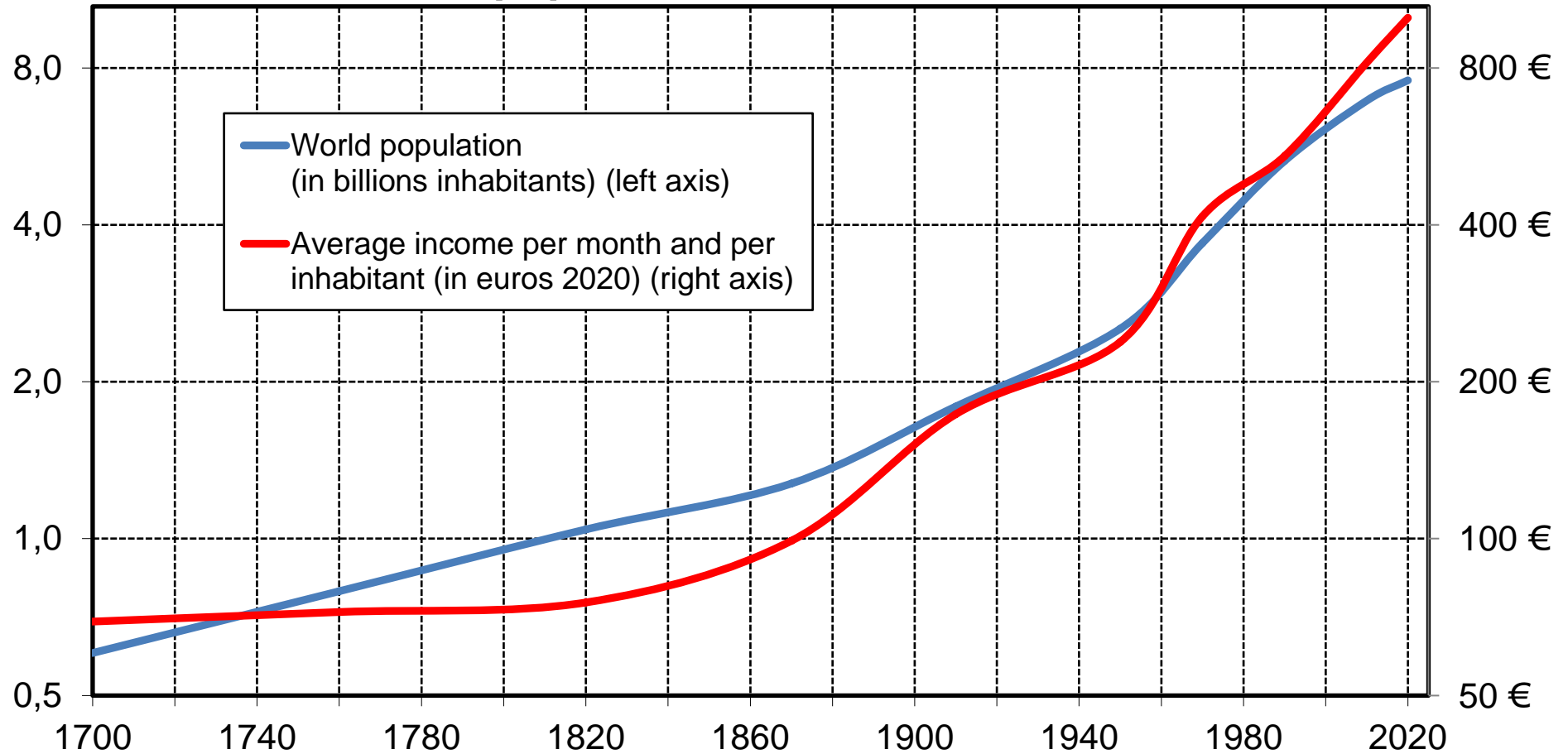
## Health and education in the world, 1820-2020



**Interpretation.** Life expectancy at birth worldwide increased from an average of 26 years in the world in 1820 to 72 years in 2020. Life expectancy for those living to age 1 rose from 32 years to 73 years (because infant mortality before age 1 decreased from 20% in 1820 to less than 1% in 2020). The literacy rate for 15-year-olds-and-over worldwide rose from 12% to 85%.  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.1).

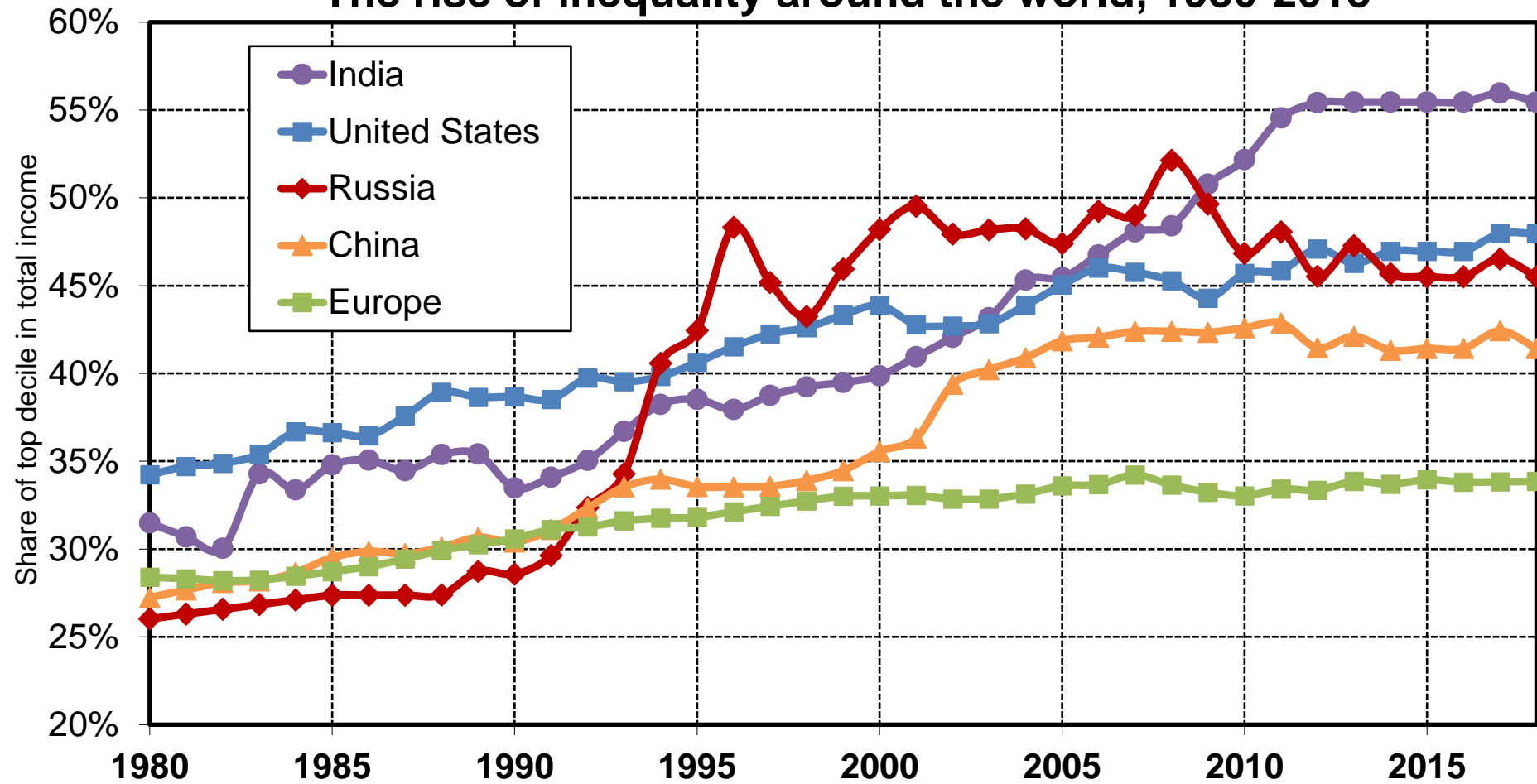


## World population and income, 1700-2020



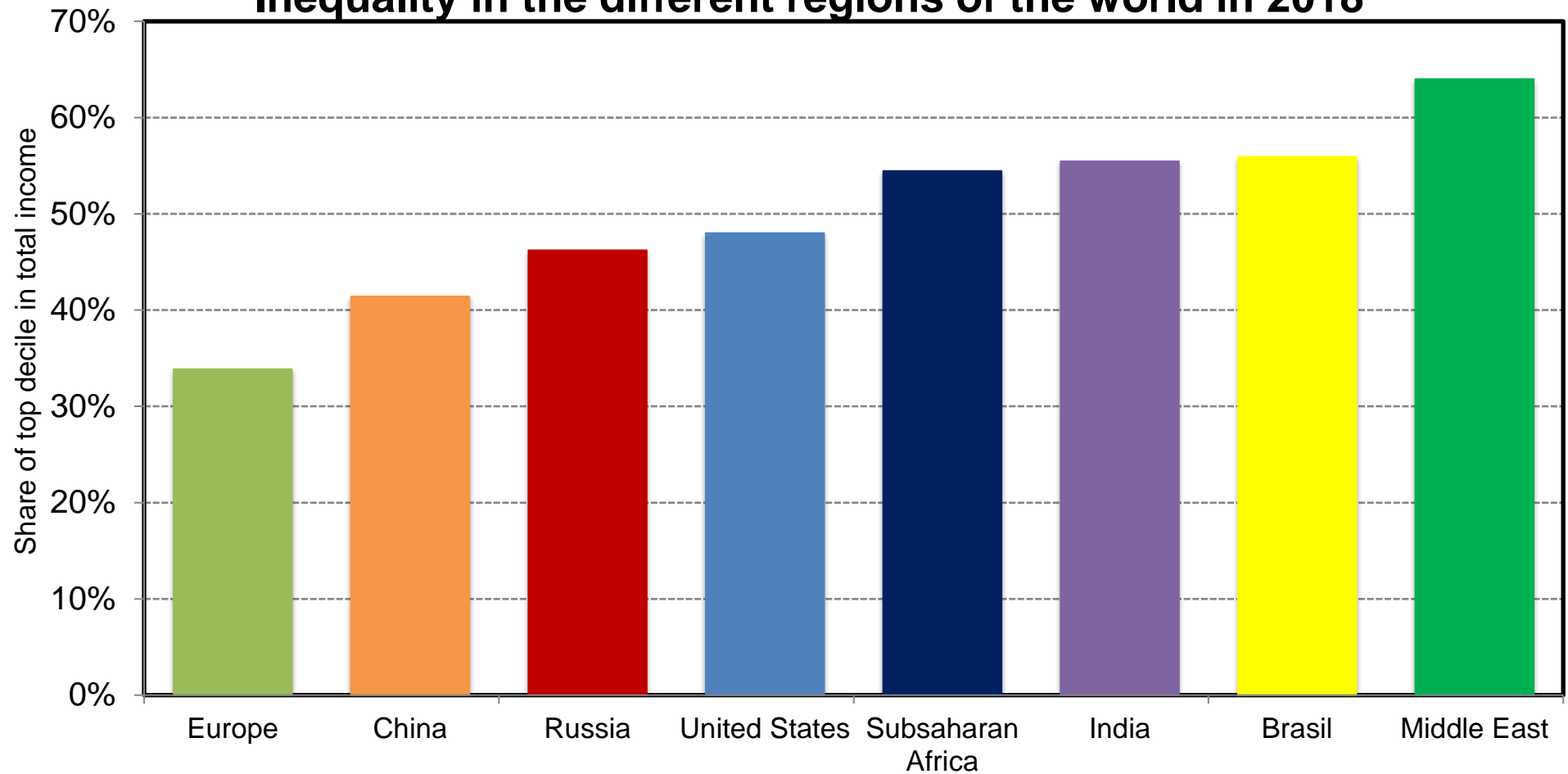
**Interpretation.** World population and average national income increased more than tenfold between 1700 and 2020: population increased from about 600 million inhabitants in 1700 to over 7 billion in 2020; income, expressed in 2020 euros and in purchasing power parity, increased from barely 80€ per month per person in 1700 to 1000€ per month per person in 2020.  
Sources and series: voir [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.2).

## The rise of inequality around the world, 1980-2018



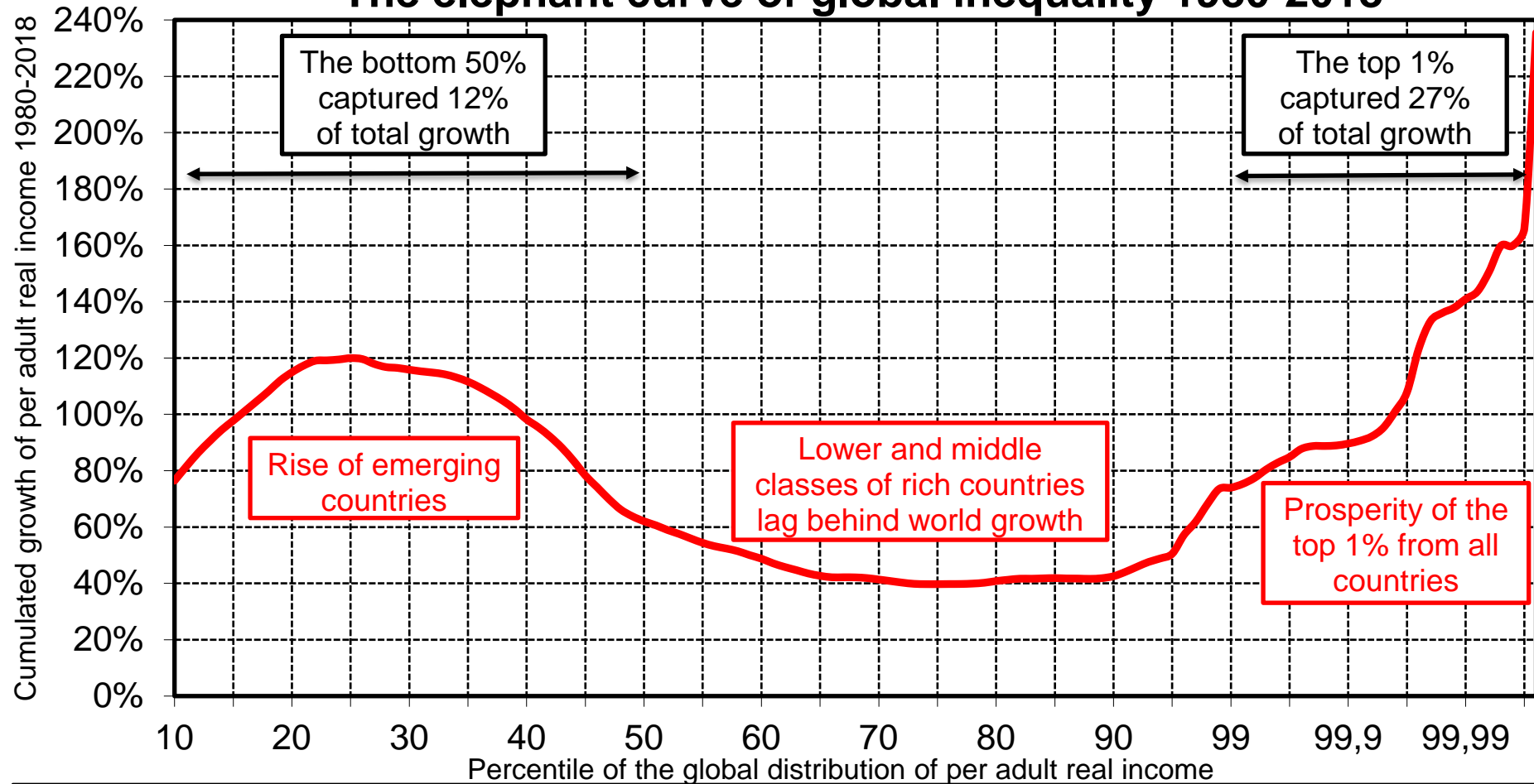
**Interpretation.** The share of the top decile (the 10% highest incomes) in total national income ranged between 26% and 34% in 1980 in the different parts of the world and from 34% and 56% in 2018. Inequality increased everywhere, but the size of the increase varies greatly from country to country, at all levels of development. For example it was greater in the United States than in Europe (enlarged EU, 540 millions inhabitants), and greater in India than in China. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.3).

## Inequality in the different regions of the world in 2018



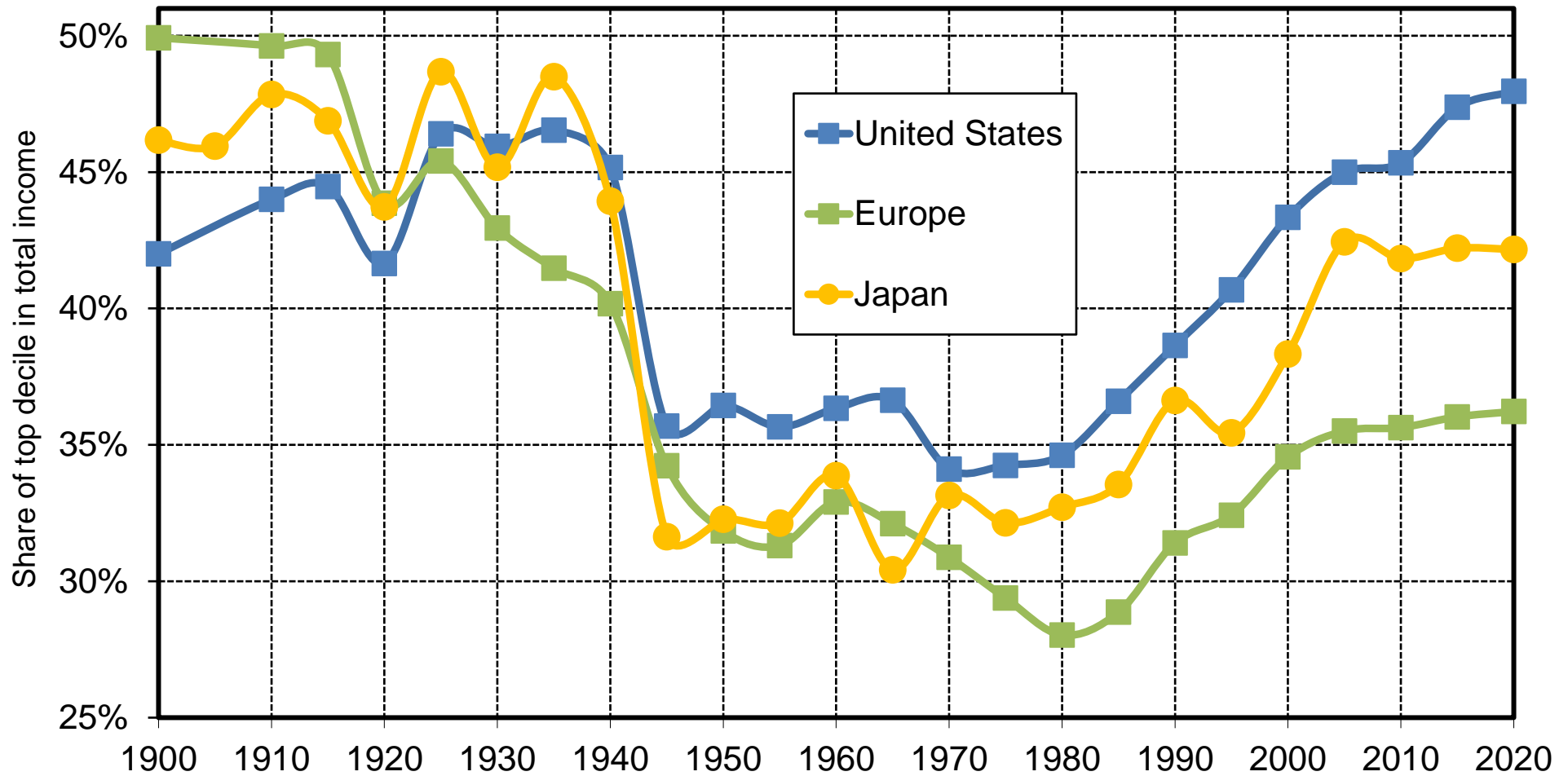
**Interpretation.** In 2018, the share of the top decile (the 10% highest incomes) in national income was 34% in Europe (EU+), 41% in China, 46% in Russia, 48% in the United States, 54% in Subsaharan Africa, 55% in India, 56% in Brasil and 64% in the Middle East.  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.4).

## The elephant curve of global inequality 1980-2018



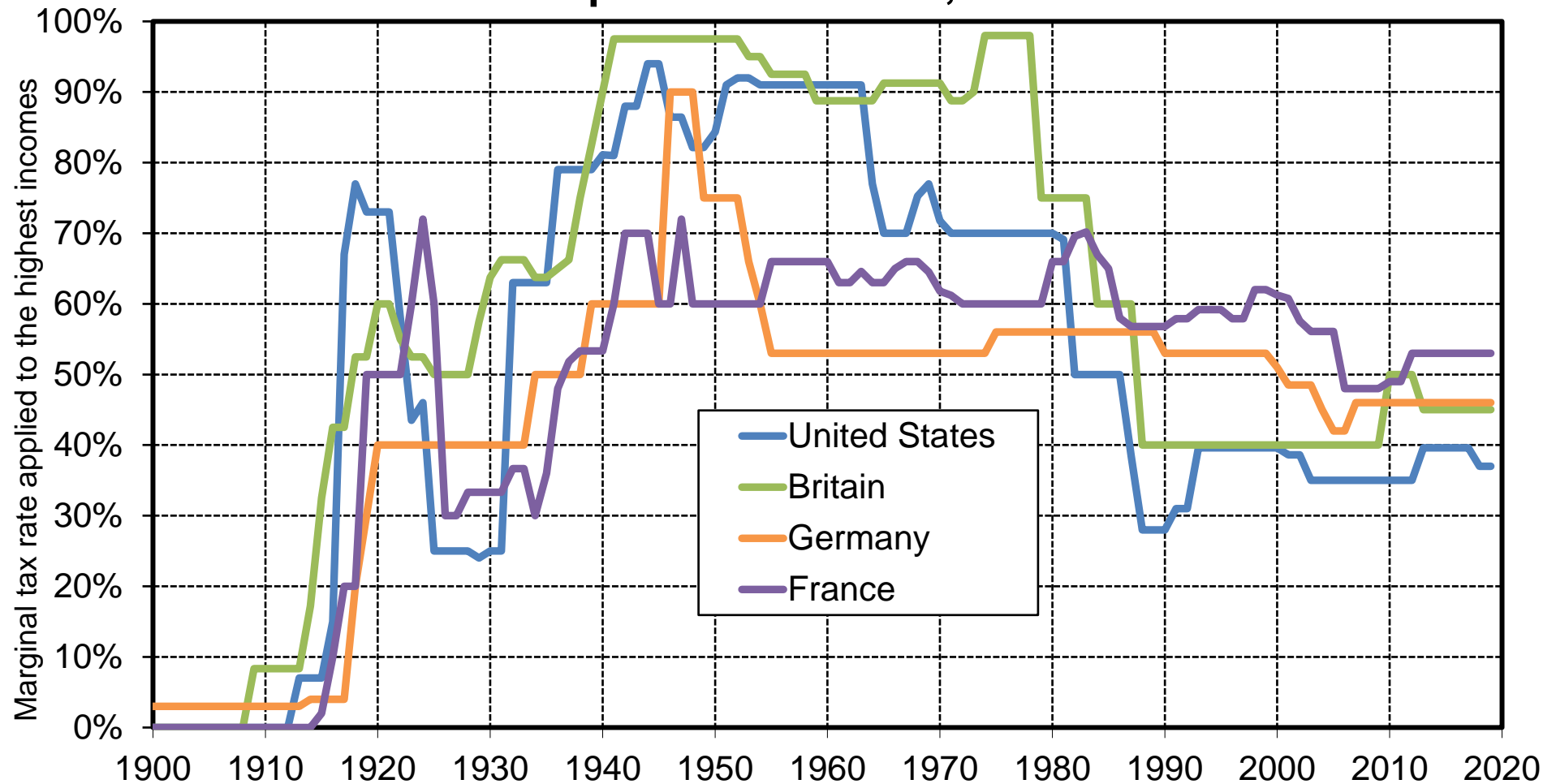
**Interpretation.** The bottom 50% incomes of the world saw substantial growth in purchasing power between 1980 and 2018 (between +60% and +120%). the top 1% incomes saw even stronger growth (between +80% and +240%). Intermediate categories grew less. In sum, inequality decreased between the bottom and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

## Inequality, 1900-2020: Europe, United States, Japan



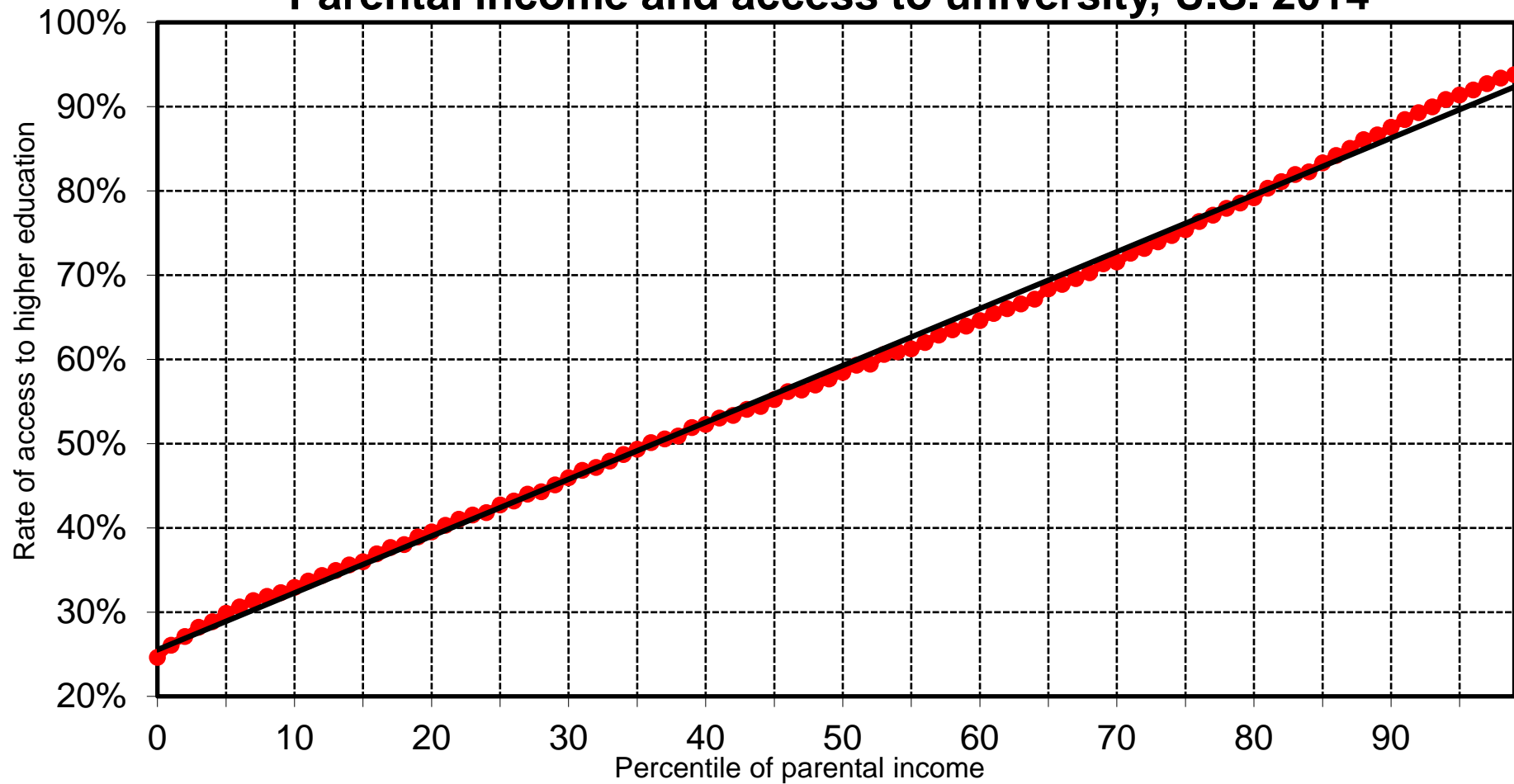
**Interpretation.** The share of the top decile (the top 10% highest incomes) in total national income was about 50% in Western Europe in 1900-1910, before decreasing to about 30% in 1950-1980, then rising again to more than 35% in 2010-2020. Inequality grew much more strongly in the United States, where the top decile share approached 50% in 2010-2020, exceeding the level of 1900-1910. Japan was in an intermediate position. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.6).

## The top income tax rate, 1900-2020



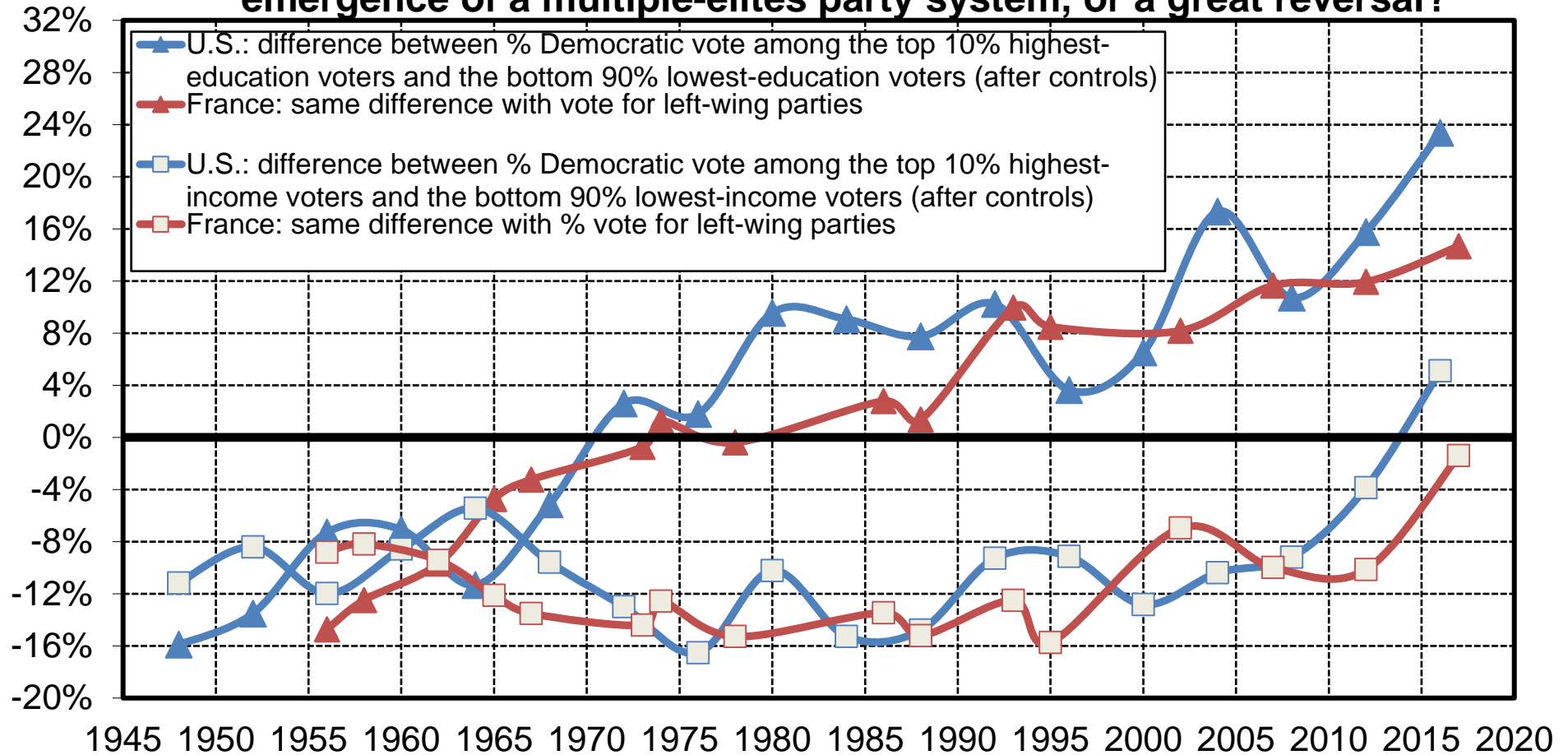
**Interpretation.** The top marginal tax rate applied to the highest incomes averaged 23% in the United States from 1900 to 1932, 81% from 1932 to 1980, and 39% from 1980 to 2018. Over these same periods, the top rate was 30%, 89% and 46% in Britain, 18%, 58% and 50% in Germany, and 23%, 60% and 57% in France. Fiscal progressivity was at its highest level in the middle of the century, especially in the United States and in Britain. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.7).

## Parental income and access to university, U.S. 2014



**Interpretation.** In 2014, the rate of access to higher education (percentage of individuals aged 19-21 enrolled in a university, college or any other institution of higher education) was barely 30% among the bottom 10% poorest children in the United States, and over 90% among the top 10% richest children. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.8).

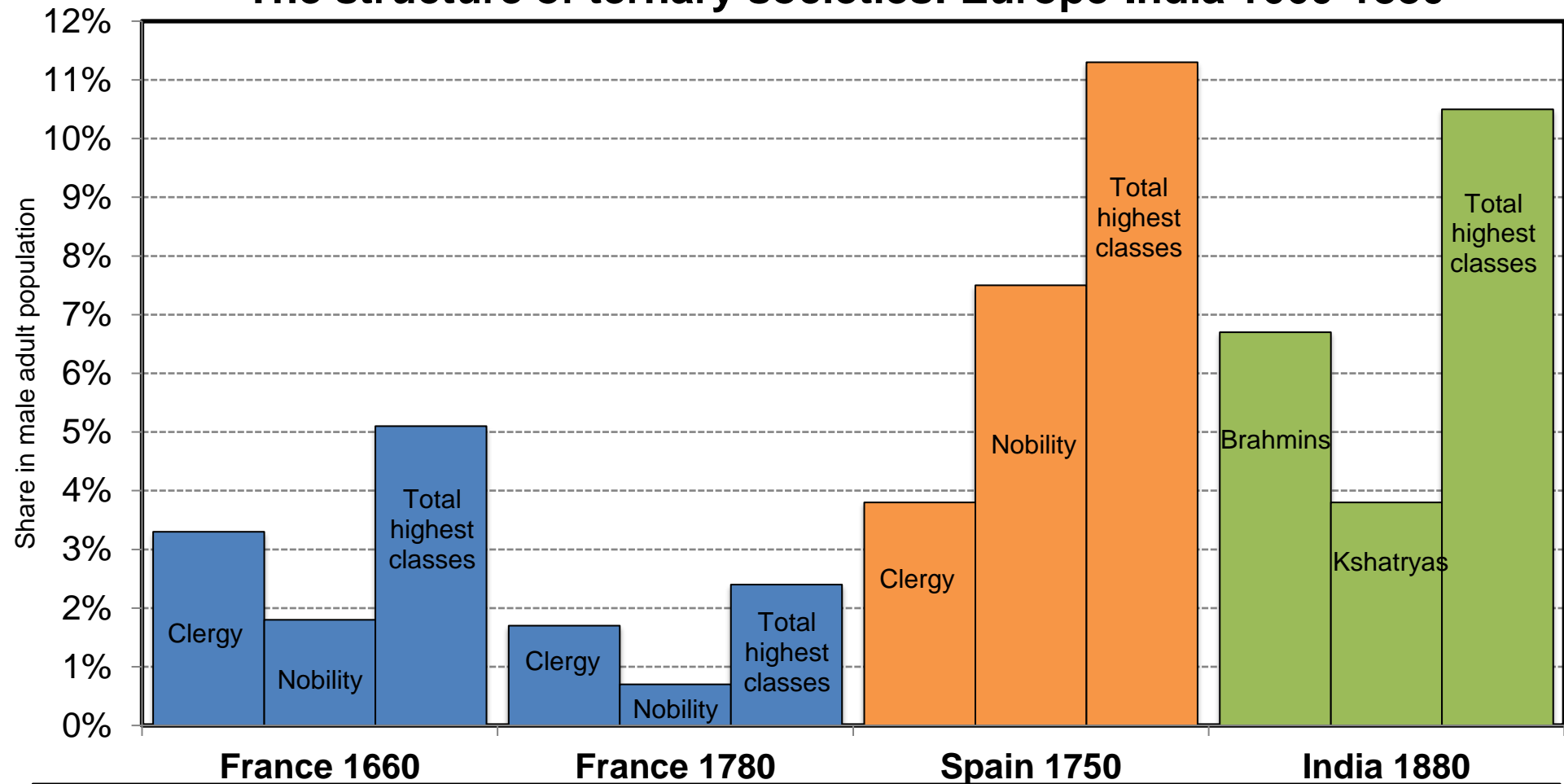
## Transformation of political and electoral conflict 1945-2020: emergence of a multiple-elites party system, or a great reversal?



**Interpretation.** In the period 1950-1970, the vote for the Democratic party in the U.S. and for left-wing parties (Socialists, Communists, Radicals, Ecologists) in France was associated to voters with the lowest educational degrees and income levels; in the period 1980-2000, it became associated with the voters with the highest degrees; in the period 2010-2020, it is also becoming associated with the voters with the highest incomes (particularly in the U.S.). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 0.9).



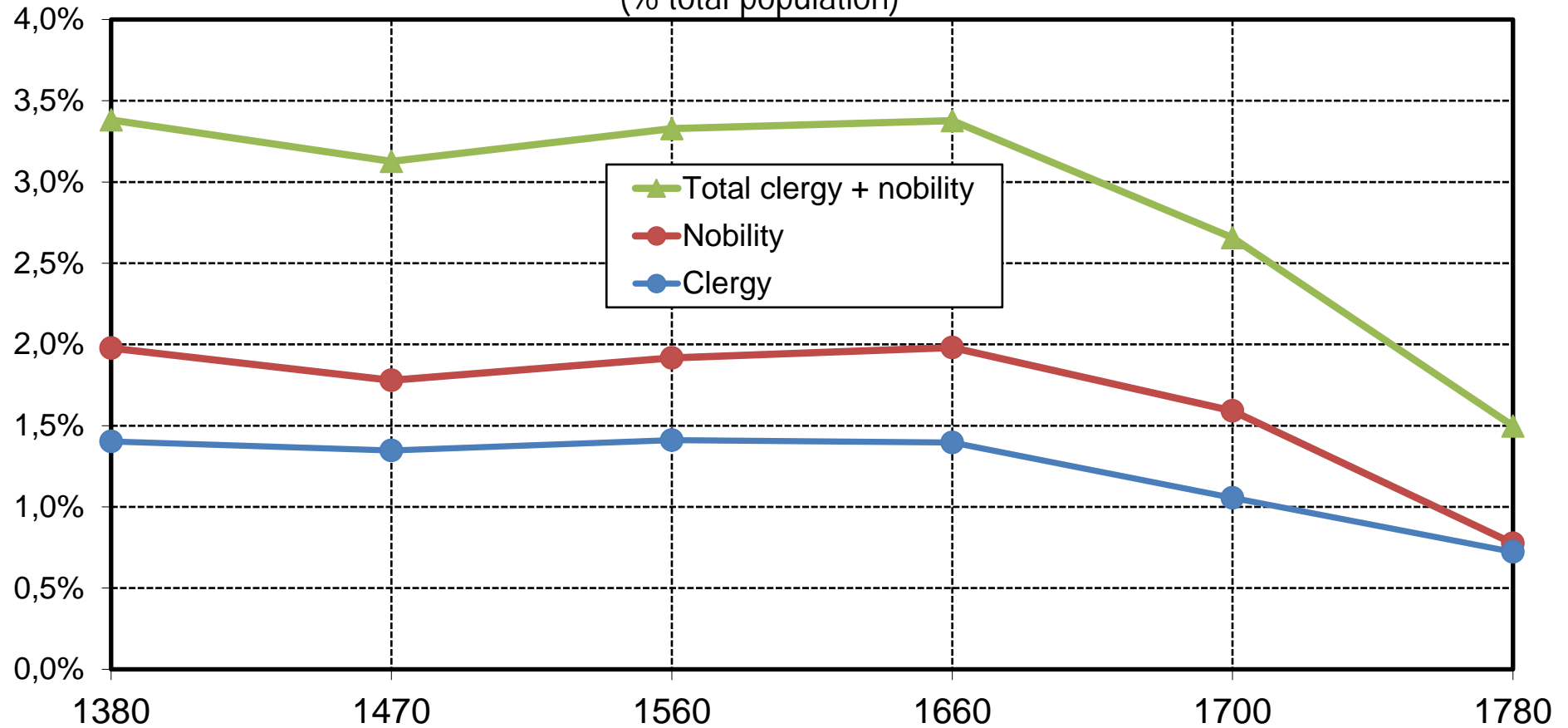
## The structure of ternary societies: Europe-India 1660-1880



**Interpretation.** In 1660, the clergy accounted for about 3,3% of male adult population in France, and the nobility for 1,8%, for a total of 5,1% for the two dominant classes of the trifunctional society. In 1880, Brahmins (ancient class of priests, as measured by British colonial censuses) accounted for 6,7% of male adult population in India, and Kshatryas (ancient class of warriors) for 3,8%, for a total of 10,5% for the two dominant classes. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 1.1).

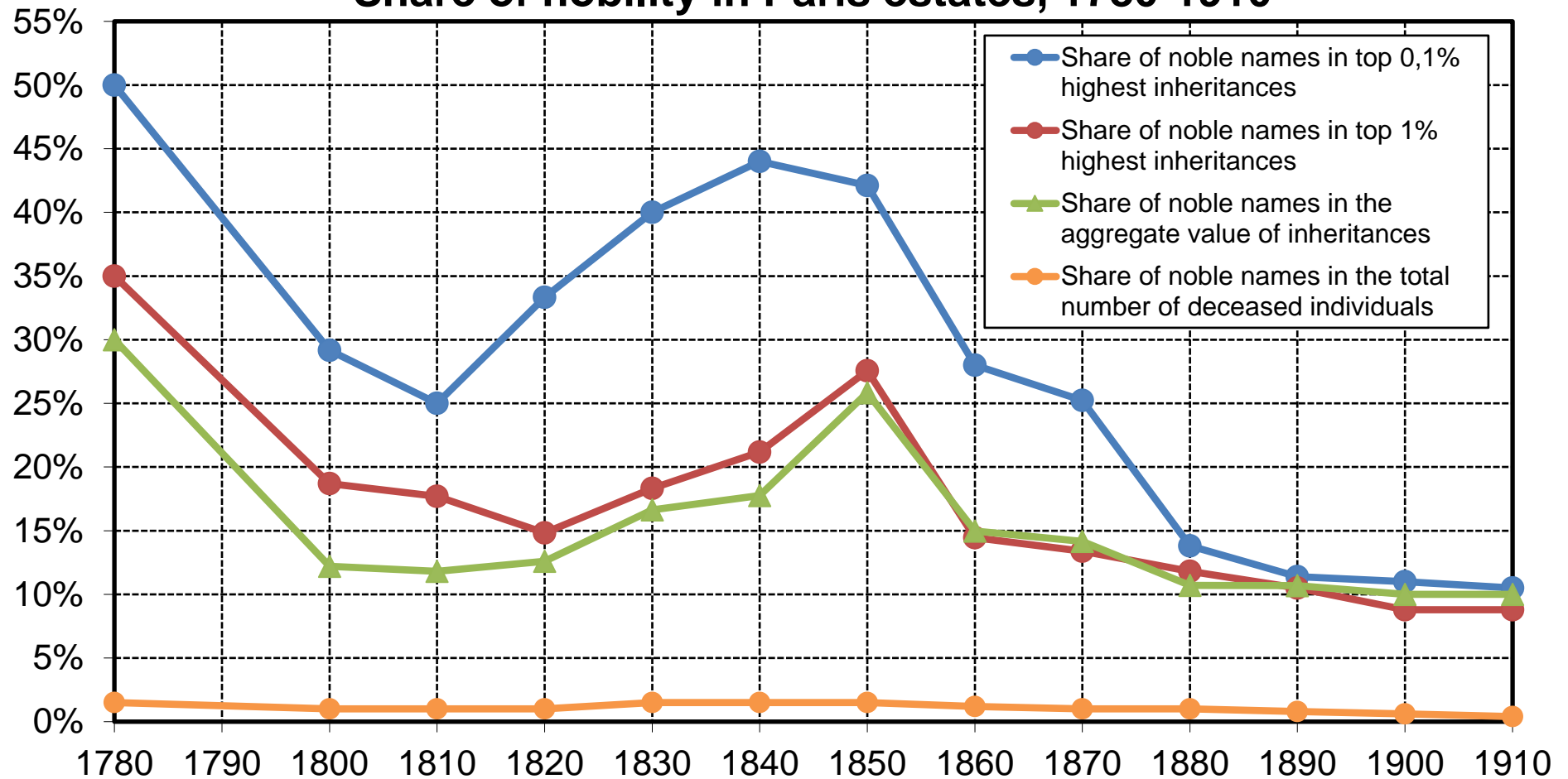
## Population shares in French ternary society (1380-1780)

(% total population)



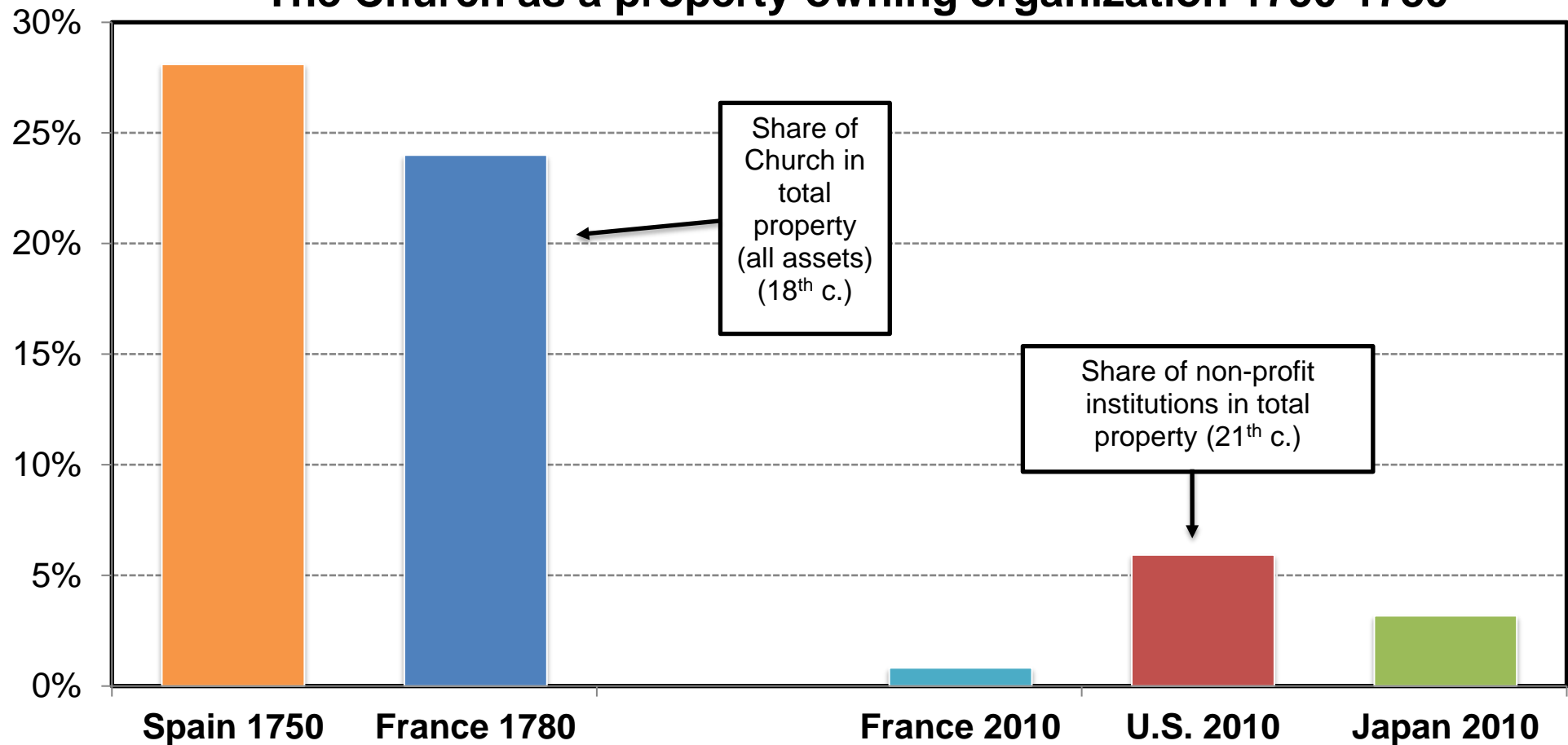
**Interpretation.** In 1780, the nobility and the clergy accounted respectively for 0,8% and 0,7% of total French population, or a total of 1,5% for the two dominant orders and 98,5% for the third estate; in 1660, the nobility and the clergy accounted respectively for 2,0% and 1,4% of total population, or a total of 3,4% for the two dominant orders and 96,6% for the third estate. These proportions remained fairly stable between 1380 and 1660, followed by a sharp drop between 1660 and 1780. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 2.1).

## Share of nobility in Paris estates, 1780-1910



**Interpretation.** The share of noble names among the top 0,1% highest inheritances in Paris dropped from 50% to 25% between 1780 and 1810, before rising to about 40%-45% during the period of censitary monarchies (1815-1848), and finally declining to about 10% in the late 19th century and early 20th century. By comparison, noble names have always represented less than 2% of the total number of deceased individuals between 1780 and 1910. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 2.2).

## The Church as a property-owning organization 1750-1780



**Interpretation.** Around 1750-1780, the Church owned between 25% and 30% of total property in Spain and close to 25% in France (all assets combined: land, real estate, financial assets, including capitalisation of church tithes). By comparison, in 2010, the set of all non-profit institutions (including religious organizations, universities, museums, foundations, etc.) owned less than 1% of total property in France, 6% in the United States and 3% in Japan. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 2.3).

## Clergy and nobility in France 1380-1780

(% of total population)

	1380	1470	1560	1660	1700	1780
<b>Clergy</b>	1,4%	1,3%	1,4%	1,4%	1,1%	0,7%
<b>Nobility</b>	2,0%	1,8%	1,9%	2,0%	1,6%	0,8%
<b>Total Clergy + Nobility</b>	<b>3,4%</b>	<b>3,1%</b>	<b>3,3%</b>	<b>3,4%</b>	<b>2,7%</b>	<b>1,5%</b>
<b>Third Estate</b>	<b>96,6%</b>	<b>96,9%</b>	<b>96,7%</b>	<b>96,6%</b>	<b>97,3%</b>	<b>98,5%</b>
<b>Total population</b> (millions)	11	14	17	19	22	28
<b>incl. Clergy</b> (thousands)	160	190	240	260	230	200
<b>incl. Nobility</b> (thousands)	220	250	320	360	340	210

**Interpretation:** in 1780, the clergy and the nobility included respectively about 0,7% and 0,8% of total population in France, hence a total of 1,5% for the two dominant orders (about 410 000 individuals out of 28 millions). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (table 2.1).

## Clergy and nobility in France 1380-1780

(% of adult male population)

	1380	1470	1560	1660	1700	1780
<b>Clergy</b>	3,3%	3,2%	3,3%	3,3%	2,5%	1,7%
<b>Nobility</b>	1,8%	1,6%	1,8%	1,8%	1,5%	0,7%
<b>Total Clergy + Nobility</b>	<b>5,1%</b>	<b>4,8%</b>	<b>5,1%</b>	<b>5,1%</b>	<b>4,0%</b>	<b>2,4%</b>
<b>Third Estate</b>	<b>94,9%</b>	<b>95,2%</b>	<b>94,9%</b>	<b>94,9%</b>	<b>96,0%</b>	<b>97,6%</b>
<b>Adult male population</b> (millions)	3,4	4,2	5,1	5,6	6,5	8,3
<b>incl. Clergy</b> (thousands)	110	130	160	180	160	140
<b>incl. Nobility</b> (thousands)	60	60	90	100	90	60

**Interpretation:** in 1780, the clergy and the nobility included respectively about 1,7% and 0,7% of adult male population in France, hence a total of 2,4% for the two dominant orders (about 200 000 individuals out of 8,3 millions). Sources and series: see piketty.pse.ens.fr/ideology (table 2.2).

## Some progressive tax projects in 18<sup>th</sup> century France

### Graslin : progressive tax on income

(*Essai analytique sur la richesse et l'impôt*, 1767)

Multiple of average income	Effective tax rate
0,5	5%
20	15%
200	50%
1300	75%

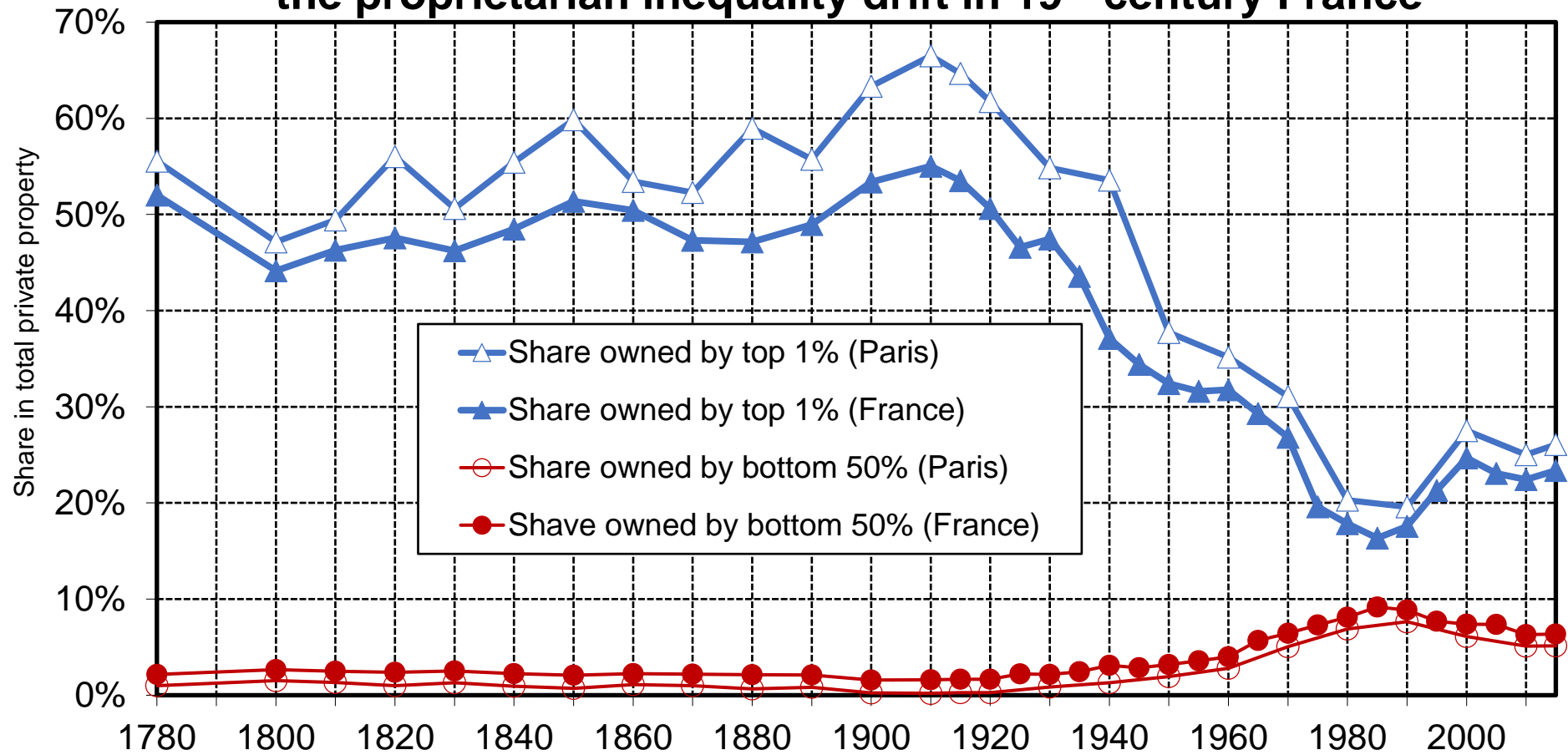
### Lacoste : progressive tax on inheritance

(*Du droit national d'hérédité*, 1792)

Multiple of average wealth	Effective tax rate
0,3	6%
8	14%
500	40%
1500	67%

**Interpretation.** In the progressive income tax project presented by Graslin in 1767, the effective tax rate rose gradually from 5% for an annual income of 150 livres tournois (about half of average per adult income at the time) to 75% for an annual income of 400000 livres (about 1300 times average income). One observes a comparable progressivity with the progressive inheritance tax project presented by Lacoste in 1792. **Sources:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (table 3.1).

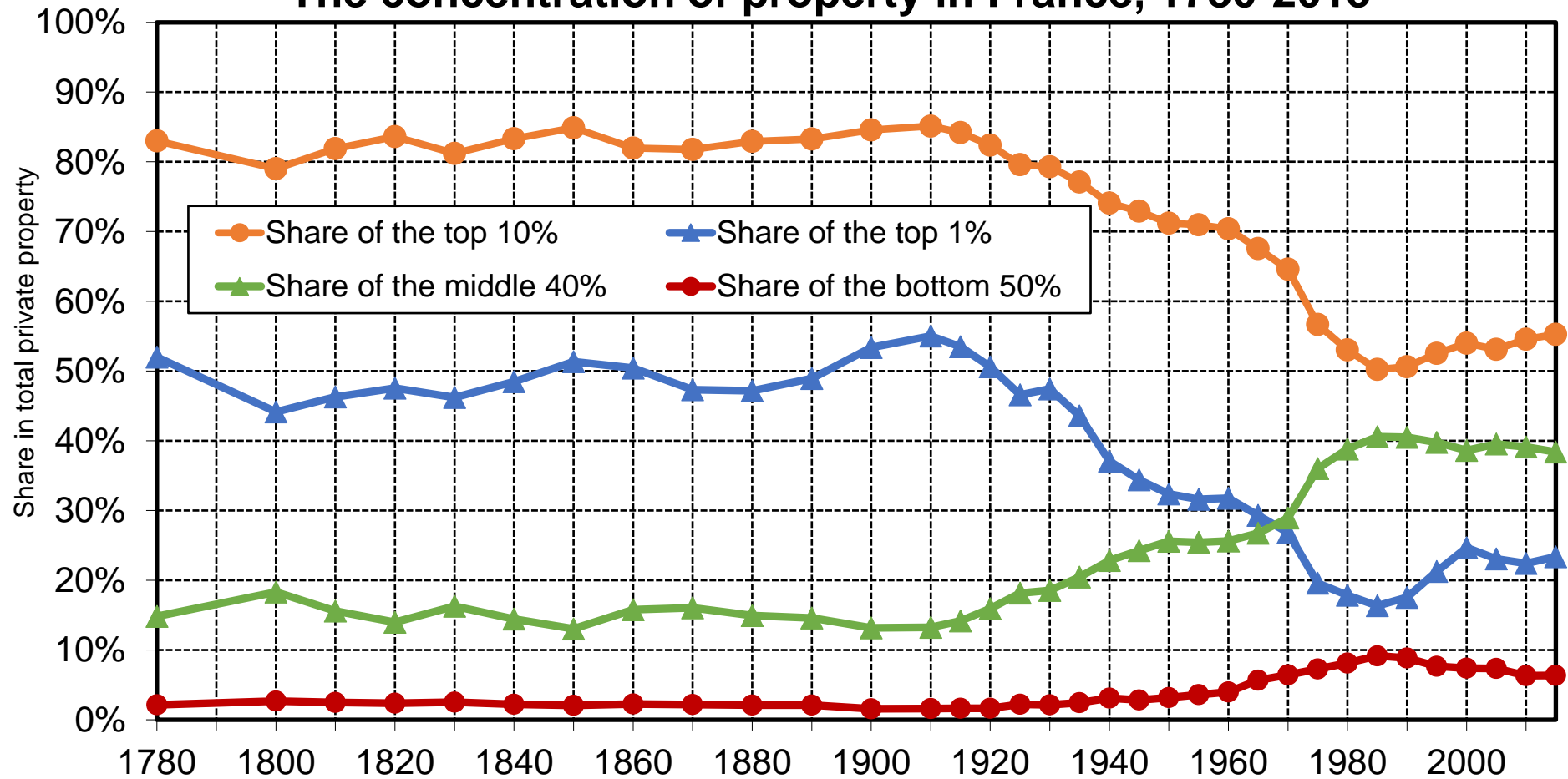
## The failure of the French Revolution: the proprietarian inequality drift in 19<sup>th</sup> century France



**Interpretation.** In Paris, the richest 1% owned about 67% of total private property in 1910 (all assets combined: real, financial, business, etc.), vs. 49% in 1810 and 55% in 1780. After a small drop during the French Revolution, the concentration of property rose in France (and particularly in Paris) during the 19th century and until World War 1. In the long run, the fall in inequality occurred following the world wars (1914-1945), rather than following the Revolution of 1789. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 4.1)..

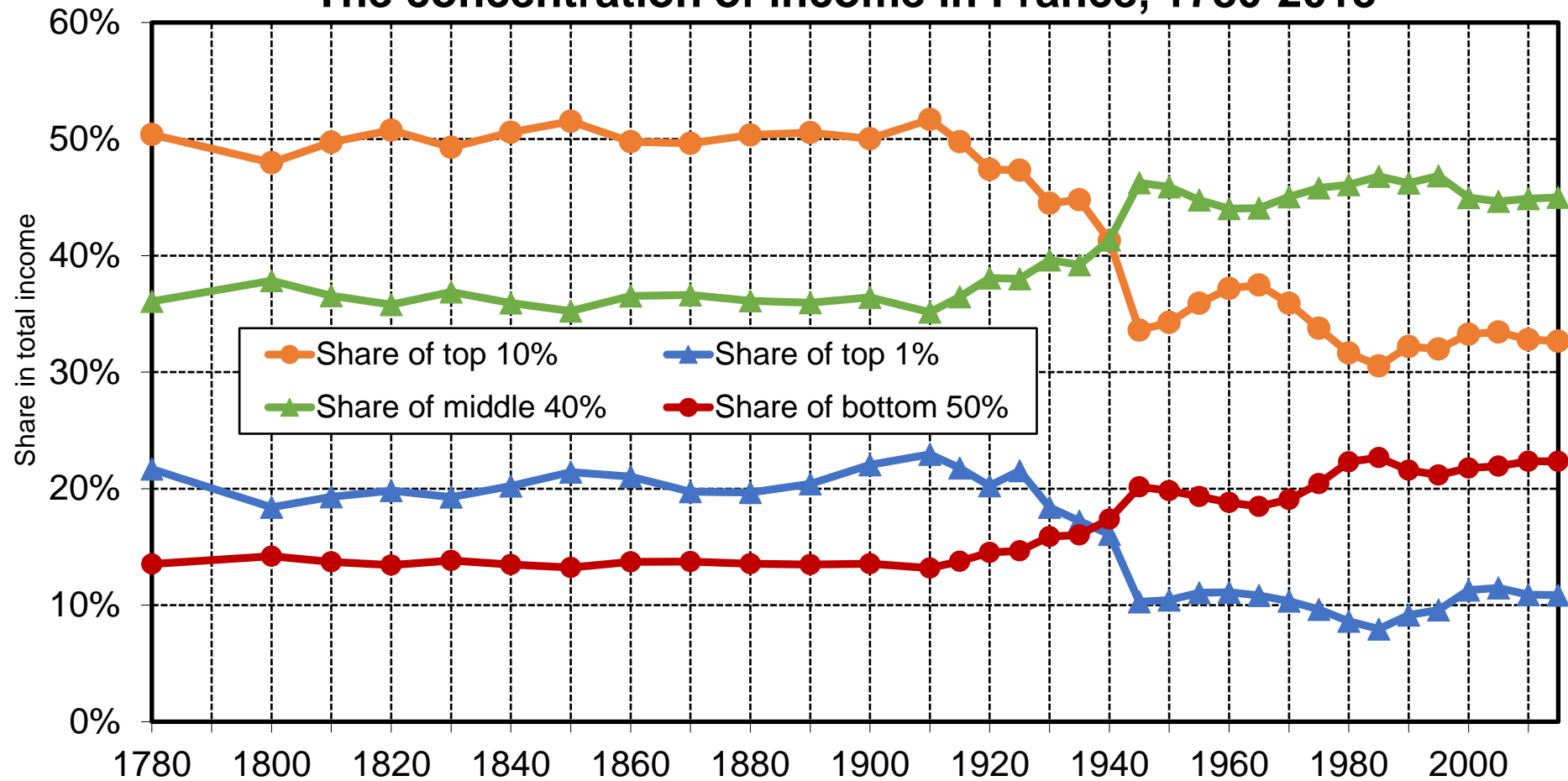


## The concentration of property in France, 1780-2015



**Interpretation.** The share of the richest 10% in total private property (total real estate, business and financial assets, net of debt) was between 80% and 90% in France between the 1780s and the 1910s. The fall in the concentration of property started to fall following World War 1 and was interrupted in the 1980s. It occurred mostly to the benefit of the "patrimonial middle classes" (the middle 40%), here defined as the intermediate group between the "lower classes" (bottom 50%) and the "upper classes" (top 10%).  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 4.2).

## The concentration of income in France, 1780-2015



**Interpretation.** The share of the top 10% highest incomes in total income (including capital income - rent, dividends, interest, profits - and labour income - wages, self-employment income, pensions and unemployment benefits) was about 50% in France from the 1780s to the 1910s. The fall in the concentration of income started after World War 1 and occurred to the benefit of the "lower classes" (the bottom 50% lowest incomes) and the "middle classes" (the next 40%), at the expense of the "upper classes" (the top 10%).

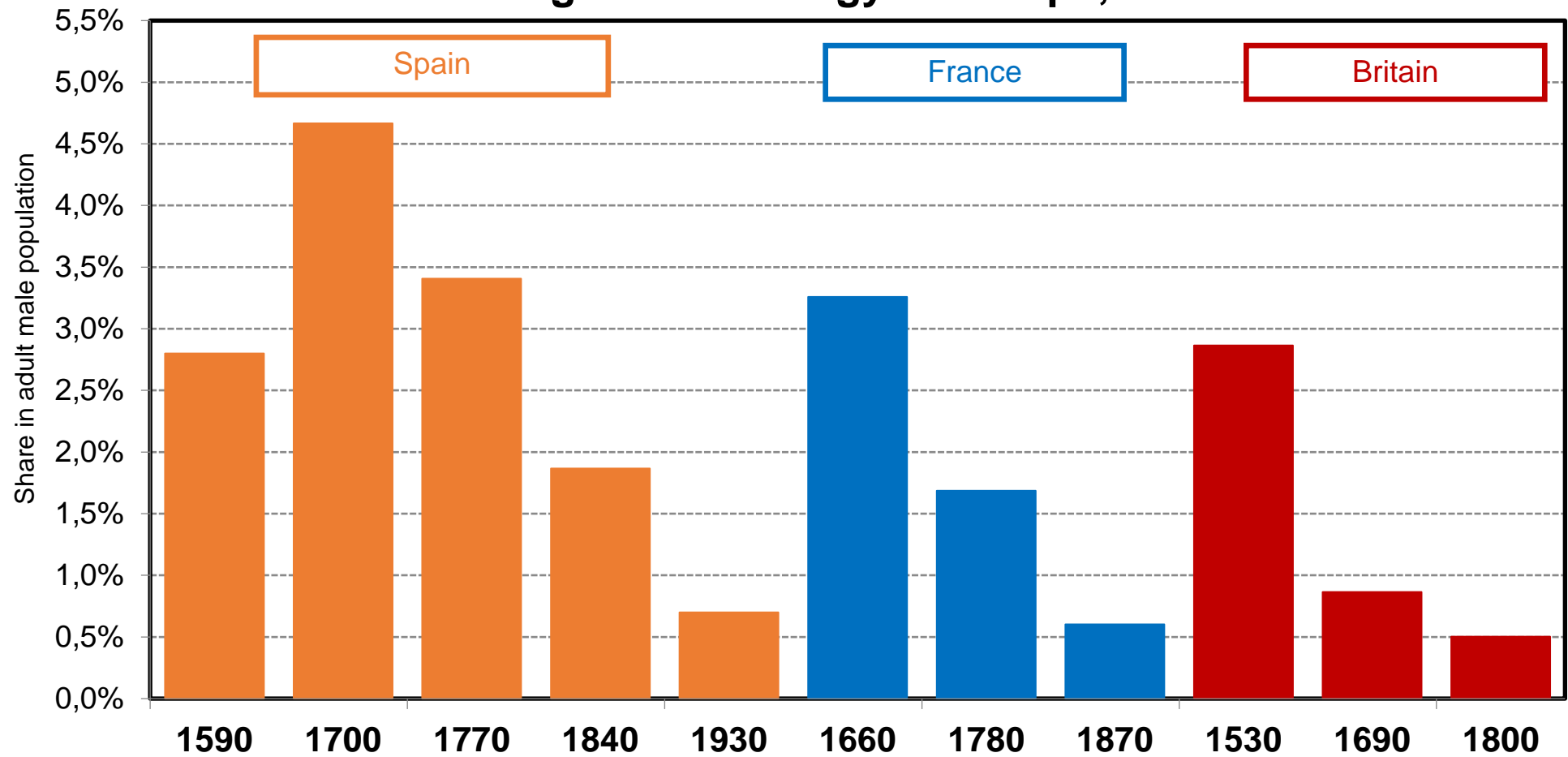
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 4.3).

## The composition of Parisian wealth, 1872-1912

	Real estate assets (buildings, houses, agricultural land, etc.)	incl.: Paris real estate	incl.: out-of-Paris real estate	Financial assets (equity, bonds, etc.)	incl.: French equity	incl.: foreign equity	incl.: French private bonds	incl.: foreign private bonds	incl.: French public bonds	incl.: foreign public bonds	incl.: other financial assets (deposits, cash, etc.)	<i>Total foreign financial assets</i>	Furniture, precious objects, etc.
Composition of total wealth													
1872	<b>41%</b>	28%	13%	<b>56%</b>	14%	1%	17%	2%	10%	3%	9%	6%	<b>3%</b>
1912	<b>35%</b>	24%	11%	<b>62%</b>	13%	7%	14%	5%	5%	9%	9%	21%	<b>3%</b>
Composition of top 1% wealth													
1872	<b>43%</b>	30%	13%	<b>55%</b>	15%	1%	14%	2%	9%	4%	10%	7%	<b>2%</b>
1912	<b>32%</b>	22%	10%	<b>66%</b>	15%	10%	14%	5%	4%	10%	8%	25%	<b>2%</b>
Composition of next 9%													
1872	<b>42%</b>	27%	15%	<b>56%</b>	13%	1%	21%	2%	10%	2%	7%	5%	<b>2%</b>
1912	<b>42%</b>	30%	12%	<b>55%</b>	11%	2%	14%	4%	7%	8%	9%	14%	<b>3%</b>
Composition of next 40%													
1872	<b>27%</b>	1%	26%	<b>62%</b>	12%	1%	23%	1%	14%	2%	9%	4%	<b>11%</b>
1912	<b>31%</b>	7%	24%	<b>59%</b>	12%	1%	20%	2%	10%	4%	10%	7%	<b>10%</b>

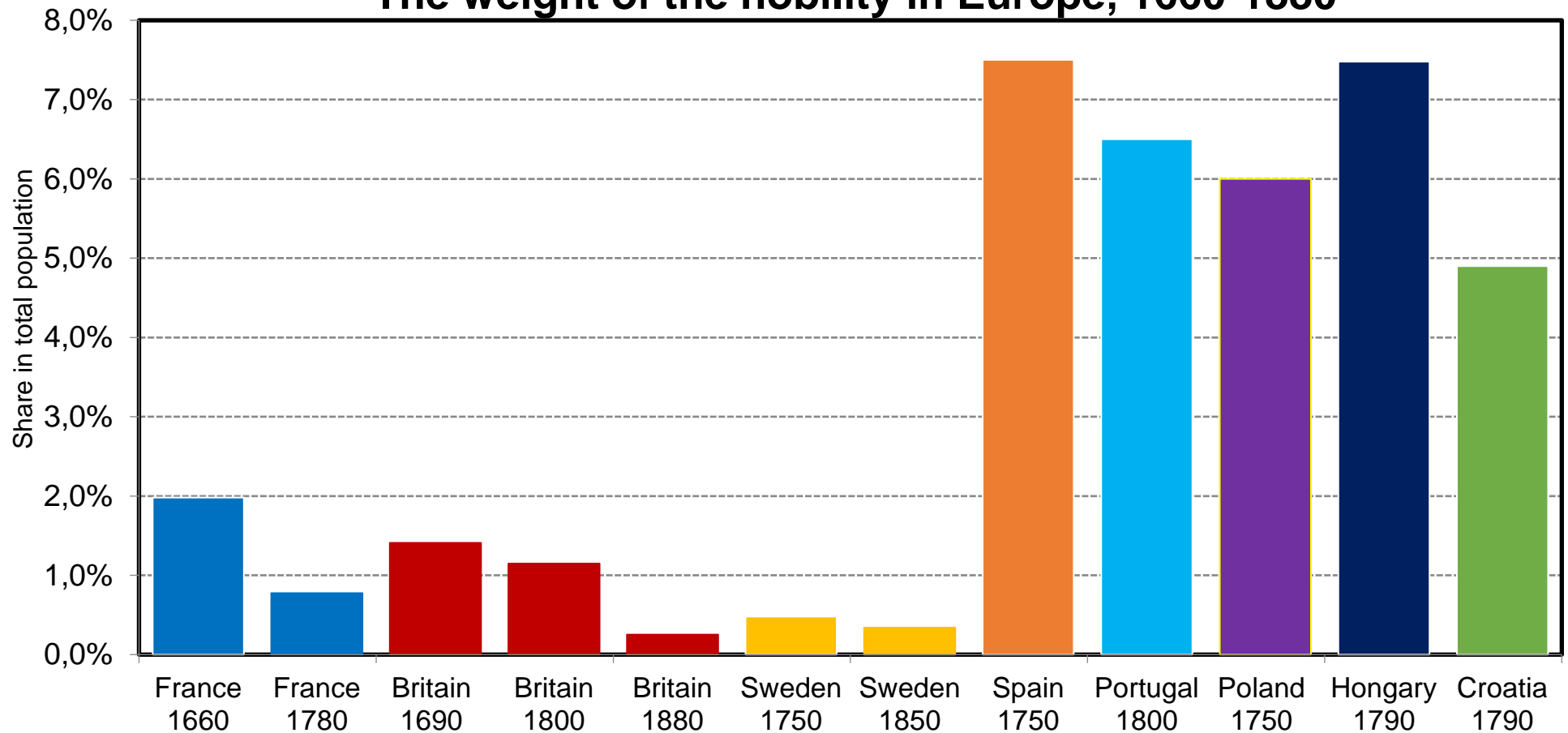
**Interpretation:** In 1912, real estate assets made 35% of total property owned by Parisian wealth holders, financial assets made 62% of the total (including 21% for foreign financial assets), and furniture and precious objects made 3%. Among top 1% wealth holders, the share of financial assets reached 66% (including 25% for foreign financial assets). Sources: see piketty.pse.ens.fr/ideology (table 4.1).

## The weight of the clergy in Europe, 1530-1930



**Interpretation.** The clergy made over 4,5% of adult male population in Spain in 1700, less than 3,5% in 1770, and less than 2% in 1840. One observes a general downward trend, but with different chronologies across countries: the fall happens latter in Spain, earlier in Britain, and intermediate in France. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 5.1).

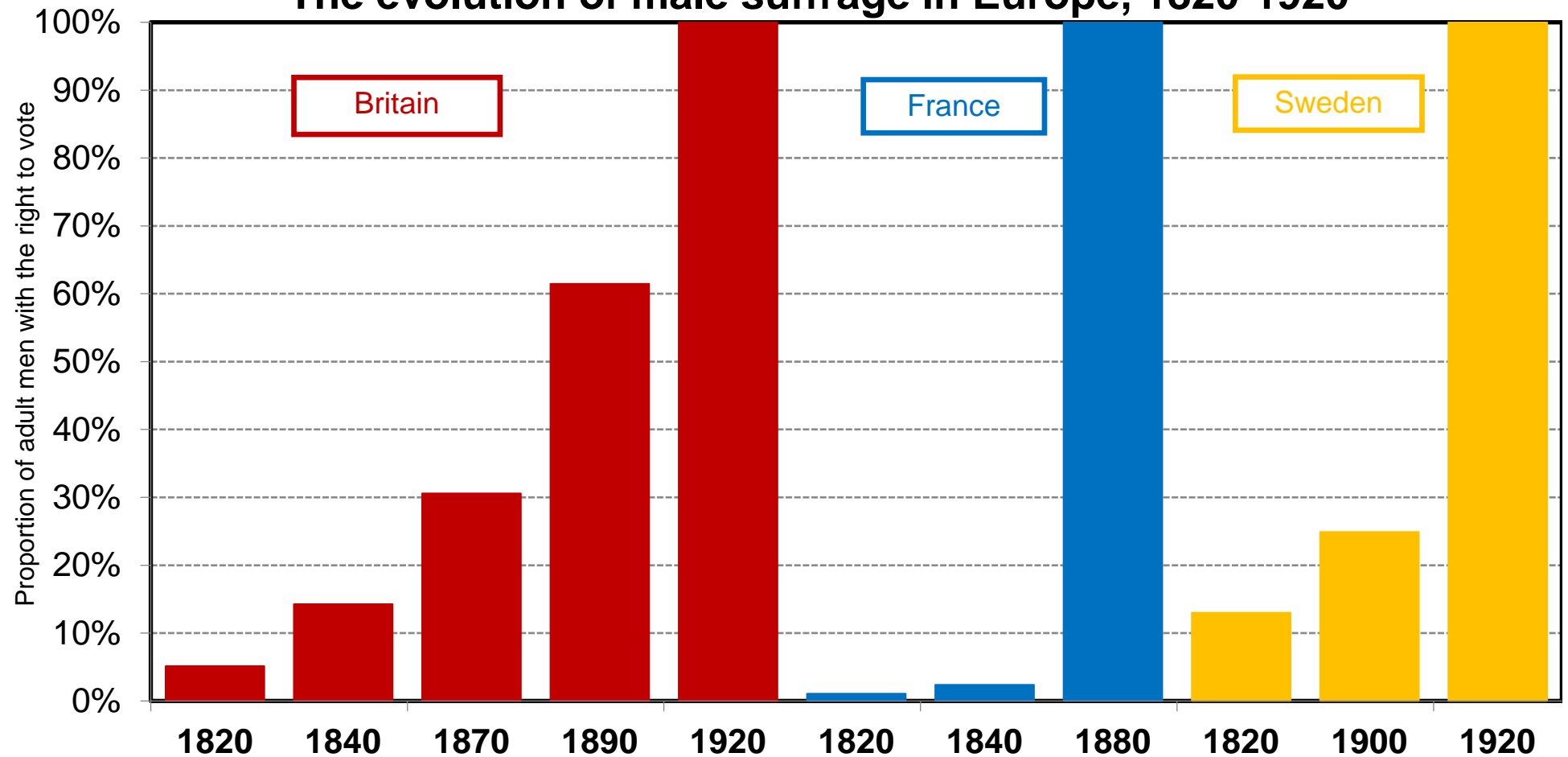
## The weight of the nobility in Europe, 1660-1880



**Interpretation.** The nobility made less than 2% of the population in France, Britain and Sweden during the 17th-19th centuries (with a downward trend), and between 5% and 8% of the population in Spain, Portugal, Poland, Hungary and Croatia.

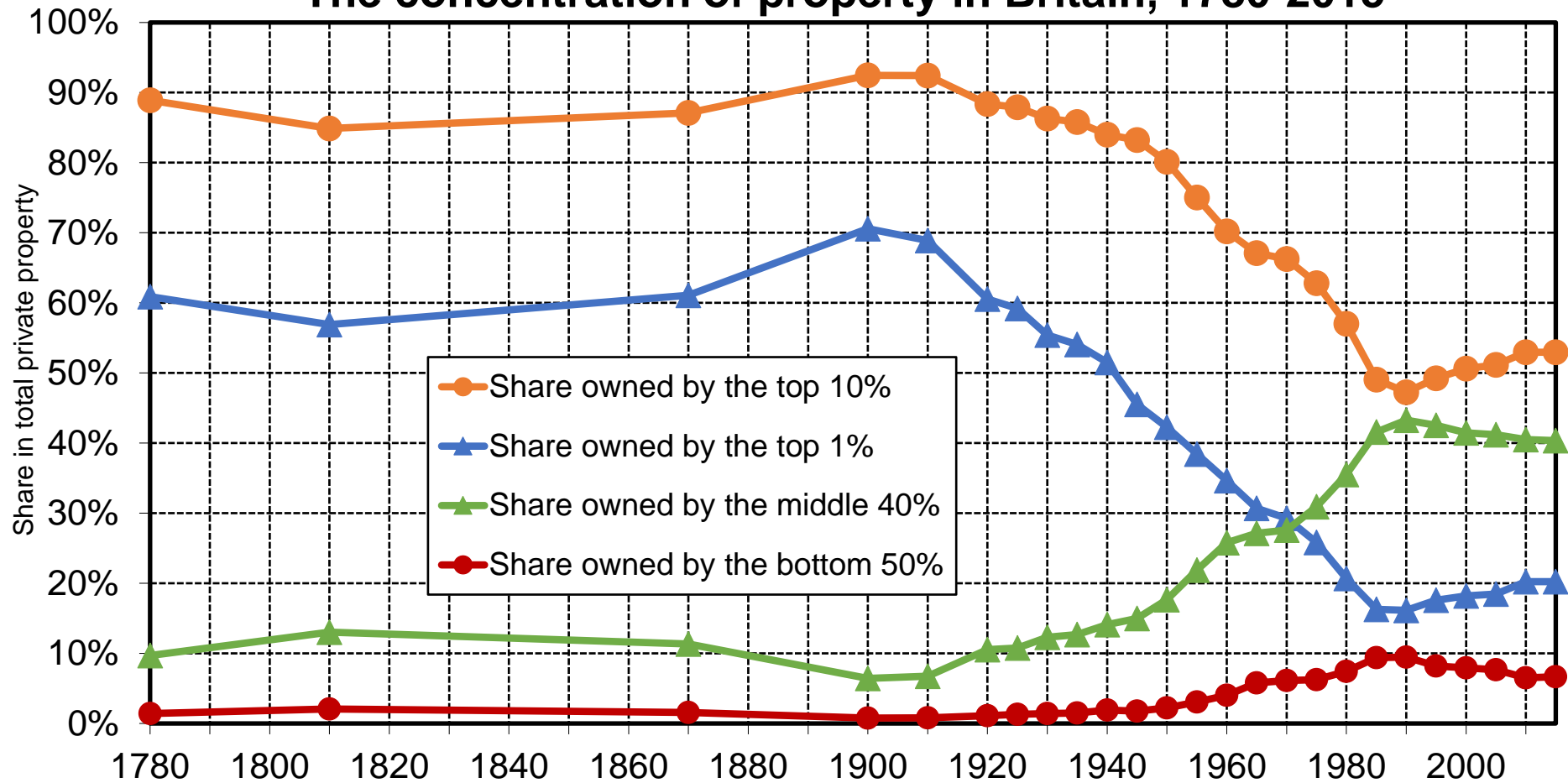
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 5.2).

## The evolution of male suffrage in Europe, 1820-1920



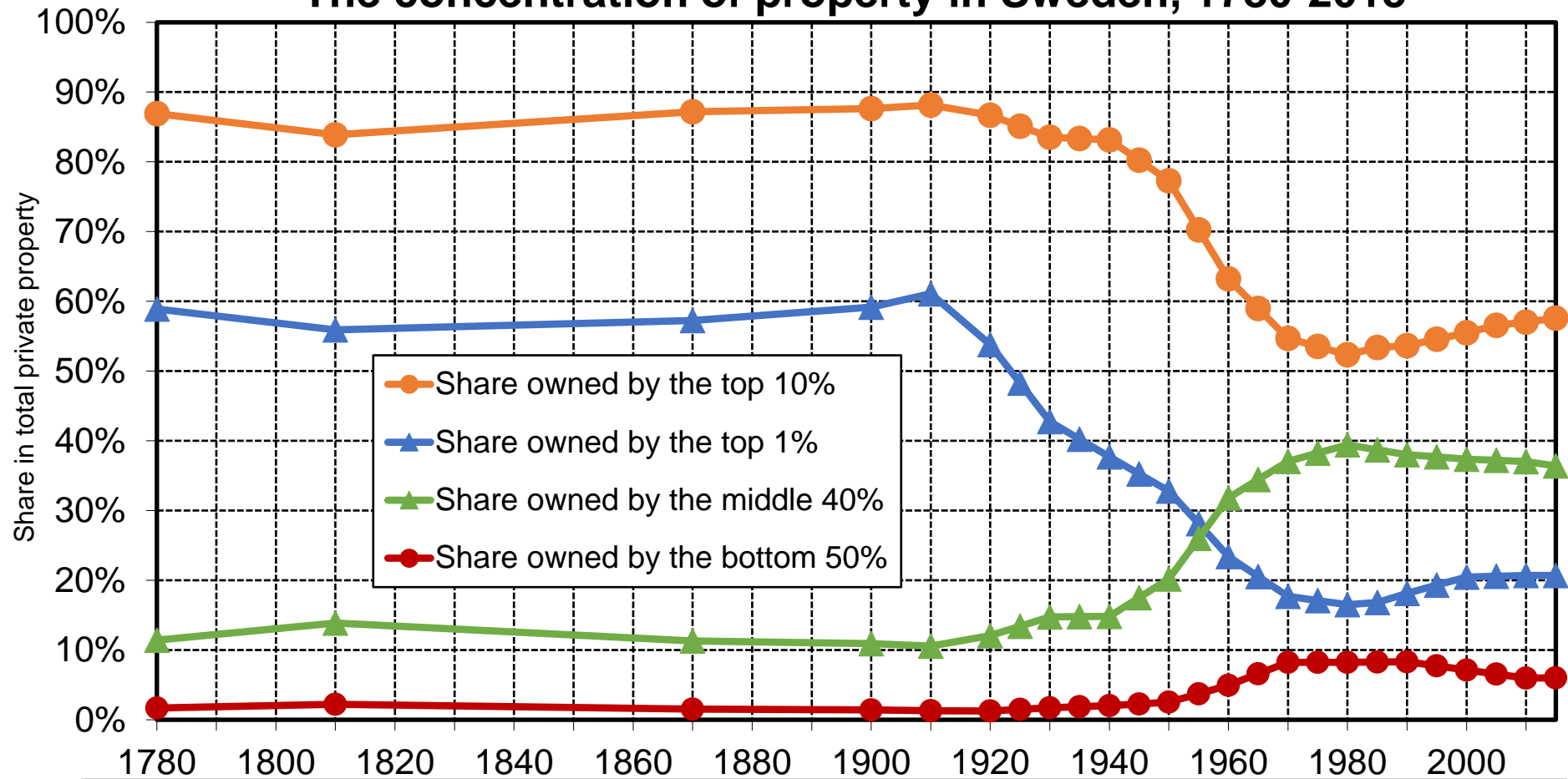
**Interpretation.** The proportion of adult men with the right to vote (taking into account the electoral franchise, i.e. the level of taxes to pay and/or of property to own in order to be granted this right) rose in Britain from 5% in 1820 to 30% in 1870 and 100% in 1920, and in France from 1% in 1820 to 100% in 1880. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 5.3).

## The concentration of property in Britain, 1780-2015



**Interpretation.** The share owned by the richest 10% in total private property (all assets combined: real estate, business and financial assets, net of debt) was around 85%-92% in Britain between the 1780s and the 1910s. The fall in the concentration of wealth begins after World War 1 and is interrupted in the 1980s. It occurred mostly to the benefit of the "patrimonial middle classes" (the middle 40%), here defined as the intermediate group between the "lower classes" (the bottom 50%) and the the "upper classes" (the top 10%). Sources and series: see [piketty.pse.ens.fr/ideologie](http://piketty.pse.ens.fr/ideologie) (figure 5.4).

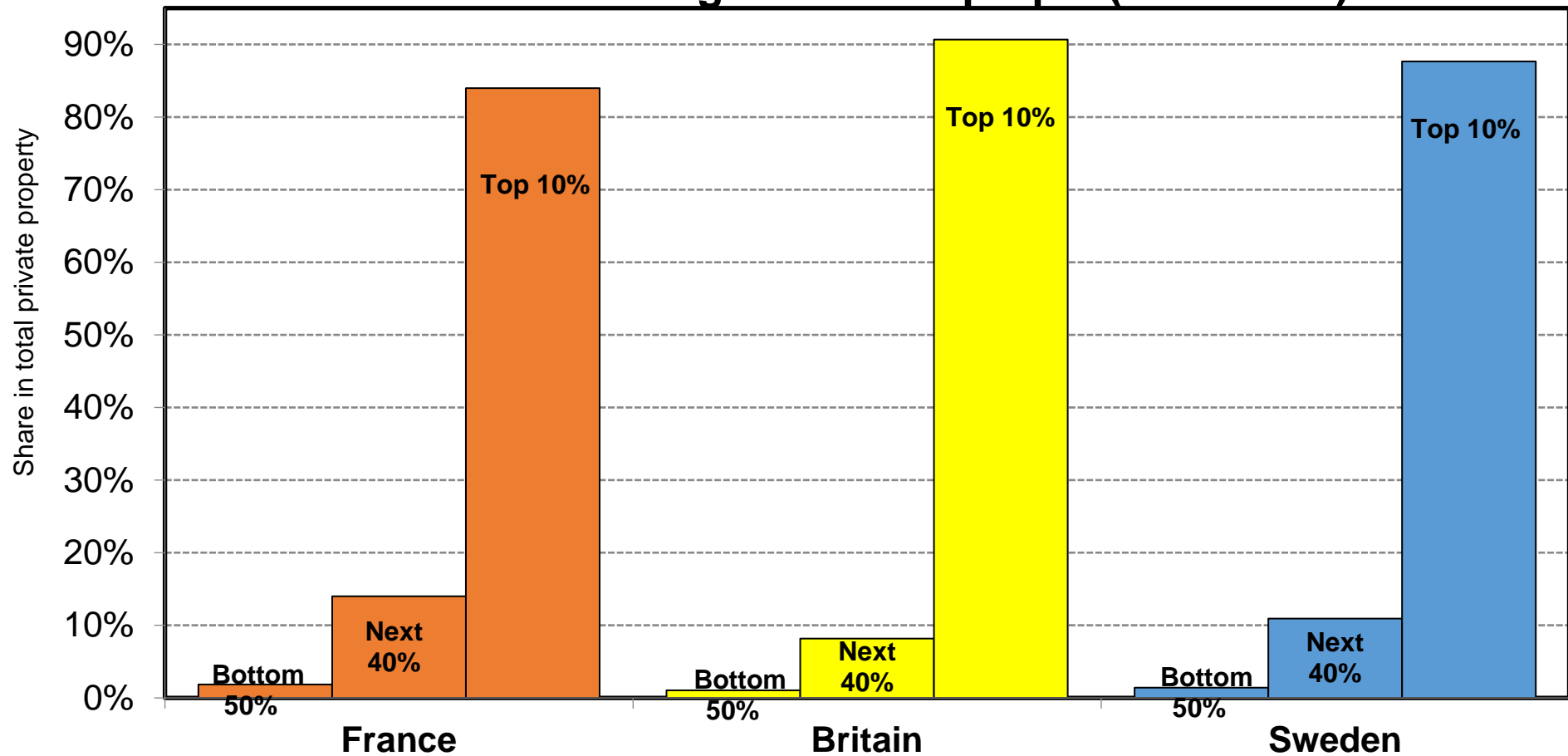
## The concentration of property in Sweden, 1780-2015



**Interpretation.** The share owned by the richest 10% in total private property (all assets combined: real estate, business and financial assets, net of debt) was around 84%-88% in Sweden between the 1780s and the 1910s. The fall in the concentration of wealth begins after World War 1 and is interrupted in the 1980s. It occurred mostly to the benefit of the "patrimonial middle classes" (the middle 40%), here defined as the intermediate group between the "lower classes" (the bottom 50%) and the "upper classes" (the top 10%). Sources and series: see [piketty.pse.ens.fr/ideologie](http://piketty.pse.ens.fr/ideologie) (figure 5.5).

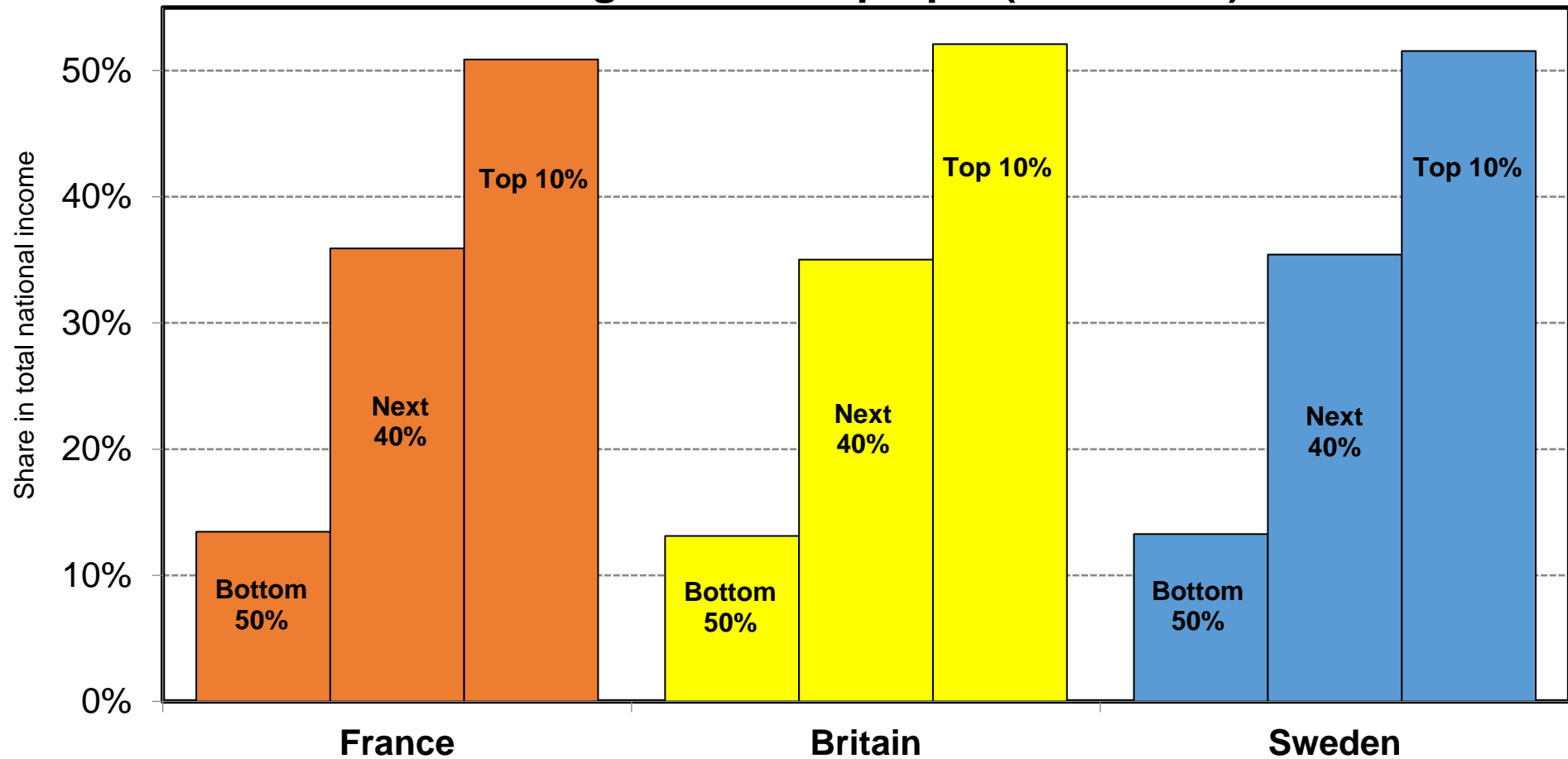


## Extreme patrimonial inequality: Europe's proprietarian societies during the Belle Epoque (1880-1914)



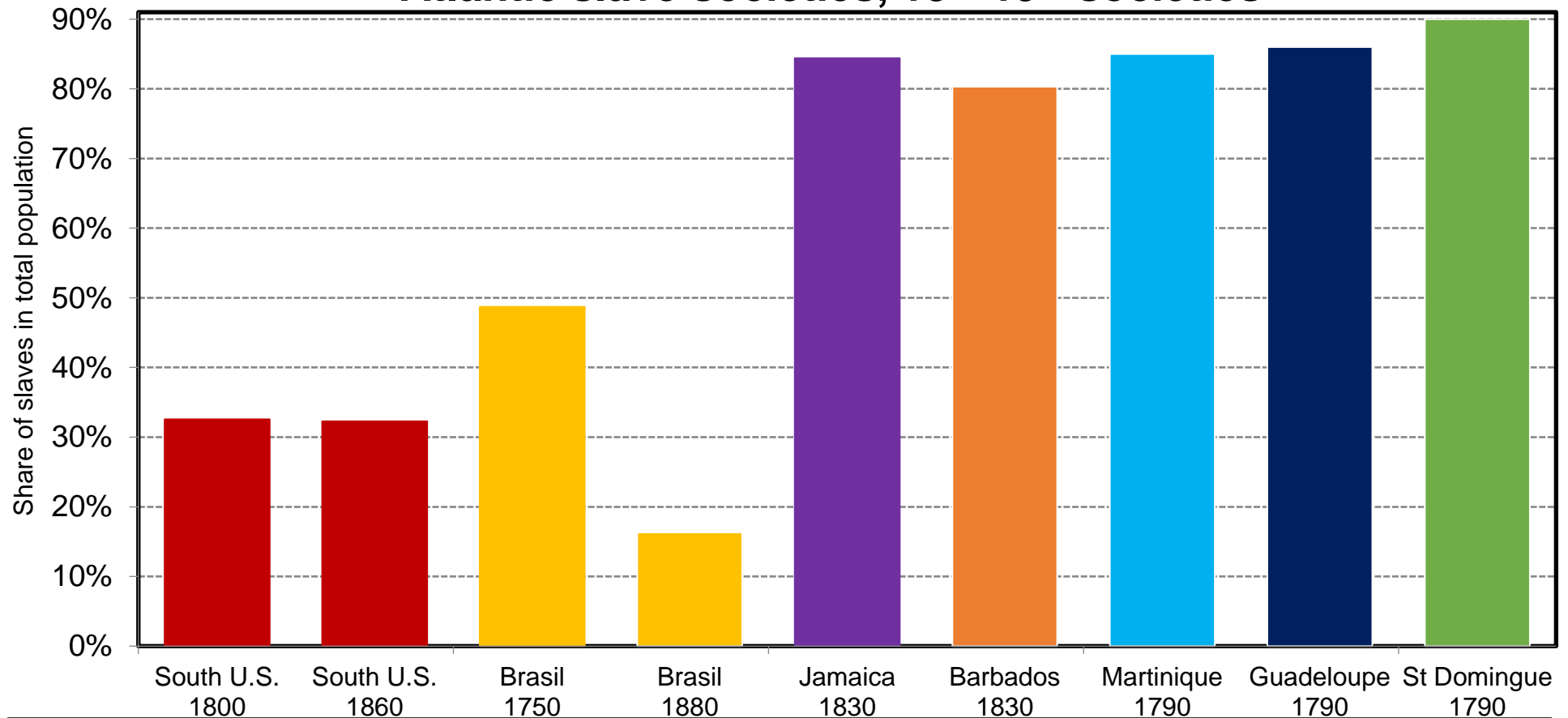
**Interpretation.** The share the richest 10% in total private property (all assets combined: real estate, business and financial assets, net of debt) was on average 84% in France between 1880 and 1914 (vs. 14% for the next 40% and 2% for the bottom 50%), 91% in Britain (vs 8% and 1%) and 88% in Sweden (vs 11% and 1%). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 5.6).

## Income inequality in Europe's proprietary societies during the Belle Epoque (1880-1914)



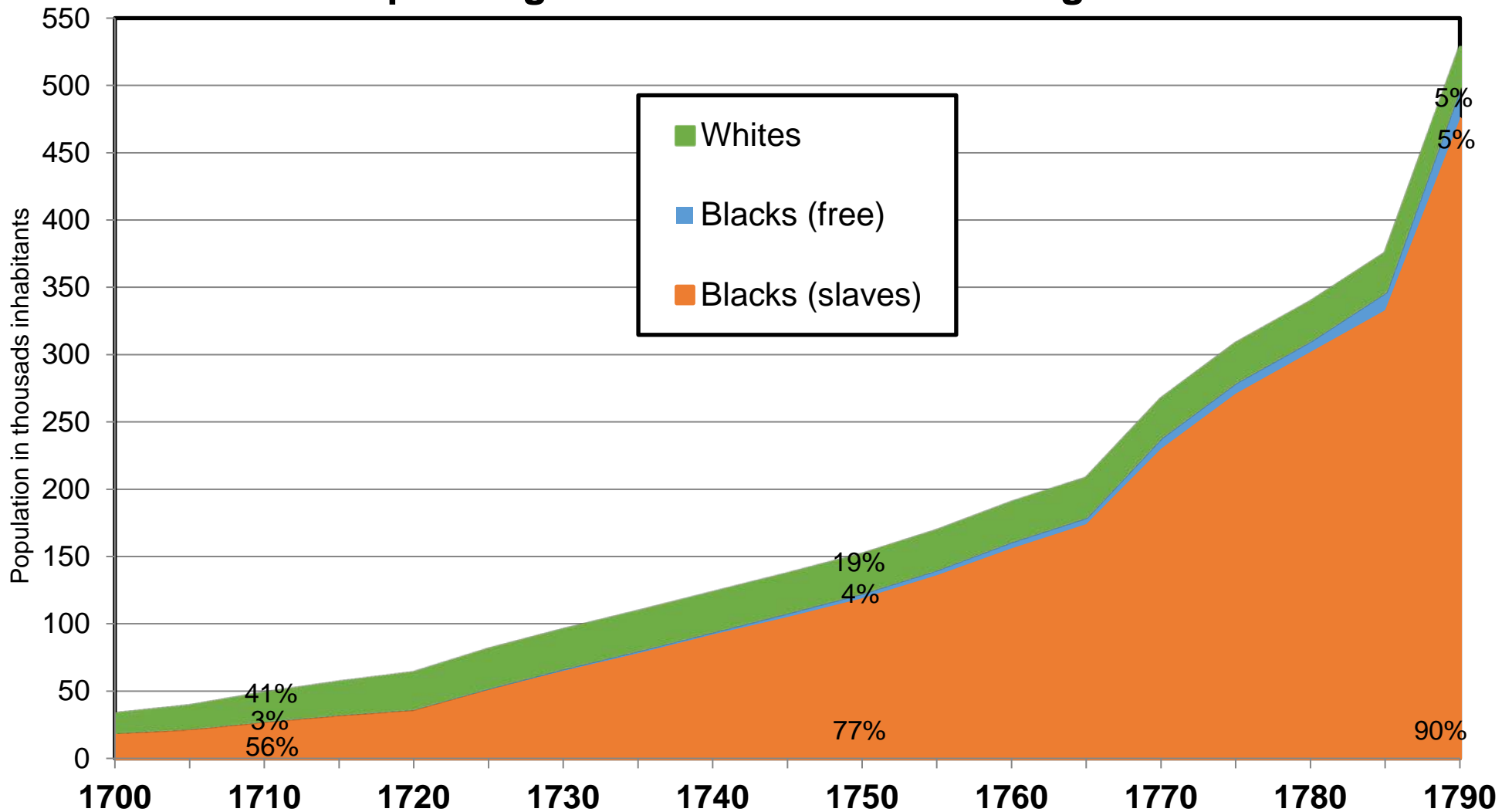
**Interpretation.** The share of the top 10% highest incomes in total national income (labour and capital income) was on average 51% in France between 1880 and 1914 (vs 36% for the next 40% and 13% for the bottom 50%), 55% in Britain (vs 33% and 12%) and 53% in Sweden (vs 34% and 13%). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 5.7).

## Atlantic slave societies, 18<sup>th</sup>-19<sup>th</sup> societies



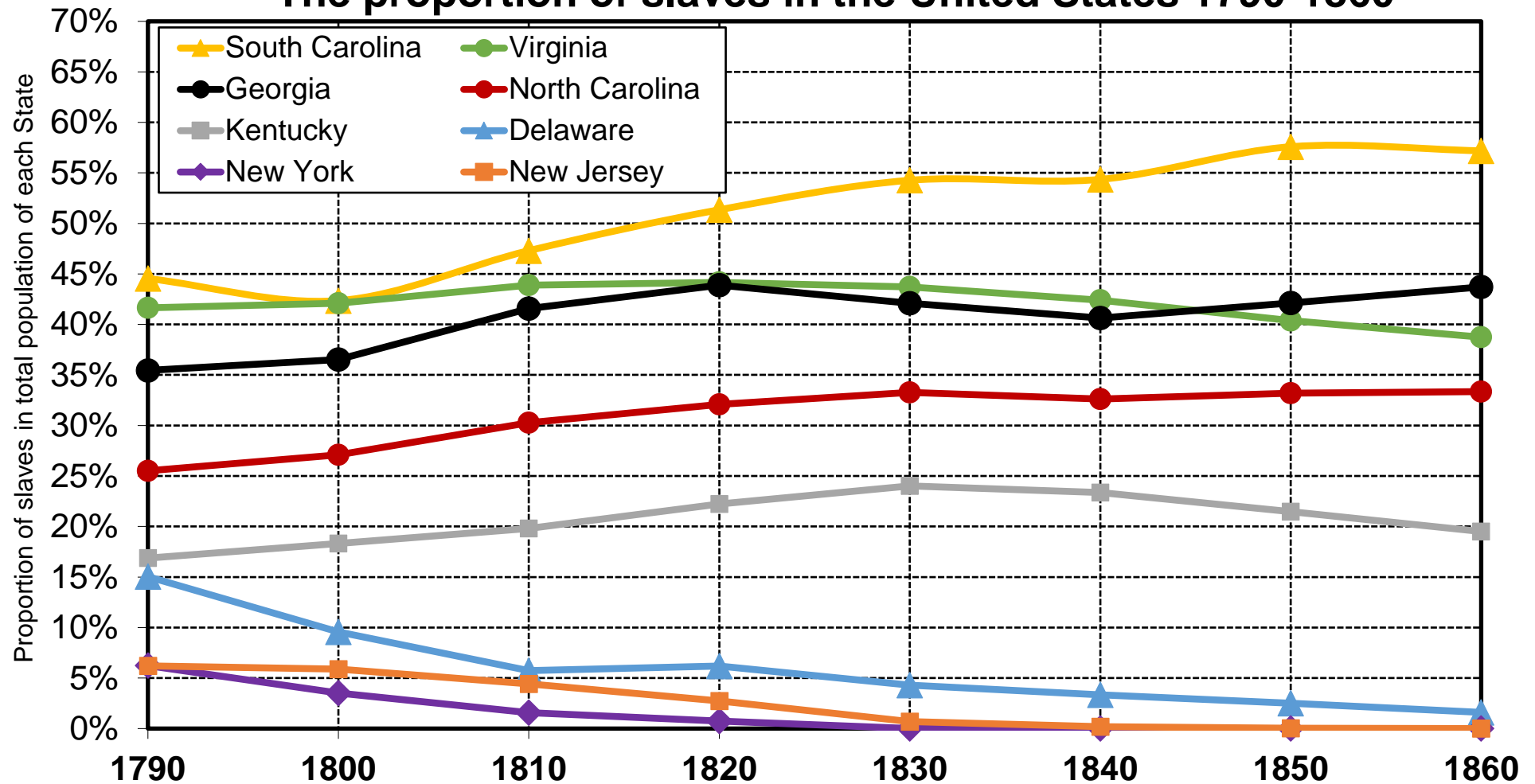
**Interpretation.** Slaves made about one third of the population in south U.S. between 1800 and 1860. This proportion dropped from about 50% to less than 20% in Brasil from 1750 to 1850. It was higher than 80% in the slave islands of the British and French West Indies in 1780-1830, and exceeded 90% in Saint-Domingue (Haiti) in 1790. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 6.1).

## An expanding slave island: Saint-Domingue 1700-1790



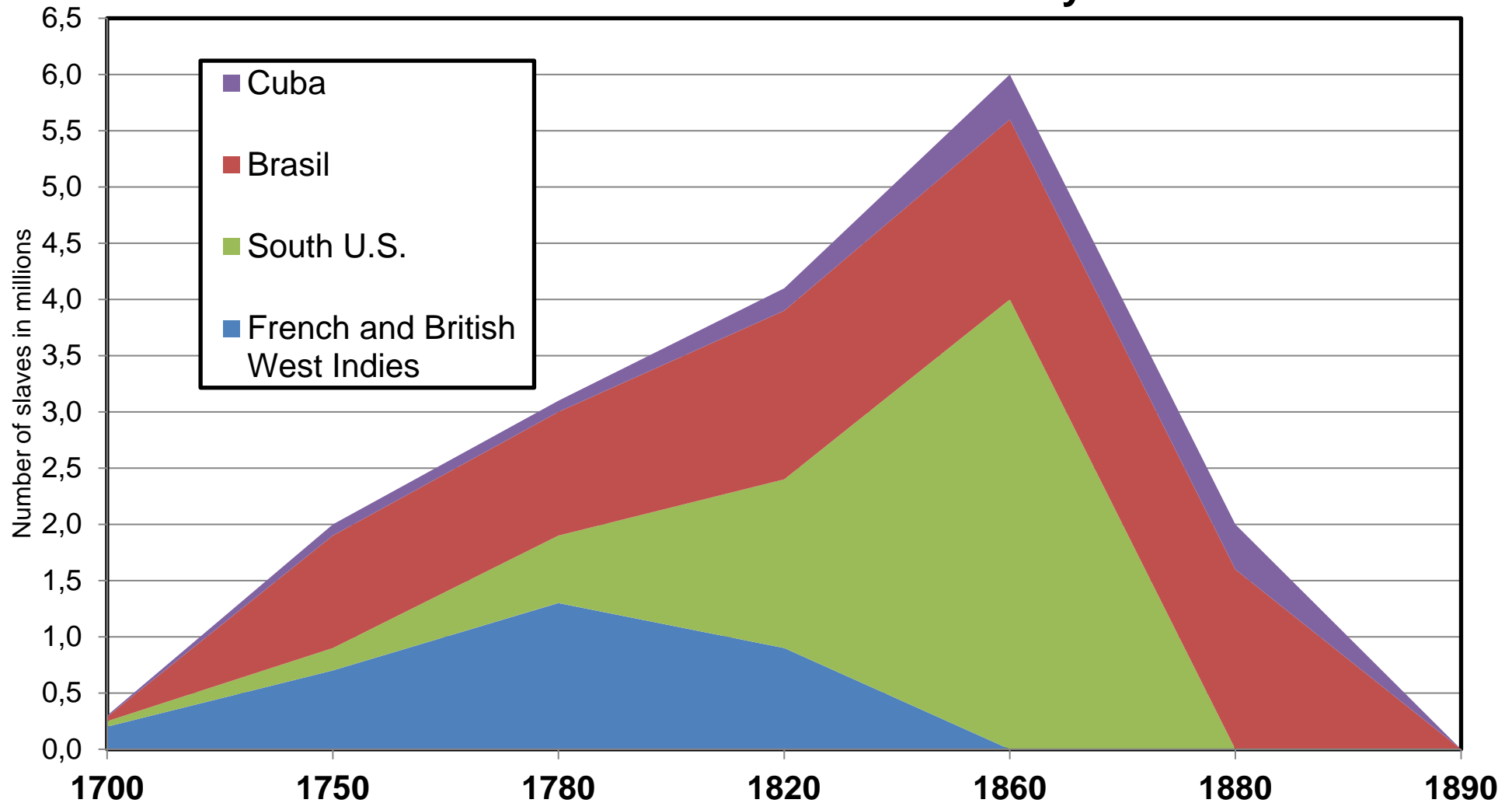
**Interpretation.** The total population of Saint-Domingue (Haïti) rose from less than 50 000 individuals in 1700-1710 (including 56% of slaves, 3% of coloured and mulatto free individuals and 41% of whites) to over 500 000 individuals in 1790 (including 90% of slaves, 5% of coloured and mulatto free individuals and 5% of whites). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 6.2).

## The proportion of slaves in the United States 1790-1860



**Interpretation.** The proportion of slaves in total population rose or remained stable at a high level in the main southern slave States between 1790 and 1860 (between 35% and 55% in 1850-1860, up to 57%-58% in South Carolina), while slavery dropped or disappeared in Northern States. Sources and series: voir [piketty.pse.ens.fr/ideologie](http://piketty.pse.ens.fr/ideologie) (figure 6.3).

## The rise and fall of Euro-American slavery 1700-1890



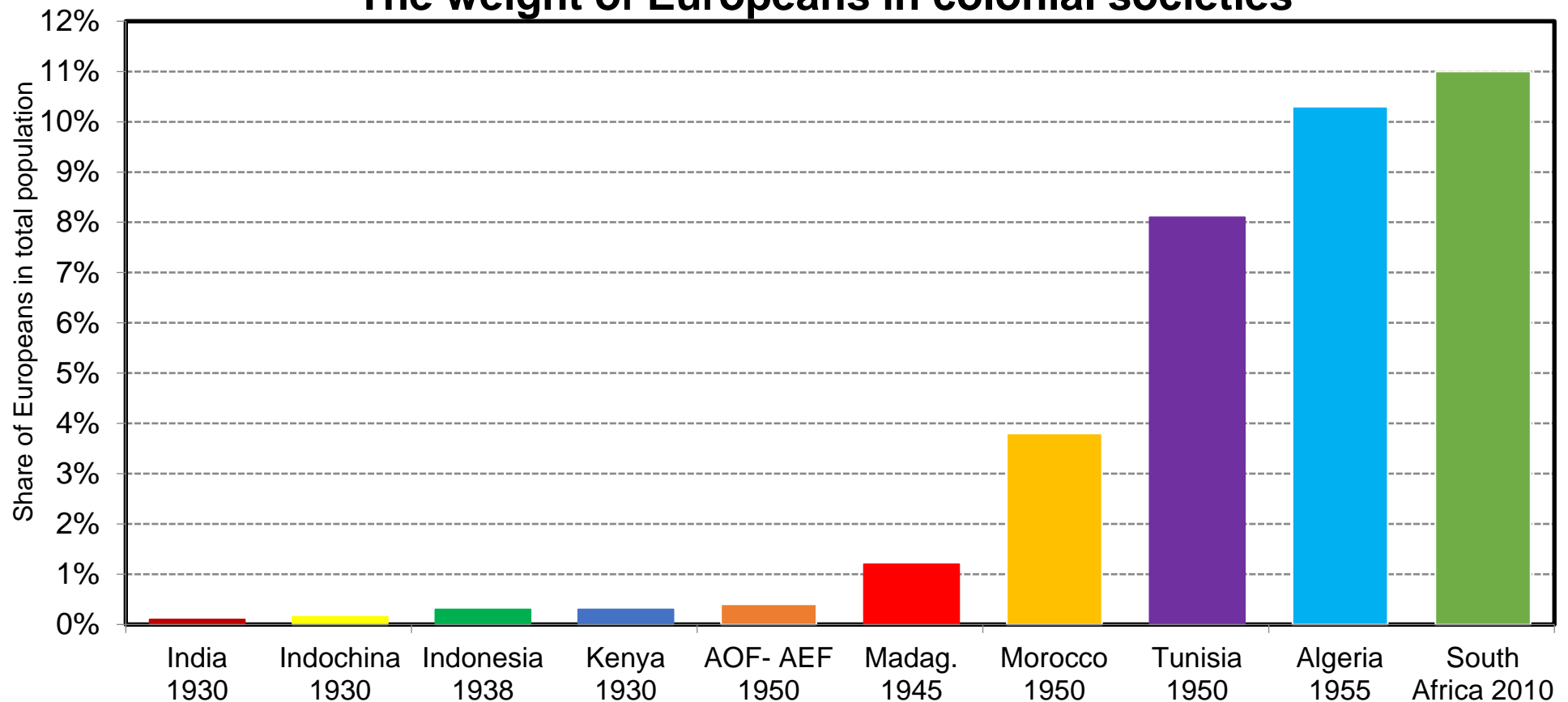
**Interpretation.** The total number of slaves in Euro-American Atlantic plantations reached 6 millions in 1860 (including 4 millions in south U.S., 1,6 millions in Brasil and 0,4 million in Cuba). Slavery in French and British West Indies (to which we added Mauritius, Reunion and Cape colony) reached its apex around 1780-1790 (1,3 millions) and then declined following the slave revolt in Saint-Domingue (Haïti) and the abolitions of 1833 and 1848. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 6.4).

## The structure of slave and free population in the United States (1800-1860)

	<b>Total</b> (thousands)	<b>Blacks</b> <b>(slaves)</b>	<b>Blacks</b> <b>(free)</b>	<b>Whites</b>	<b>Total</b> (%)	<b>Blacks</b> <b>(slaves)</b>	<b>Blacks</b> <b>(free)</b>	<b>Whites</b>
<b>Total United States 1800</b>	<b>5 210</b>	<b>880</b>	<b>110</b>	<b>4 220</b>	<b>100%</b>	<b>17%</b>	<b>2%</b>	<b>81%</b>
<b>Northern States</b>	2 630	40	80	2 510	100%	2%	3%	95%
<b>Southern States</b>	2 580	840	30	1 710	100%	33%	1%	66%
<b>Total United States 1860</b>	<b>31 180</b>	<b>3 950</b>	<b>490</b>	<b>26 740</b>	<b>100%</b>	<b>13%</b>	<b>2%</b>	<b>85%</b>
<b>Northern States</b>	18 940	0	340	18 600	100%	0%	2%	98%
<b>Southern States</b>	12 240	3 950	150	8 140	100%	32%	1%	67%

**Interpretation.** The number of slaves was multiplied by more than 4 in the United States between 1800 and 1860 (from 880 000 to 3,950 millions), while at the same time representing an approximately fixed fraction of total population of Southern States (about one third), and a declining fraction of total U.S. population (given the even faster rise of the population of Northern States). **Note:** all slave States as of 1860 were classified as Southern States: Alabama, Arkansas, North and South Carolina, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Tennessee, Texas, Virginia. Sources and series: voir piketty.pse.ens.fr/ideology (table 6.1).

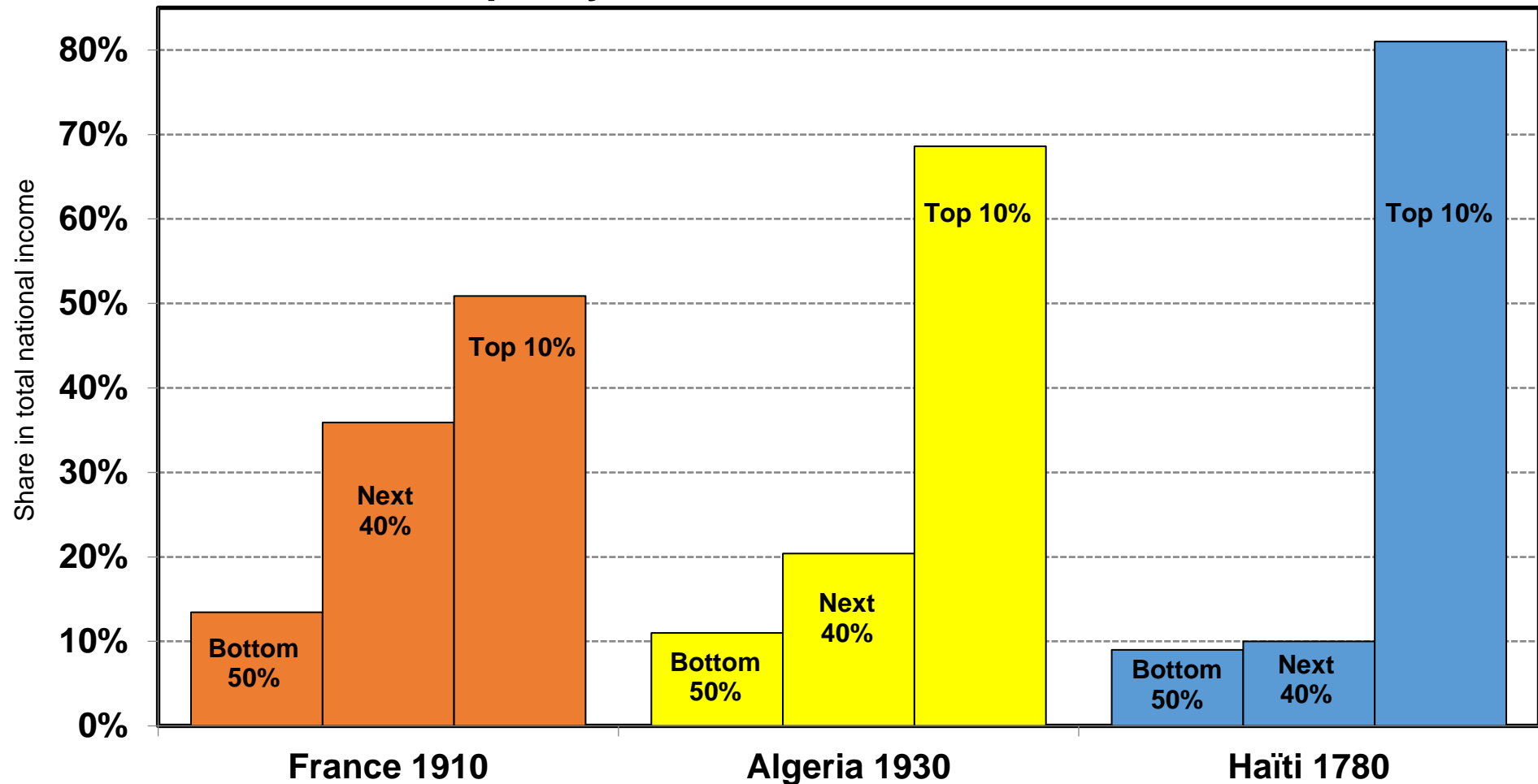
## The weight of Europeans in colonial societies



**Interpretation.** Between 1930 and 1955, the share of Europeans in colonial societies was 0,1%-0,3% of total population in India, Indochina and Indonesia, 0,3%-0,4% in Kenya, in AOF (Afrique occidentale française, West French Africa) and AEF (Afrique équatoriale française, Equatorial French Africa), 1,2% in Madagascar, 4% in Morocco, 8% in Tunisia, 10% in Algeria (13% in 1906, 14% in 1931). Whites made 11% of South African population in 2010 (it was between 15% and 20% from 1910 to 1990). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.1).

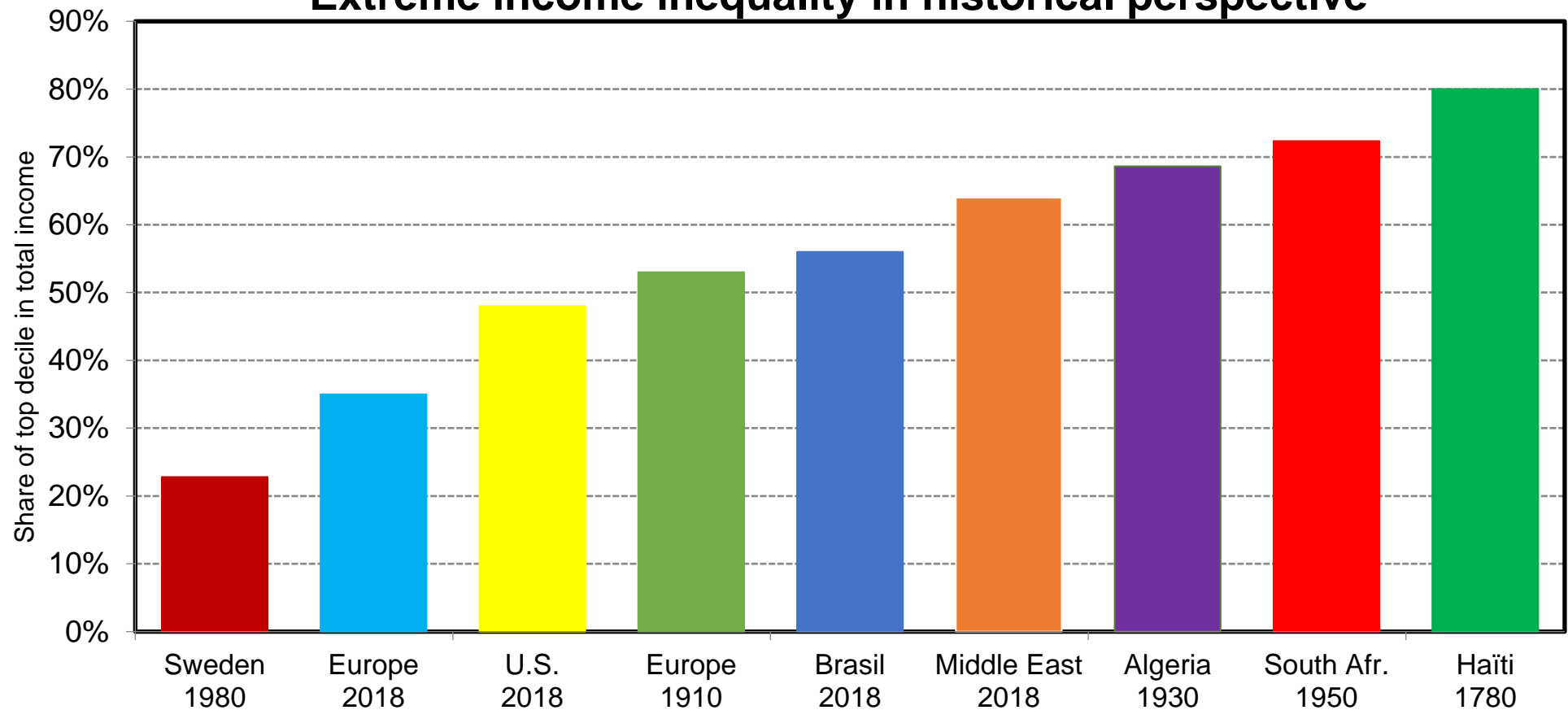


## Inequality in colonial and slave societies



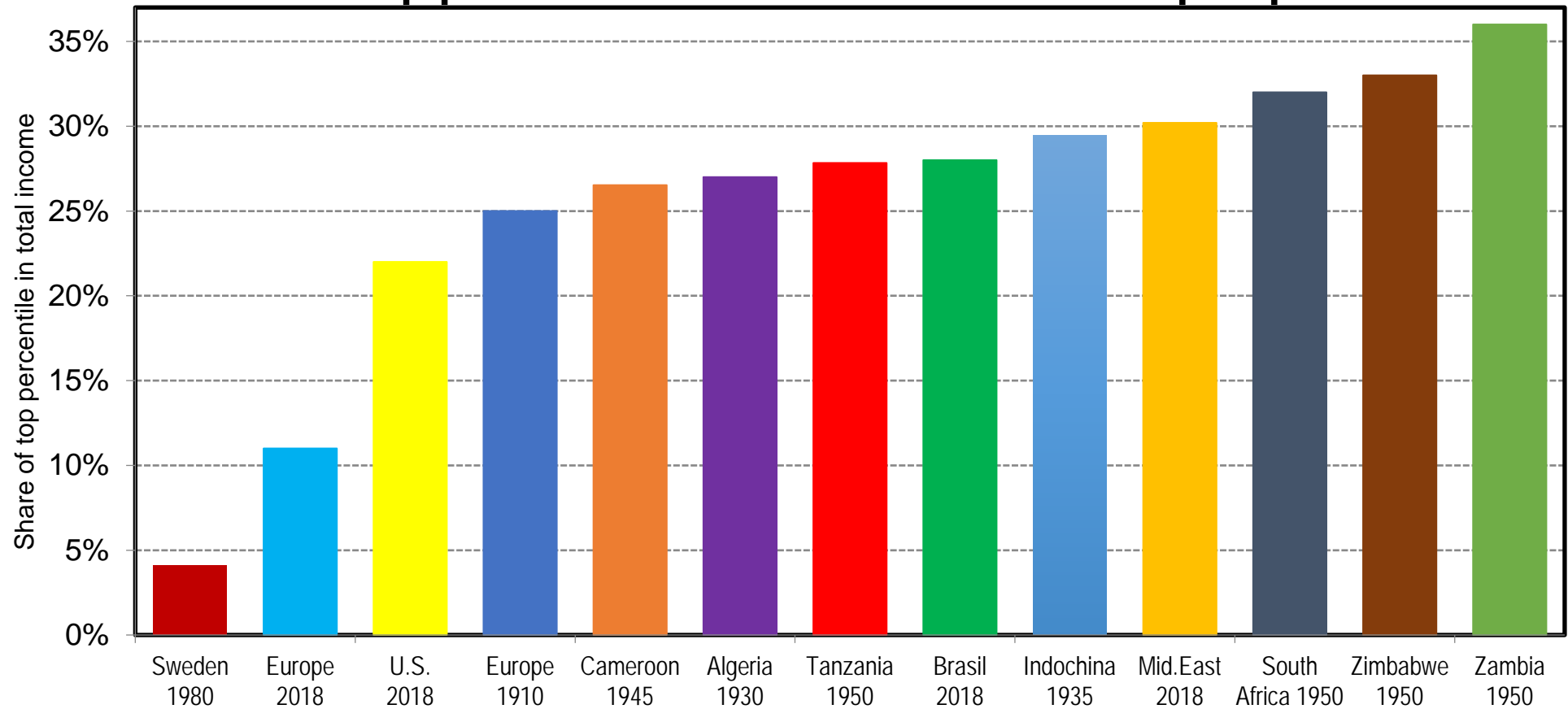
**Interpretation.** The share of the top 10% highest incomes in total income exceeded 80% in Saint-Domingue (Haïti) in 1780 (then made of about 90% slaves and less than 10% European settlers), vs close to 70% in colonial Algeria in 1930 (then made of about 90% local population and 10% European settlers), and about 50% in metropolitan France in 1910. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.2).

## Extreme income inequality in historical perspective



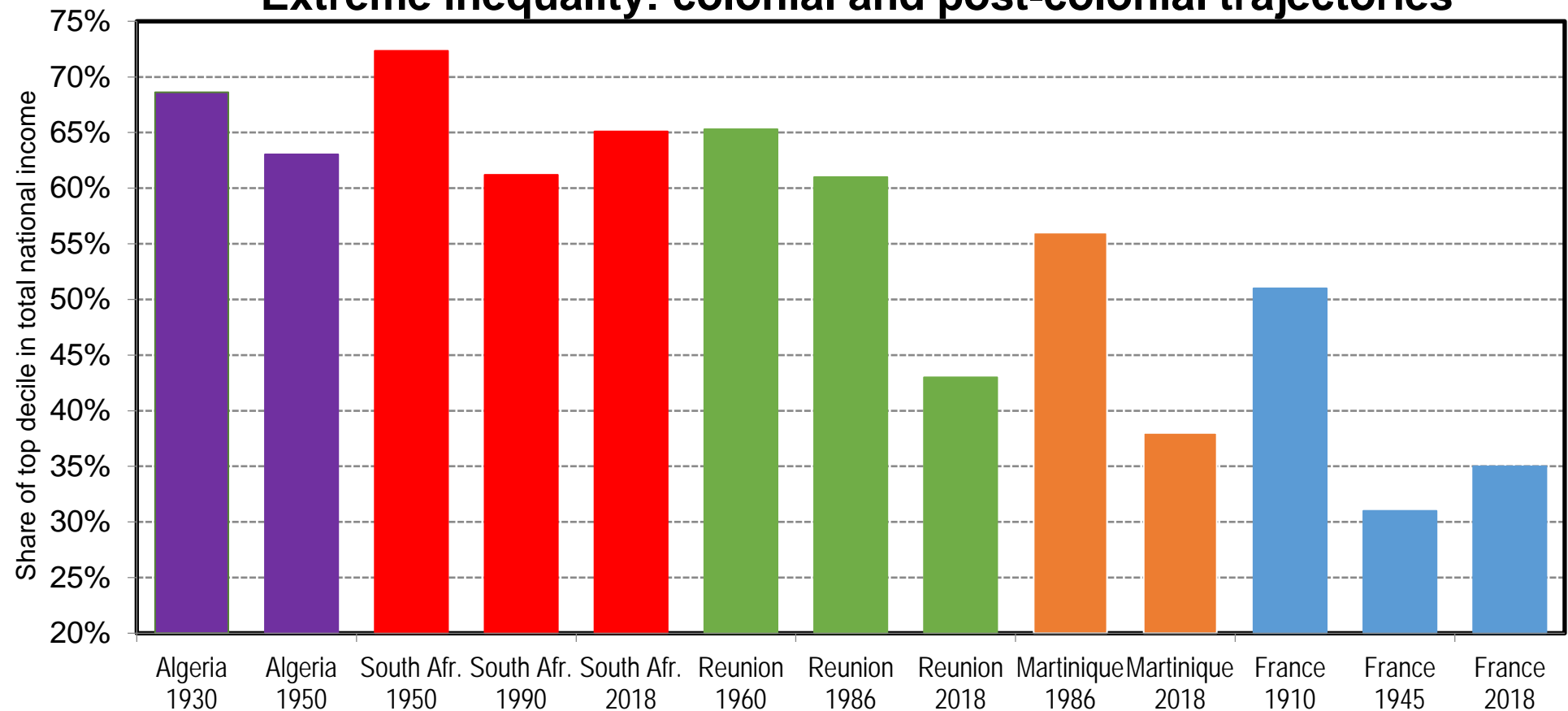
**Interpretation.** Over all observed societies, the share of total income received by the top 10% highest incomes varied from 23% in Sweden in 1980 to 81% in Saint-Domingue (Haïti) in 1780 (which included 90% of slaves). Colonial societies such as Algeria and South Africa have in 1930-1950 among the highest inequality levels ever observed in history, with about 70% of total income received by the top decile, which includes approximately the European population. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.3).

## The top percentile in historical and colonial perspective



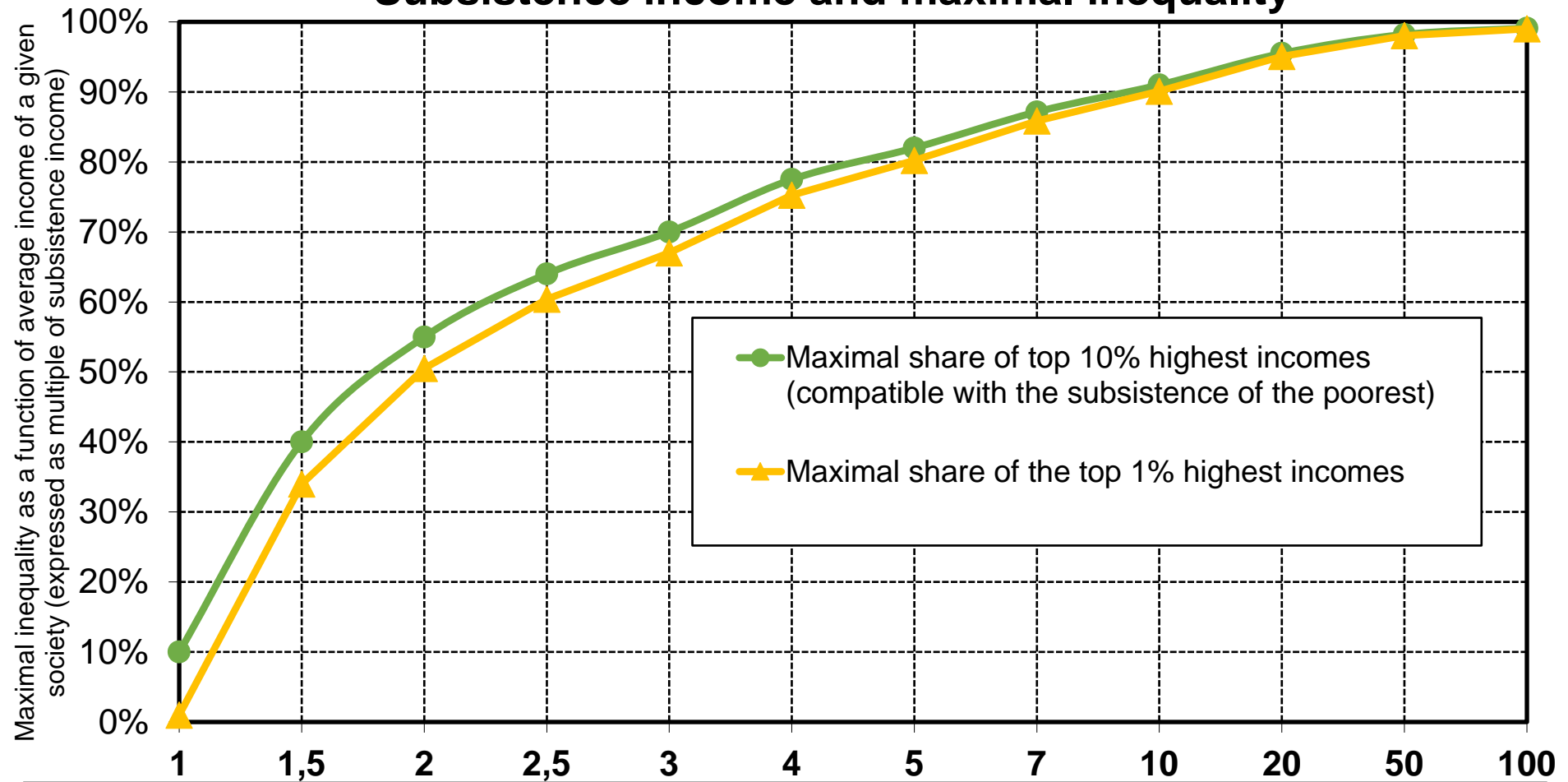
**Interpretation.** Over the set of all observed societies (with the exception of slave societies), the share of the top percentile (the top 1% highest incomes) in total income varies from 4% in Sweden in 1980 to 36% in Zambia in 1950. Colonial societies are among the most inegalitarian societies observed in history. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.4).

## Extreme inequality: colonial and post-colonial trajectories



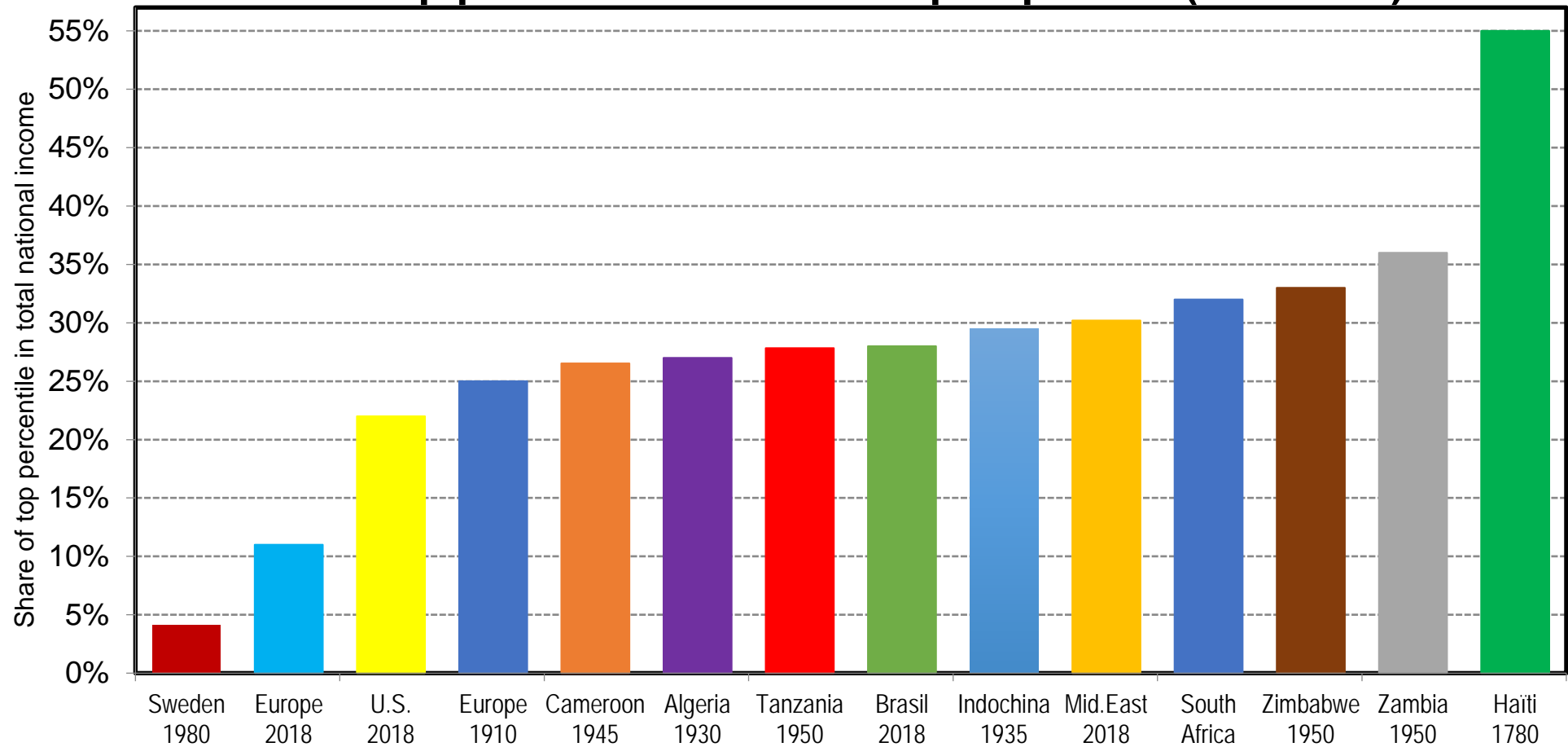
**Interpretation.** The share of the top decile (the top 10% highest incomes) dropped in Algeria between 1930 and 1950, and in South Africa between 1950 and 2018, while at the same time remaining at one of the highest levels ever observed. In French overseas departments like Reunion or Martinique, income inequality dropped substantially but remained at higher levels than in metropolitan France.  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.5).

## Subsistence income and maximal inequality



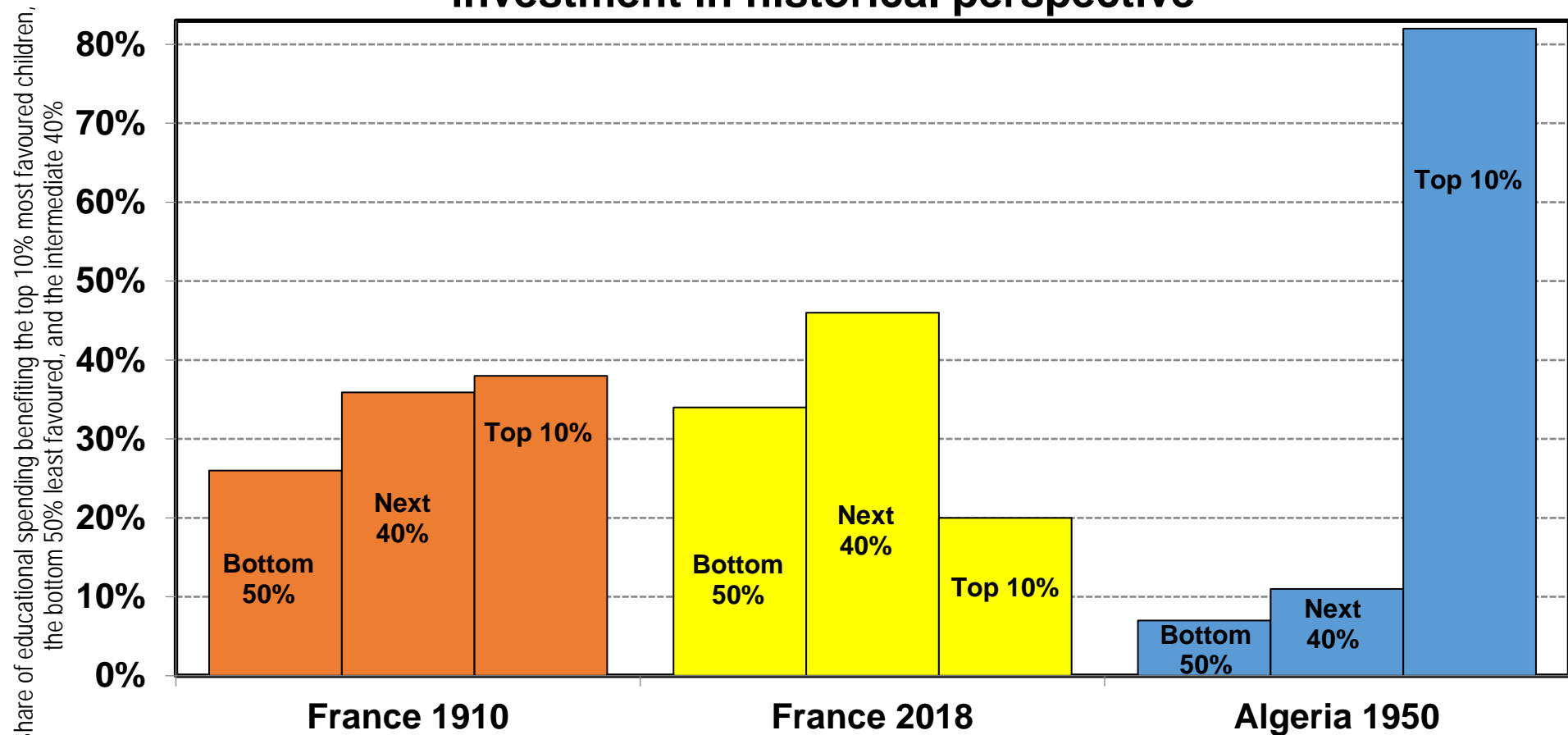
**Interpretation.** In a society where average income is 3 times larger than subsistence income, the maximal share received by top 10% highest incomes (compatible with a subsistence income for the bottom 90%) is equal to 70% of total income, and the maximal share of top 1% highest incomes (compatible with a subsistence income for the bottom 99%) is equal to 67% of total income. The richer the society, the more it is feasible to reach a high inequality level. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.6).

## The top percentile in historical perspective (with Haiti)



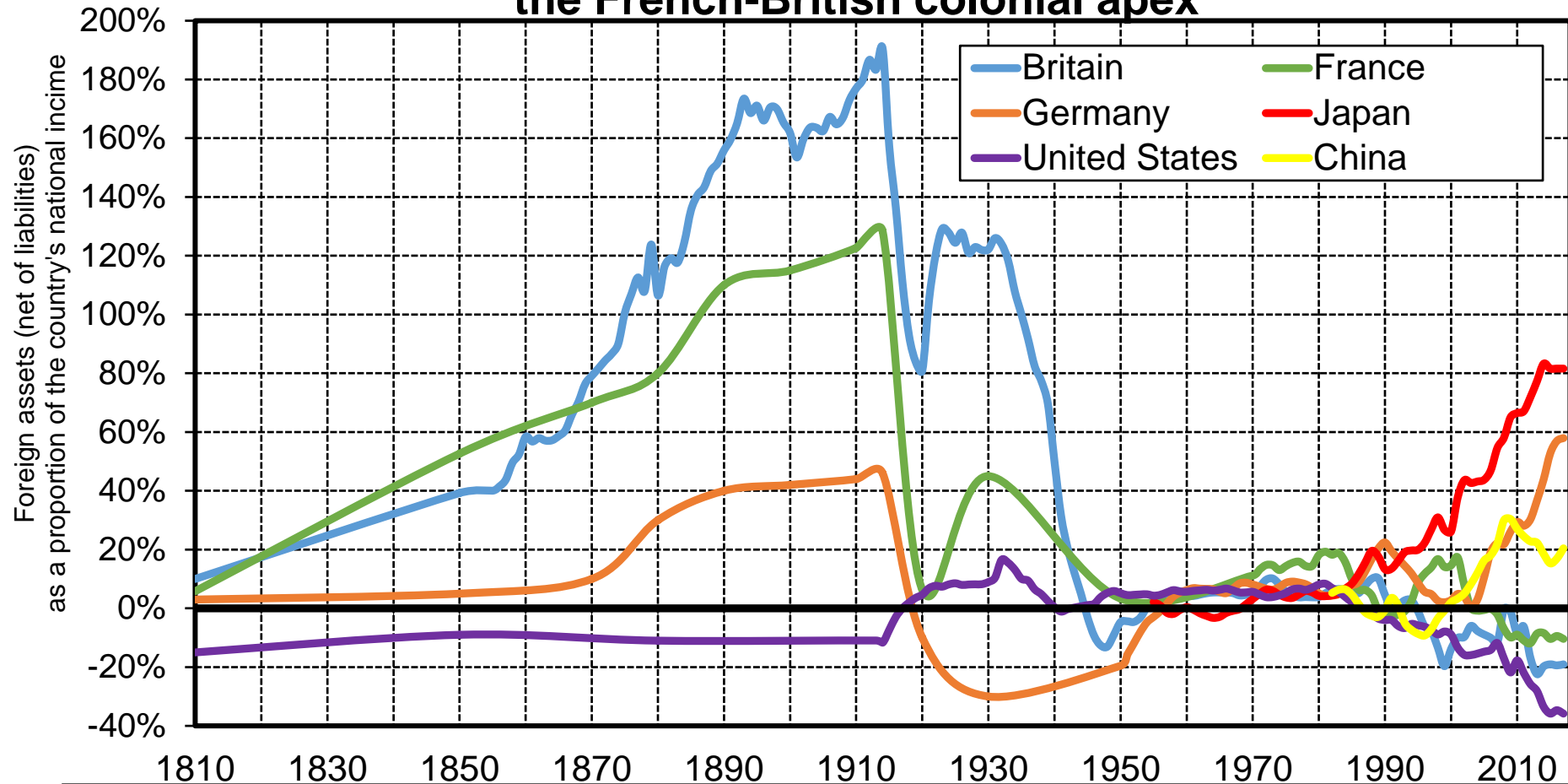
**Interpretation.** If we include slave societies like Saint-Domingue (Haïti) in 1780-1790, then the share of income going to the top 1% highest incomes can reach 50%-60% of total income. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.7).

## Colonies for the colonizers: inequality of educational investment in historical perspective



**Interpretation.** In Algeria in 1950, the 10% the most favoured (the settlers) benefited from 82% of total educational spending. By comparison, the share of total educational spending benefiting the top 10% of the population which benefited from the highest educational investment (i.e. those children which did the longest and most expensive studies) was 38% in France in 1930 and 20% in 2018. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.8).

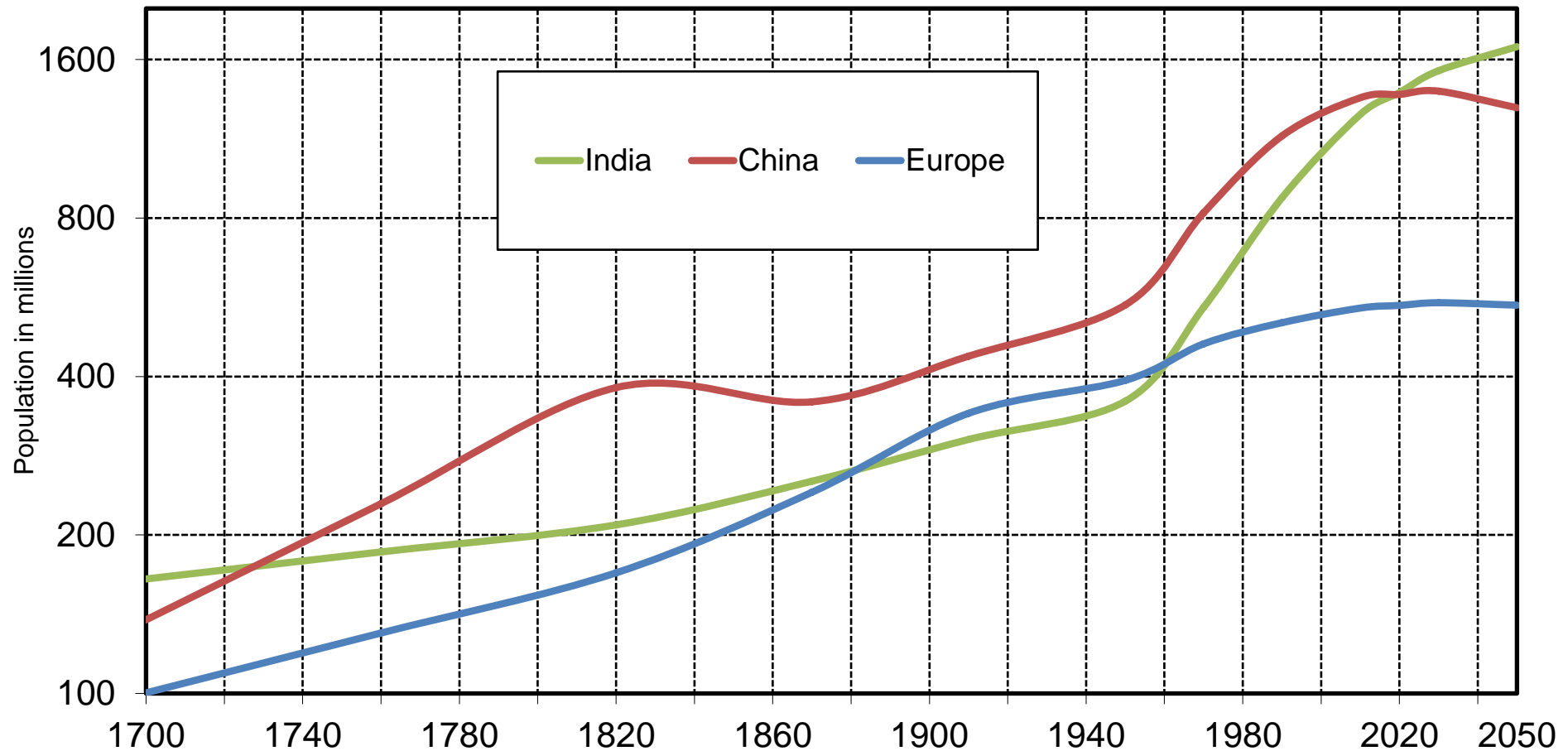
## Foreign assets in historical perspective: the French-British colonial apex



**Interpretation.** Net foreign assets, i.e. the difference between assets owned abroad by resident owners (including in some cases the government) and liabilities (i.e. assets owned in the country by foreign owners), amounted in 1914 to 191% of national income in Britain and 125% in France. In 2018, net foreign assets reach 80% of national income in Japan, 58% in Germany and 20% in China. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 7.9).

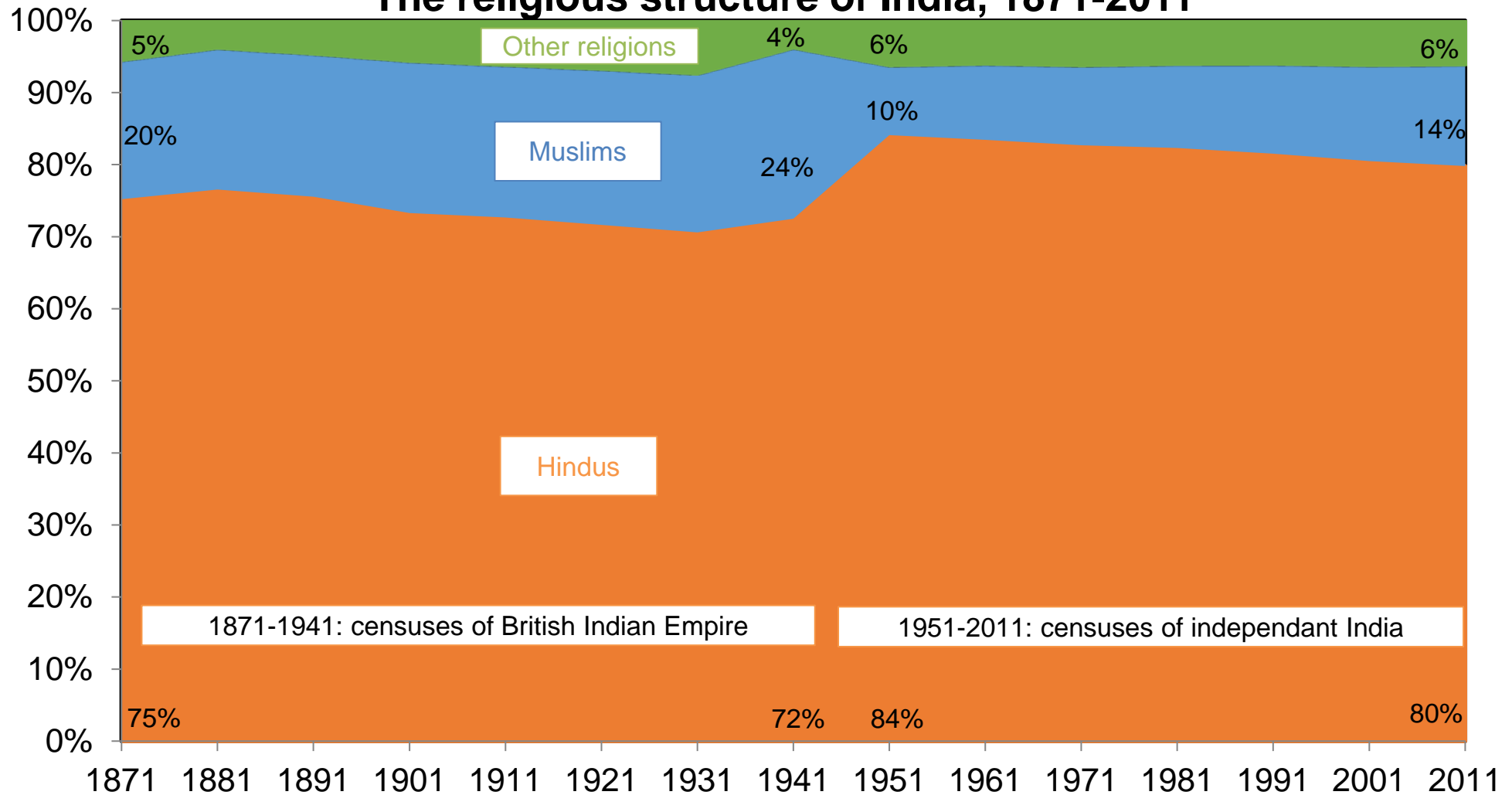


## Population in India, China and Europe, 1700-2050



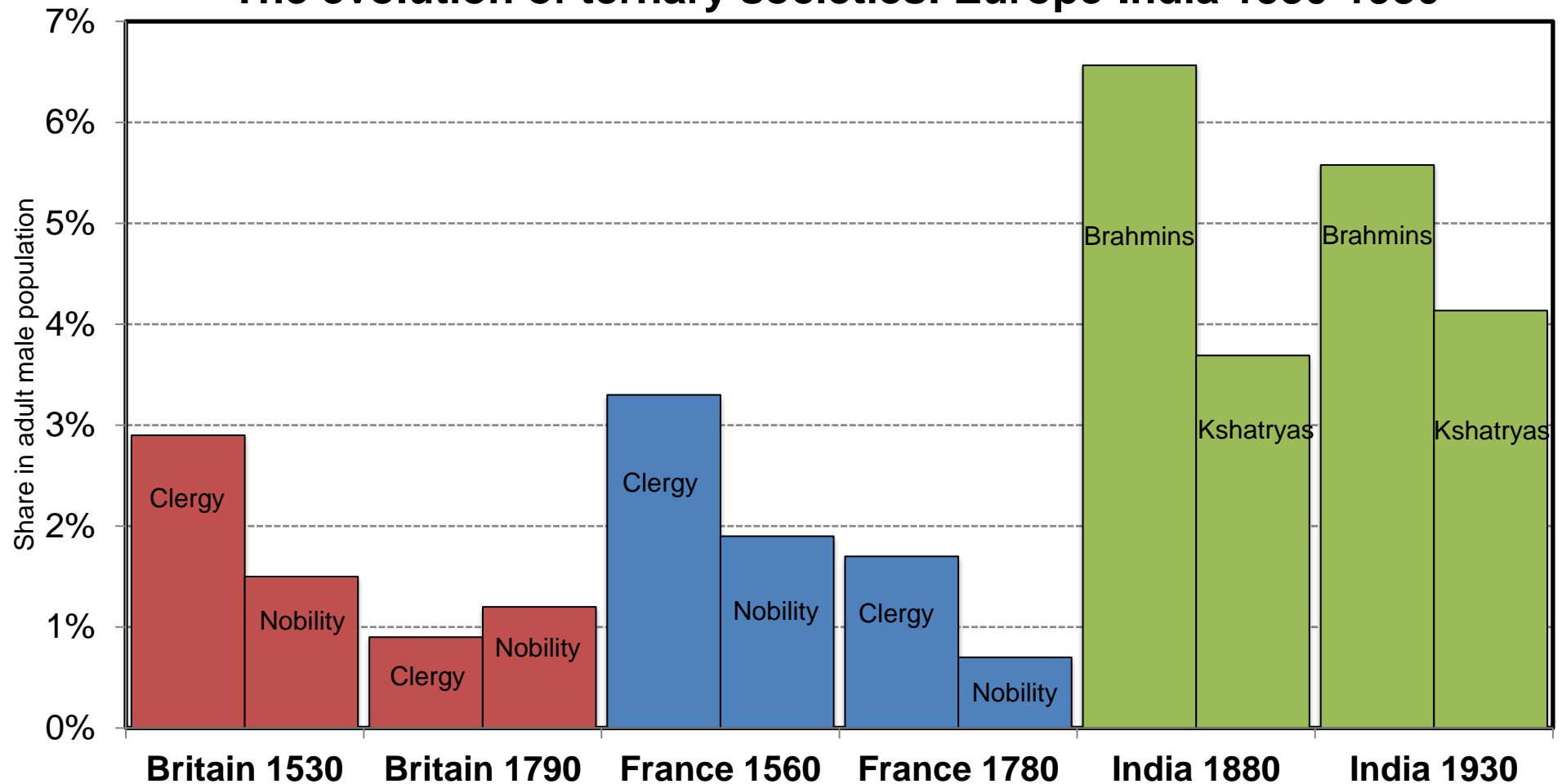
**Interpretation.** Around 170, total population was about 170 millions inhabitants in India, 140 millions in China and 100 millions in Europe (about 125 millions if one includes the territories corresponding to today's Russia, Belarus and Ukraine). In 2050, according to UN projections, total population will be 1,7 billion in India, 1,3 billion in China and 550 millions in Europe (EU+) (720 millions if one includes Russia, Belarus and Ukraine). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 8.1).

## The religious structure of India, 1871-2011



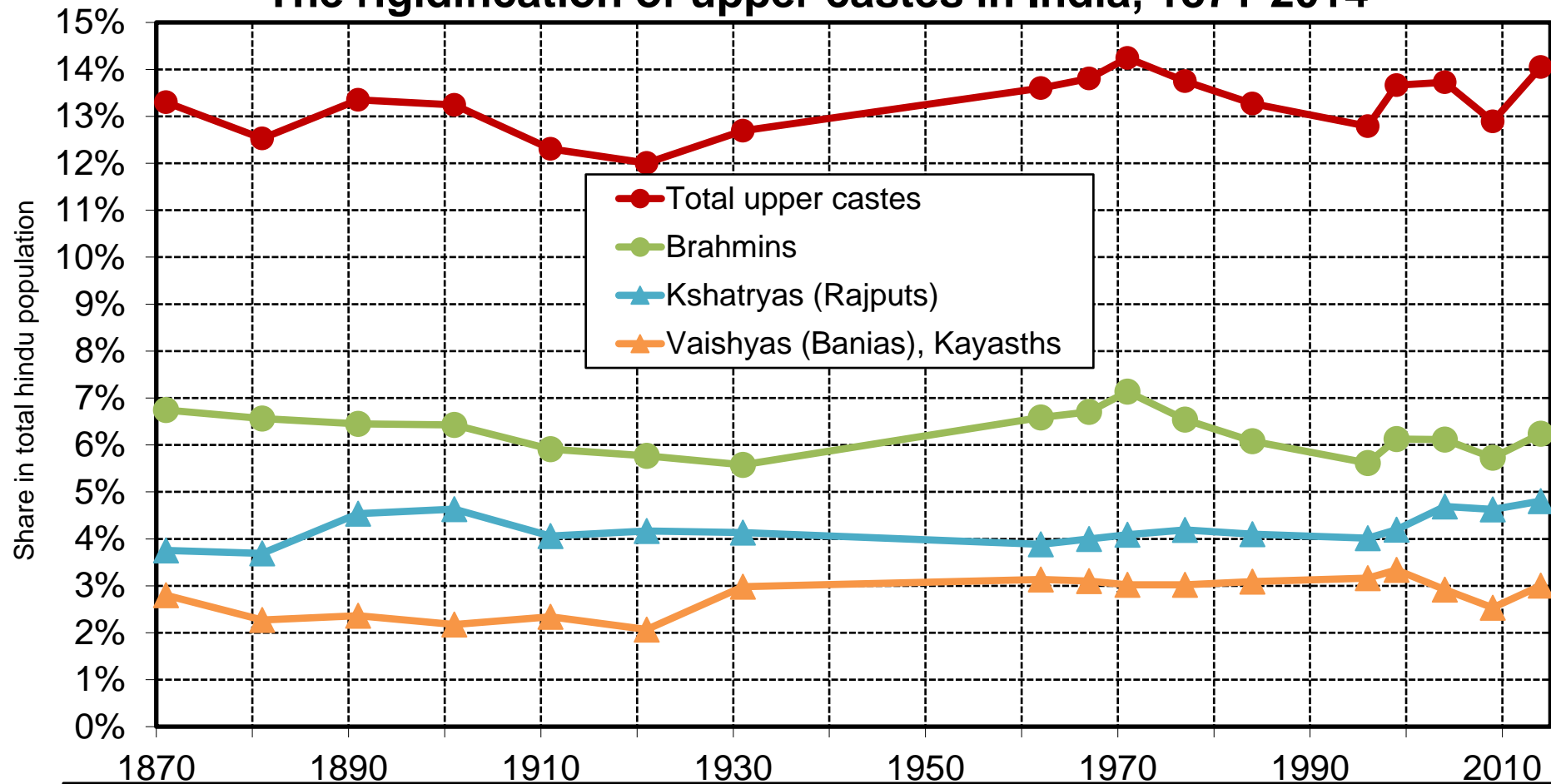
**Interpretation.** in the 2011 census, 80% of India's population was reported as "hindus", 14% as "muslims" and 6% from another religion (sikhs, christians, buddhists, no religion, etc.). These figures were 75%, 20% and 5% in the colonial census of 1871; 72%, 24% and 4% in that of 1941; then 84%, 10% and 6% in the first census conducted by independant India in 1951 (given the partition with Pakistan and Bengladesh). Sources and series: see piketty.pse.ens.fr/ideology (figure 8.2).

## The evolution of ternary societies: Europe-India 1530-1930



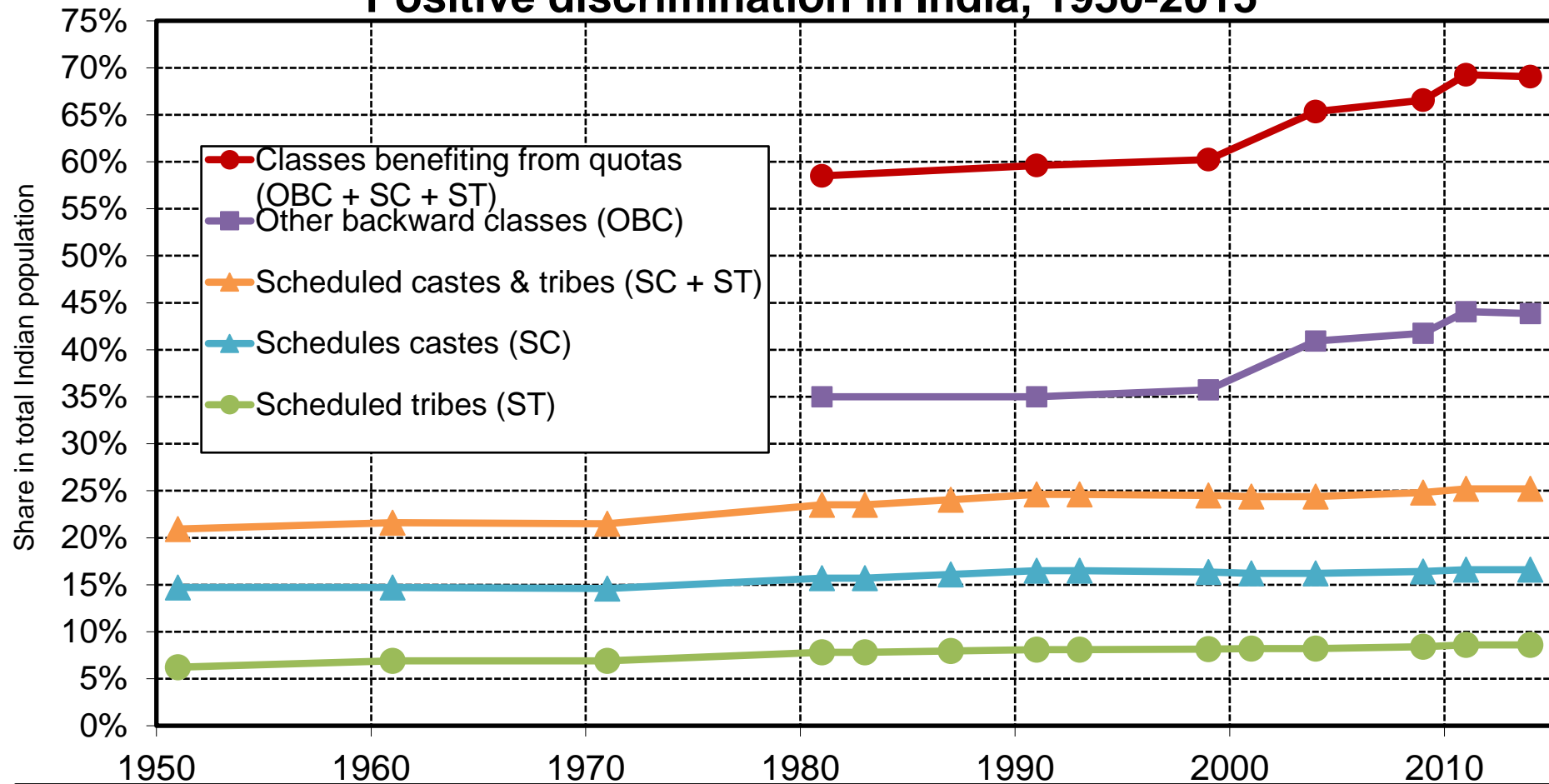
**Interpretation.** In Britain and in France, the two dominant classes of the trifunctional society (clergy and nobility) had a declining numerical importance between the 16th and the 18th century. In India, the numerical significance of brahmins and kshatryas (ancient classes of priests and warriors), as measured by British colonial censuses, dropped slightly between 1880 and 1930, albeit at significantly higher levels than the corresponding classes in Europe in the 16th-18th centuries. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 8.3).

## The rigidification of upper castes in India, 1871-2014



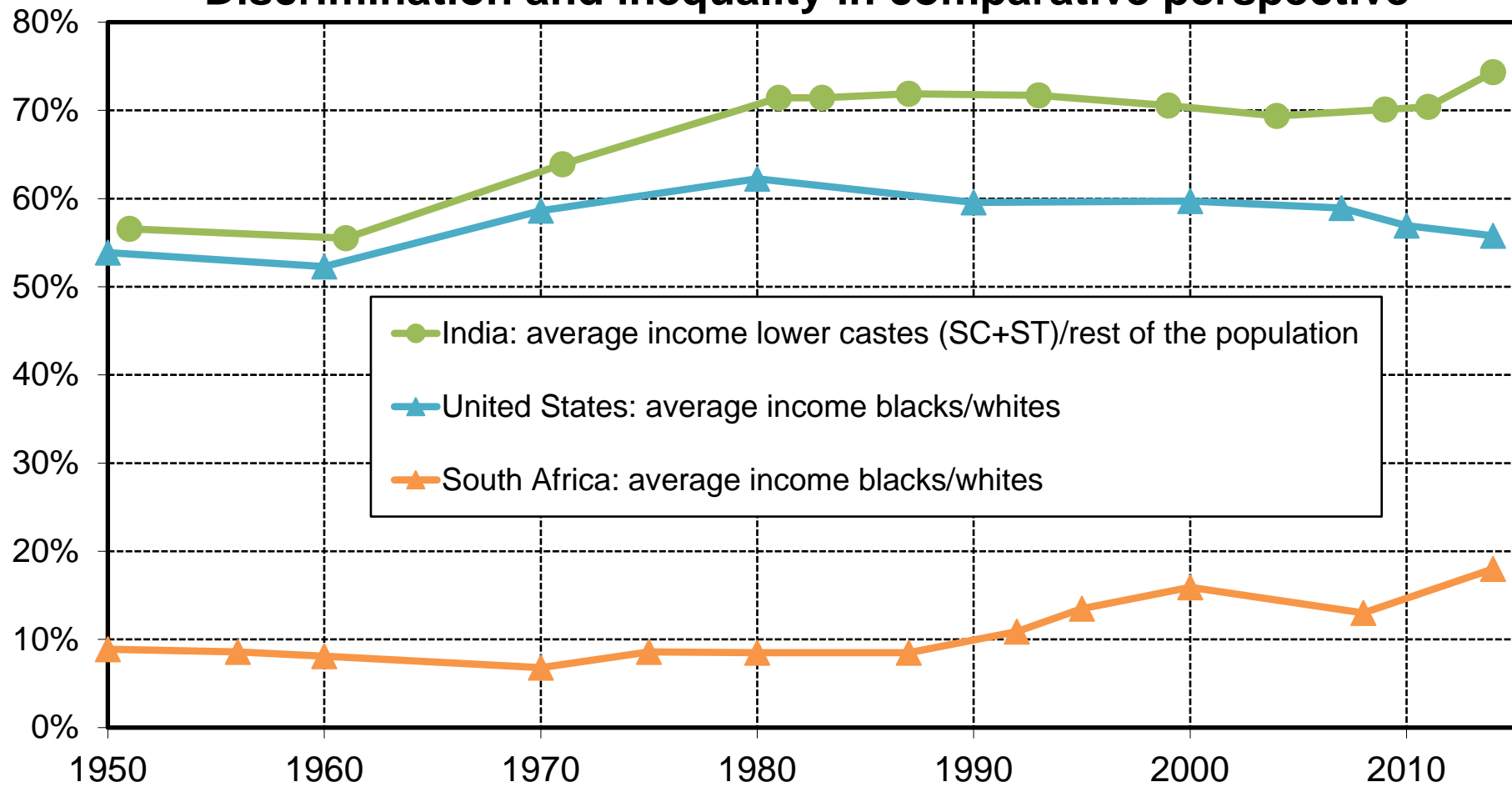
**Interpretation.** The results reported here were obtained from British colonial censuses conducted between 1871 and 1931 and from post-electoral surveys (self-declaration) conducted between 1962 and 2014. One observes a relative stability over time of the fraction of the population registered as brahmins (ancient class of priests and intellectuals), kshatriyas (rajputs) (ancient class of warriors) and other upper castes: vaishyas (banias) (craftsmen, tradepeople) and kayasths (writers, accountants). Other local upper castes such as marathas (about 2% of total population) were not included here. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 8.4).

## Positive discrimination in India, 1950-2015



**Interpretation.** The results reported here were obtained from the decennial censuses 1951-2011 and NSS surveys 1983-2014. Quotas for accessing universities and public sector jobs were enacted for "scheduled castes" (SC) and "scheduled tribes" (ST) (ancient discriminated groups of untouchables and aboriginal tribes) in 1950, before being gradually extended beginning in 1980-1990 to "other backward classes" (OBC) (ancient shudras), following the Mandal commission in 1979-1980. OBCs are registered in NSS surveys since 1999 only, so the estimates reported here for 1981 and 1991 (35% of population) are approximate. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 8.5).

## Discrimination and inequality in comparative perspective



**Interpretation.** The ratio between the average income of lower castes in India (scheduled castes and tribes, SC+ST, ancient discriminated groups of untouchables and aboriginal tribes) and that of the rest of the population rise from 57% in 1950 to 74% in 2014. The ratio between the average income of Blacks and Whites rose over the same period from 54% to 56% in the United States, and from 9% to 18% in South Africa. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 8.6).

## The structure of the population in censuses of India, 1871-2011

	1871	1881	1891	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001	2011
Hindus	75%	76%	76%	74%	73%	72%	71%	72%	84%	83%	83%	82%	81%	81%	80%
Muslims	20%	20%	20%	21%	21%	22%	22%	24%	10%	11%	11%	12%	13%	13%	14%
Other religions (sikhs, christians, buddhists, etc.)	5%	4%	4%	5%	6%	6%	7%	4%	6%	6%	6%	6%	6%	6%	6%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<i>Scheduled castes (SC)</i>									15%	15%	15%	16%	17%	16%	17%
<i>Schedules tribes (ST)</i>									6%	7%	7%	8%	8%	8%	9%
<b>Total Indian population</b> (millions)	239	254	287	294	314	316	351	387	361	439	548	683	846	1 029	1 211

**Interpretation:** The results reported here were obtained using the decennial censuses conducted in British colonial India between 1871 and 1941 and in independent India from 1951 to 2011. The proportion of Muslims falls from 24% in 1941 to 10% in 1951, due to the partition with Pakistan. Starting in 1951, censuses register "scheduled castes" (SC) and "scheduled tribes" (ST) (untouchables and aboriginal tribes formerly discriminated), which can belong to the various religions (mostly hindus and other religions). Sources and series: see [piketetty.pse.ens.fr/ideology](http://piketetty.pse.ens.fr/ideology) (table 8.1).

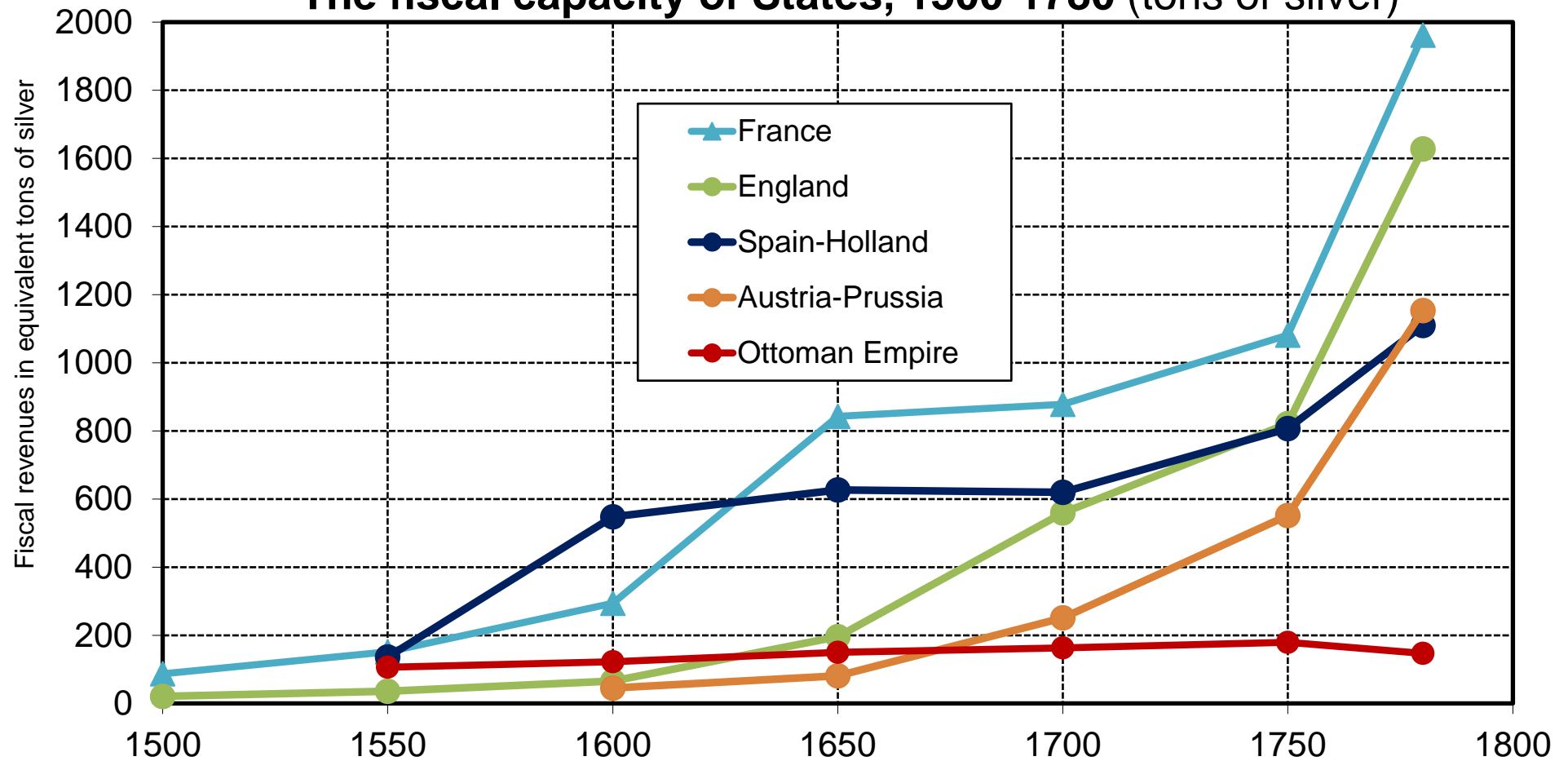
## The structure of upper castes in India, 1871-2014

	1871	1881	1891	1901	1911	1921	1931	1962	1967	1971	1977	1996	1999	2004	2009	2014
<b>Total upper castes</b>	13,3%	12,6%	13,4%	13,2%	12,3%	12,0%	12,7%	13,6%	13,8%	14,2%	13,7%	12,8%	13,6%	13,7%	12,8%	14,0%
incl. Brahmins (priests, intellectuals)	6,7%	6,6%	6,5%	6,4%	5,9%	5,8%	5,6%	6,6%	6,7%	7,1%	6,5%	5,6%	6,1%	6,1%	5,7%	6,2%
incl. Kshatryas (Rajputs) (warriors)	3,8%	3,7%	4,5%	4,6%	4,1%	4,2%	4,1%	3,9%	4,0%	4,1%	4,2%	4,0%	4,2%	4,7%	4,6%	4,8%
incl. other upper castes: Vaishyas (Banias), Kayasths	2,8%	2,3%	2,4%	2,2%	2,3%	2,1%	3,0%	3,1%	3,1%	3,0%	3,0%	3,2%	3,3%	2,9%	2,5%	3,0%
<b>Total hindu population</b> (millions)	179	194	217	217	228	226	247	375	419	453	519	759	800	870	939	1 012

**Interpretation:** The results reported here were obtained using the British colonial censuses of India conducted between 1871 and 1931 and the post-electoral surveys (self-declaration) run from 1962 to 2014. One observes a relative stability of the proportion of the population registered as brahmins (former classes of priests and intellectuals), kshatryas (rajputs) (former classes of warriors) and other upper castes: vaishyas (banias) (craftsmen, tradespeople) and kayasths (writers, accountants). Other local upper castes such as the marathas (about 2% of population) were not included here. Sources and series: see piketty.pse.ens.fr/ideology (table 8.2).

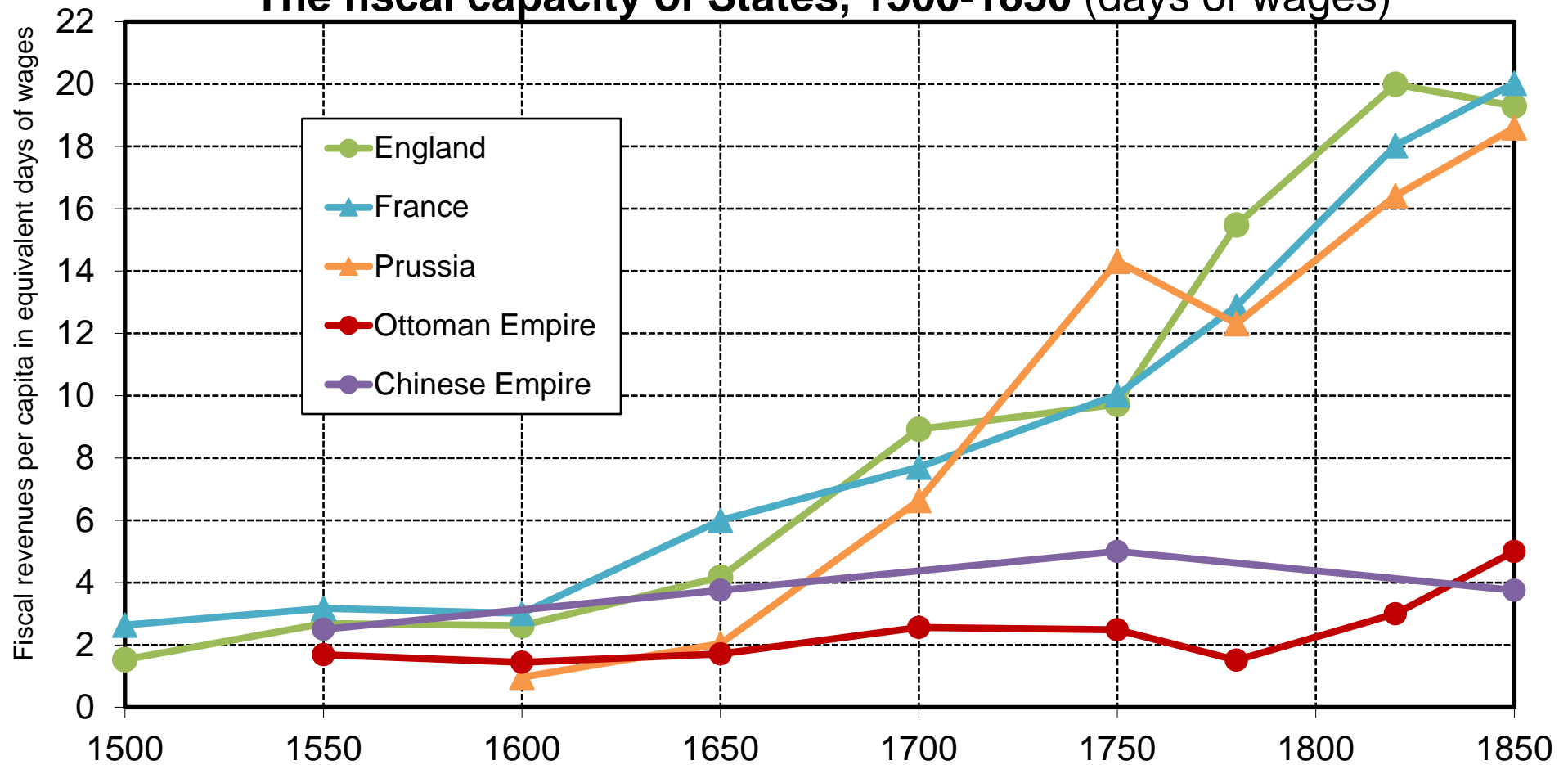


## The fiscal capacity of States, 1500-1780 (tons of silver)



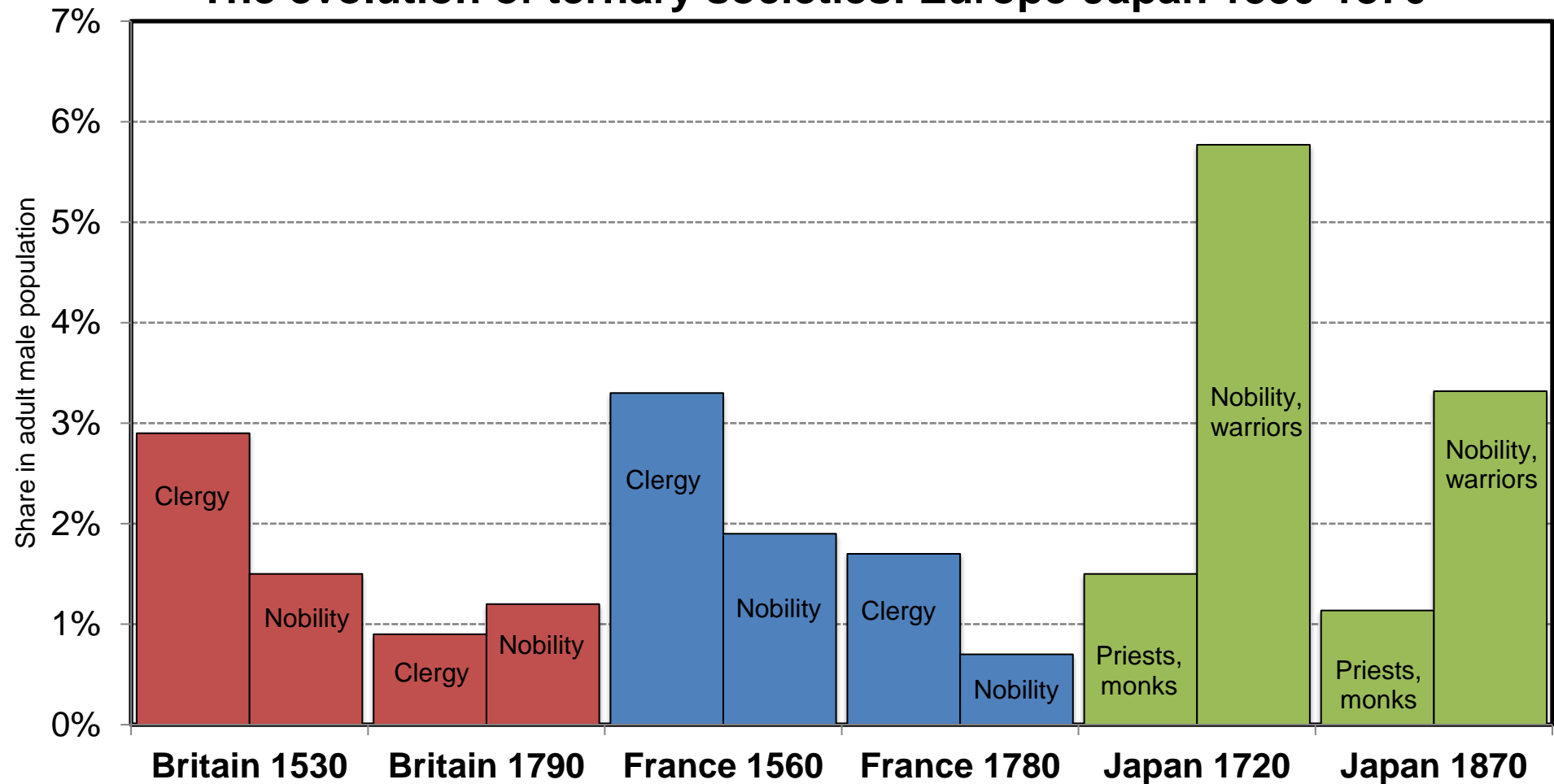
**Interpretation.** Around 1500-1550, the fiscal revenues of the main European States and of the Ottoman Empire were at a level equivalent to about 100-200 silver tons per year. In the 1780s, the fiscal revenues of France and England were between 1600 and 2000 tons of silver per year, while those of the Ottoman Empire were less than 200 tons. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 9.1).

## The fiscal capacity of States, 1500-1850 (days of wages)



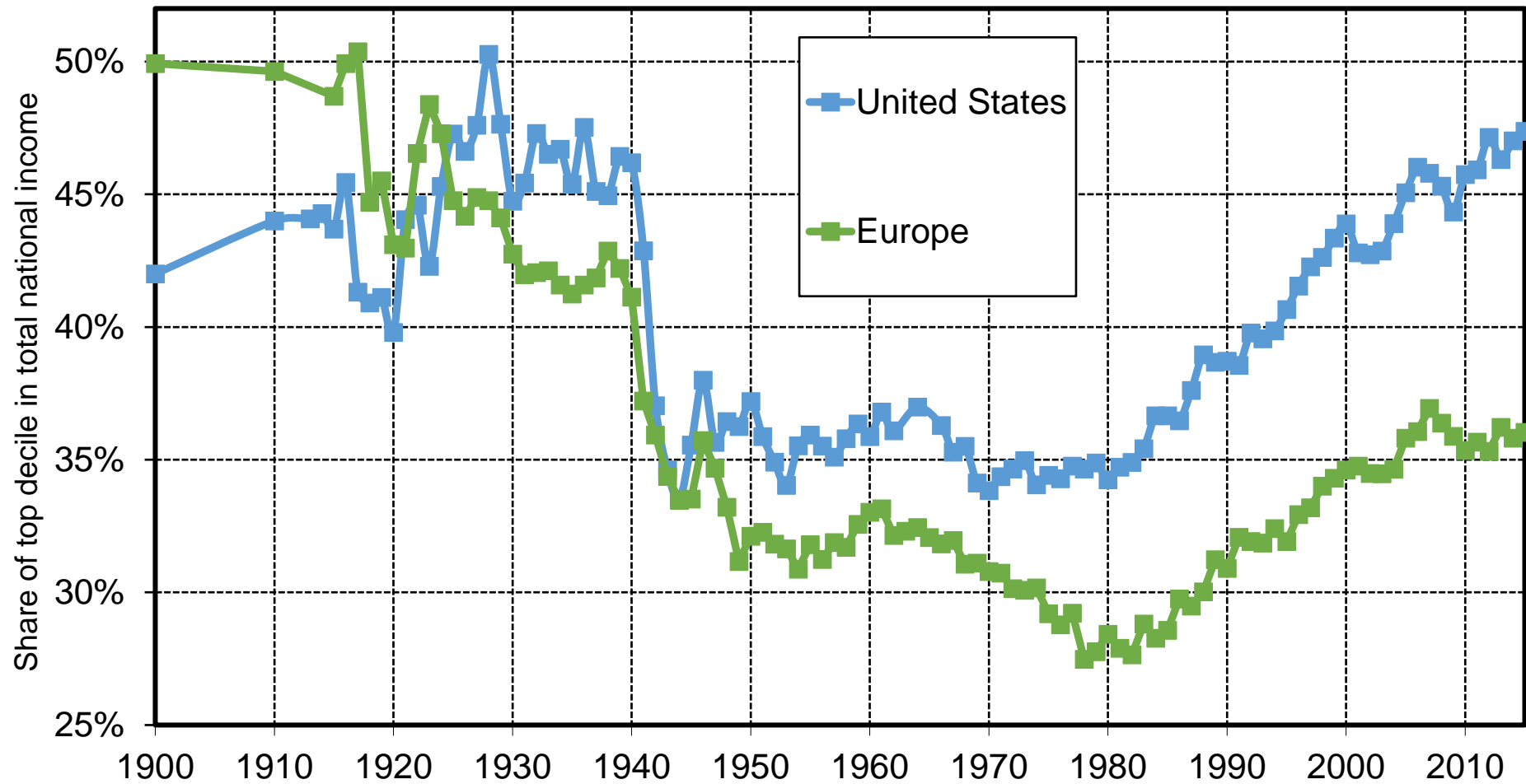
**Interpretation.** Around 1500-1600, tax revenues per inhabitant the main European States were between 2 and 4 days of urban unskilled maneuver wages; in 1750-1780, they were between 10 and 20 days of unskilled wages. Per inhabitant fiscal revenues remained around 2-5 days of wages in the Ottoman Empire as well as in the Chinese Empire. With a per inhabitant national income estimated to be around 250 days of unskilled urban wage, this implies that tax revenues have stagnated around 1%-2% of national income in Chinese and Ottoman Empires, while they rose from 1%-2% to 6%-8% of national income in Europe. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 9.2).

## The evolution of ternary societies: Europe-Japan 1530-1870



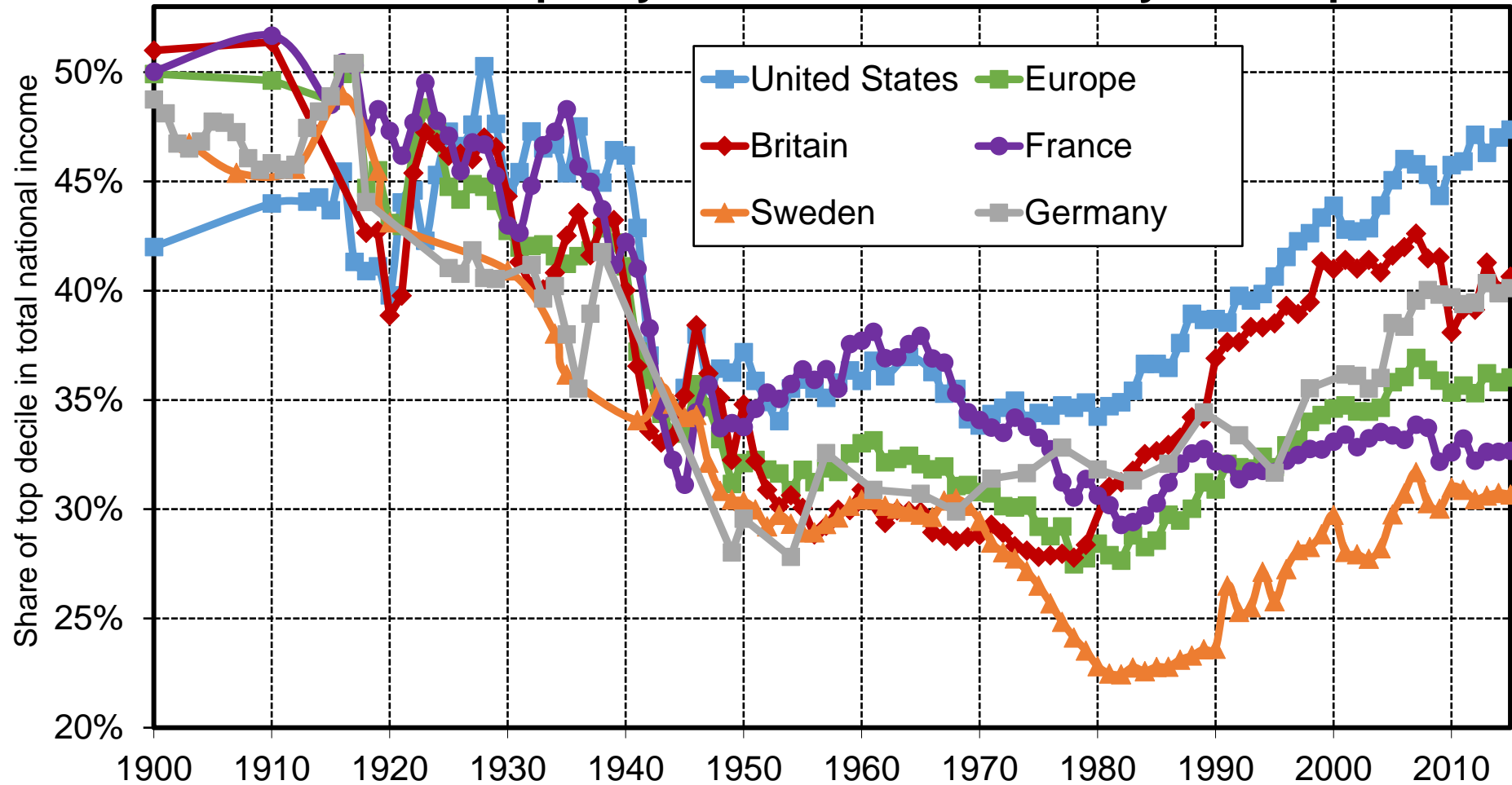
**Interpretation.** In Britain and in France, the two dominant classes of the trifunctional society (clergy and nobility) had a declining numerical significance between the 16th and the 18th century. In Japan, the numerical strength of the high nobility (daimyo) and of warriors endowed with fiefdom was significantly higher than that of shinto priests and monks, but it dropped significantly between 1720 and 1870, according to the censuses conducted in Japan during Edo era and at the beginning of Meiji era. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 9.3).

## Income inequality: Europe and the U.S. 1900-2015



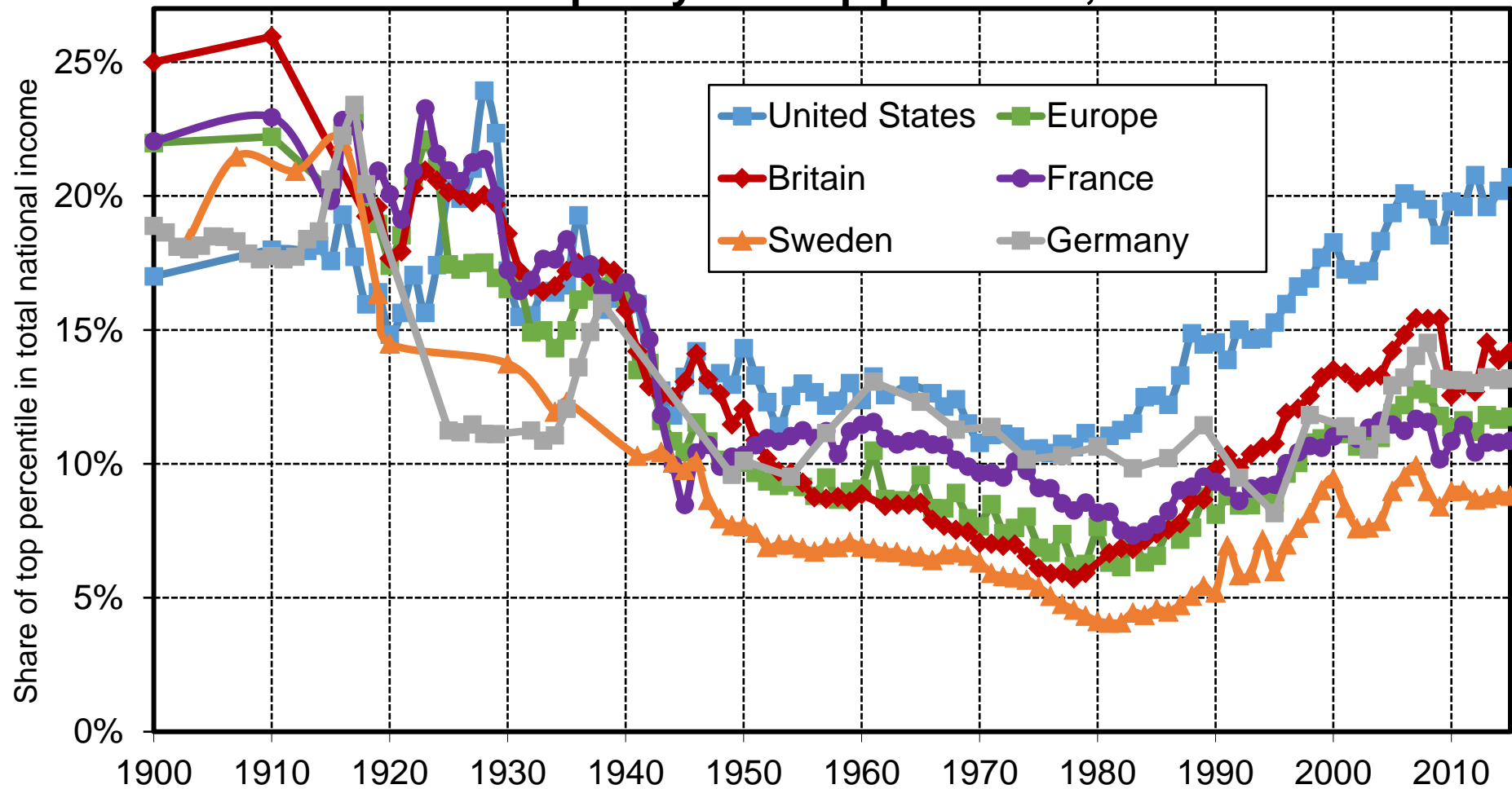
**Interpretation.** The share of the top decile (the top 10% highest incomes) in total national income was on average about 50% in Western Europe in 1900-1910, before dropping to about 30% in 1950-1980, and rising again above 35% by 2010-2015. The rebound of inequality was much stronger in the U.S., where the top decile income share is about 45%-50% in 2010-2015 and exceeds the level observed in 1900-1910. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.1).

## Income inequality 1900-2015: the diversity of Europe



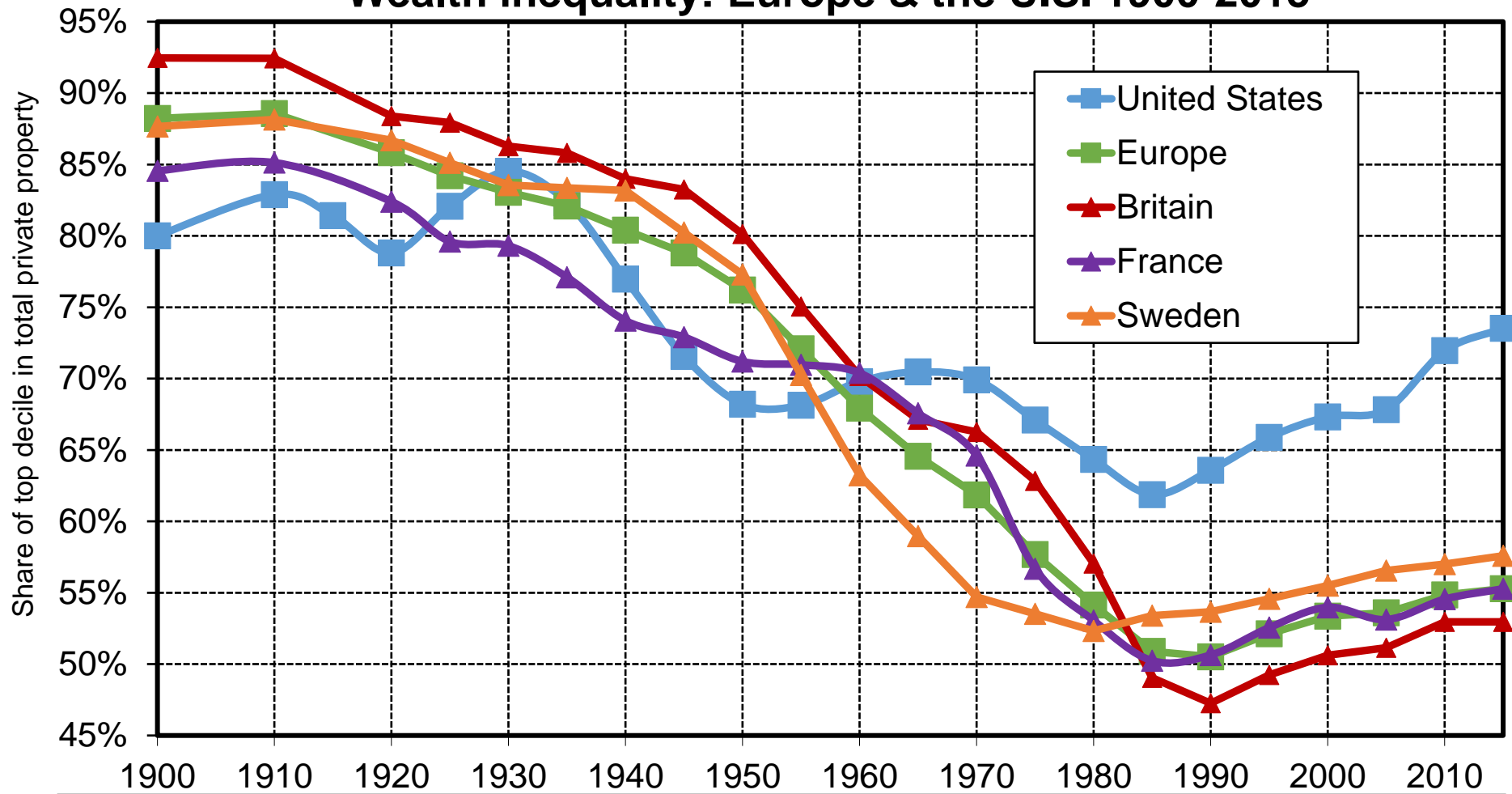
**Interpretation.** The share of the top decile (the top 10% highest incomes) in total national income was on average about 50% in Western Europe in 1900-1910, before dropping to about 30% in 1950-1980 (or even below 25% in Sweden), and rising again above 35% by 2010-2015 (or even above 40% in Britain). In 2015, Britain and Germany appear to be above European average, while France and Sweden are below average. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.2).

## Income inequality: the top percentile, 1900-2015



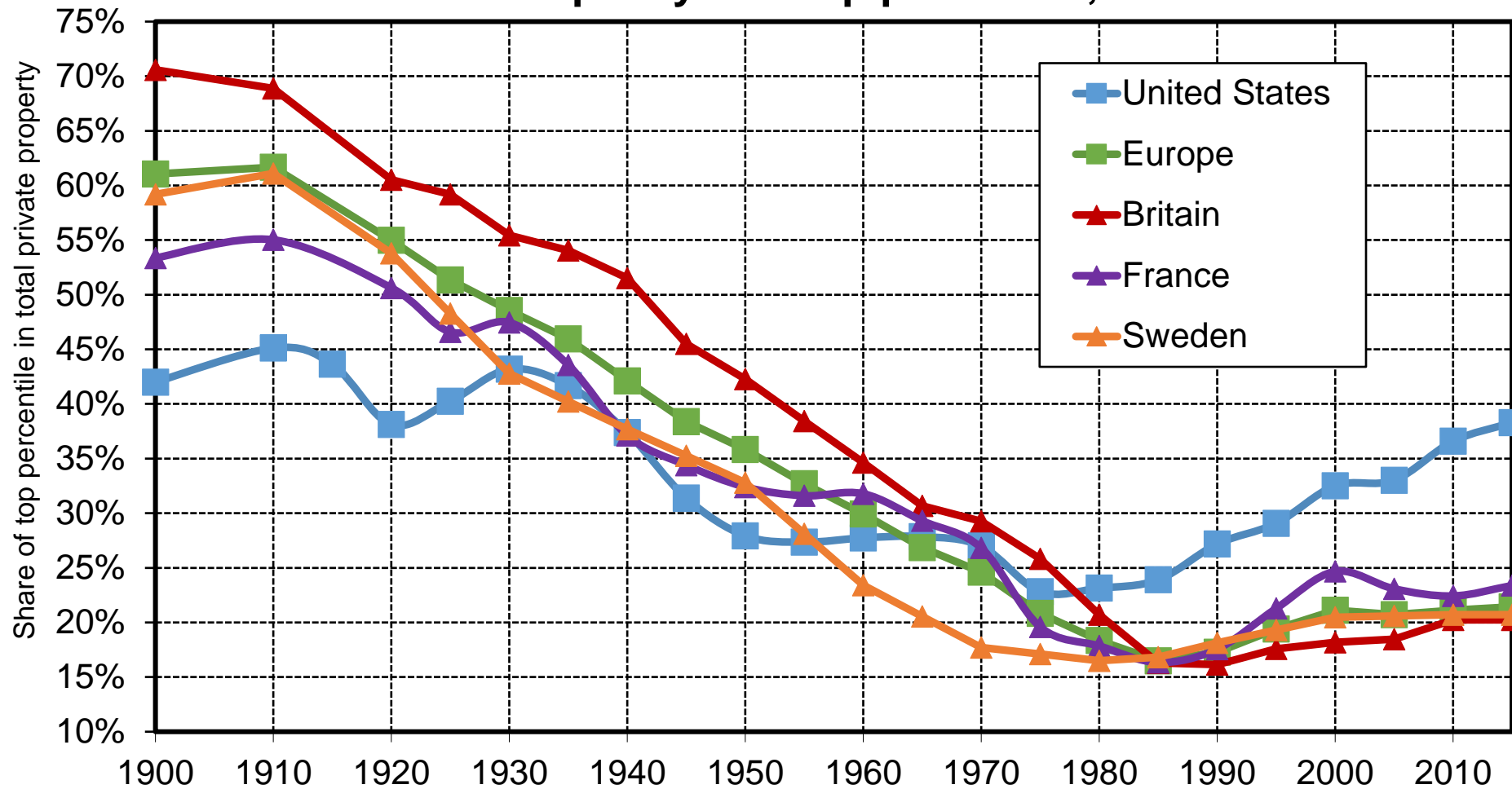
**Interpretation.** The share of the top percentile (the 1% highest incomes) in total national income was about 20%-25% in Western Europe in 1900-1910, before dropping to 5%-10% in 1950-1980 (or even less than 5% in Sweden), and rising again around 10%-15% in 2010-2015. The rebound of inequality was much stronger in the U.S., where the top percentile share reaches 20% in 2010-2015 and exceeds the level of 1900-1910. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.3).

## Wealth inequality: Europe & the U.S. 1900-2015



**Interpretation.** The share of the top decile (the 10% highest wealth holders) in total private property (all assets combined: real estate, business and financial assets, net of debt) was about 90% in Western Europe in 1900-1910, before dropping to 50%-55% in 1980-1990, and rising since then. The rebound of inequality was much stronger in the United States, where the top decile share is close to 75% in 2010-2015 and resembles the level of 1900-1910. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.4).

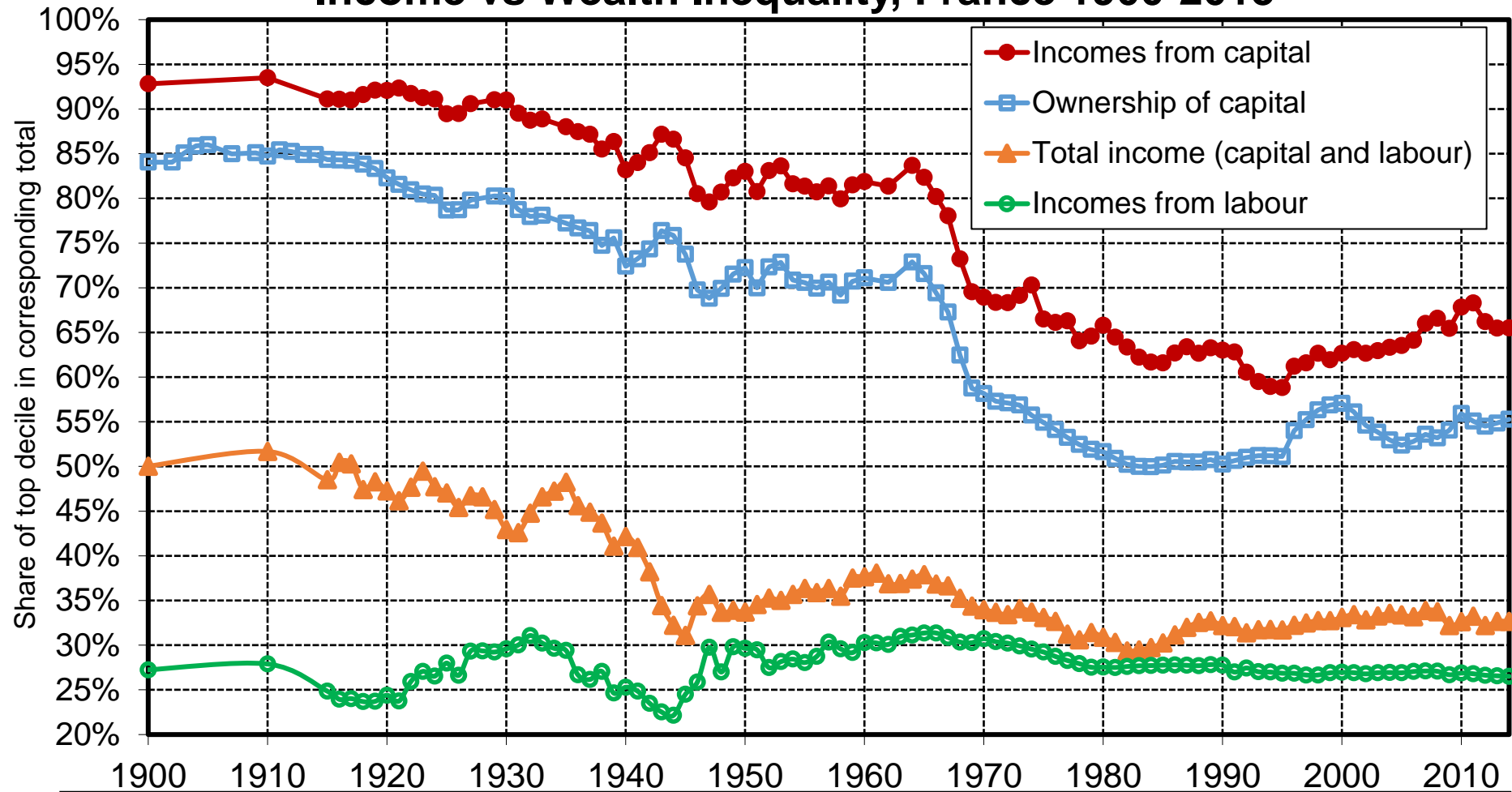
## Wealth inequality: the top percentile, 1900-2015



**Interpretation.** The share of the top percentile (the 1% highest wealth holders) in total private property (all assets combined) was about 60% in Western Europe in 1900-1910 (55% in France, 70% in Britain), before dropping to less than 20% in 1980-1990, and to rise since then. The rebound of inequality was much stronger in the U.S., where the top percentile share approaches 40% in 2010-2015 and is close to the level of 1900-1910. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.5).

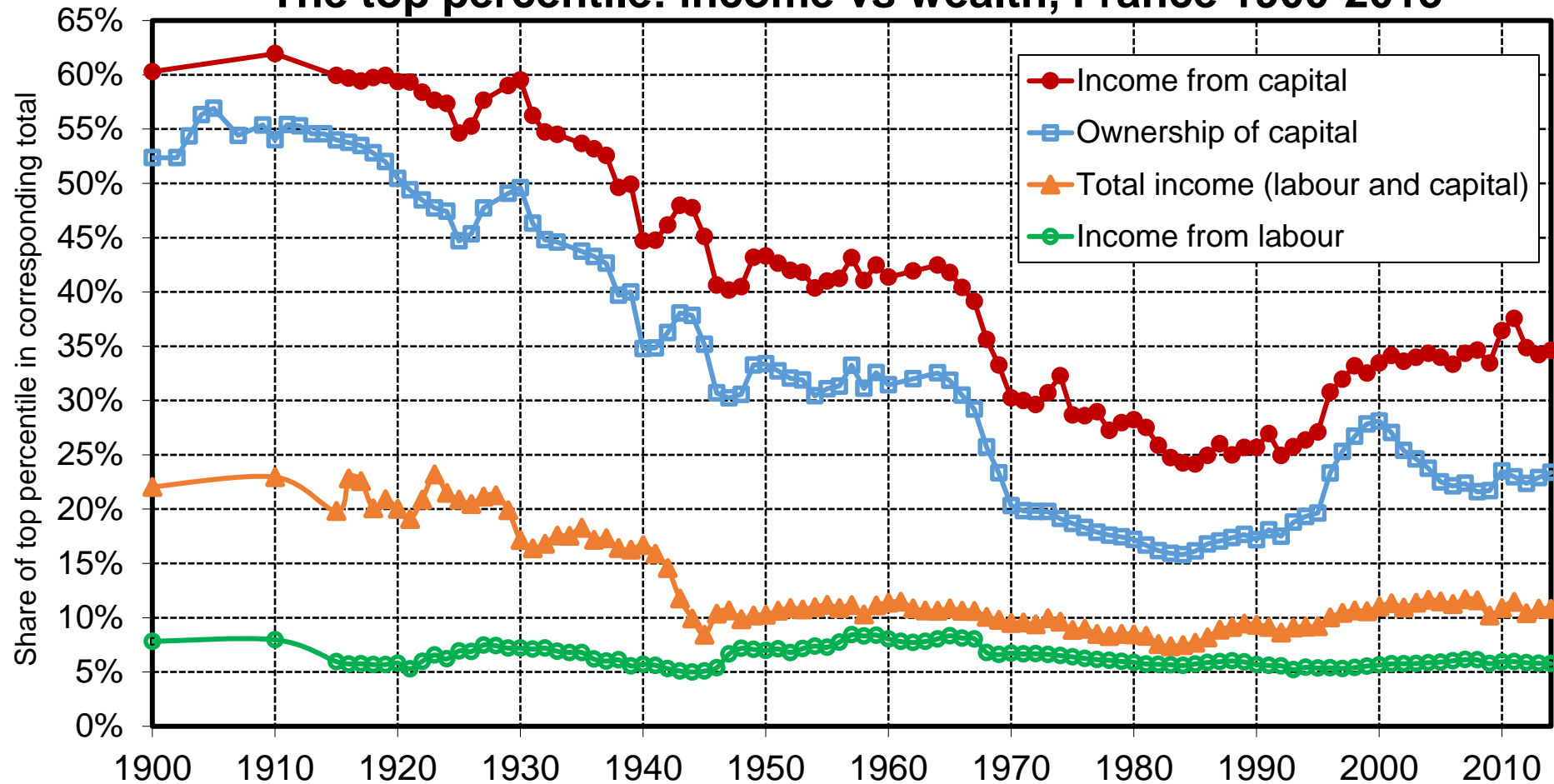


## Income vs Wealth Inequality, France 1900-2015



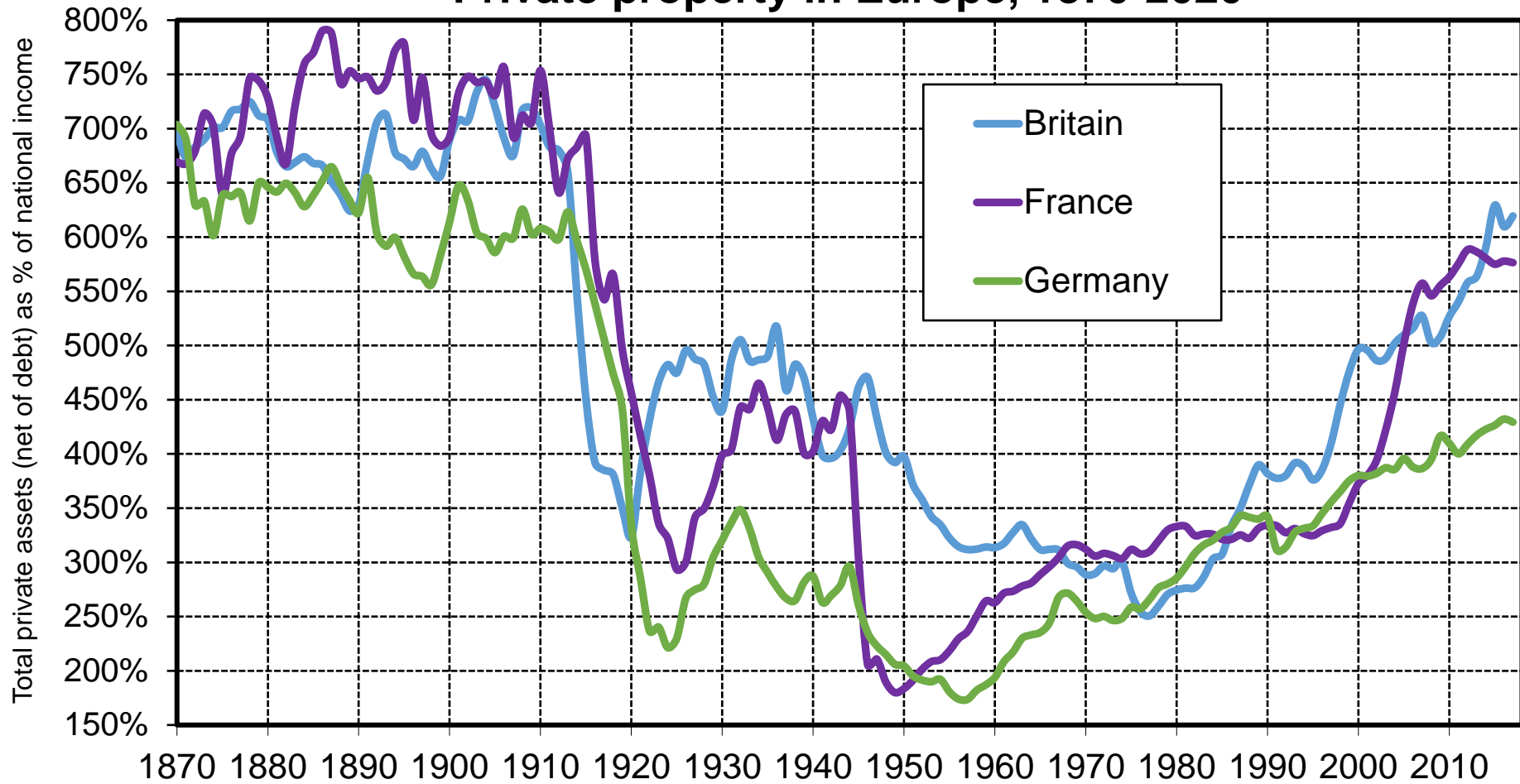
**Interpretation.** In 1900-1910, the 10% highest capital incomes (rent, profit, dividend, interest, etc.) received about 90%-95% of total capital incomes; the 10% highest labour incomes (wages, self-employment income, pensions) received about 25%-30% of total labour incomes. The reduction of inequalities during the 20th century came entirely from the fall in the concentration of property, while the inequality of labour incomes changed little. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.6).

## The top percentile: income vs wealth, France 1900-2015



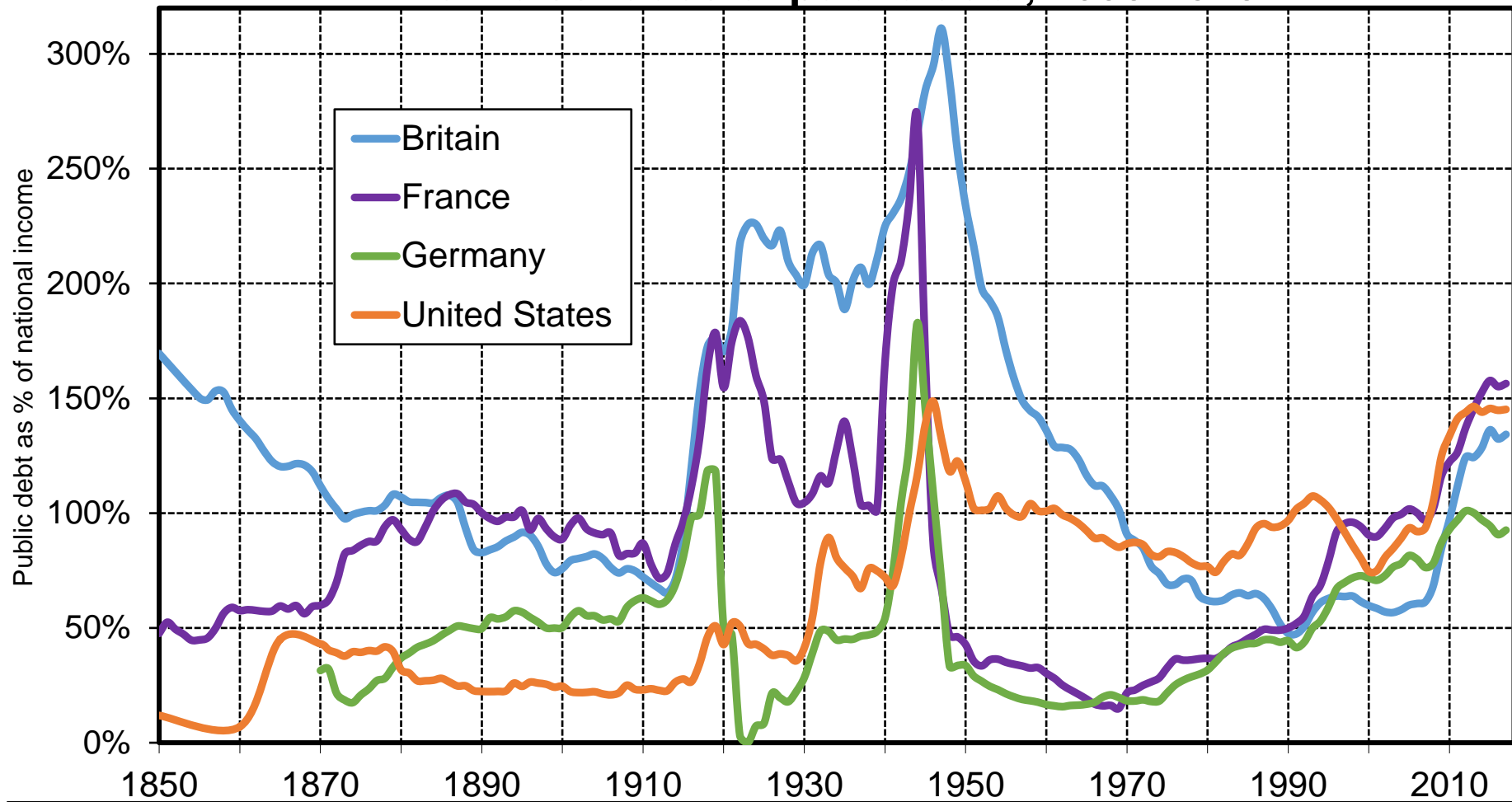
**Interpretation.** In 1900-1910, the 1% highest capital incomes (rent, profit, dividend, interest, etc.) received about 60% of total capital incomes; the 1% highest capital owners (real estate, business and financial assets, net of debt) owned about 55% of total private property; the 1% highest total incomes (labour and capital) received about 20%-25% of total income; the 1% highest labour incomes (wages, self-employment income, pensions) received about 5M-10% of total labour incomes. In the long-run, the fall of inequality is entirely due to the fall in the concentration of property and incomes from capital. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.7).

## Private property in Europe, 1870-2020



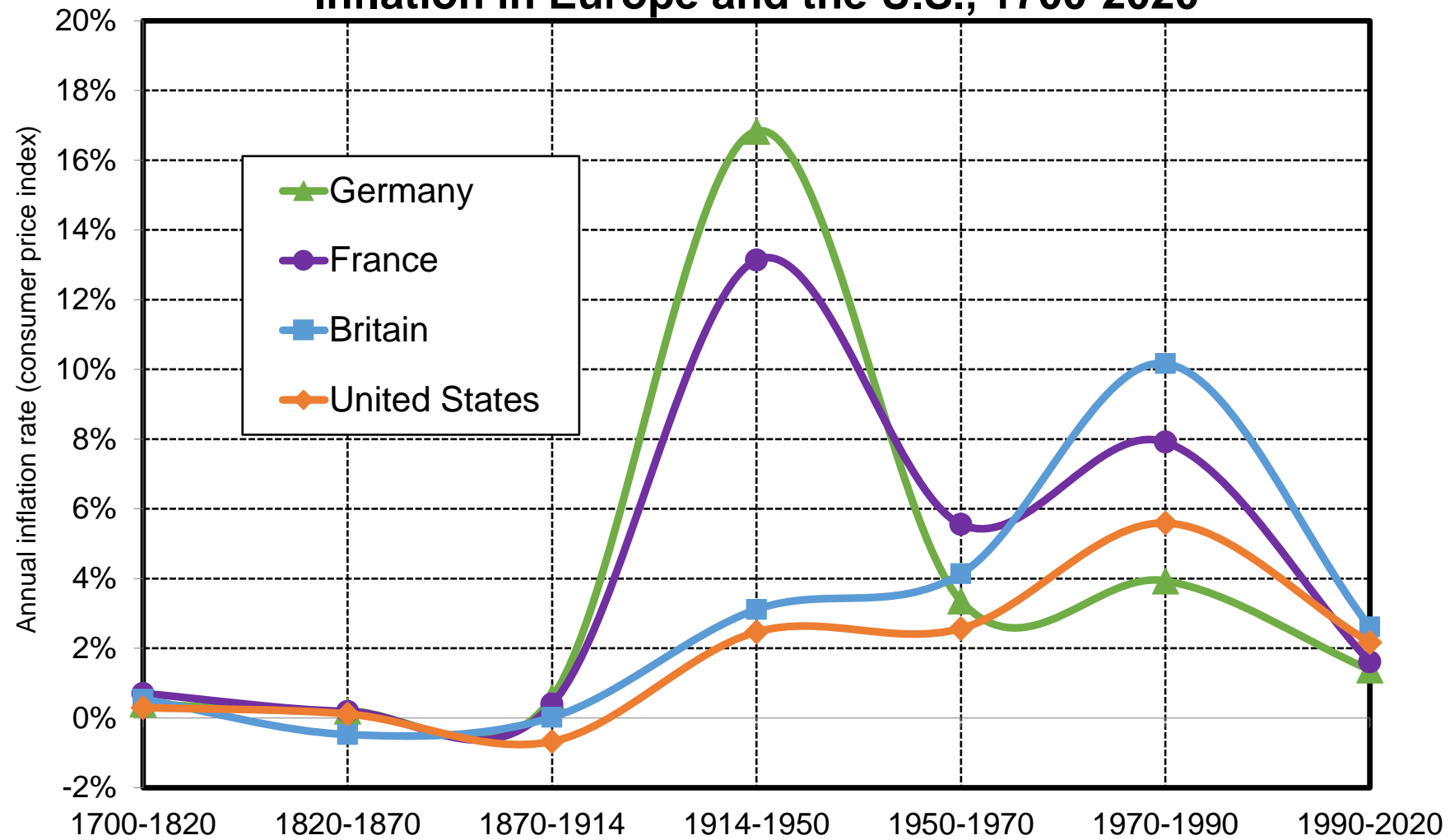
**Interpretation.** The market value of private property (all assets combined: real estate, business and financial assets, net of debt) was about 6-8 years of national income in Western Europe in 1870-1914, before falling from 1914 to 1950 and reaching about 2-3 years of national income in 1950-1970, and then rising again around 5-6 years in 2000-2020. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.8).

## The vicissitudes of public debt, 1850-2020



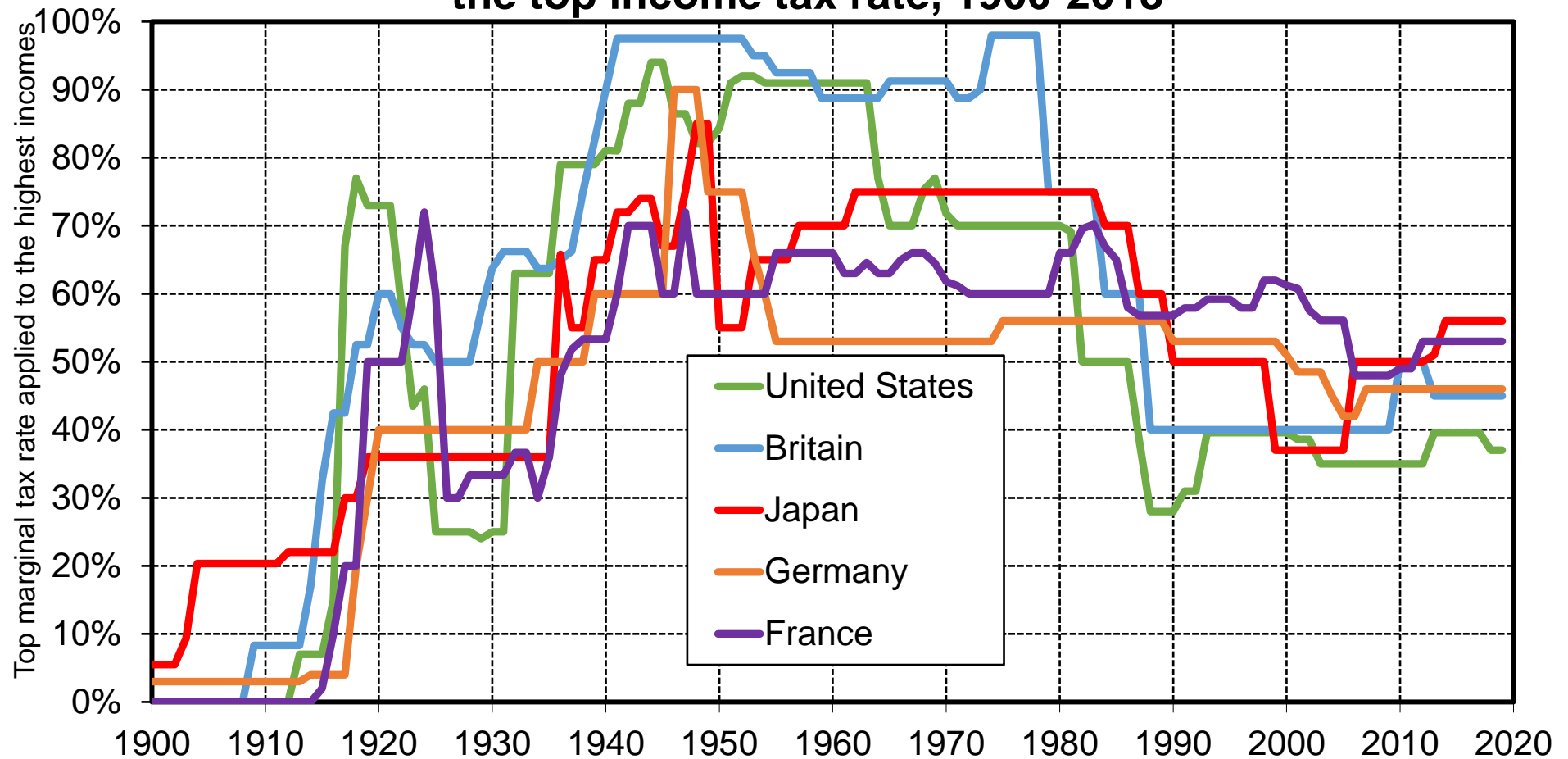
**Interpretation.** Public debt rose strongly after each world war and reached between 1500% and 300% of national income in 1945-1950, before falling sharply in Germany and France (debt cancellations, high inflation) and more gradually in Britain and the U.S. (moderate inflation, growth). Public assets (especially real estate and financial assets) have fluctuated less strongly over time and generally represent around 100% of national income. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.9).

## Inflation in Europe and the U.S., 1700-2020



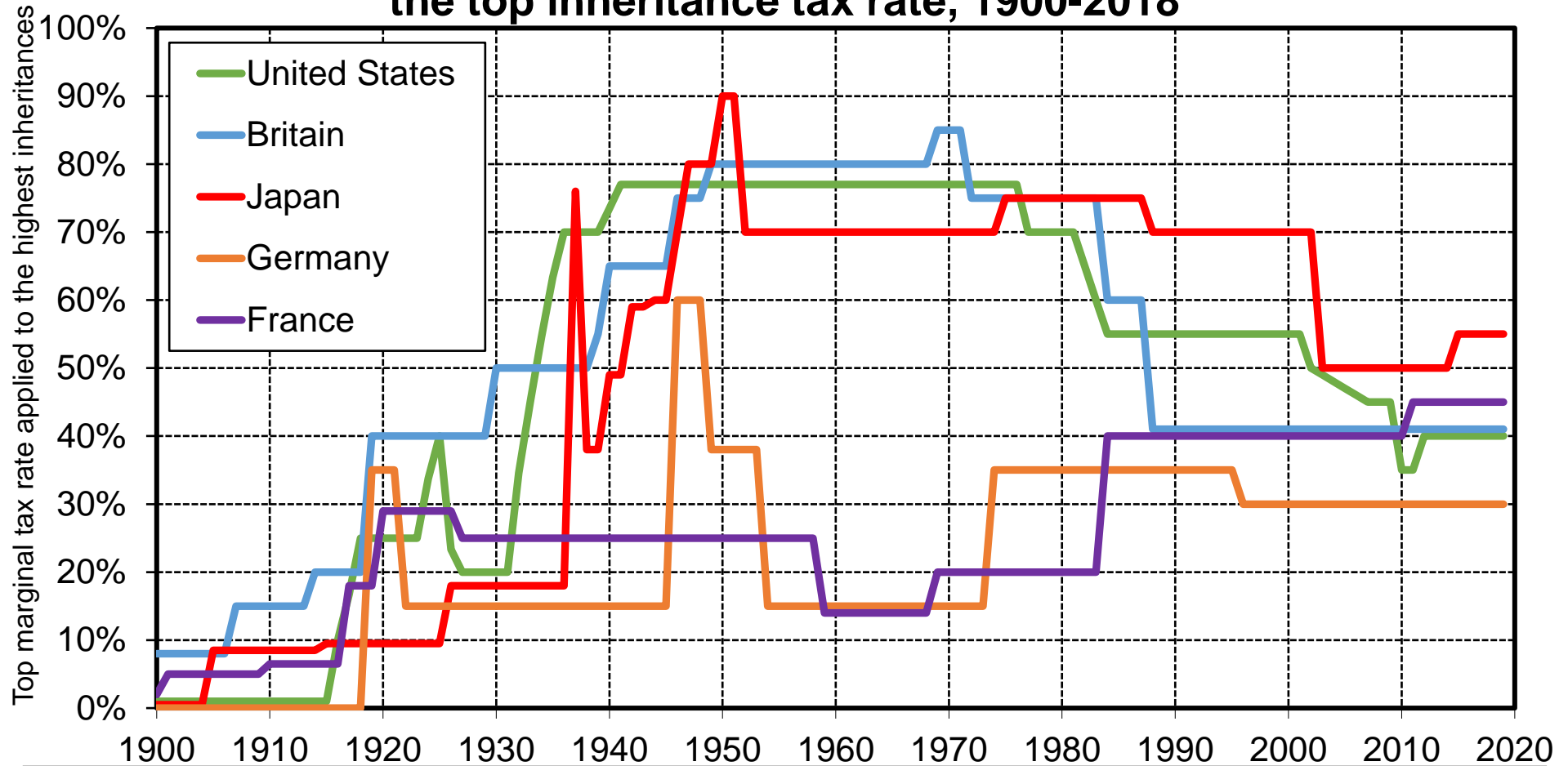
**Interpretation.** Inflation was quasi-null in the 18th-19th centuries, before rising in the 20th century. It is about 2% per year since 1990. Inflation was particularly high in Germany and France between 1914 and 1950, and to a lesser extent in Britain, France and the U.S. during the 1970s. **Note.** German inflation reached 17% per year between 1914 and 1950 without taking into account the hyper-inflation of 1923. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.10).

## The invention of progressive taxation: the top income tax rate, 1900-2018



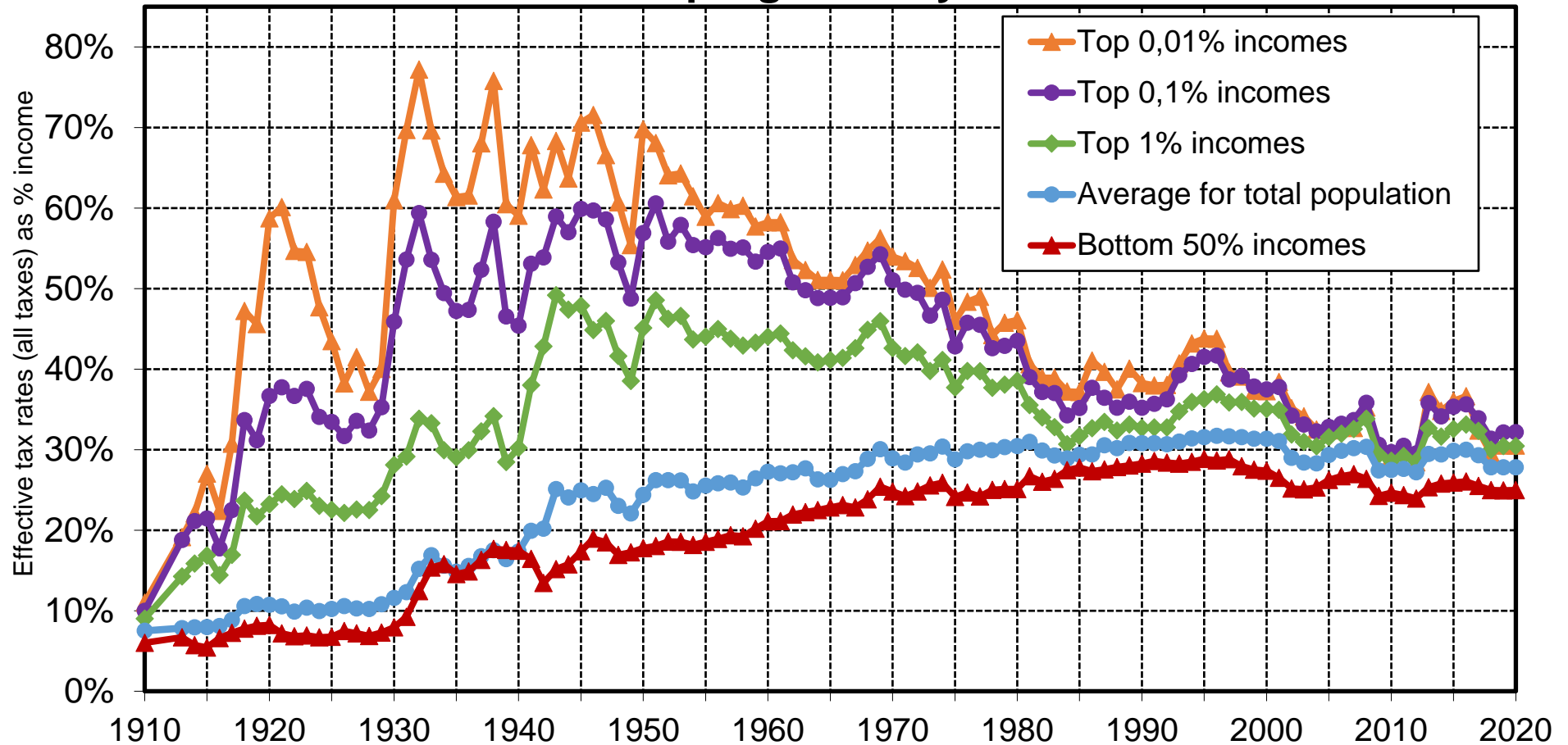
**Interpretation.** The marginal income tax rate applied to the highest incomes was on average 23% in the U.S. from 1900 to 1932, 81% from 1932 to 1980 and 39% from 1980 to 2018. Over these same periods, the top rate was equal to 30%, 89% and 46% in Britain, 26%, 68% and 53% in Japan, 18%, 58% and 50% in Germany, and 23%, 60% and 57% in France. Progressive taxation peaked in mid-century, especially in the U.S. and in Britain. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.11).

## The invention of progressive taxation: the top inheritance tax rate, 1900-2018



**Interpretation.** The marginal inheritance tax rate applied to the highest inheritances was on average 12% in the U.S. from 1900 to 1932, 75% from 1932 to 1980 and 50% from 1980 to 2018. Over these same periods, the top rate was equal to 25%, 72% and 46% in Britain, 9%, 64% and 63% in Japan, 8%, 23% and 32% in Germany, and 15%, 22% and 39% in France. Progressivity was maximal in mid-century, especially in the U.S. and in Britain. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.12).

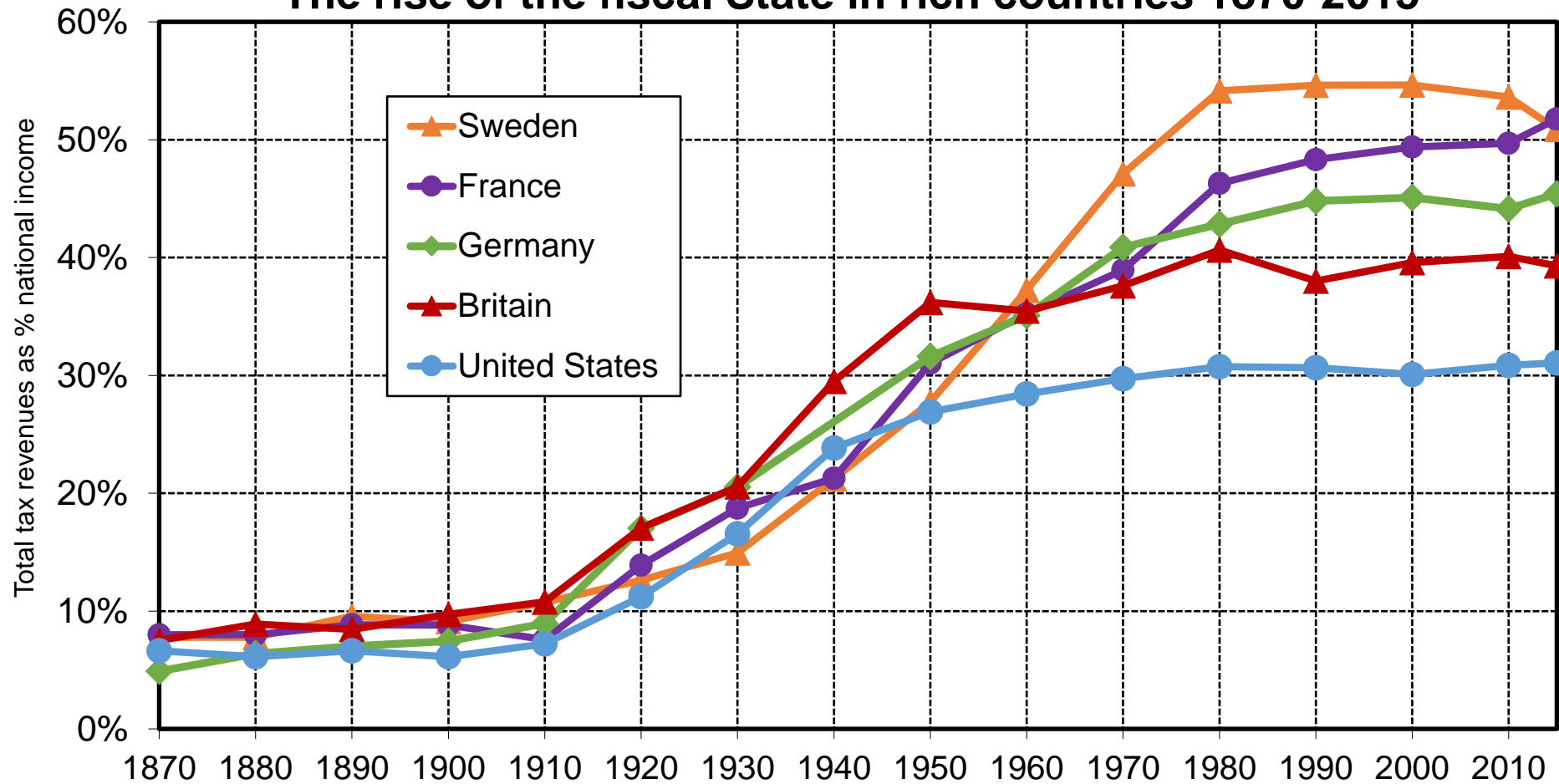
## Effective rates and progressivity in the U.S. 1910-2020



**Interpretation.** From 1915 to 1980, the tax system was highly progressive in the U.S., in the sense that effective tax rates paid by the highest income groups (all taxes included, and as % of pretax income) was significantly larger than the average effective tax rate paid by the the total population (and particularly by the bottom 50% incomes). Since 1980, the tax system has not been very progressive, with little differences in effective tax rates across groups. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.13).



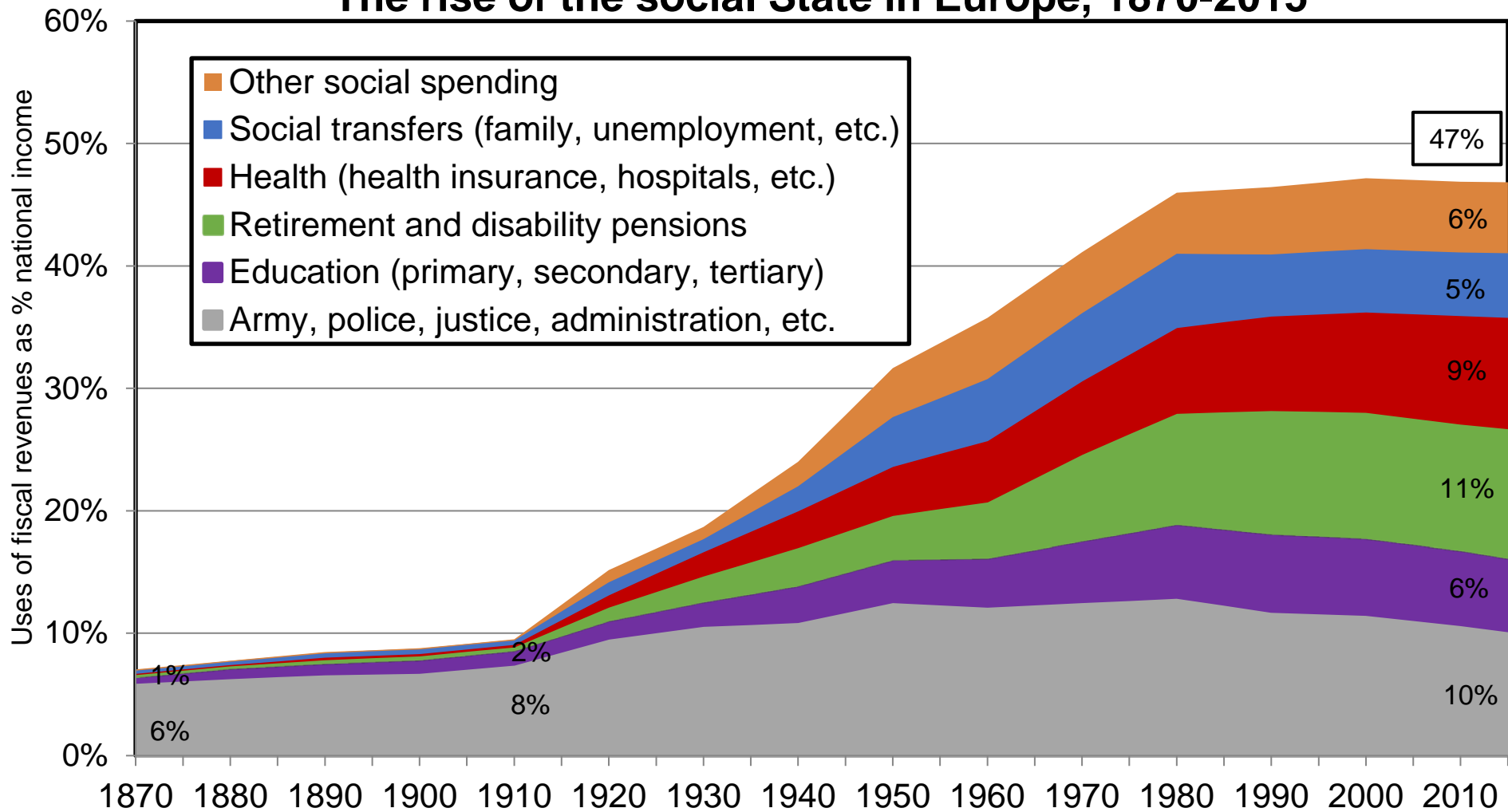
## The rise of the fiscal State in rich countries 1870-2015



**Interpretation.** Total fiscal revenues (all taxes and social contributions included) made less than 10% of national income in rich countries during the 19th century and until World War 1, before rising strongly from the 1910s-1920s until the 1970s-1980s and then stabilizing at different levels across countries: around 30% in the U.S., 40% in Britain and 45%-55% in Germany, France and Sweden.

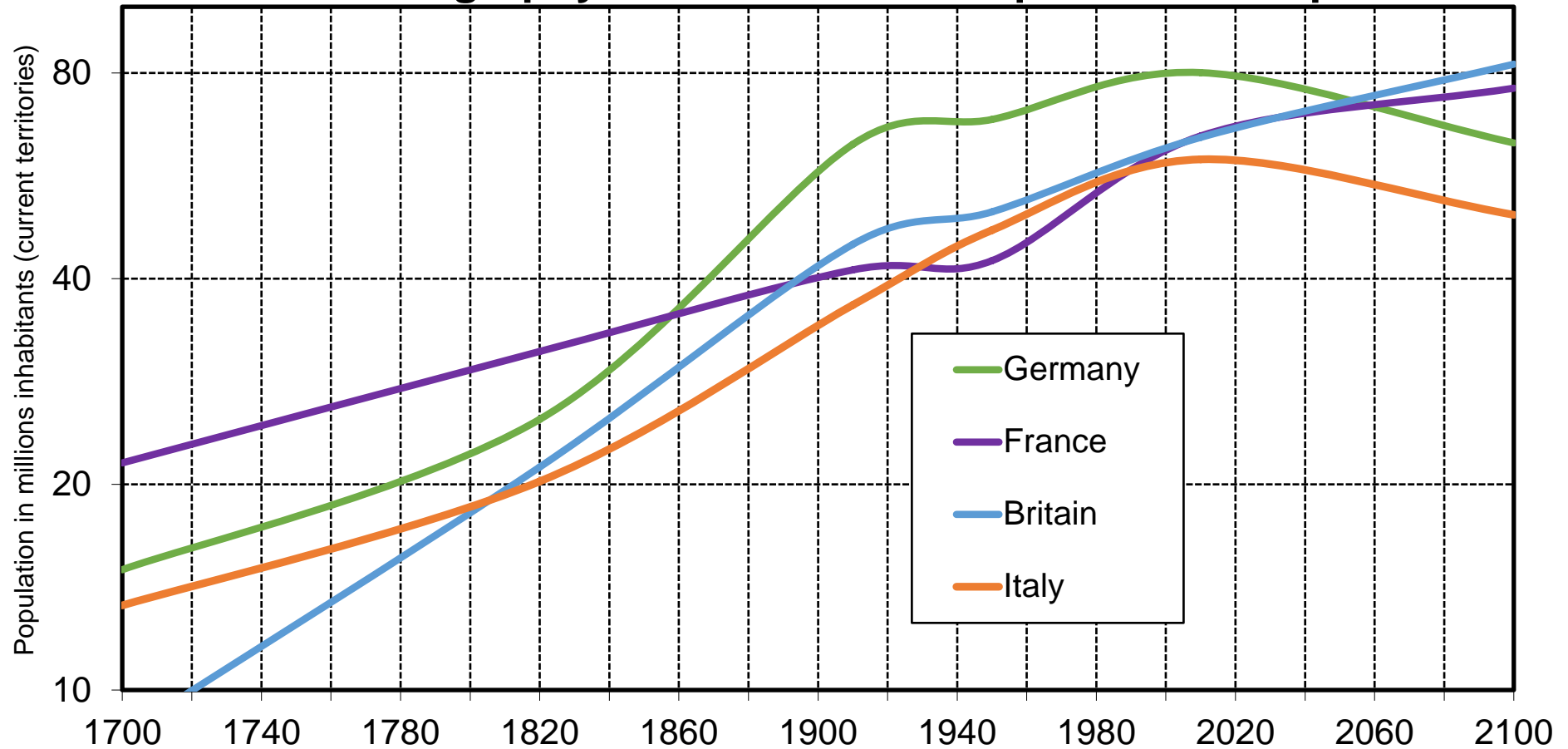
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.14).

## The rise of the social State in Europe, 1870-2015



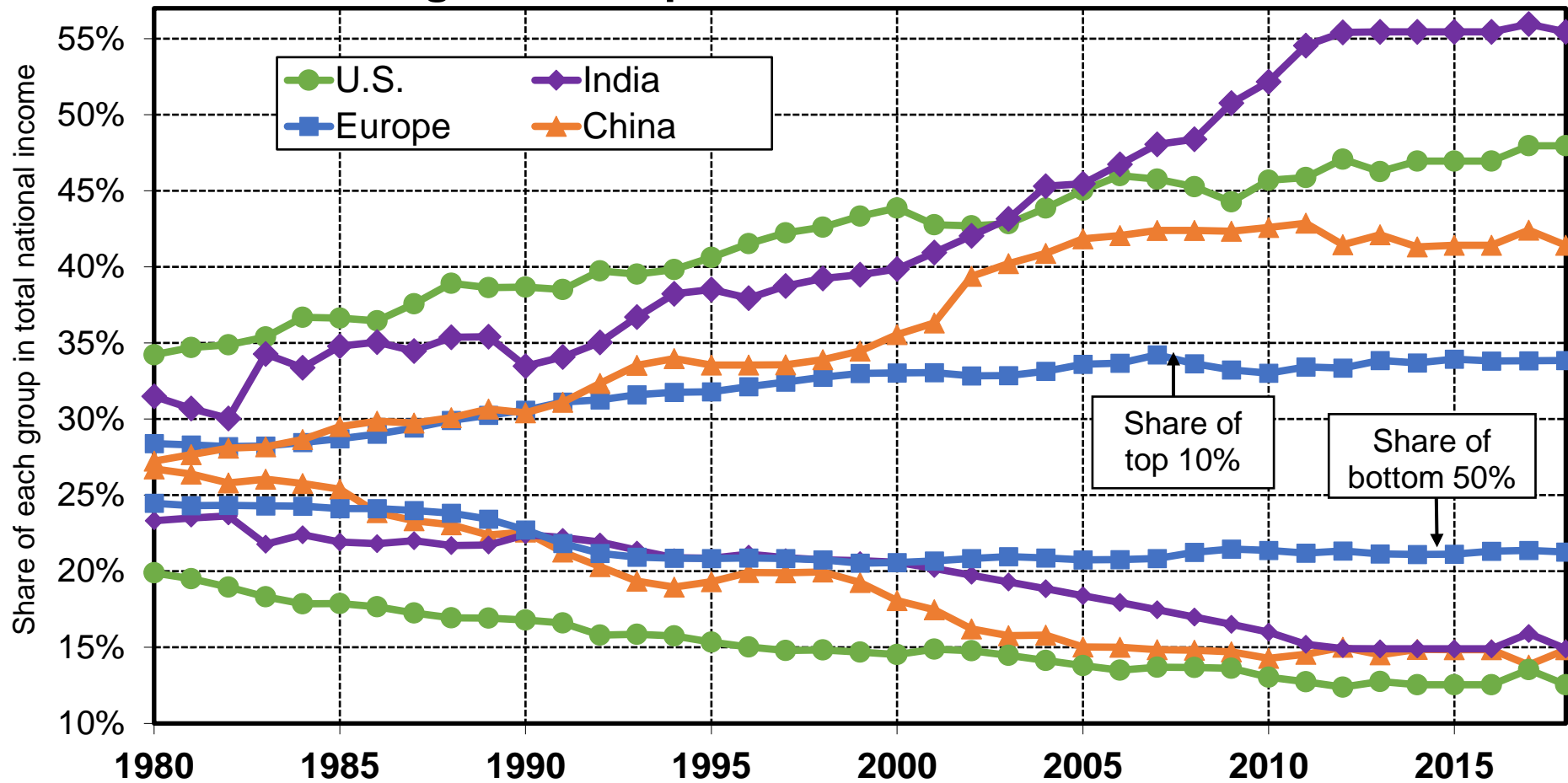
**Interpretation.** In 2015, fiscal revenues represented 47% of national income on average in Western Europe et were used as follows: 10% of national income for regalian expenditure (army, police, justice, general administration, basic infrastructure: roads, etc.); 6% for education; 11% for pensions; 9% for health; 5% for social transfers (other than pensions); 6% for other social spending (housing, etc.). Before 1914, regalian expenditure absorbed almost all fiscal revenues. **Note.** The evolution depicted here is the average of Germany, France, Britain and Sweden (see figure 10.14). Sources and séries: see piketty.pse.ens.fr/ideology (figure 10.15).

## Demography and the balance of power in Europe



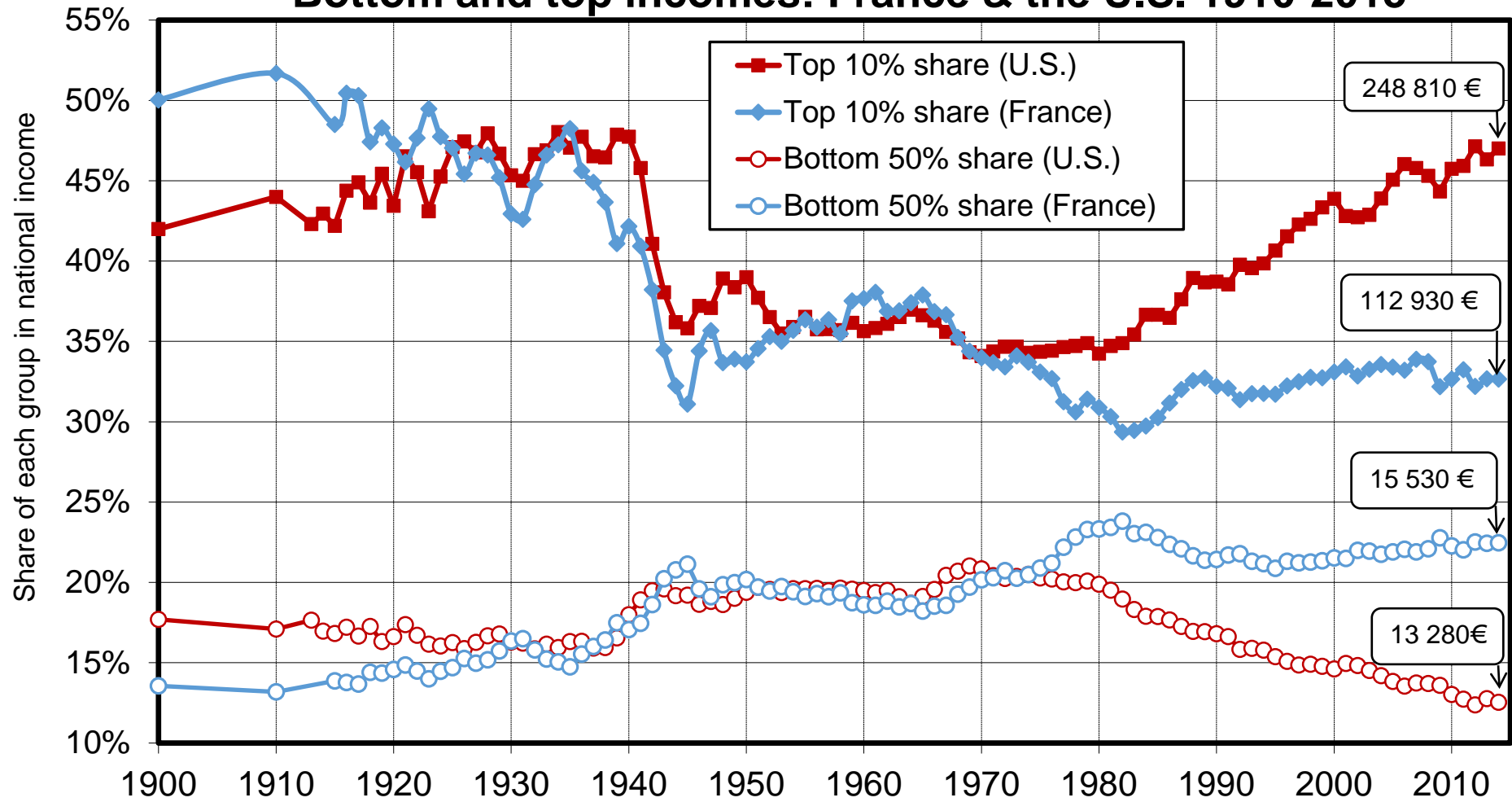
**Interpretation.** Germany, Britain, Italy and France have had for centuries populations of comparable size: the four countries all had about 20-30 millions inhabitants in 1820, and they all have around 60-80 millions inhabitants in 2020. There have been frequent changes in relative position, however. E.g. in 1800 France was half more numerous than Germany (31 millions vs 22 millions); in 1910, Germany was half more numerous than France (63 millions vs 41 millions). According to UN projections, Britain and France will be the most numerous by 2100. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 10.16).

## Divergence of top and bottom incomes 1980-2018



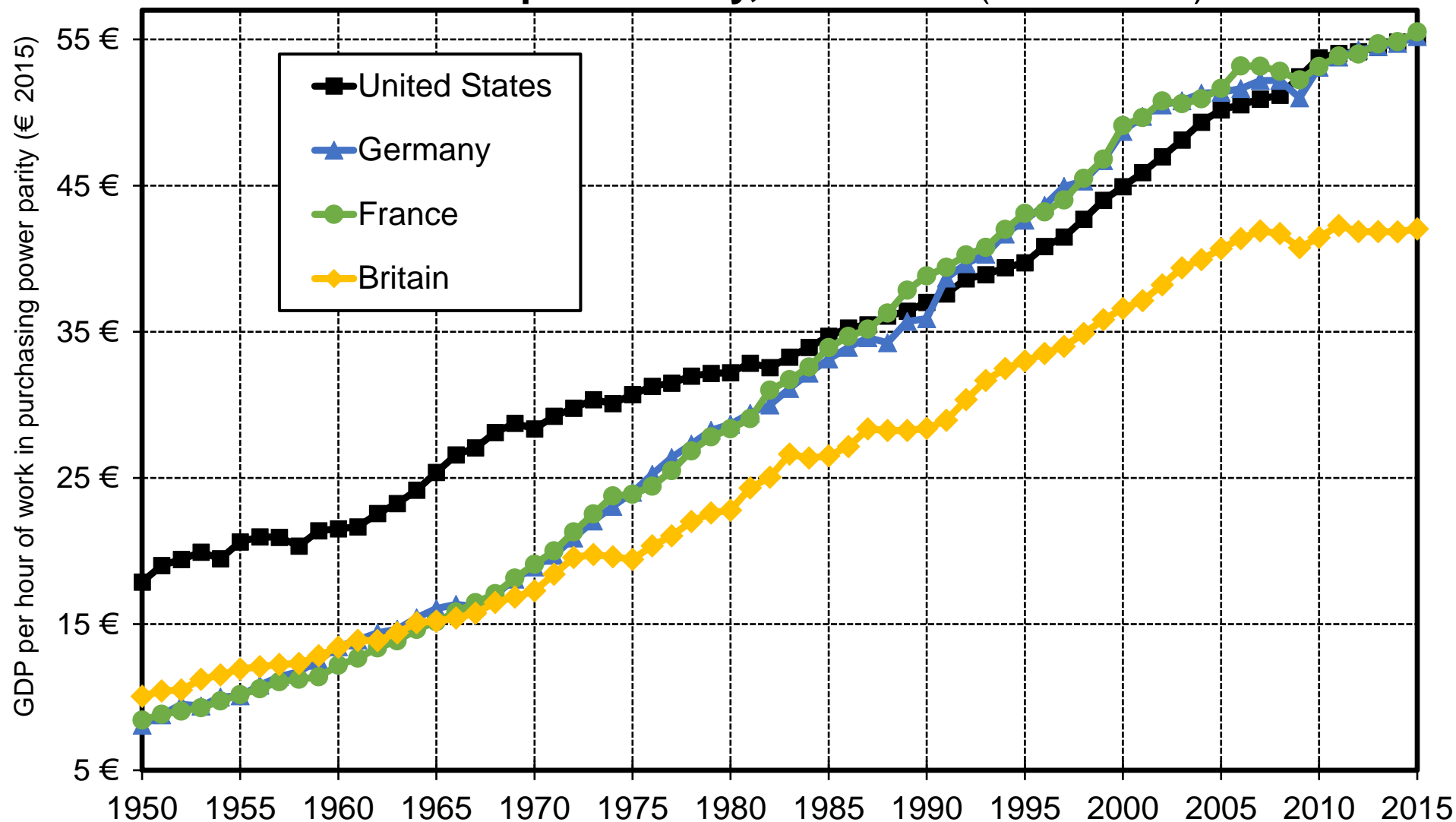
**Interpretation.** The share of the top decile (the 10% highest incomes) rose in all world regions: it was between 27% and 34% in 1980; it is between 34% and 56% in 2018. The share going to the bottom 50% dropped: it was between 20% and 27%; it is now between 12% and 21%. The divergence between bottom and top incomes is general, but its magnitude varies across countries: it is larger in India and in the U.S. than in China and in Europe. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.1).

## Bottom and top incomes: France & the U.S. 1910-2015



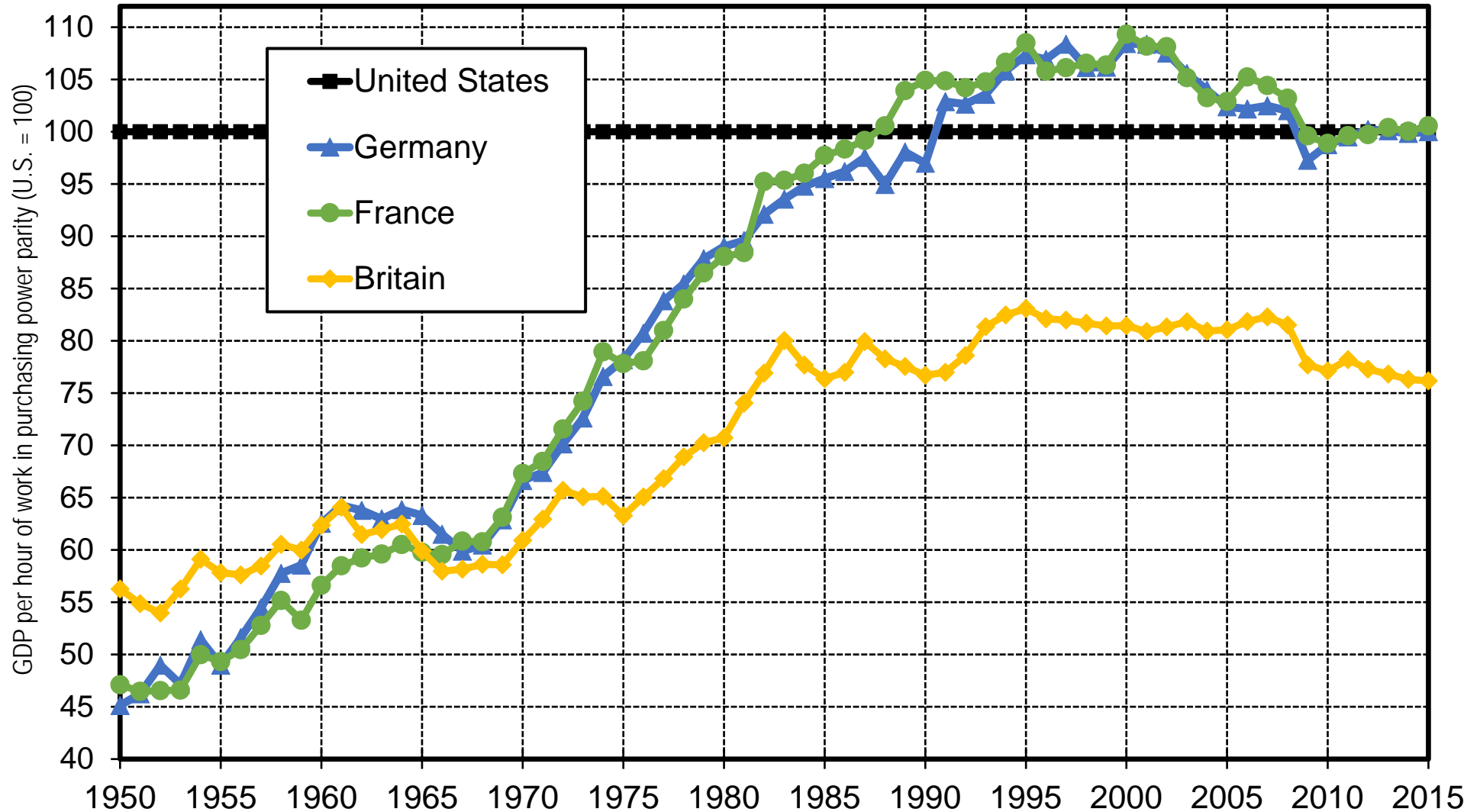
**Interpretation.** Income inequality in the U.S. in 2010-2015 exceeded its level in 1900-1910, whereas it was reduced in France (and Europe). In both cases, however, inequality remains high: the top decile, one-fifth the size of the bottom 50 percent, still receives a much larger income share. The income levels reported here are the average annual incomes of each group in 2015 (at purchasing power parity). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.2).

## Labour productivity, 1950-2015 (euros 2015)



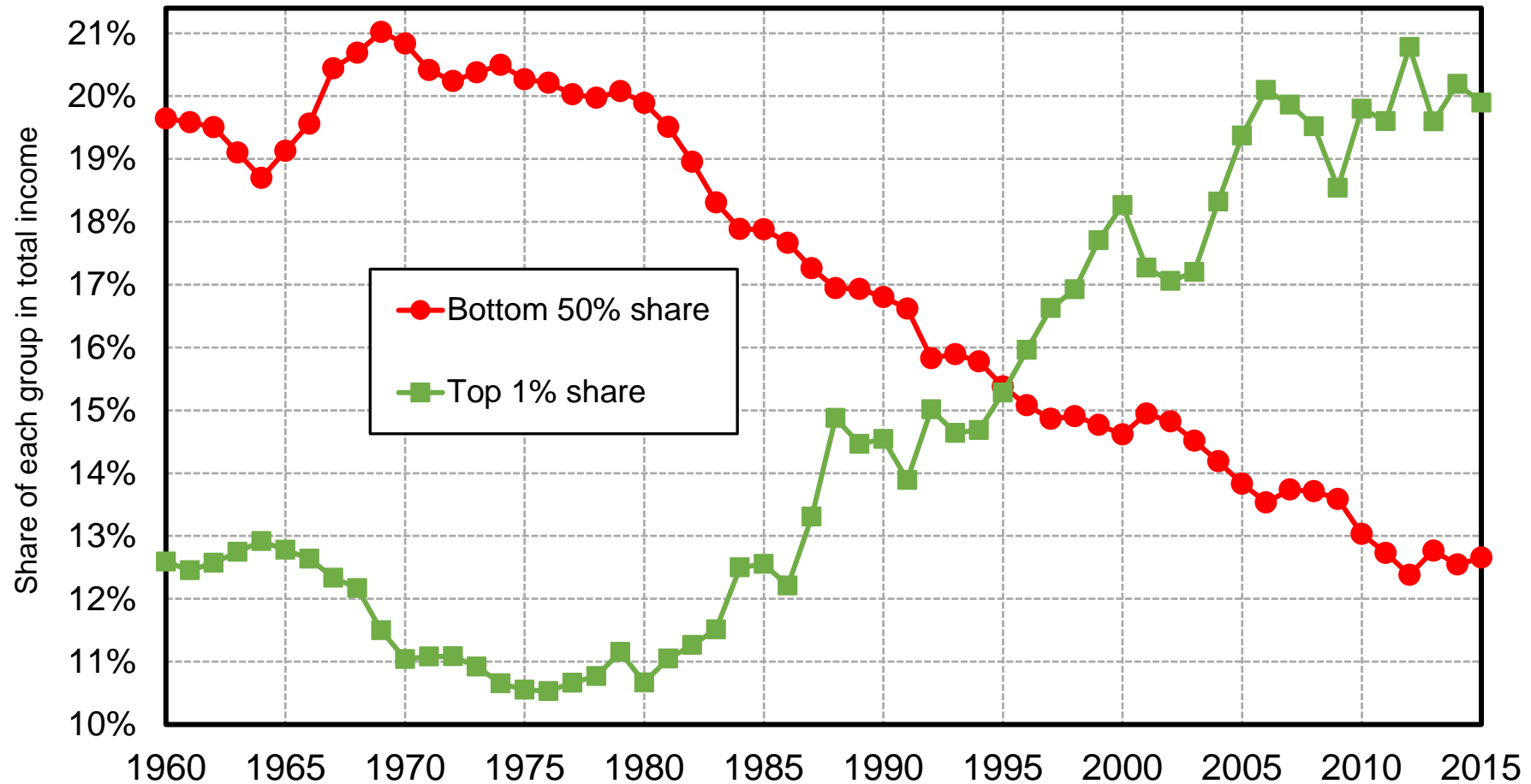
**Interpretation.** Labour productivity, measured by GDP per hour of work (in euros 2015 and at purchasing power parity) rose from 8 euros in Germany and in France in 1950 to 55 euros in 2015. Germany and France caught up (or slightly passed) the U.S. in 1985-1990, while Britain remains about 20% lower. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.3).

## Labour productivity : Europe vs United States



**Interpretation.** Labour productivity, measured by GDP per hour of work (in euros 2015 and at purchasing power parity), was twice as small in Europe than in the United States in 1950. Germany and France caught up (or slightly passed) the U.S. in 1985-1990, while Britain remains 20% lower. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.4).

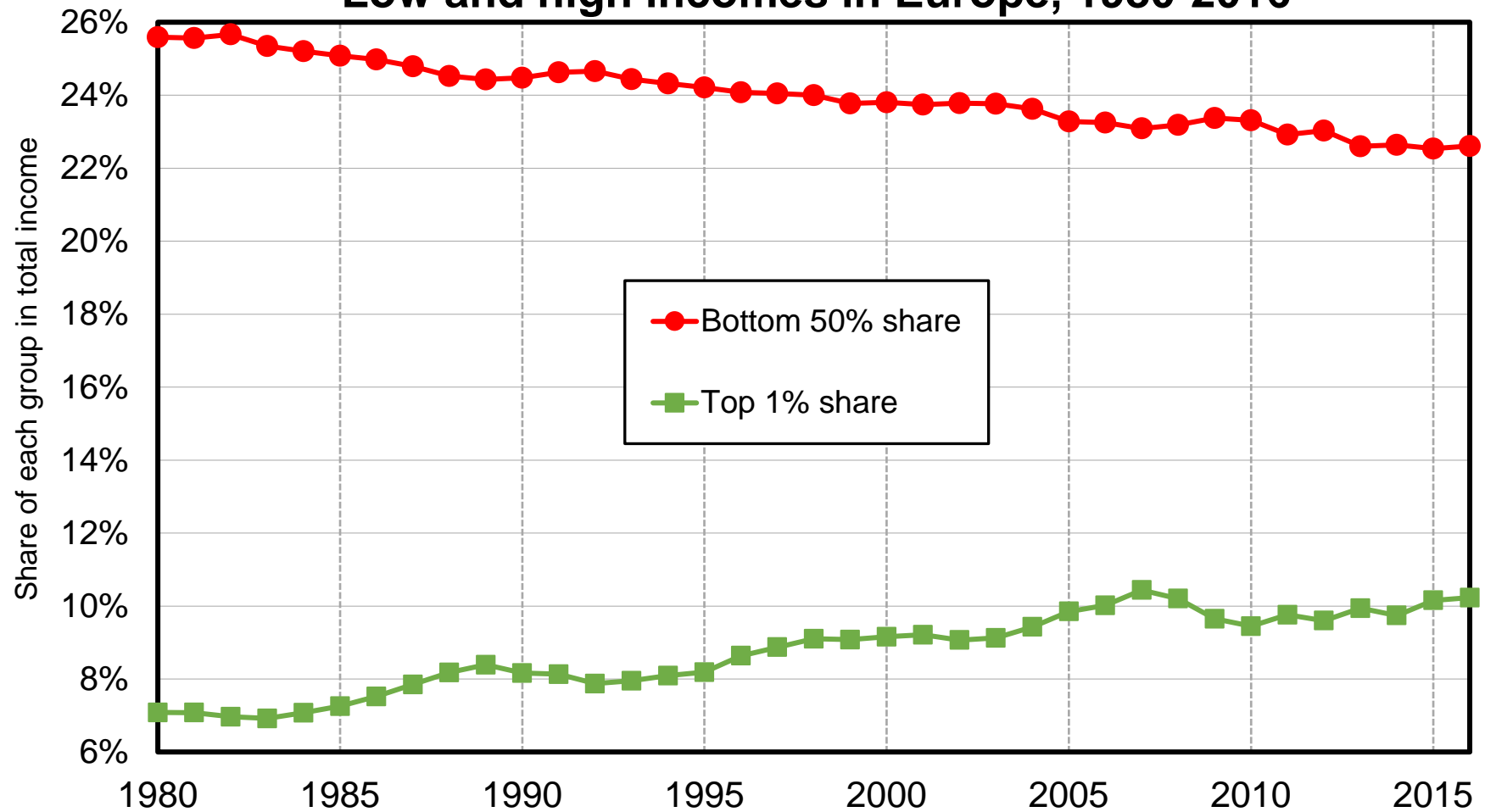
## The fall of the bottom 50% share: U.S. 1960-2015



**Interpretation.** The share of the bottom 50% lowest incomes in the U.S. dropped from about 20% of total income in the 1970s to about 12%-13% in the 2010s. Over the same period, the share going to the top 1% highest incomes rose from 11% of total income to 20%-21%. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.5).

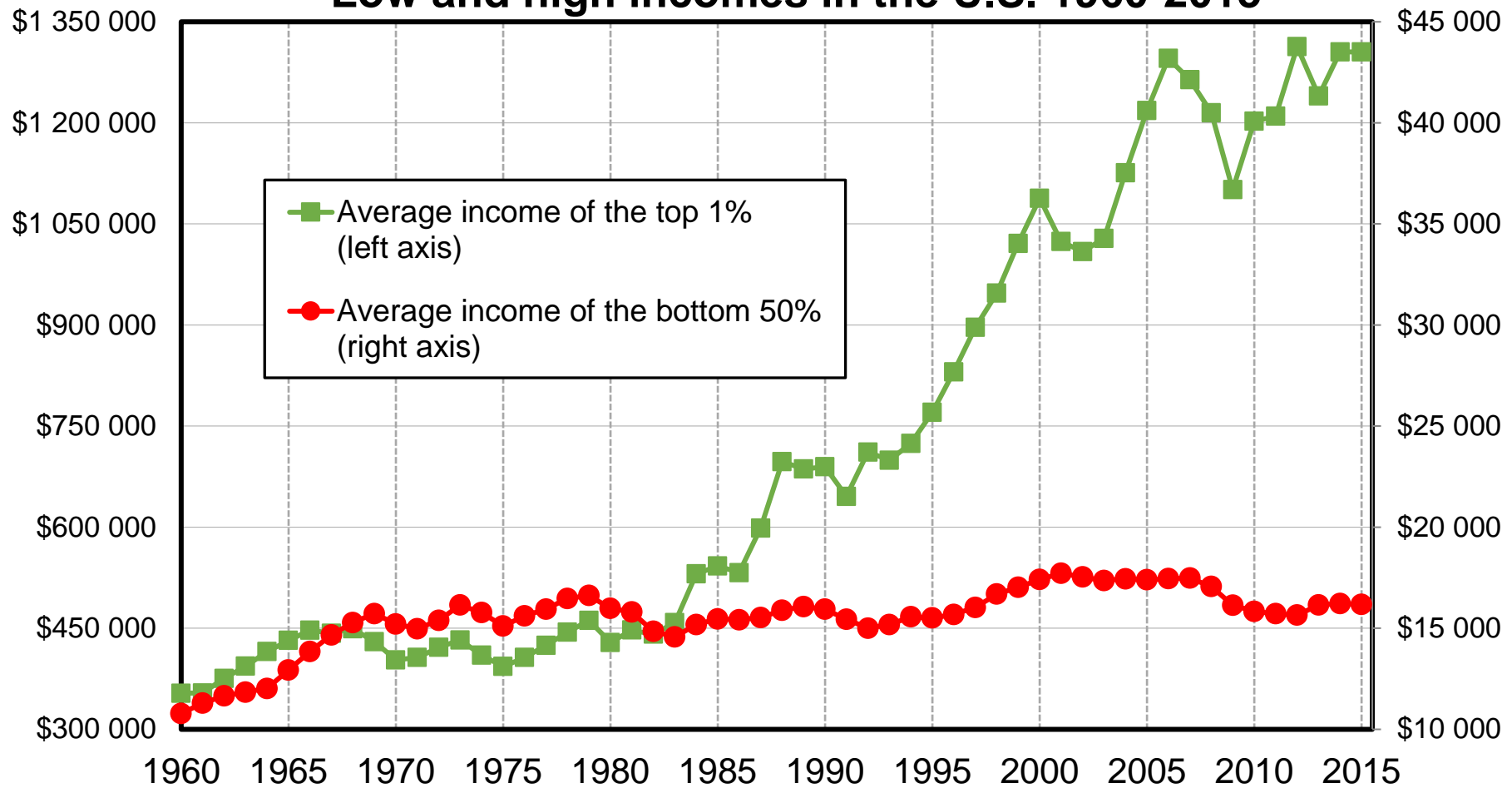


## Low and high incomes in Europe, 1980-2016



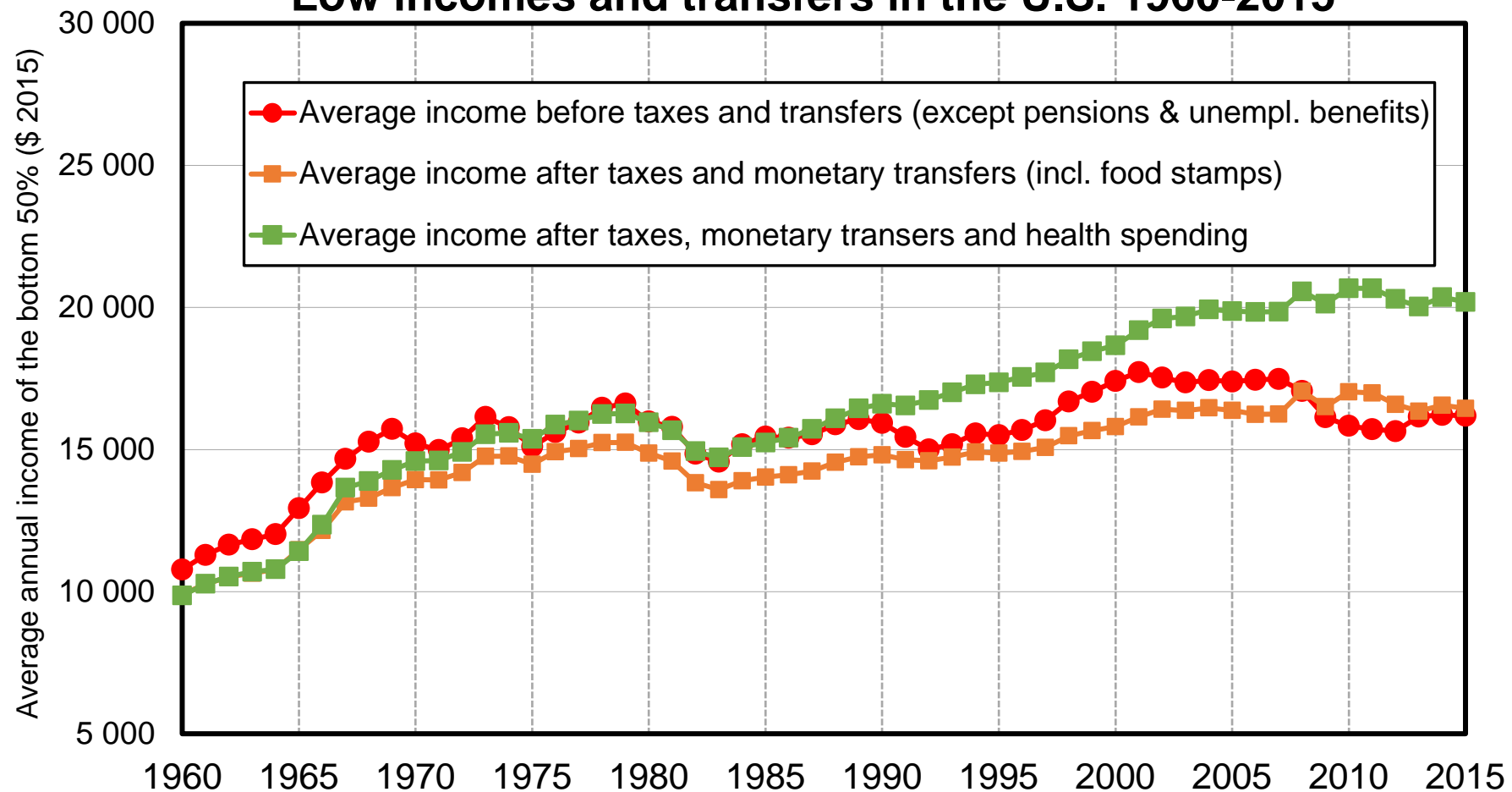
**Interpretation.** The share of the bottom 50% lowest incomes in Europe dropped from about 26% of total income in the early 1980s to 23% in the 2010s. Over the same period, the share going to the top 1% highest incomes rose from 7% of total income to 10%. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.6).

## Low and high incomes in the U.S. 1960-2015



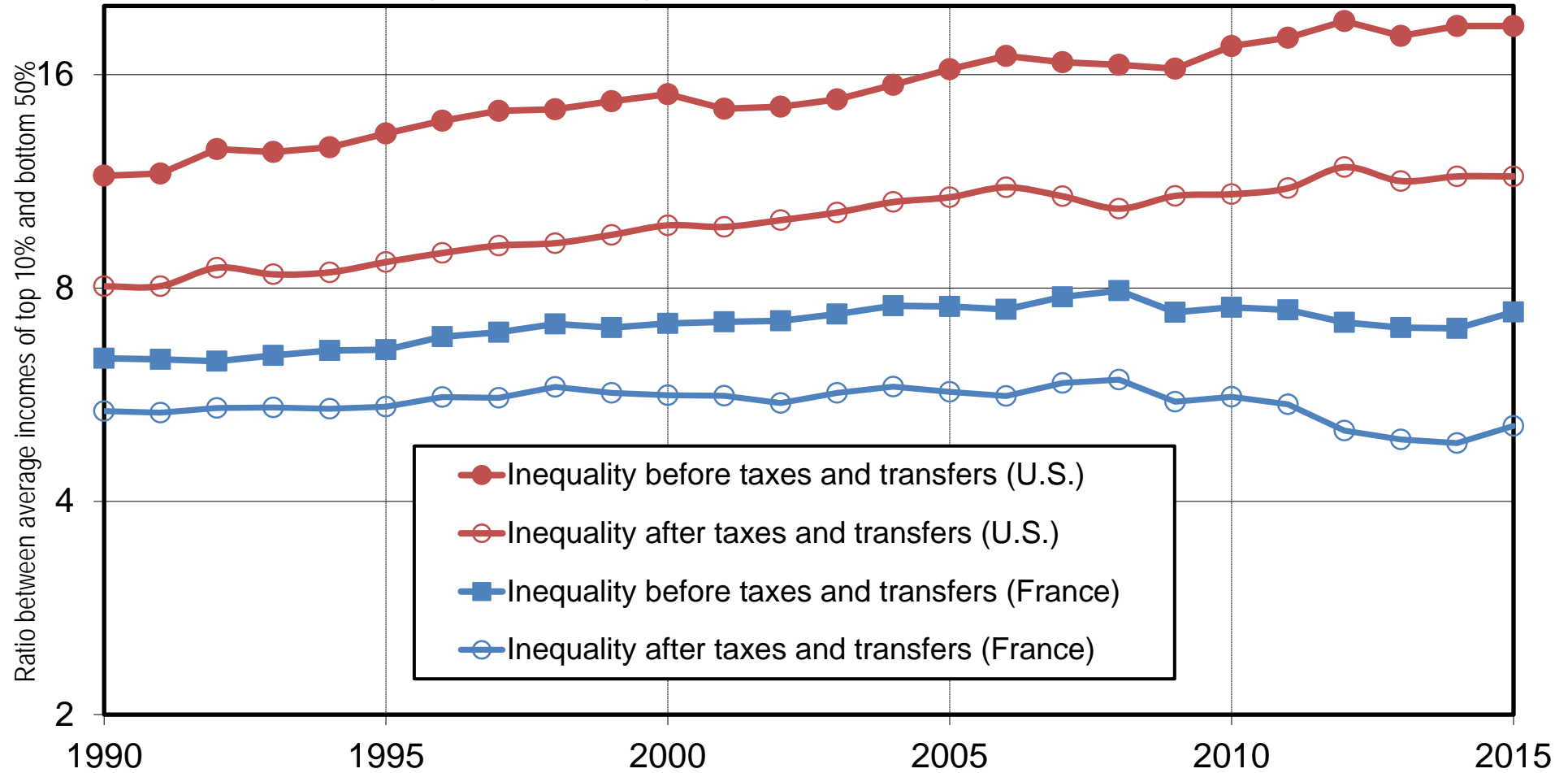
**Interpretation.** In 1970, the average income of the bottom 50% was 15 200\$ per year and per adult, and that of the top 1% was 403 000\$, i.e. a ratio of 1 to 26. In 2015, the average income of the bottom 50% was 16 200\$ and that of the top 1% was 1 305 000\$, i.e. a ratio of 1 to 81. All amounts are expressed in 2015 \$. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.7).

## Low incomes and transfers in the U.S. 1960-2015



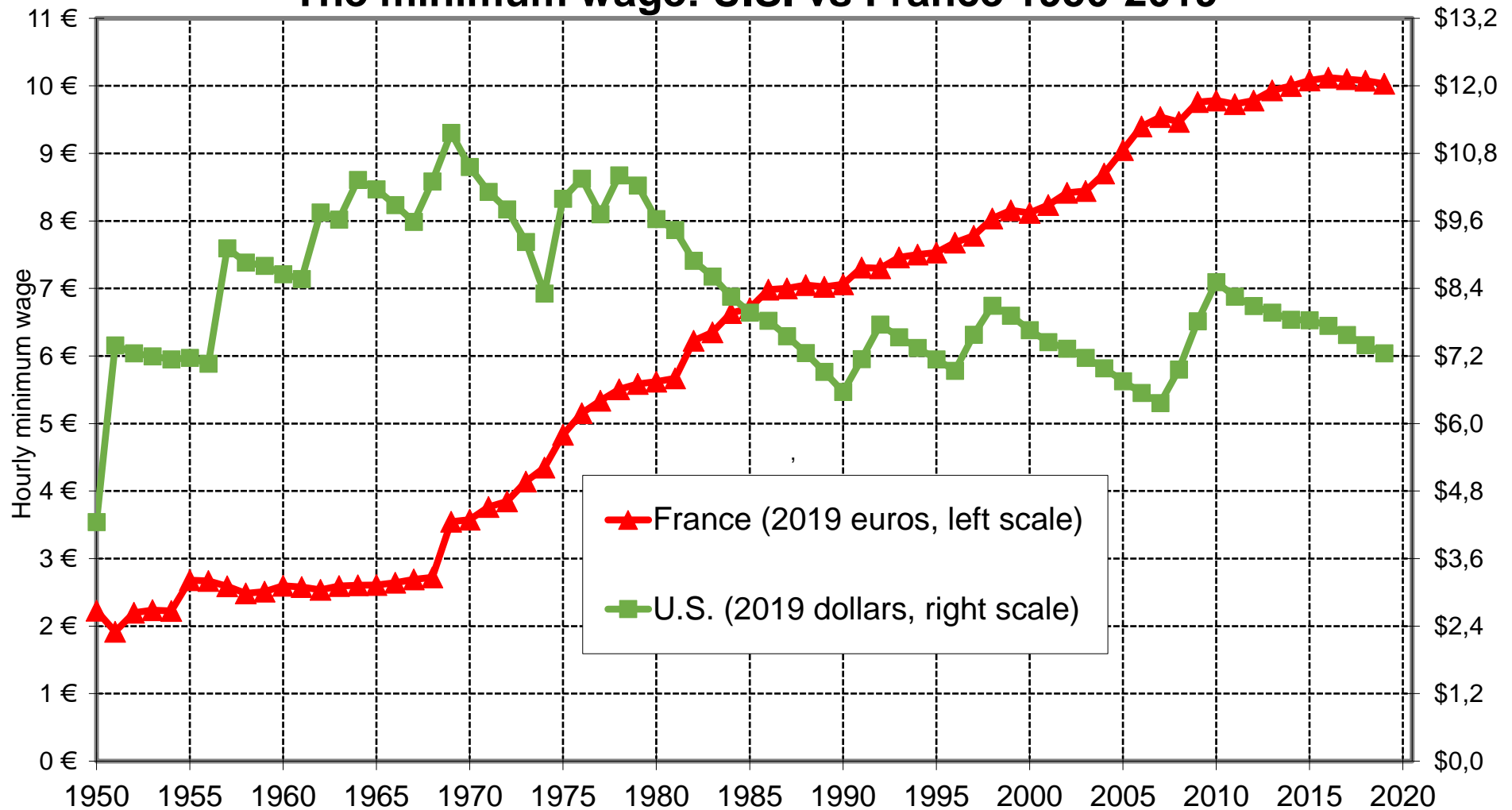
**Interpretation.** Expressed in constant 2015 dollars, the average annual income before taxes and transfers of the bottom 50% stagnated around 15 000\$ per adult between 1970 and 2015. The same is true after taxes (incl. indirect taxes) and monetary transfers (incl. food stamps), taxes and transfers roughly balancing each other out. It rises to about 20 000\$ in 2010-2015 if one includes in-kind transfers in the form of health spending. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.8).

## Primary inequality and redistribution: U.S. vs France



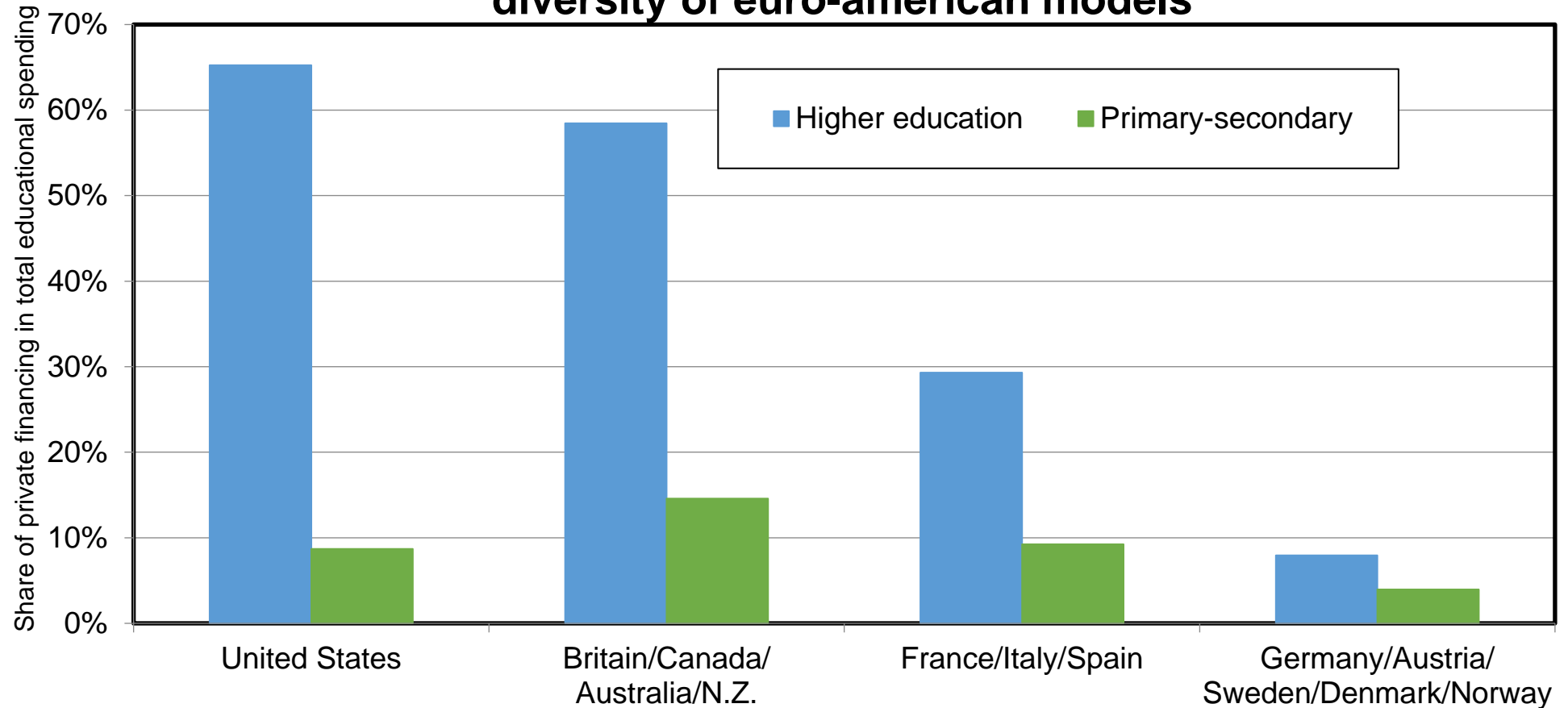
**Interpretation.** In France, the ratio between the average income before taxes and transfers of the top decile (the 10% highest incomes) and of the bottom half (the 50% lowest incomes) rose from 6,4 in 1990 to 7,4 in 2015. In the U.S., this same ratio rose from 11,5 to 18,7. In both countries, taking into account taxes and monetary transfers (incl. food stamps and housing benefits) reduces inequality by about 20%-30%.  
 Note: the distribution is that of annual income per adult. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.9).

## The minimum wage: U.S. vs France 1950-2019



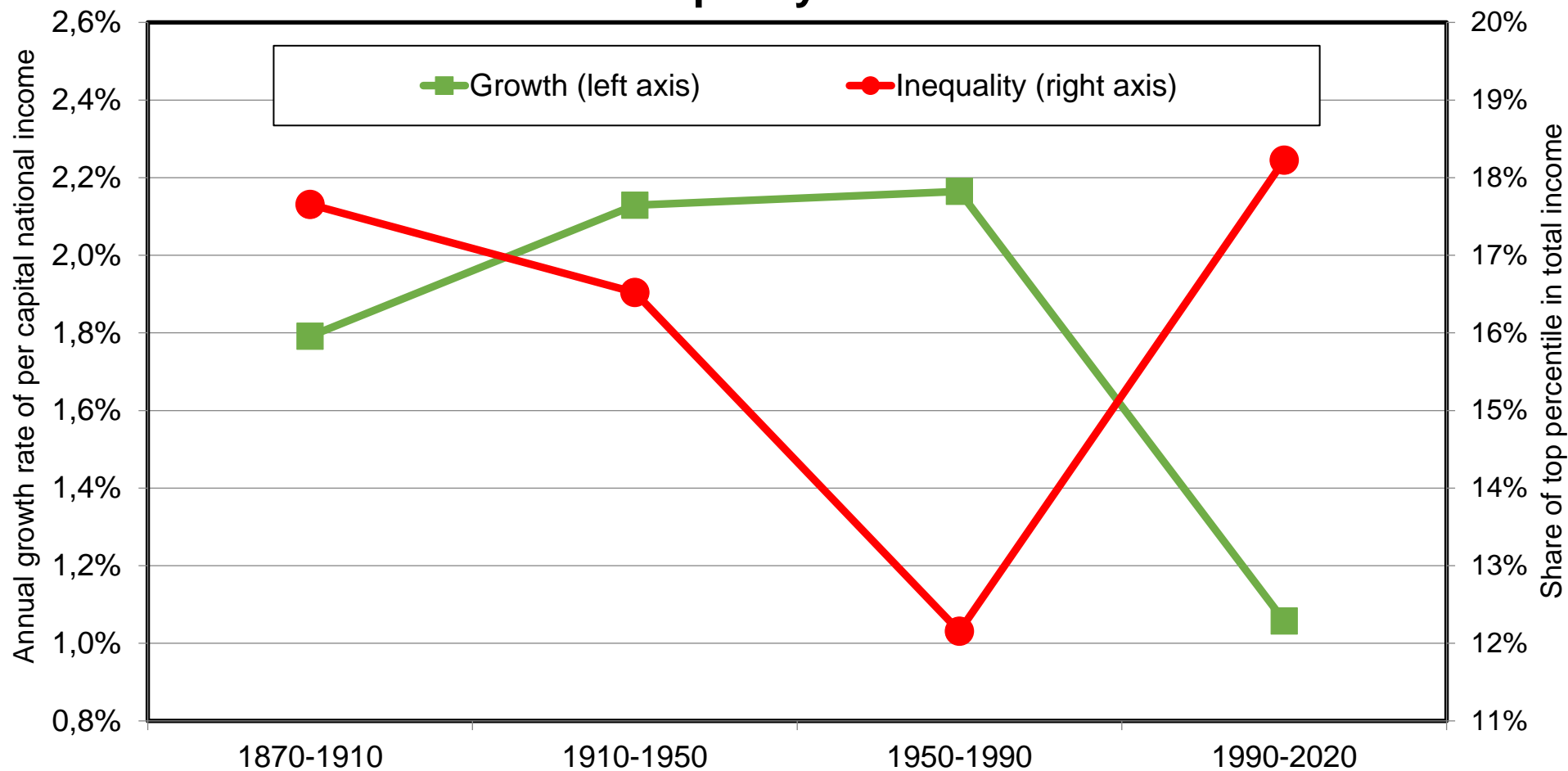
**Interpretation.** Converted into 2019 purchasing power, the federal minimum wage increased from 4,25\$ per hour in 1950 to 7,25\$ in 2019 in the U.S., while the national minimum wage (Smig in 1950 and then Smic beginning in 1970) rose from 2,23€ per hour in 1950 to 10,03€ in 2019. Both scales are based upon purchasing power parity (1,2\$ for 1€ in 2019). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.10).

## The share of private financing in education: diversity of euro-american models



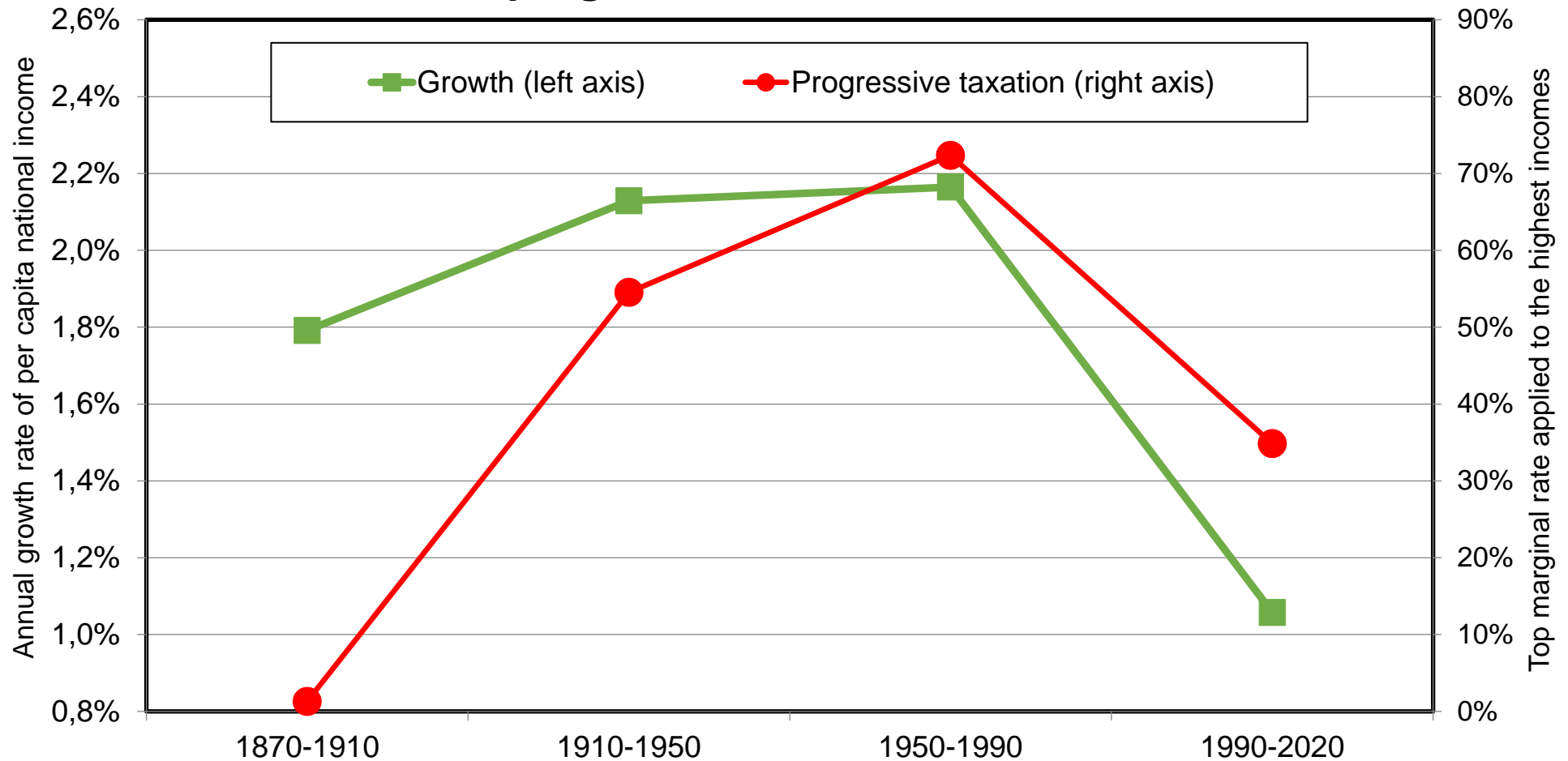
**Interpretation.** In the U.S., private financing make 65% of total financing (private and public) of higher education, and 9% of total financing of primary and secondary education. The share of private financing in higher education varies substantially across countries, with an anglo-american model, a south-european model and a north-european model. The share of private financing is everywhere relatively small regarding primary and secondary education (2014-2016 figures). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.11).

## Growth and inequality in the U.S. 1870-2020



**Interpretation.** in the U.S., the growth rate of per capita national income dropped from 2,2% per year between 1950 and 1990 to 1,1% between 1990 and 2020, while the share of the top percentile (the 1% highest incomes) in national income rose from 12% to 18% over the same period. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.12).

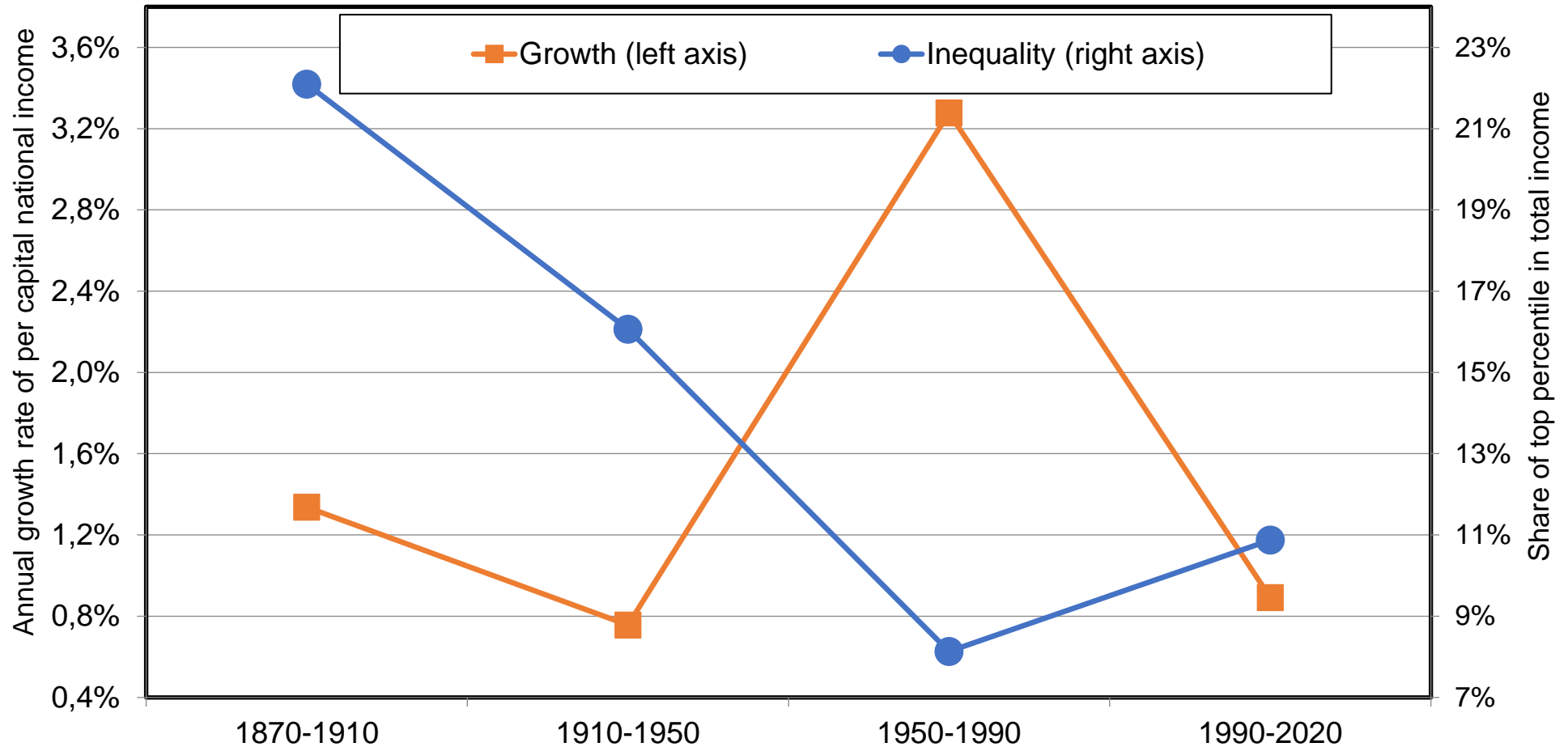
## Growth and progressive taxation in the U.S. 1870-2020



**Interpretation.** in the U.S., the growth rate of per capita national income dropped from 2,2% per year between 1950 and 1990 to 1,1% between 1990 and 2020, while the top marginal tax rate applied to the highest incomes dropped from 72% to 35% over the same period. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.13).

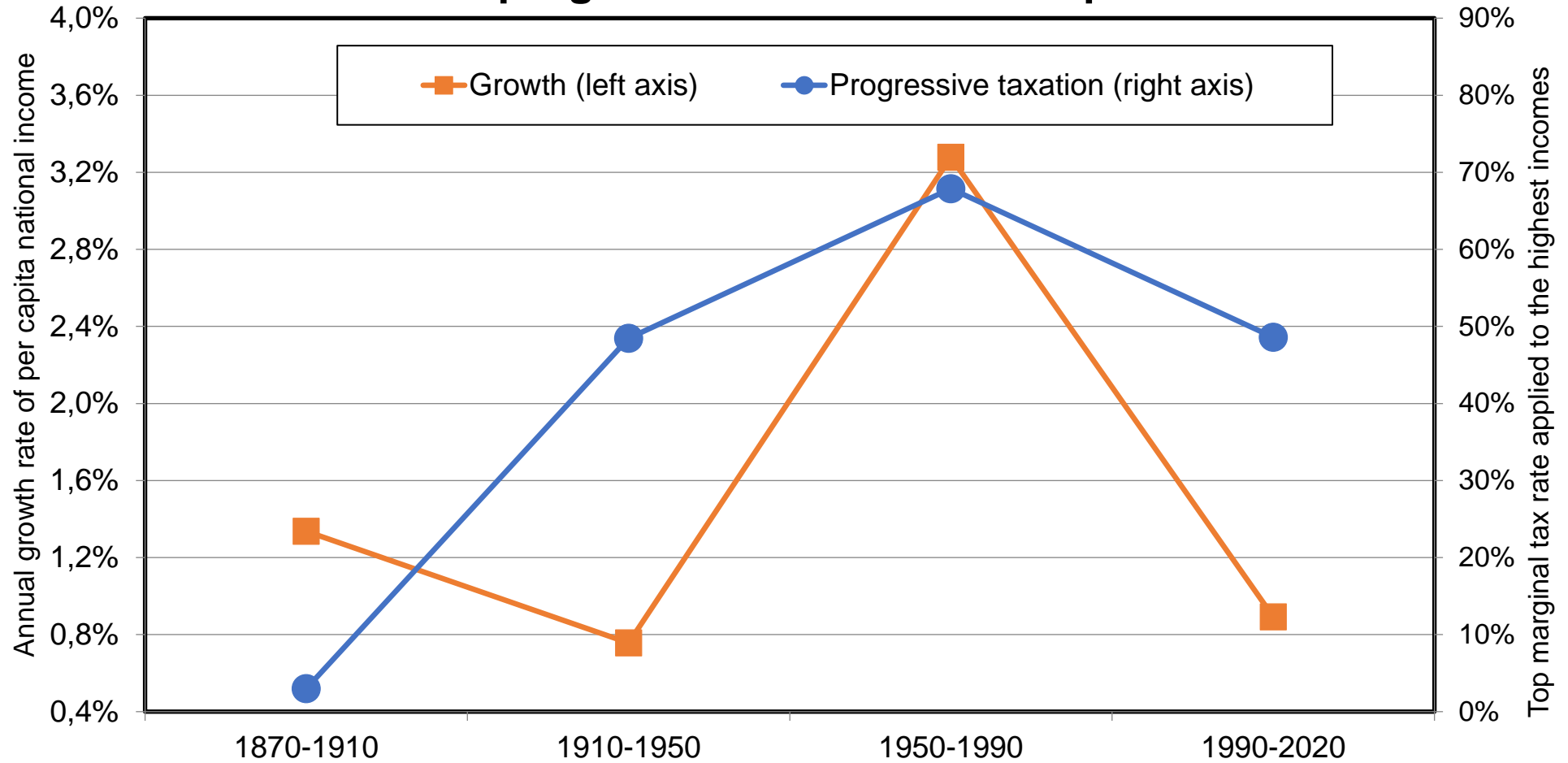


## Growth and inequality in Europe 1870-2020



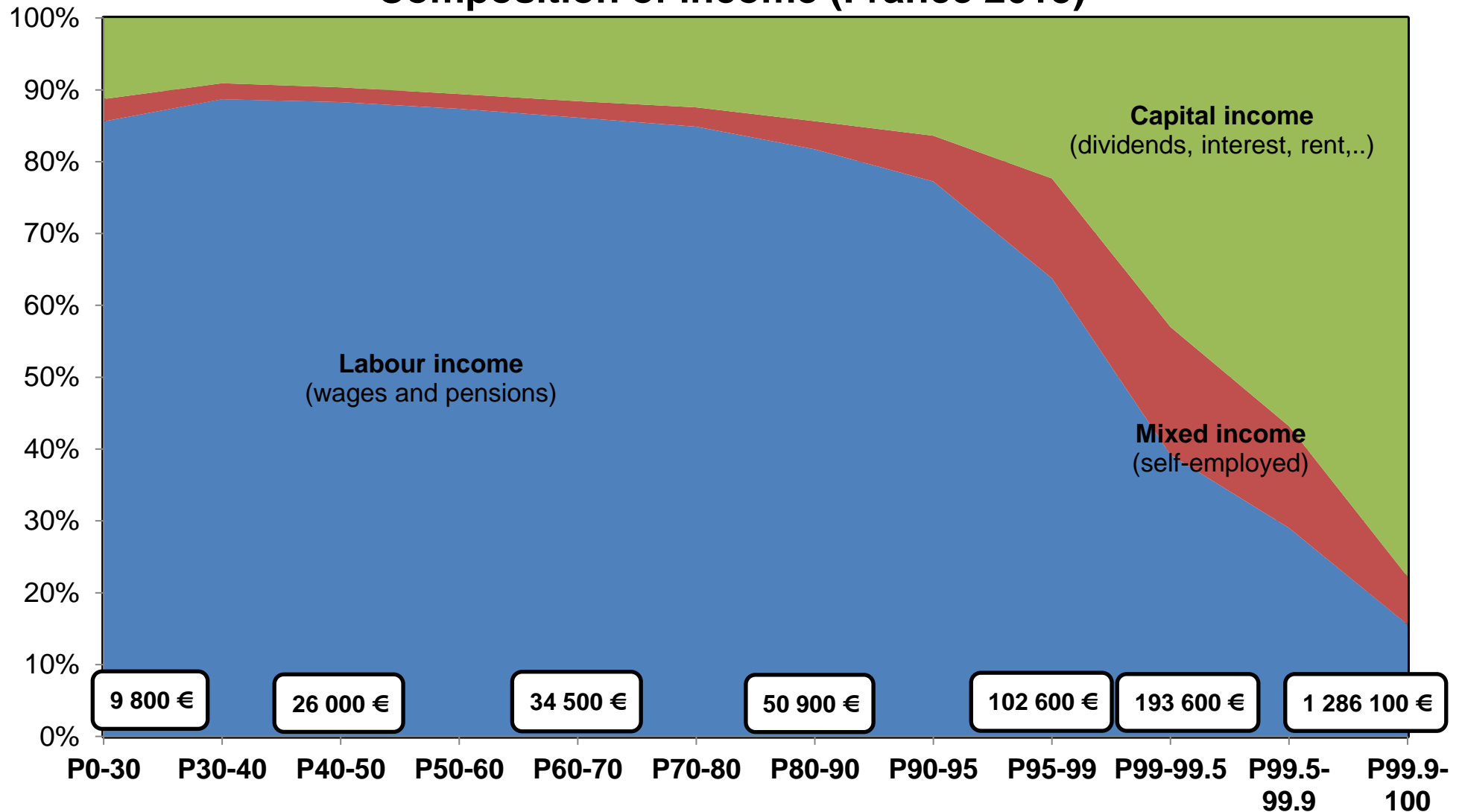
**Interpretation.** In Western Europe, the growth rate of per capita national income dropped from 3,3% per year between 1950 and 1990 to 0,9% per year between 1990 and 2020, while the share of the top percentile (the 1% highest incomes) in national income rose from 8% to 11% over the same period (average Germany-Britain-France). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.14).

## Growth and progressive taxation in Europe 1870-2020



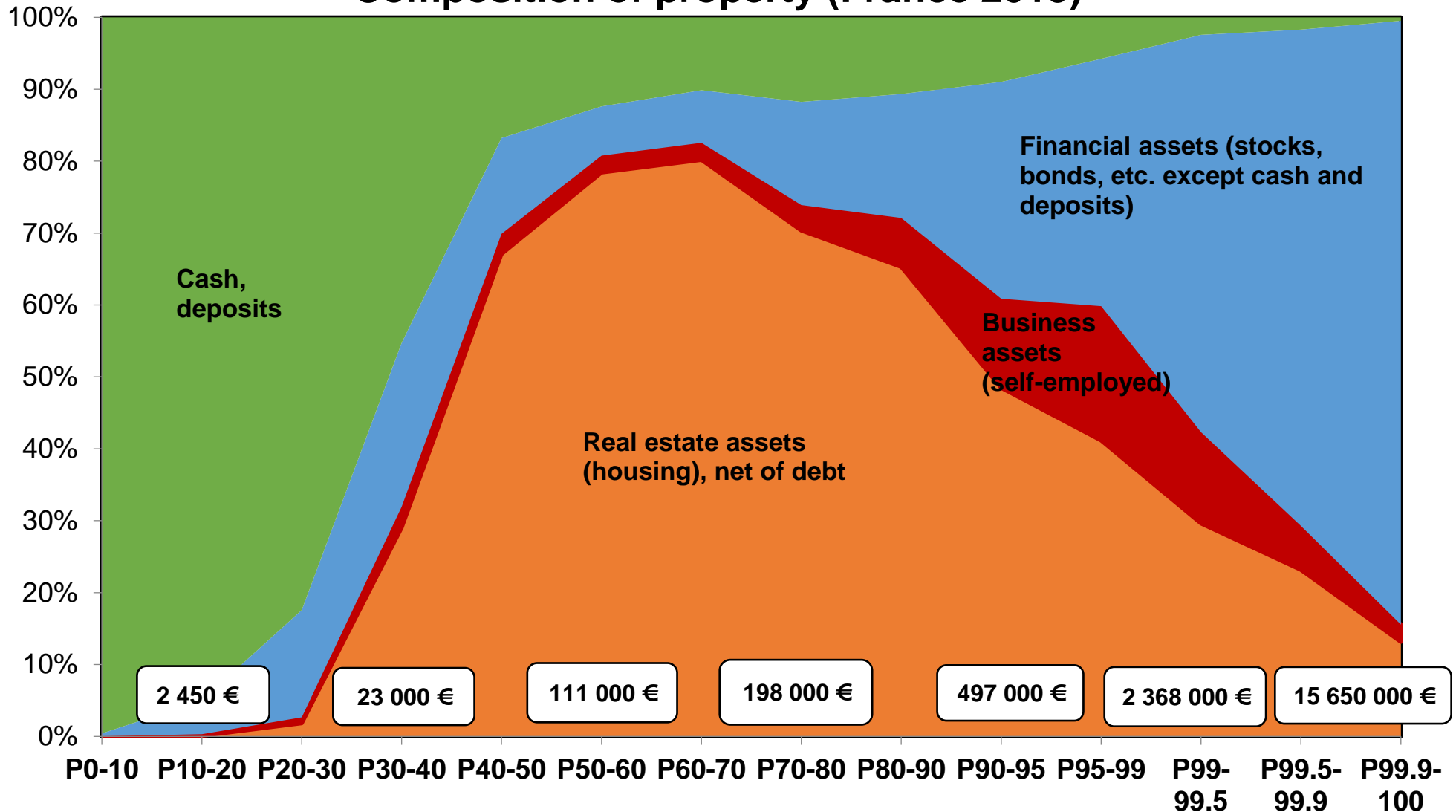
**Interpretation.** In Western Europe, the growth rate of per capita national income dropped from 3,3% per year between 1950 and 1990 to 0,9% per year between 1990 and 2020, while the top marginal tax rate applied to the highest incomes dropped from 98% to 49% over the same period (average Germany-Britain-France). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.15).

## Composition of income (France 2015)



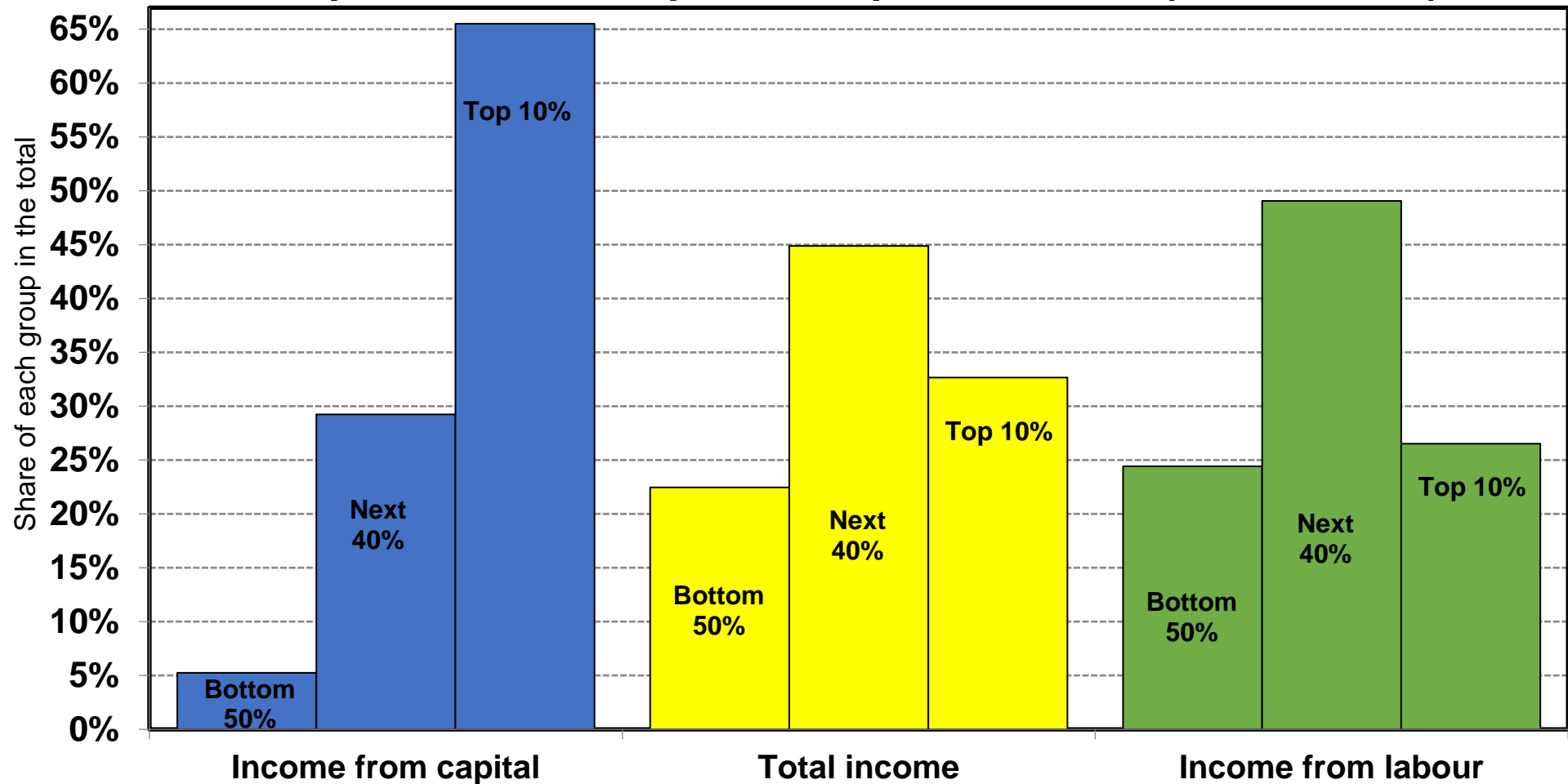
**Interpretation.** In France in 2015 (as in most countries where data are available), bottom and middle incomes are mostly made of labour income, while the highest incomes mostly consist of capital income (especially dividends). Note: the distribution shown here is annual income per adult, before taxes but pensions and unemployment insurance. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.16).

## Composition of property (France 2015)



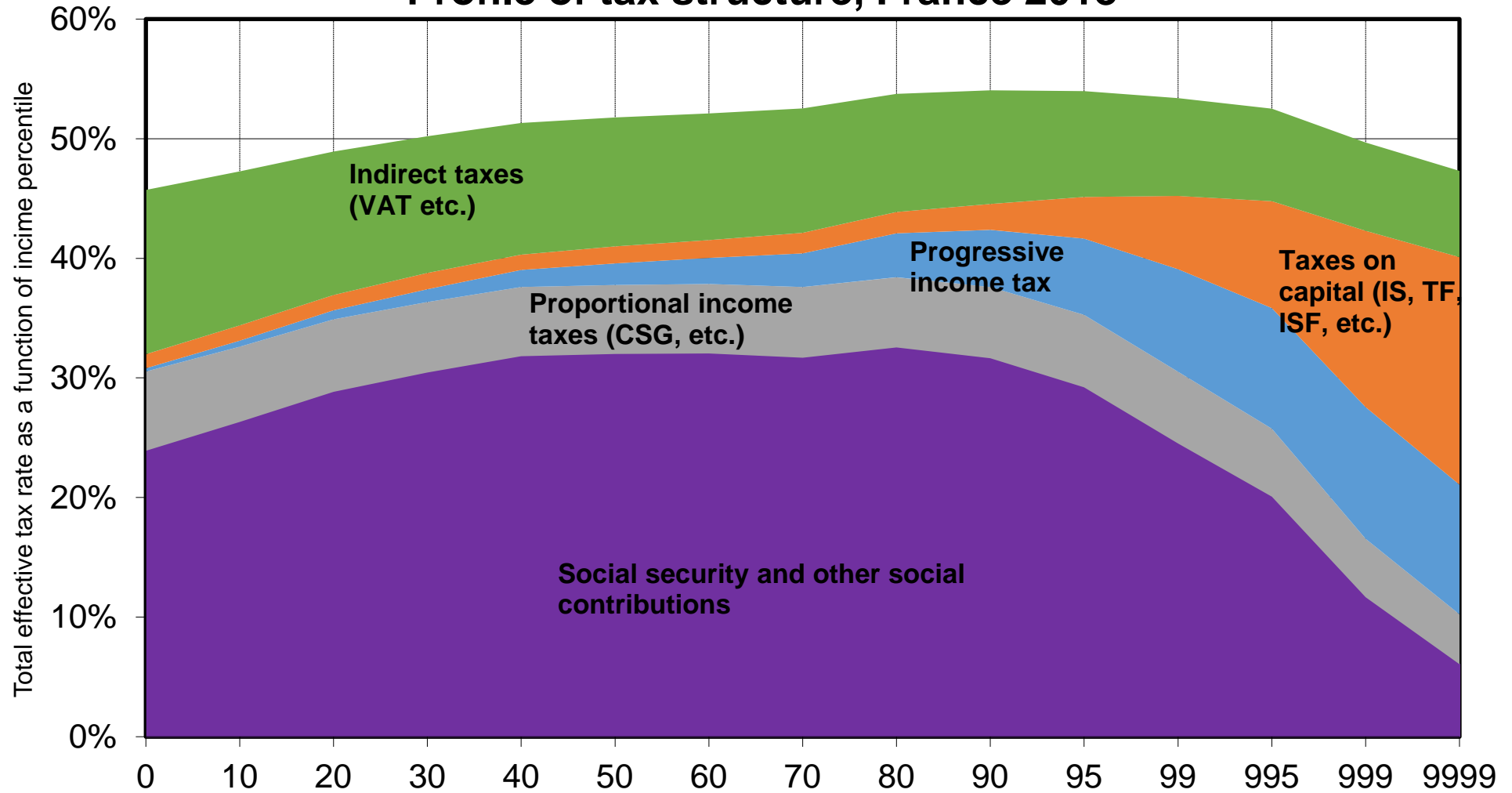
**Interpretation.** In France in 2015 (as in most countries where data are available), small fortunes consist primarily cash and bank deposits, medium fortunes of real estate, and large fortunes of financial assets (mainly stocks). Note: the distribution shown here is per adult wealth (wealth of couples divided by two). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.17).

## Inequalities with respect to capital & labour (France 2015)



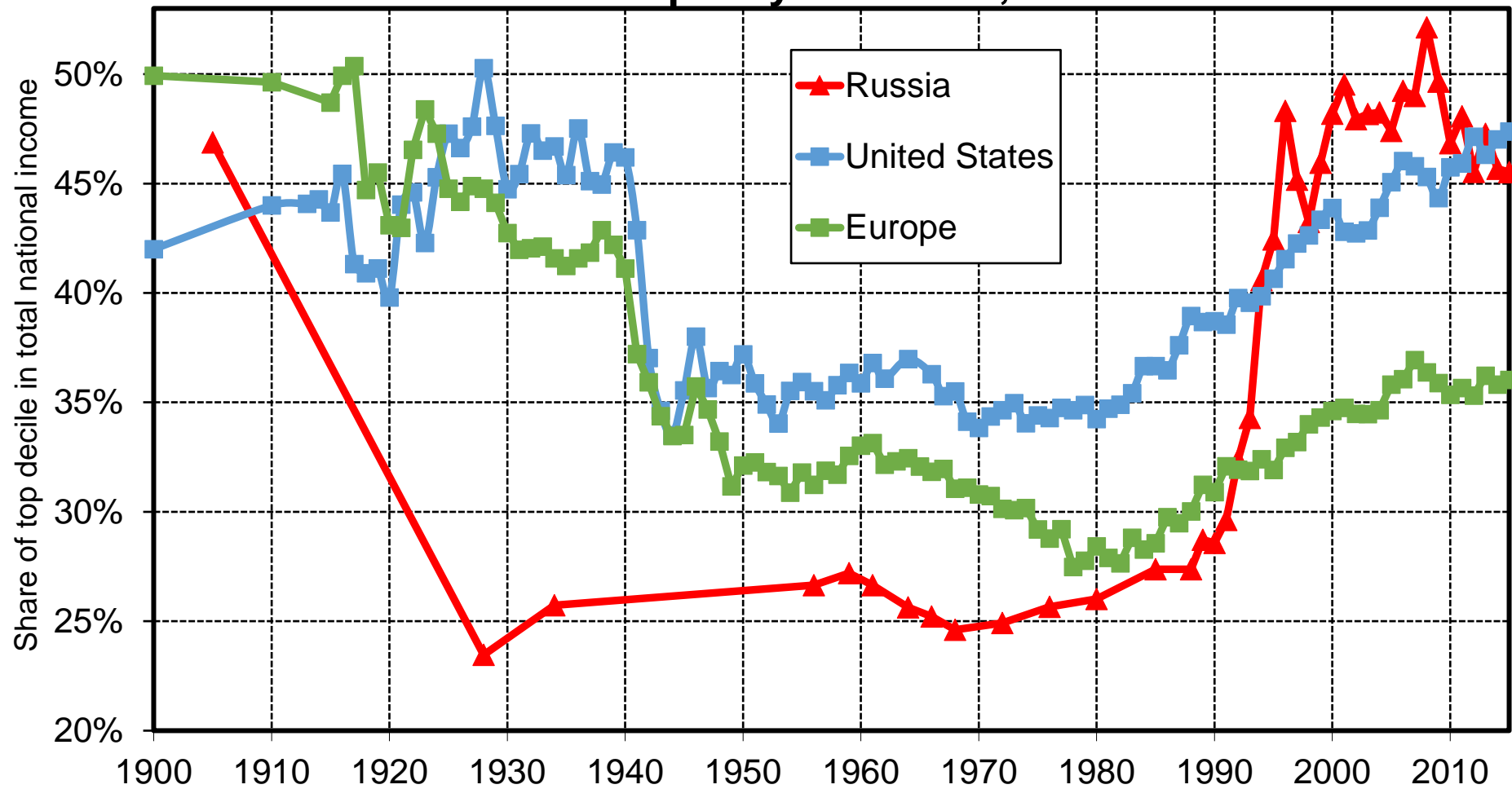
**Interpretation.** The 10% highest capital incomes account for 66% of total capital income, vs 5% for the 50% lowest and 29% for the next 40%. Regarding labour income, these shares are respectively 27%, 24% and 49%. Note. The distributions shown here are per adult annual income (the incomes of couples were divided by two). Sources and series: see [piketty.pse.ens.fr/ideologie](http://piketty.pse.ens.fr/ideologie) (figure 11.18).

## Profile of tax structure, France 2018



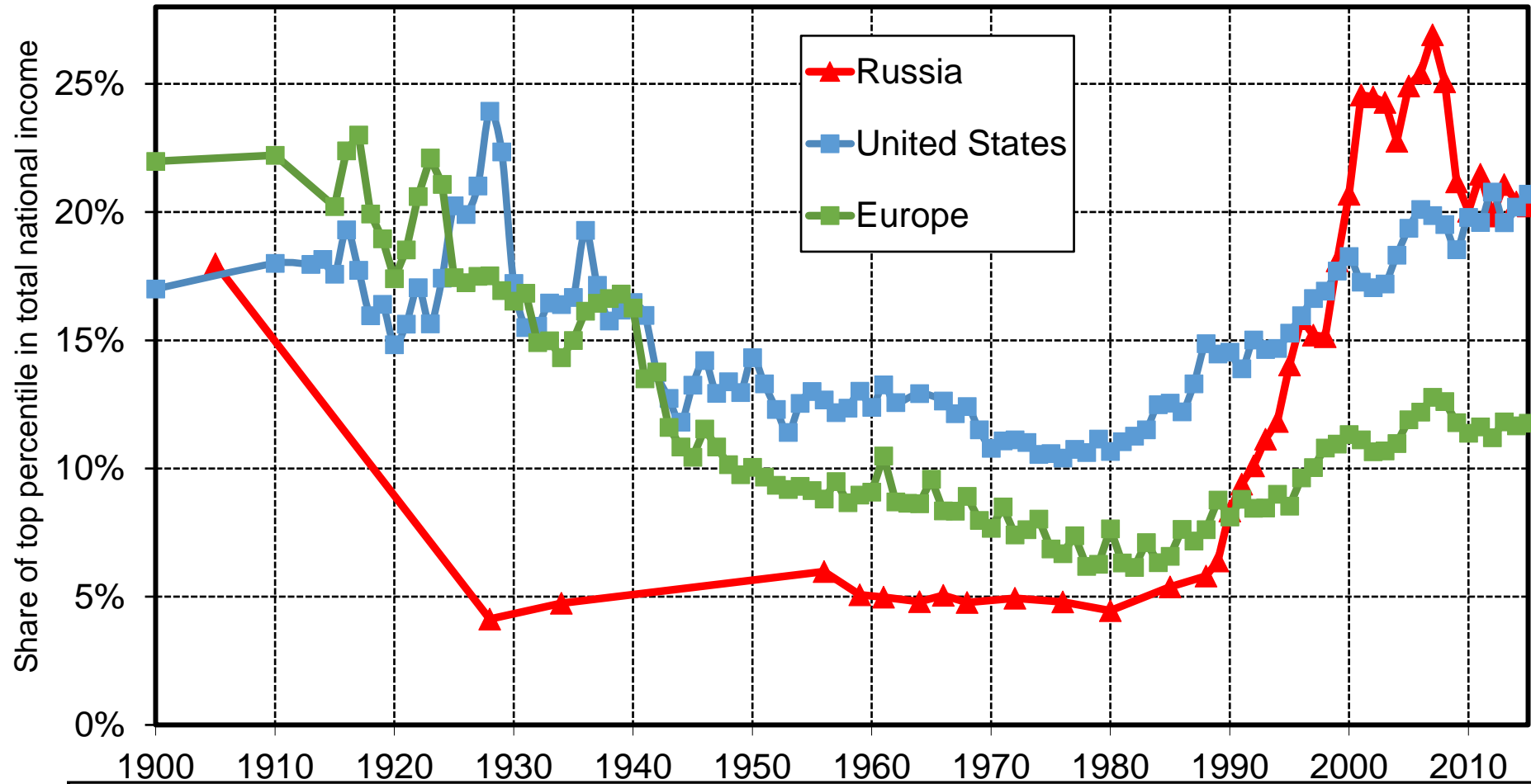
**Interpretation.** In France in 2018, the total effective tax rate is about 45% for bottom incomes groups, 50%-55% for middle and upper-middle incomes groups, and 45% for the highest income groups. Note: the distribution reported here is that of annual factor income among adults aged 25 to 60 year-old and working at least part-time. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 11.19).

## 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).

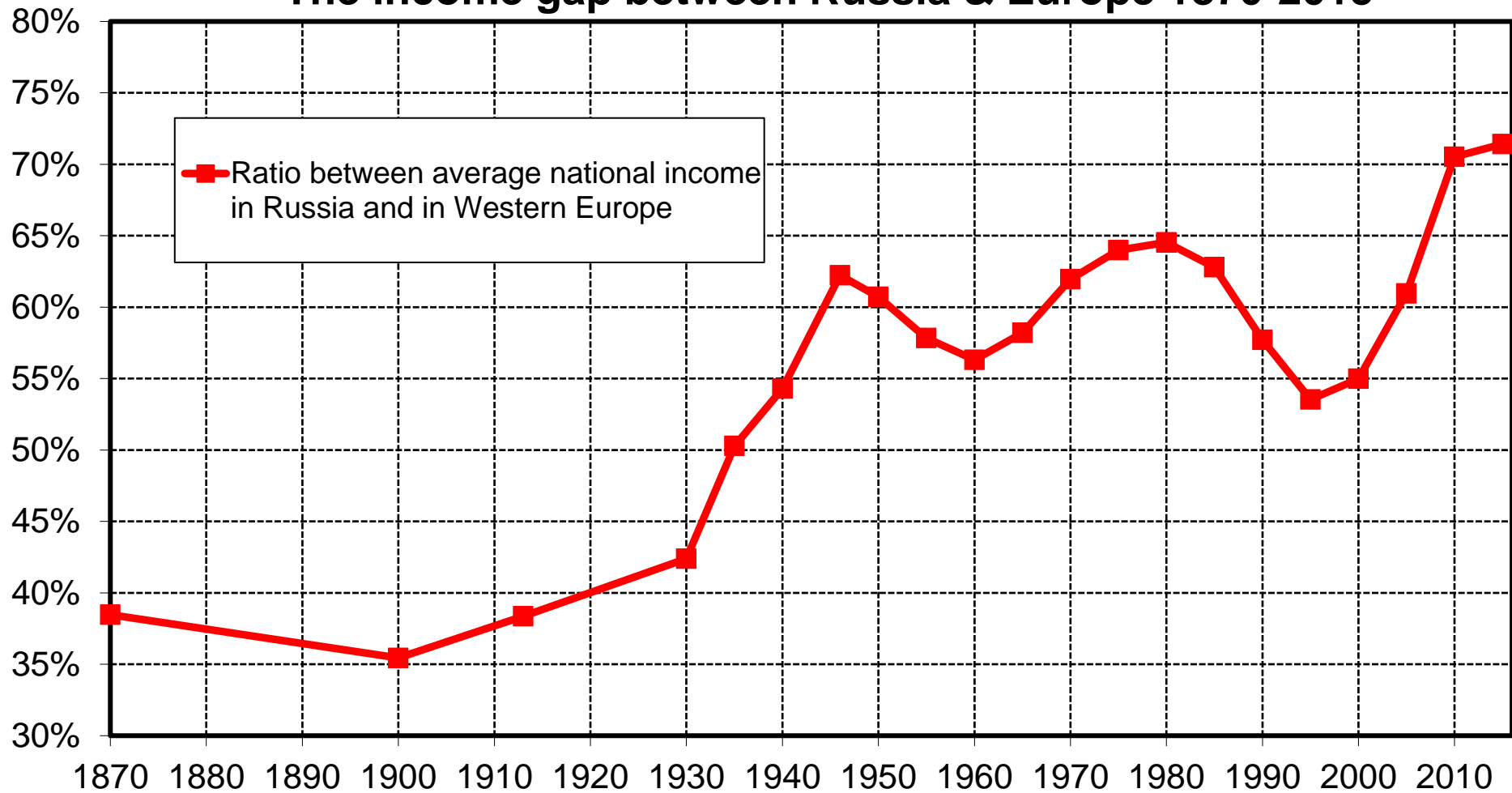
## The top percentile in Russia 1900-2015



**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).

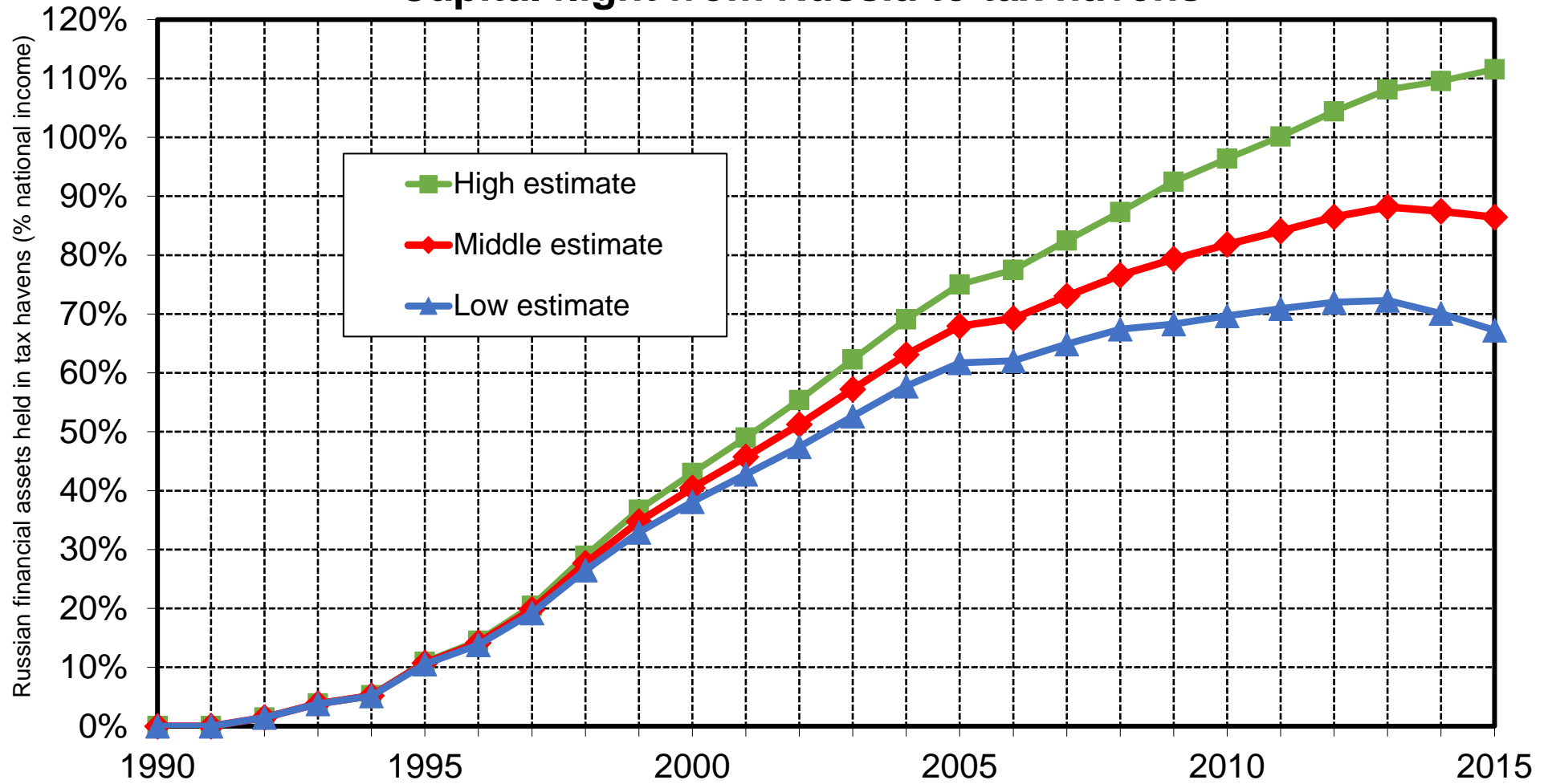


## The income gap between Russia & Europe 1870-2015



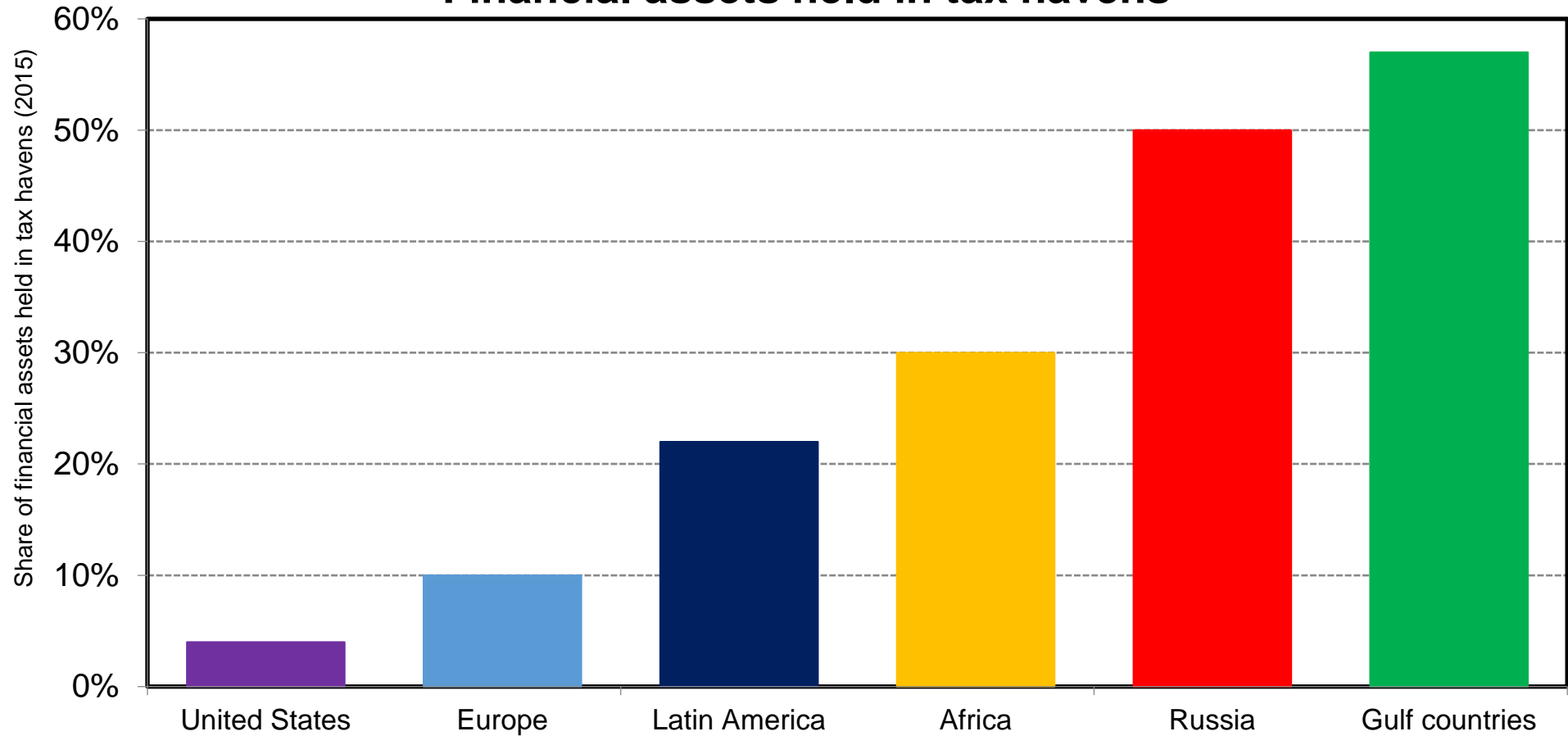
**Interpretation.** Expressed in purchasing power parity, average national income per adult in Russia was about 35%-40% of Western European average (Germany-France-Britain) between 1870 and 1910, before rising between 1920 and 1950, and stabilizing at about 60% of West European level between 1950 and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

## Capital flight from Russia to tax havens



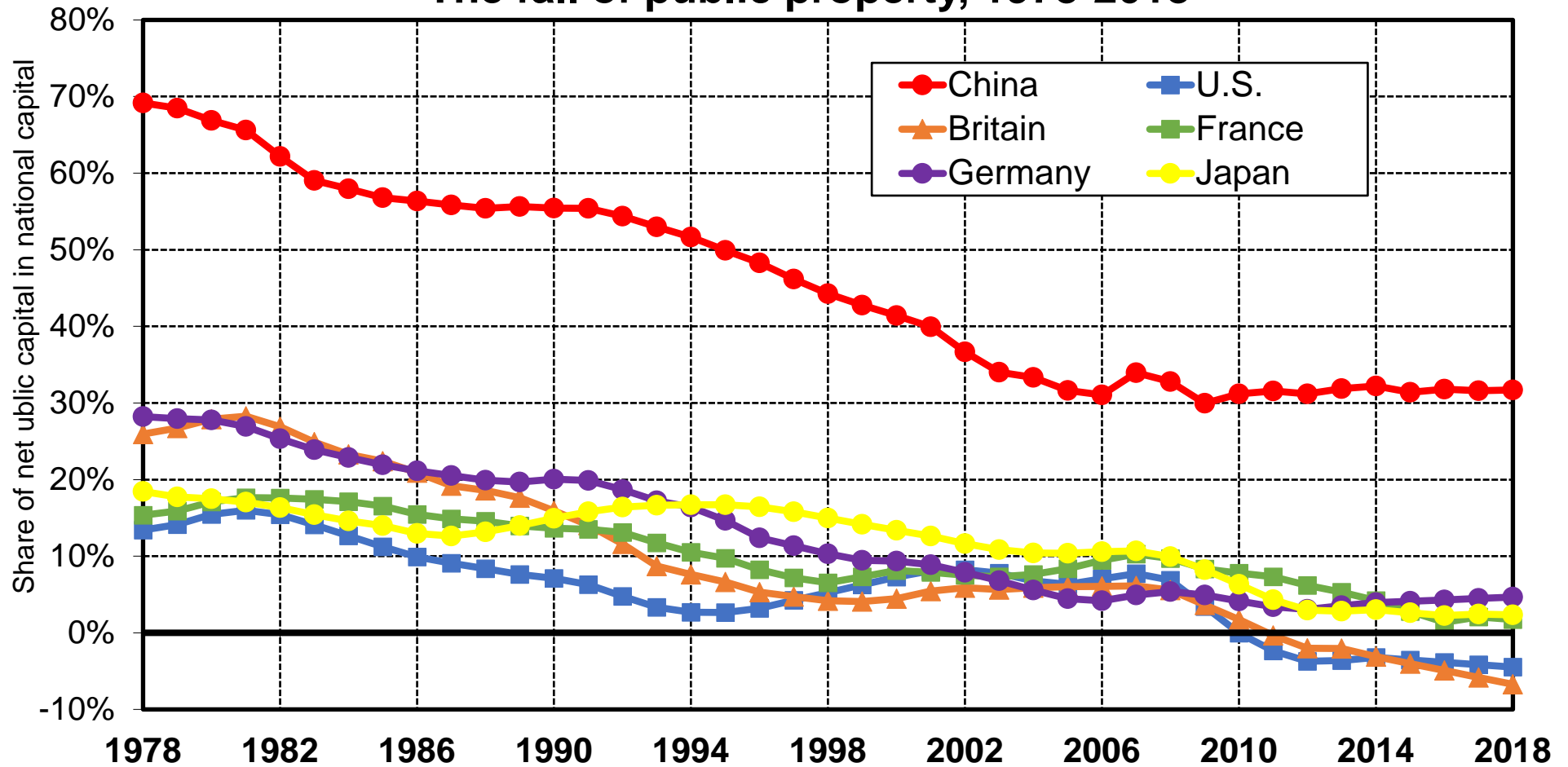
**Interpretation.** Given the rising gap between cumulated Russian trade surpluses (close to 10% of national income per year on average between 1993 and 2015) and official foreign reserves (only 30% of national income in 2015), and using various hypotheses on yields obtained, one can estimate that Russian 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



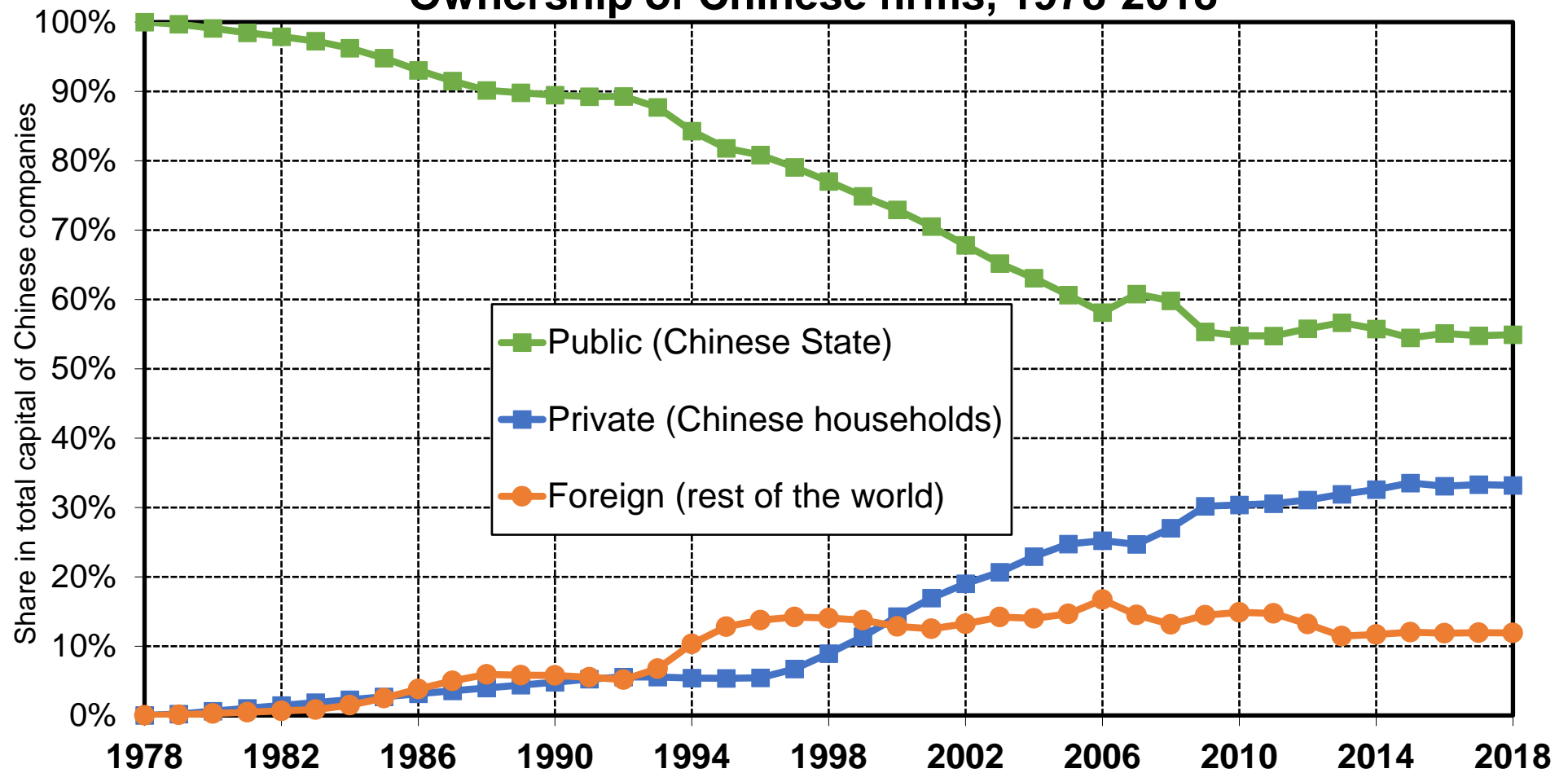
**Interpretation.** By exploiting anomalies in international financial statistics and the breakdowns by country of residence published by the Bank of International Settlements and the Swiss National Bank, one can estimate that the share of financial assets held via tax havens reaches 4% in the U.S., 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).

## The fall of public property, 1978-2018



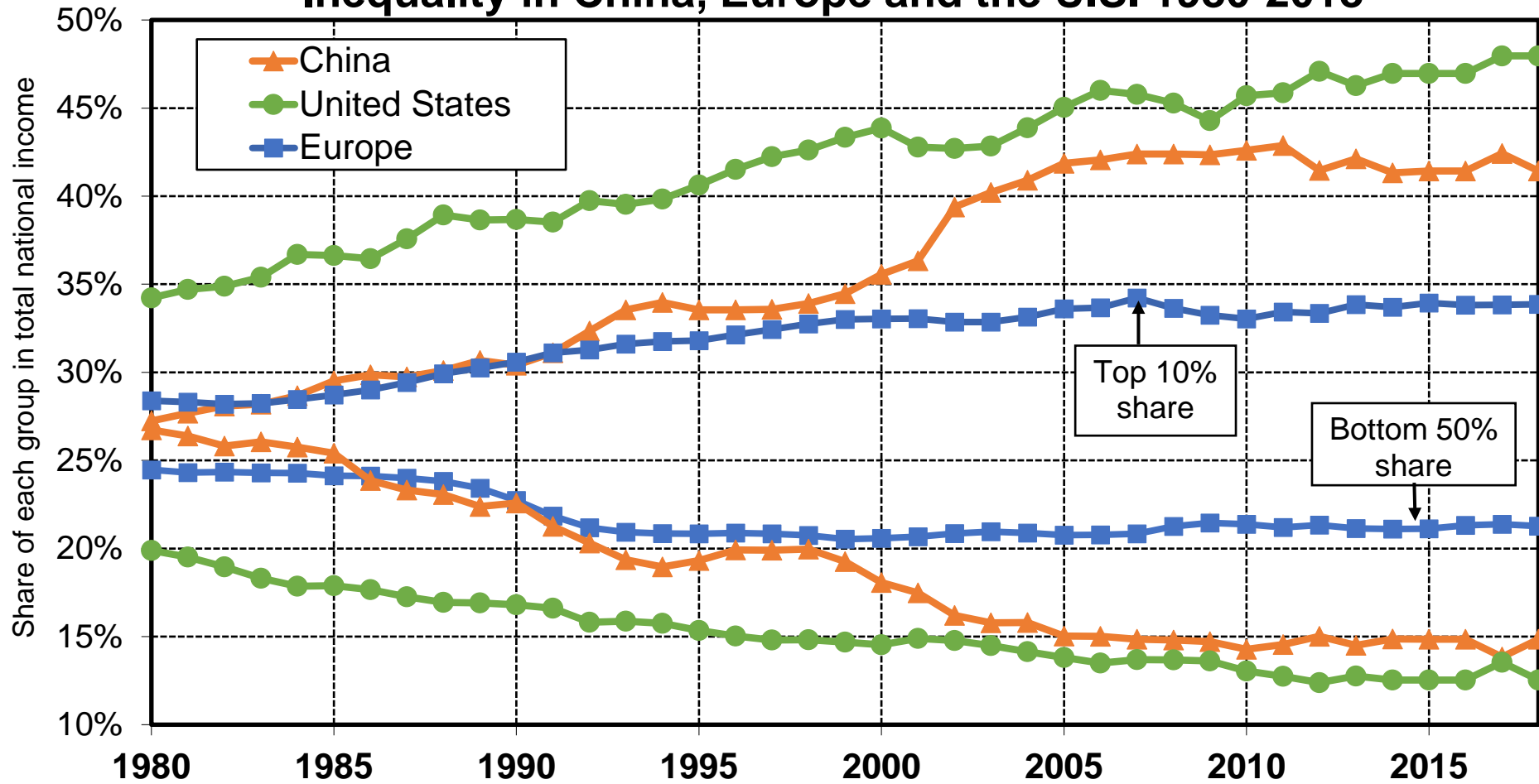
**Interpretation.** The share of public capital (public assets net of debt, all government levels and asset categories combined: companies, buildings, land, financial assets, etc.) in national capital (i.e. the sum of public and private capital) was about 70% in China in 1978, and it has stabilized around 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



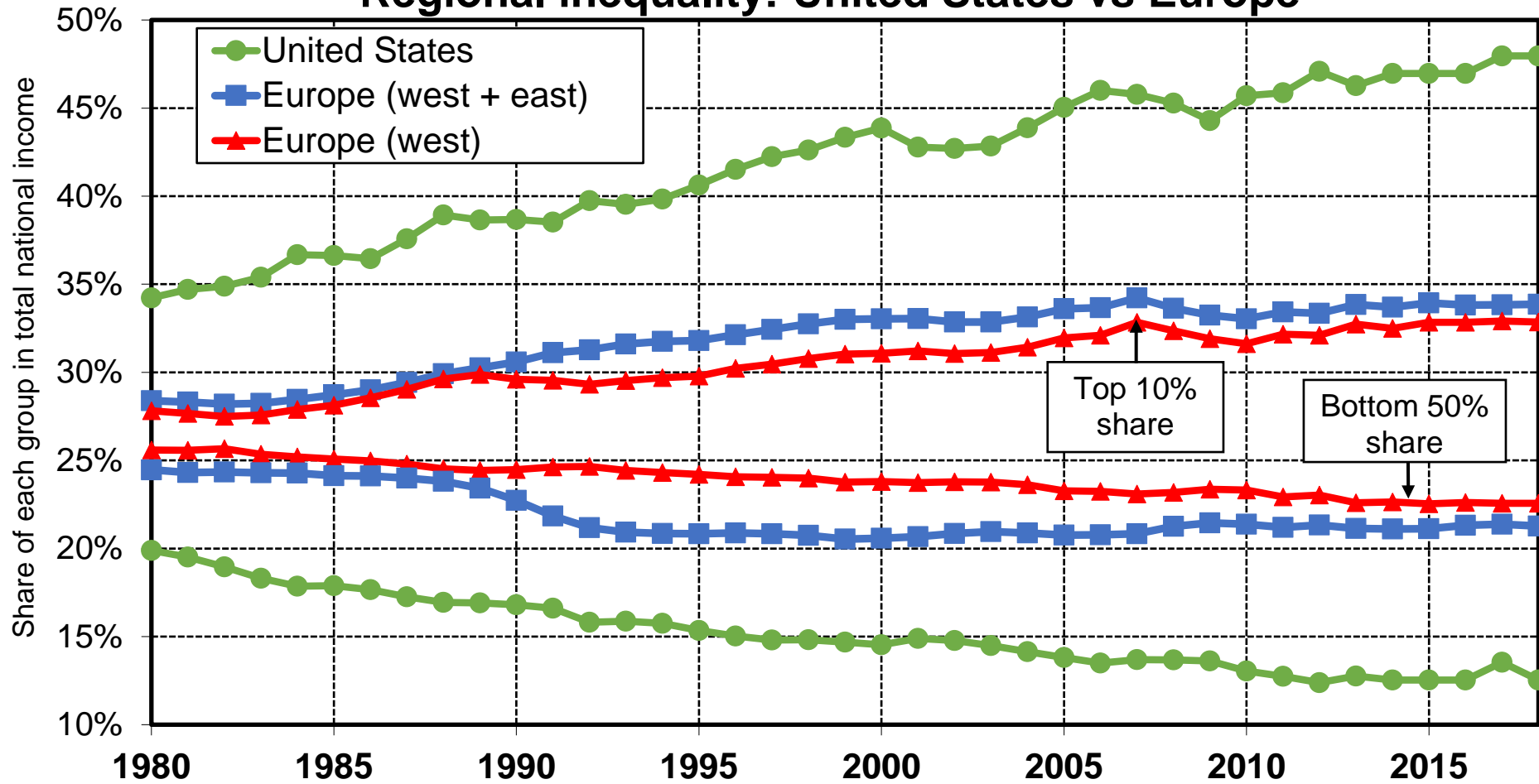
**Interpretation.** The Chinese State (all government levels combined) owned in 2017 about 55% of total capital of Chinese firms (both listed and unlisted, of all sizes and all sectors), vs 33% for Chinese households and 12% for foreign investors. The foreign share has diminished since 2003, and that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



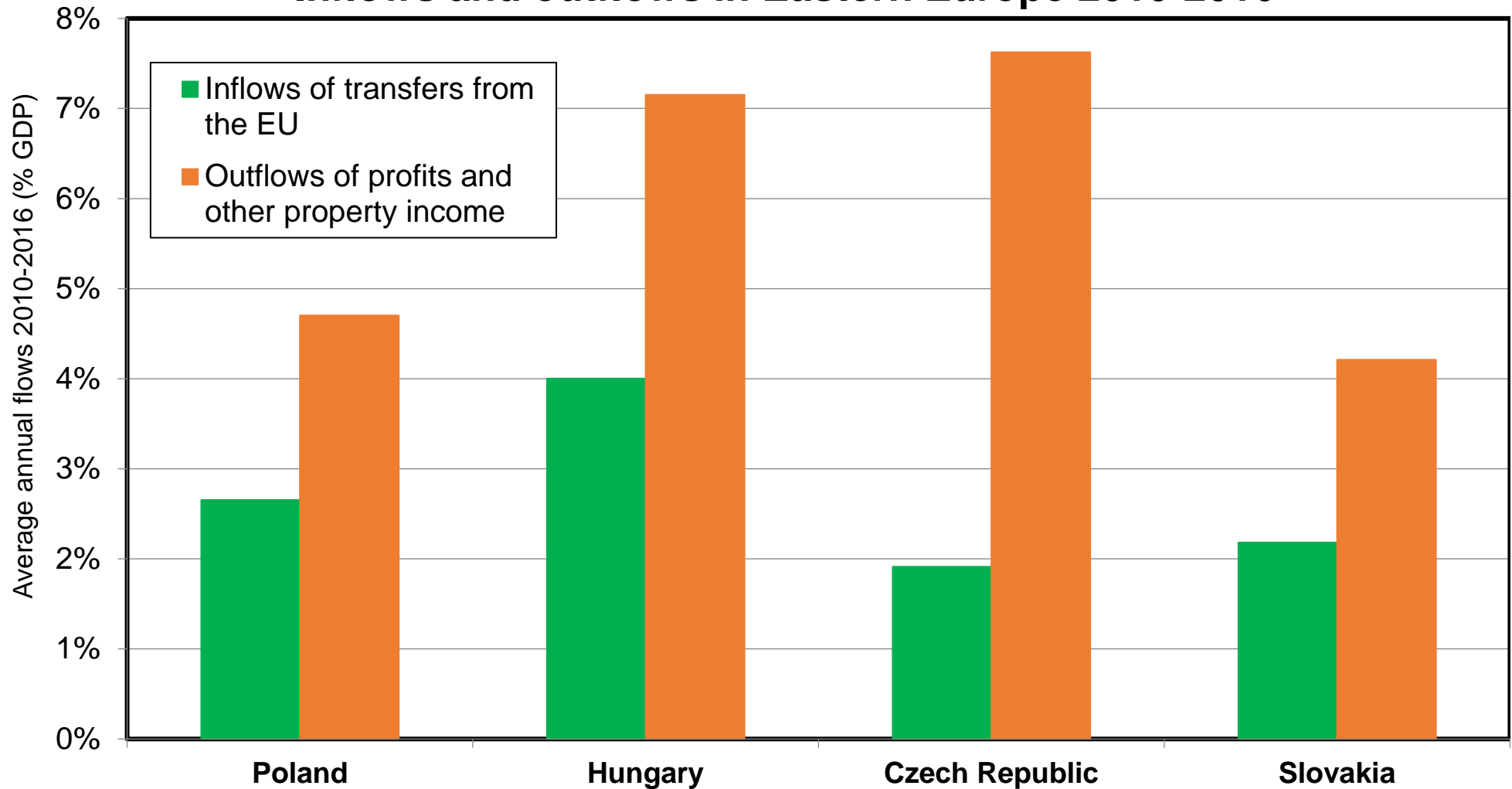
**Interpretation.** Income inequality increased strongly in China between 1980 and 2018, but remains according to available sources lower than in the U.S. (but higher than in Europe). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 12.8).

## 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).

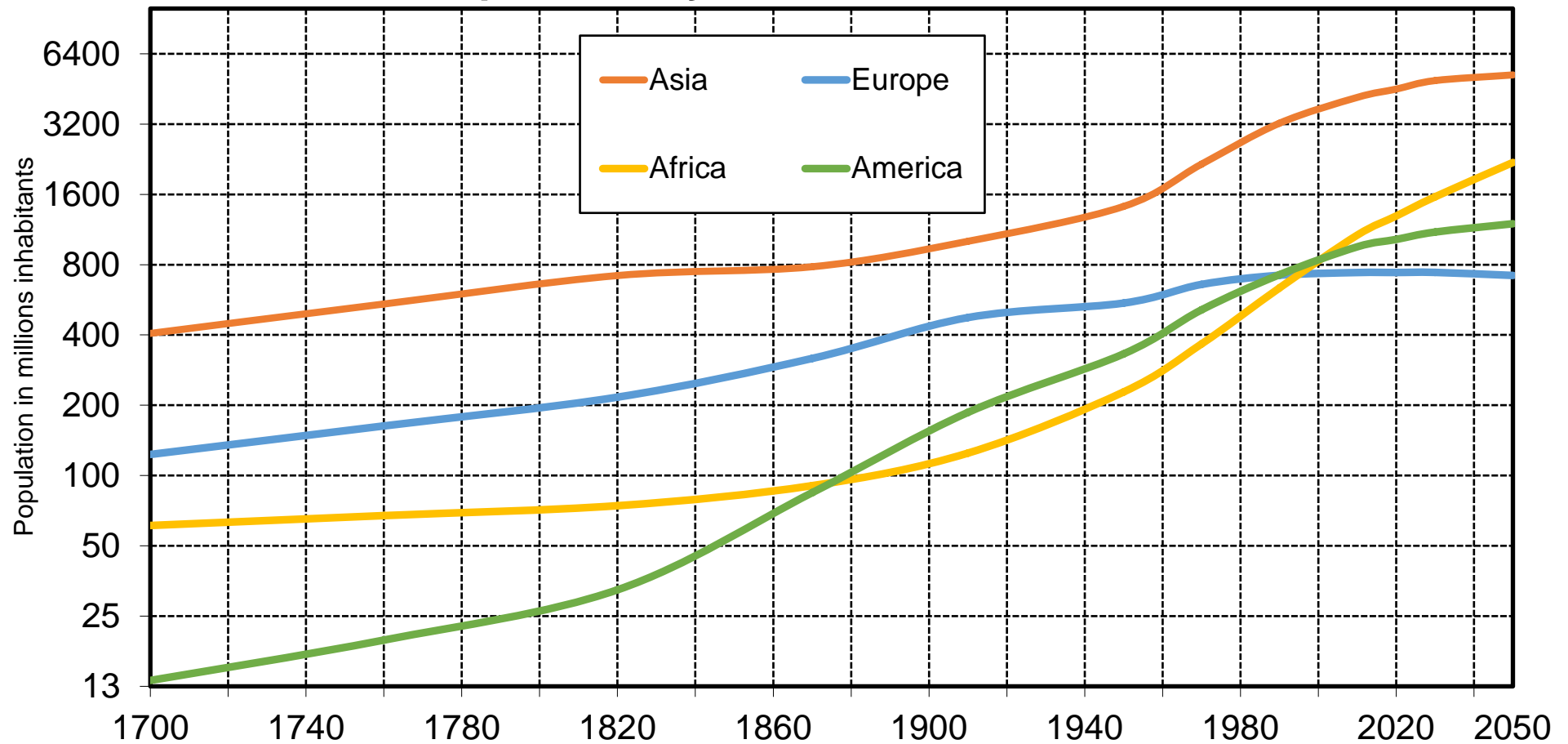
## Inflows and outflows in Eastern Europe 2010-2016



**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).

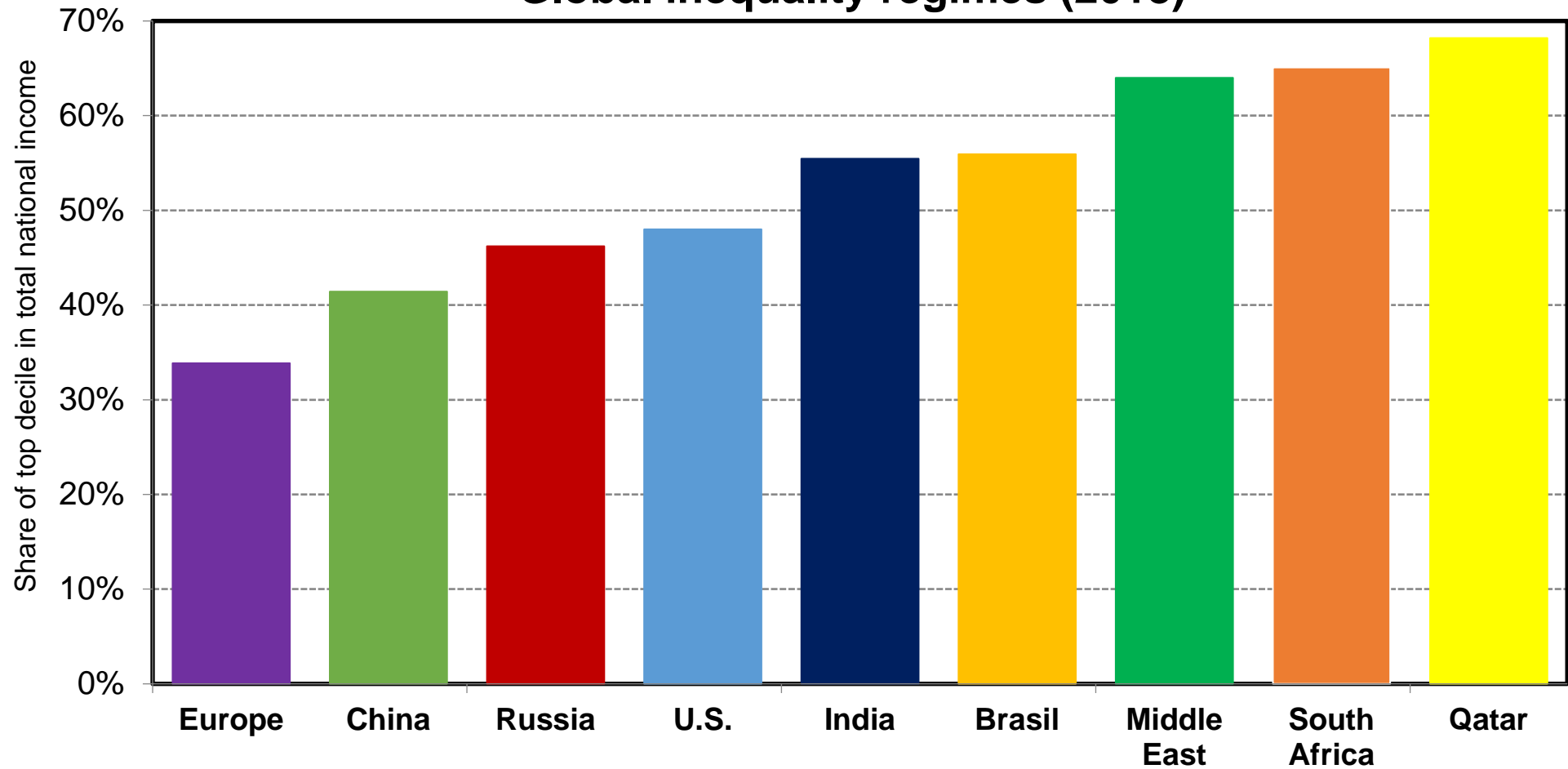


## Population by continents, 1700-2050



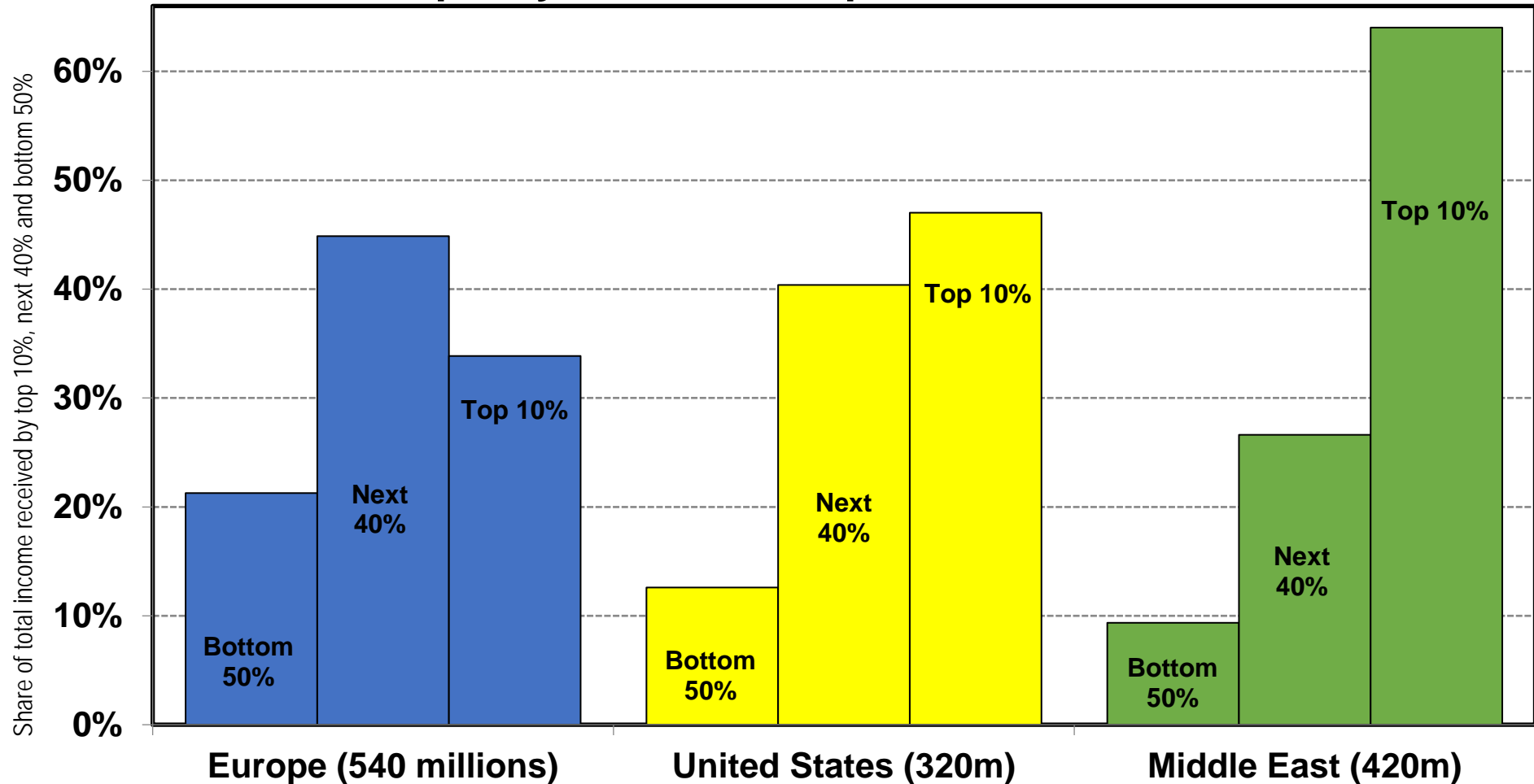
**Interpretation.** Around 1700, world population was about 600 millions inhabitants, of whom 400 million lived in Asia and the Pacific, 120 in Europe and Russia, 60 in Africa and 15 in America. In 2050, according to UN projections, it will be about 9,3 billions inhabitants, with 5,2 in Asia-Pacific, 2,2 in Africa, 1,2 in the Americas and 0,7 in Europe-Russia. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.1).

## Global inequality regimes (2018)



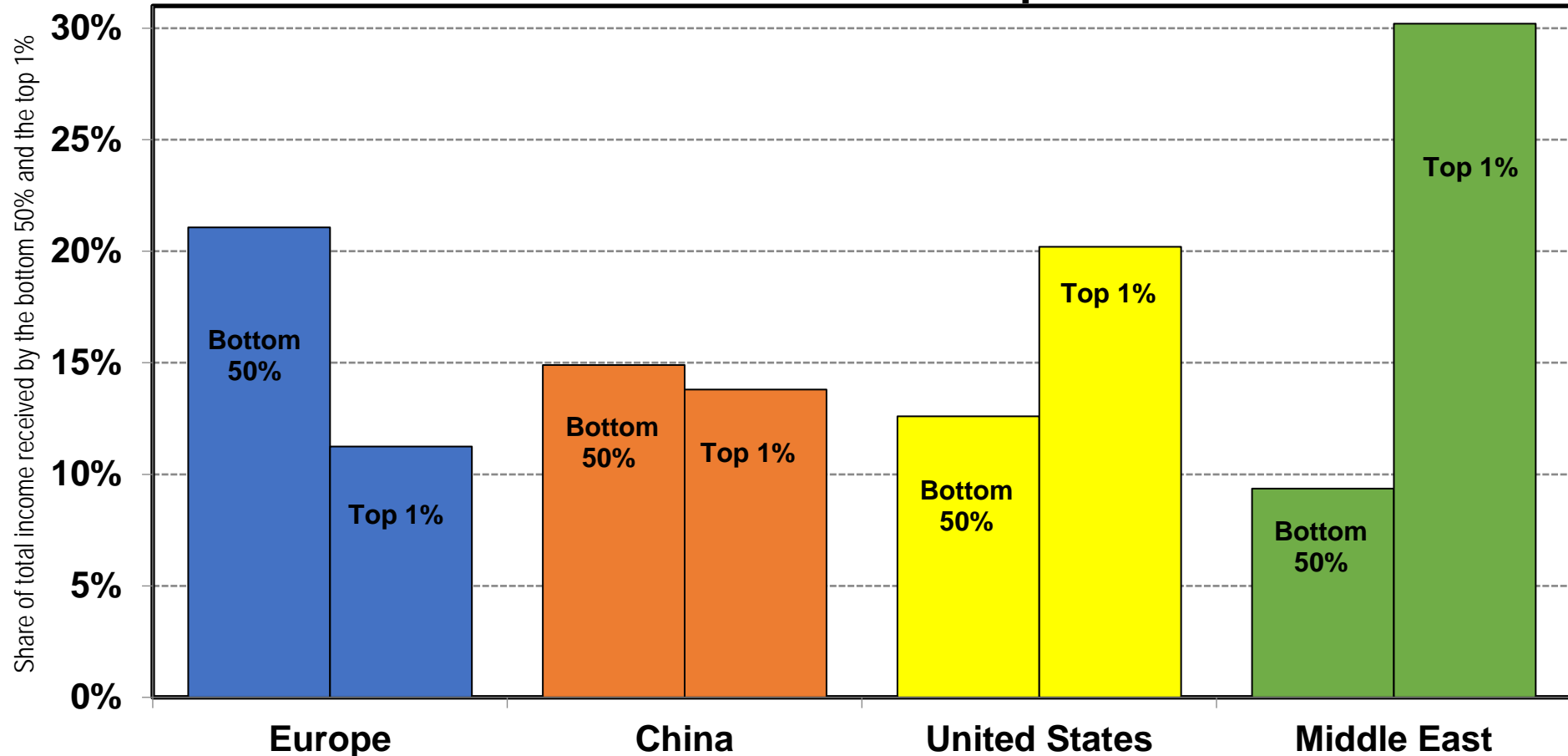
**Interpretation.** In 2018, the share of the top decile (the 10% highest incomes) in national income was 34% in Europe (EU+), 41% in China, 46% in Russia, 48% in the U.S., 55% in India, 56% in Brasil, 64% in the Middle East, 65% in South Africa and 68% in Qatar.  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.2).

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



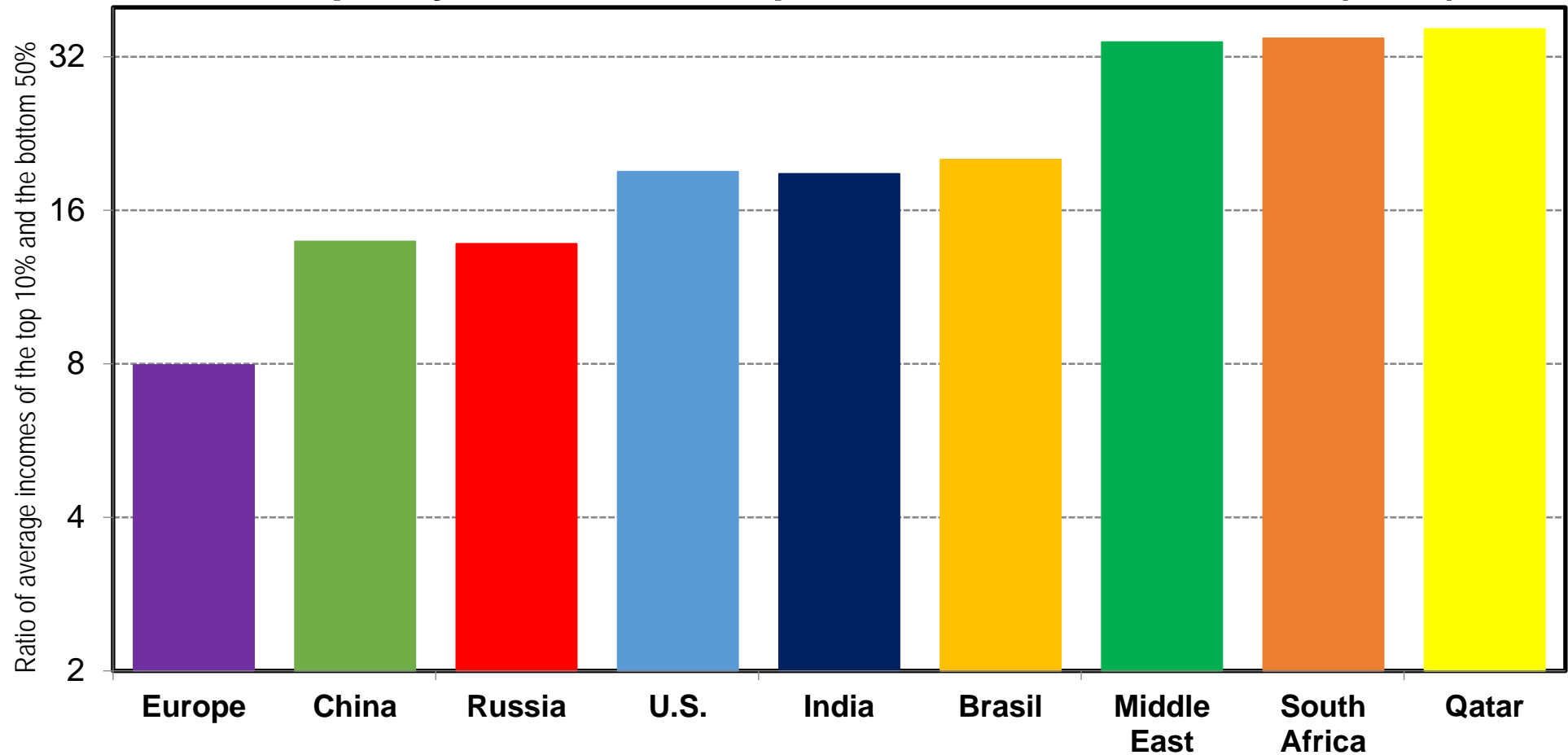
**Interpretation.** The share of the 10% highest incomes is 64% of total income in the Middle East (pop. 420 million), compared to 9% for the bottom 50% share. In Europe (enlarged EU, pop. 540 million) these two shares are 34% and 21%. In the United States (pop. 320 million) they are 47% and 13%. Sources 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%



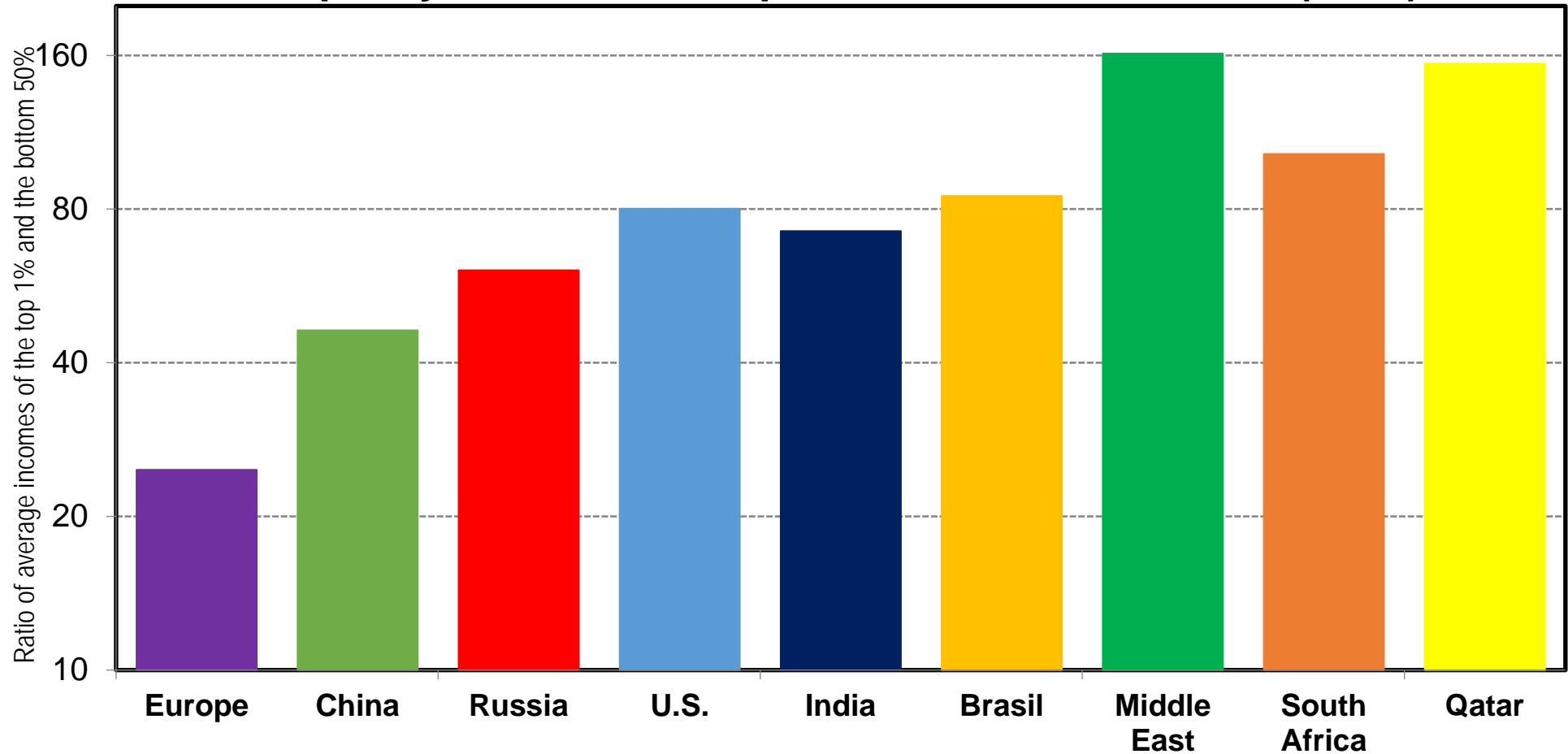
**Interpretation.** The share of bottom 50% highest incomes is only 9% of total income in the Middle East, vs 30% for the top 1% share. In Europe, these two shares are 21% and 11%. In China they are 15% and 14%, and in the U.S; they are 13% and 20%.  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.4).

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



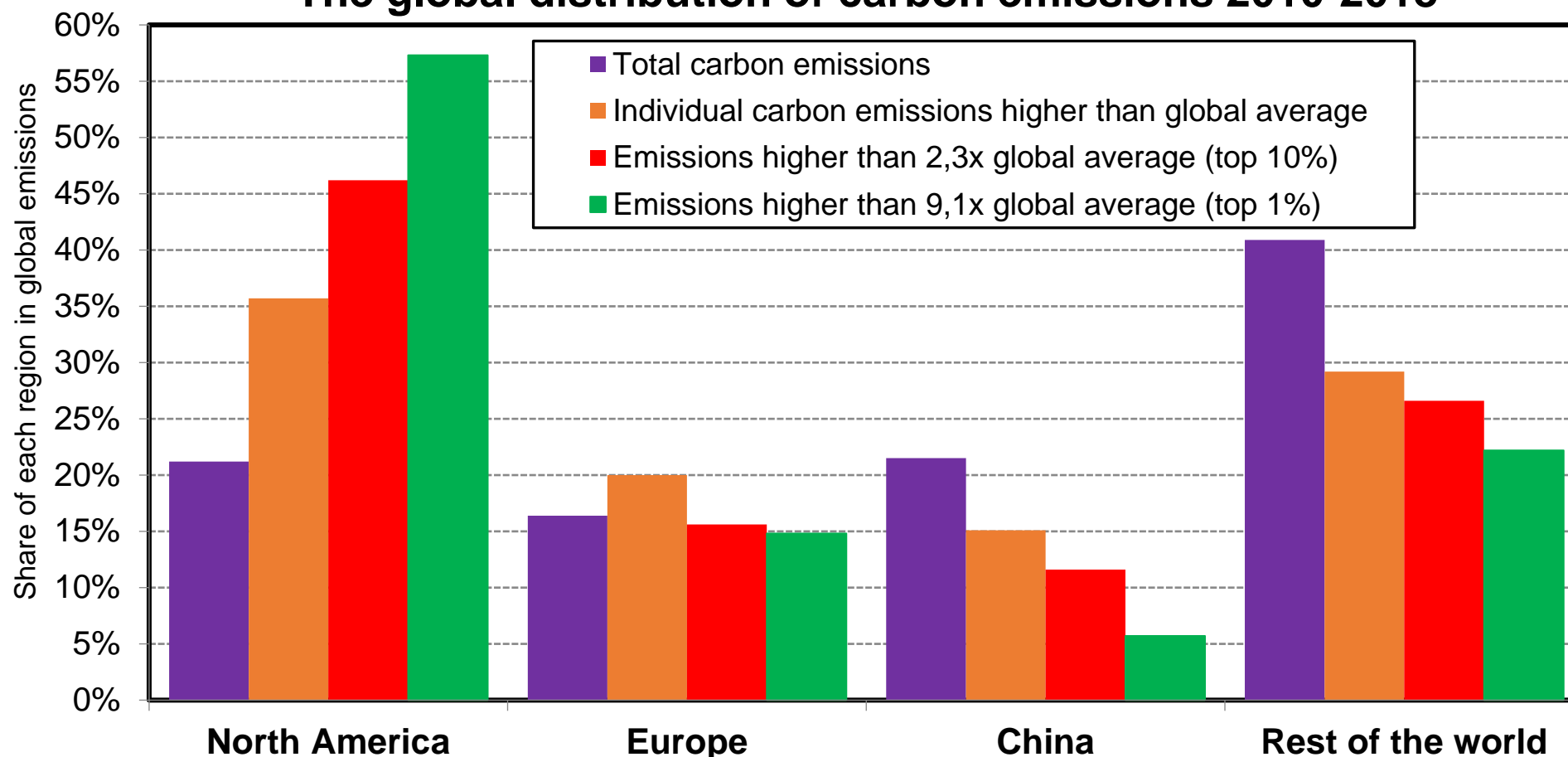
**Interpretation.** In 2018, the ratio of the average incomes of the top 10% and the bottom 50% was 8 in Europe, 14 in China and Russia, 19 in the U.S., 20 in Brasil, 34 in the Middle East, 35 in South Africa and 36 in Qatar.  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.5).

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



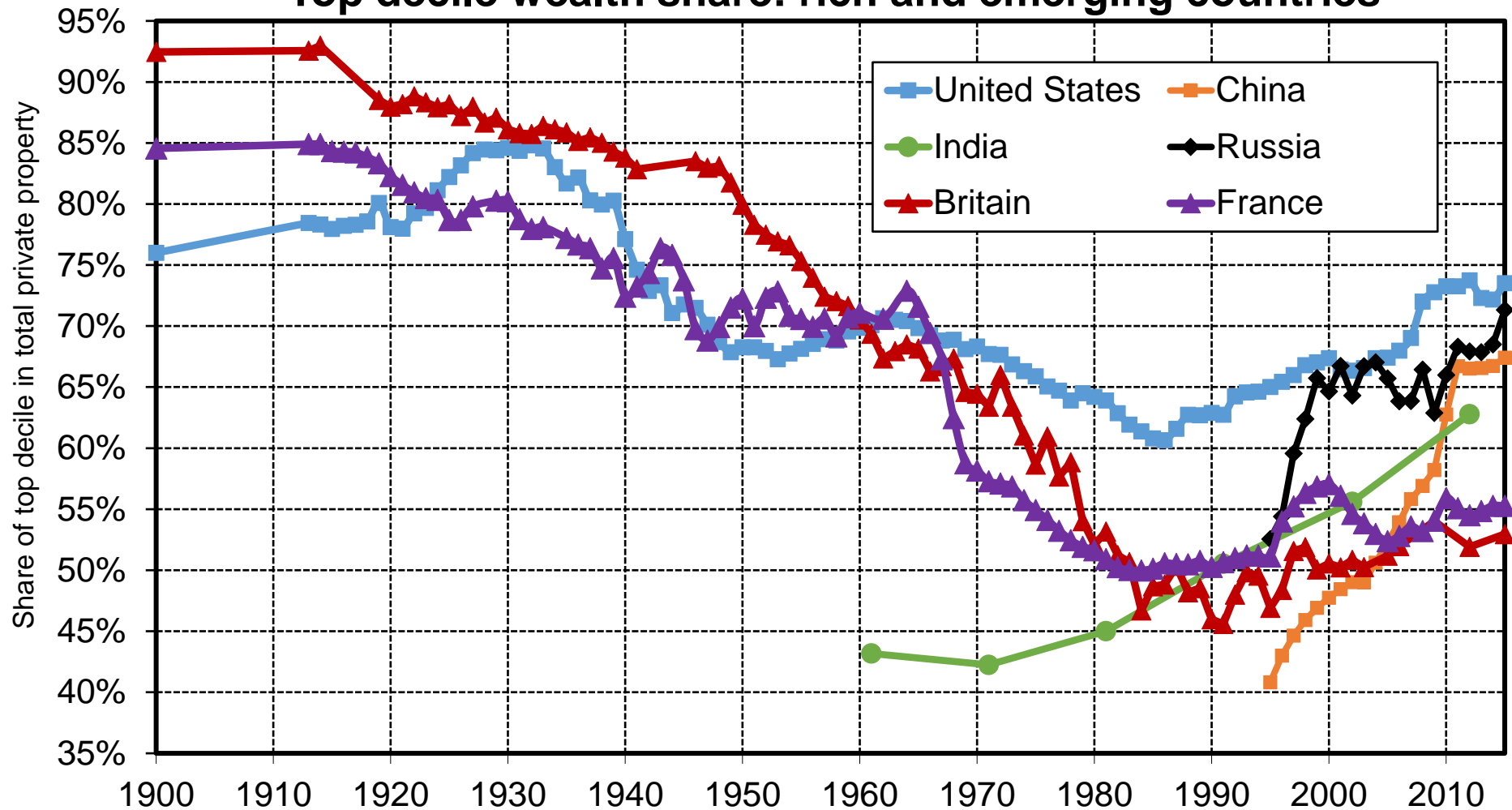
**Interpretation.** In 2018, the ratio of the average incomes of the top 1% and the bottom 50% was 25 in Europe, 46 in China, 61 in Russia, 80 in the U.S., 72 in India, 85 in Brasil, 161 in the Middle East, 103 in South Africa and 154 in Qatar.  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 13.6).

## The 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).

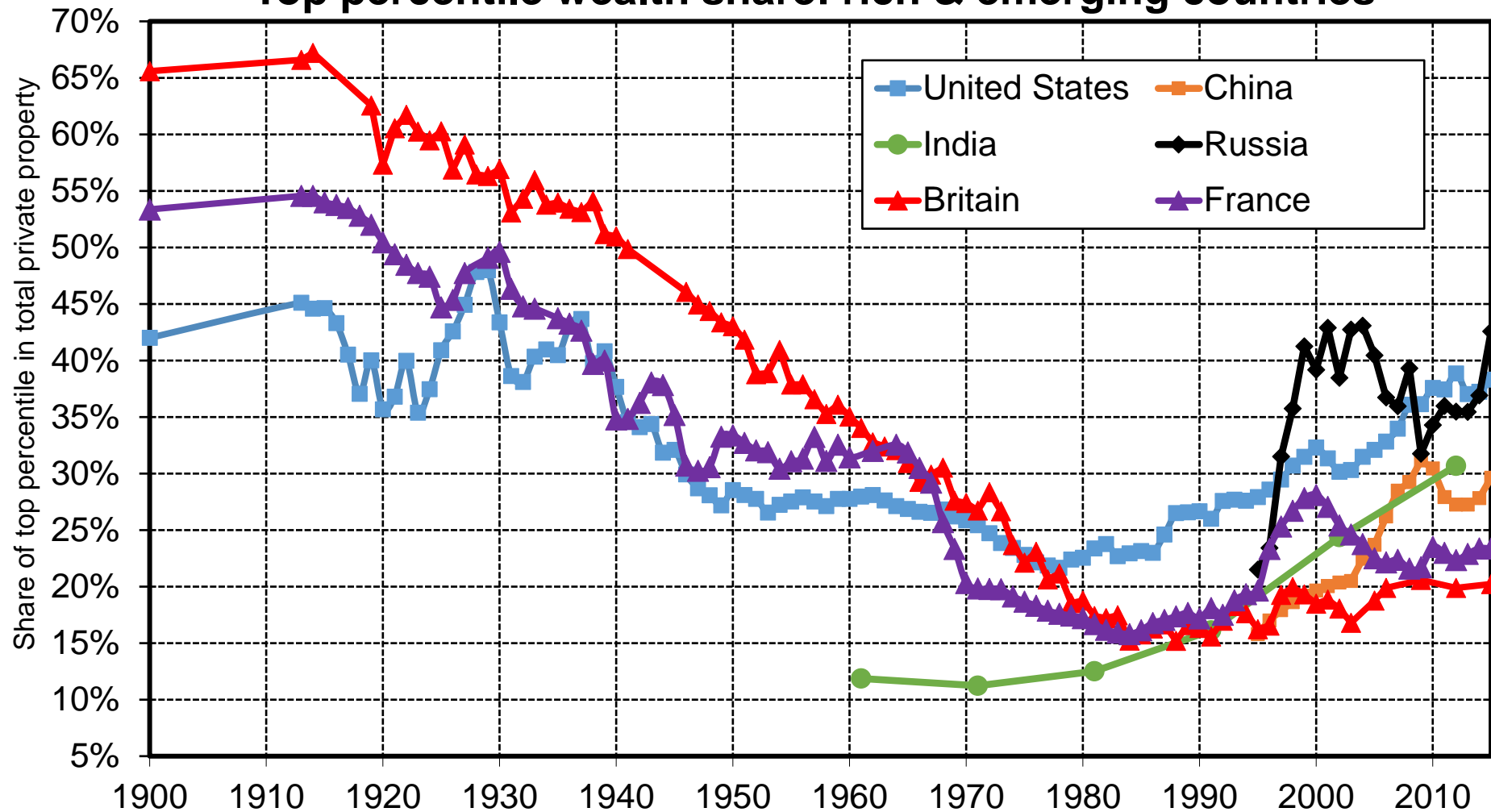
## Top decile wealth share: rich and emerging countries



**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).

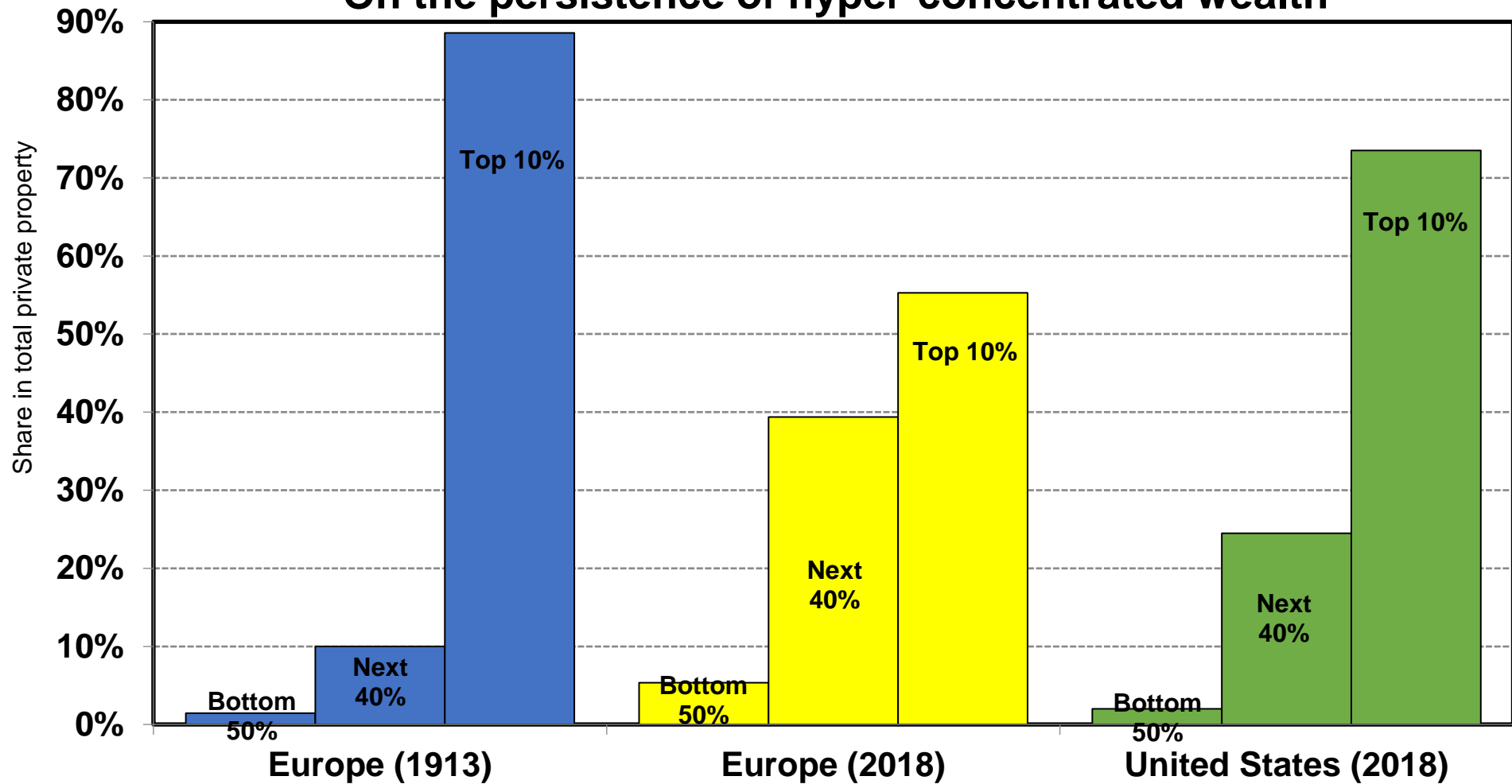


## Top percentile wealth share: rich & emerging countries



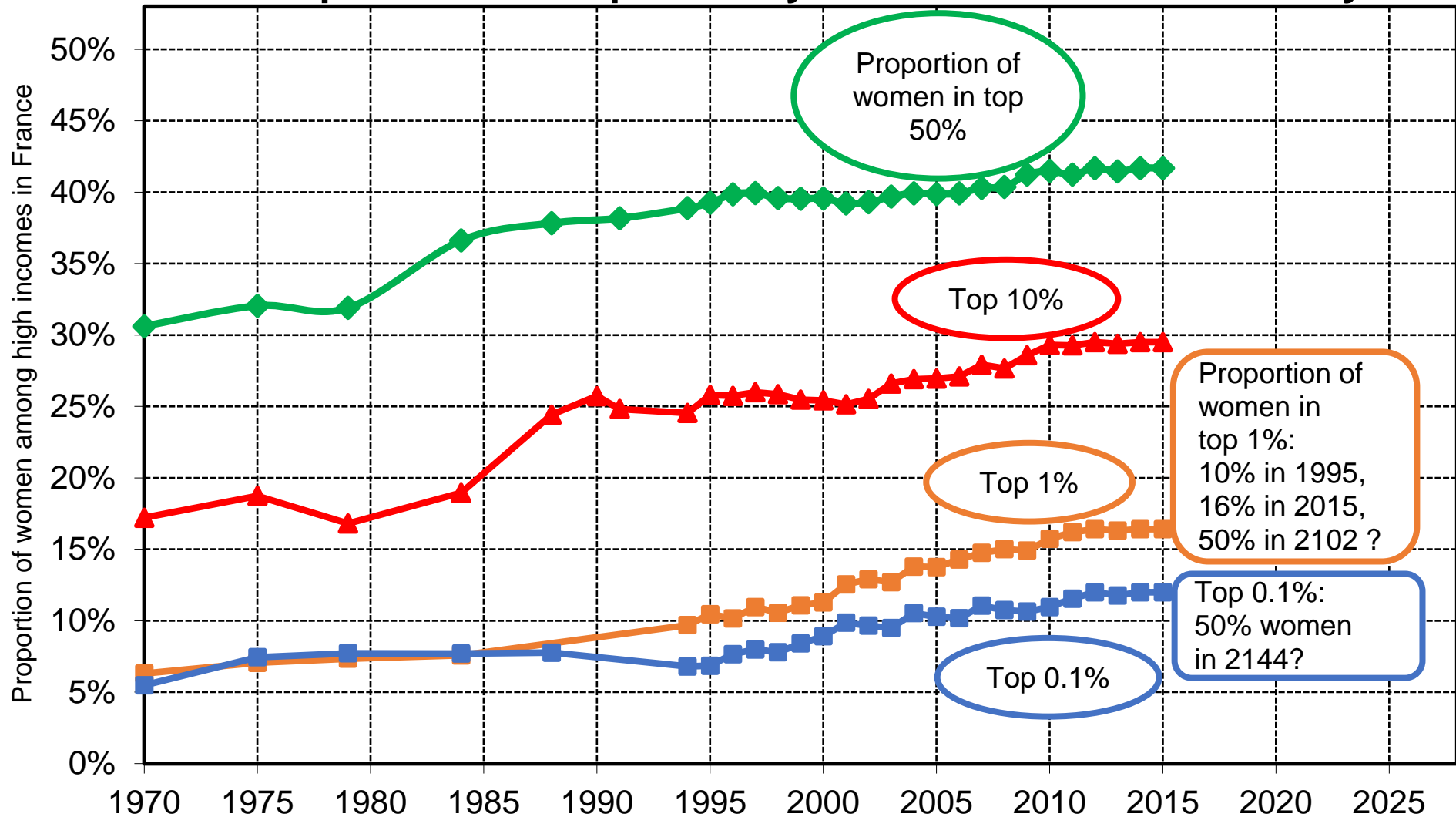
**Reading.** The share of the top percentile (the 1% largest wealth owners) in total private property (all assets combined: real estate, business and financial assets, net of debt) increased strongly in China, Russia, India and the United States since the 1980s-1990s, and to a lesser extent in Britain 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



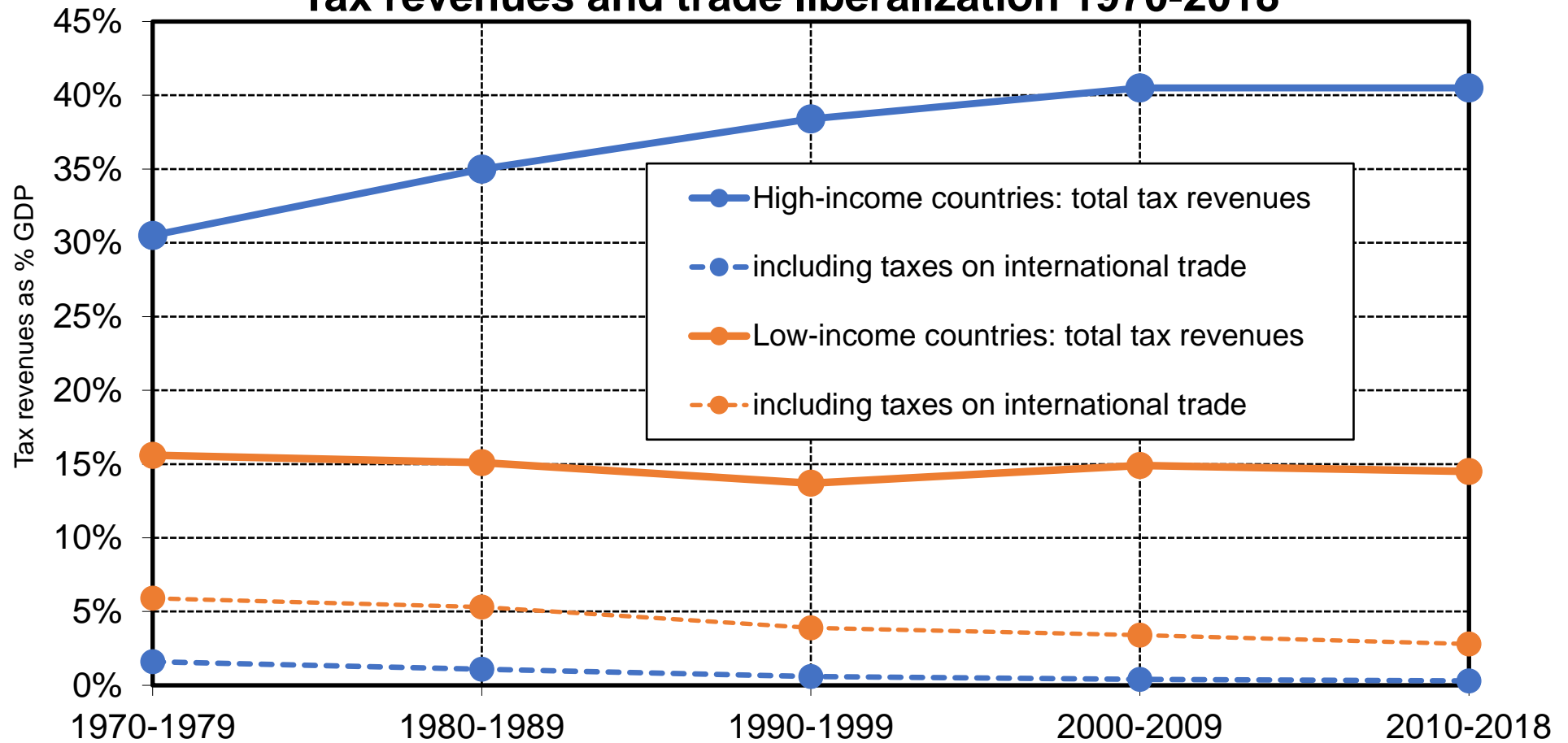
**Reading.** The share of the richest 10% in total private property was 89% in Europe (average of Britain, France and Sweden) in 1913 (compared with 1% for the bottom 50%), 55% in Europe in 2018 (compared to 5% for the bottom 50%) and 74% in the United States in 2018 (compared to 2% for the bottom 50%).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

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



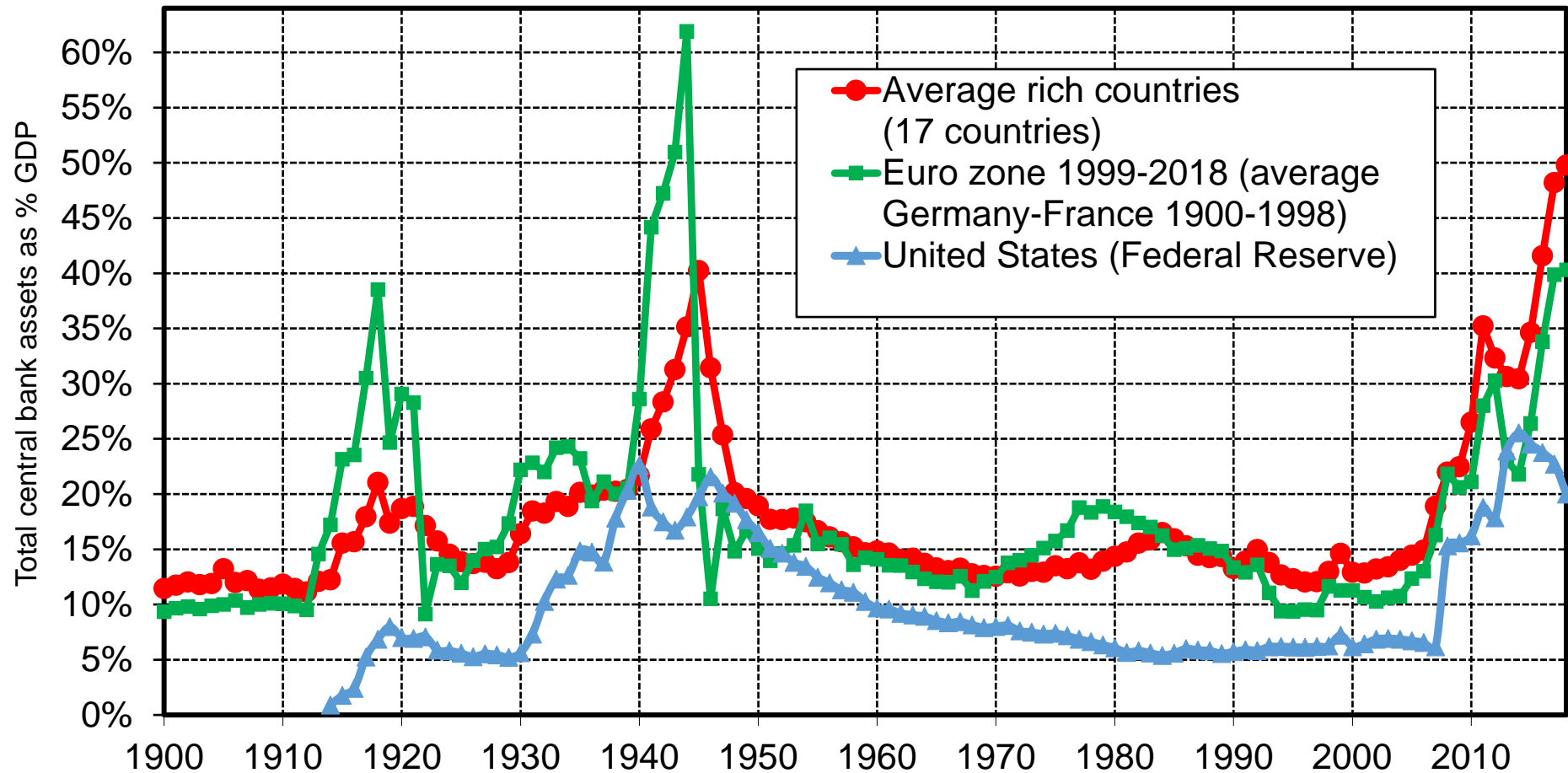
**Interpretation.** The proportion of women in the top percentile (top 1%) of the distribution of labour income (wages and self-employment income) increased from 10% in 1995 to 16% in 2015, and should reach 50% by 2102 if the trend continues at the same speed as during the 1995-2015 period. For the top 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).

## 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 size of central bank balance sheets 1900-2018

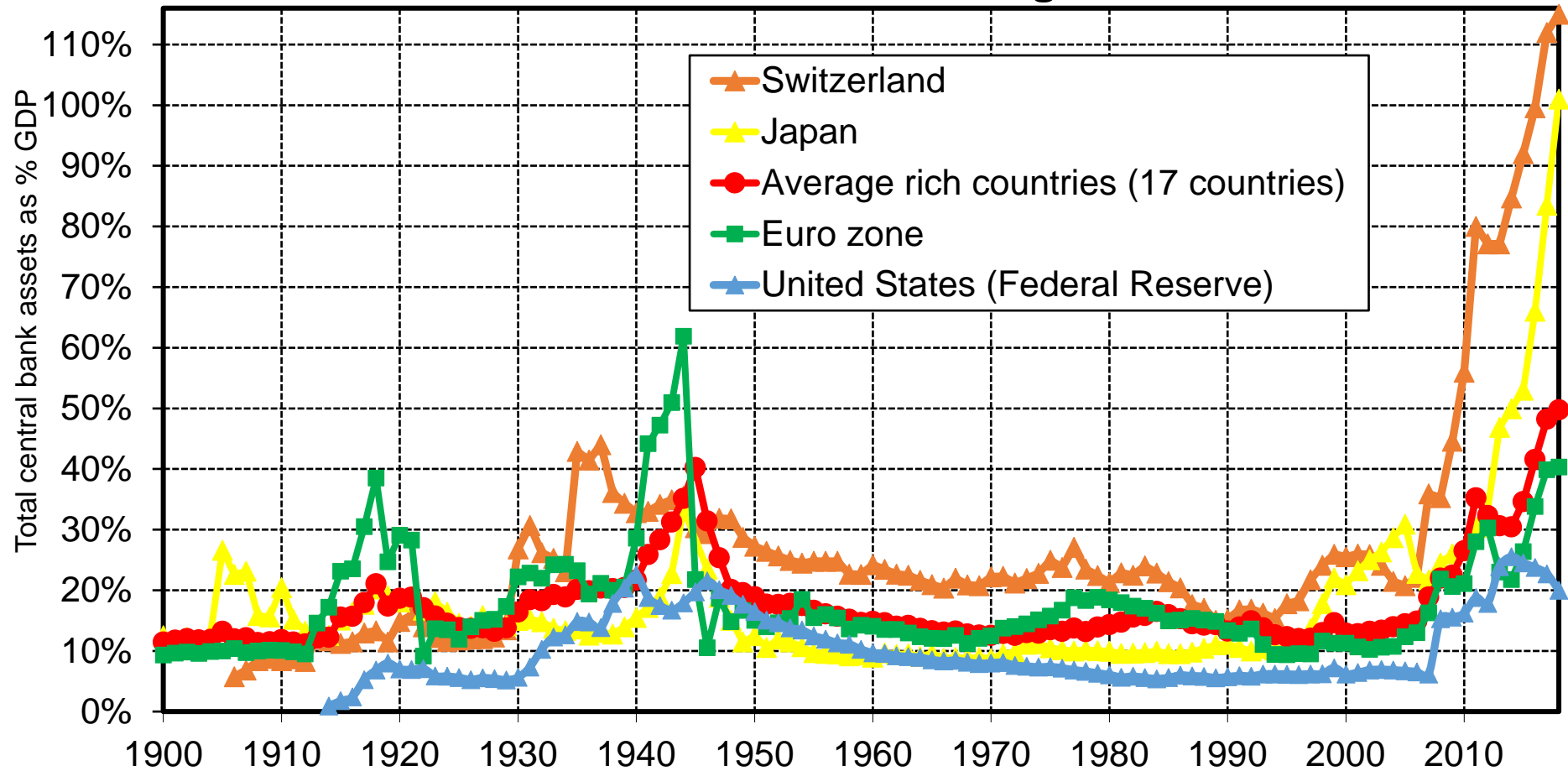


**Interpretation.** Total assets of the European Central Bank (ECB) rose from 11% of euro zone GDP on 31/12/2004 to 41% on 31/12/2018. The evolution 1900-1998 indicates the average obtained for the balance sheets of the German and French central banks (with peaks equal to 39% in 1918 and 62% in 1944).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



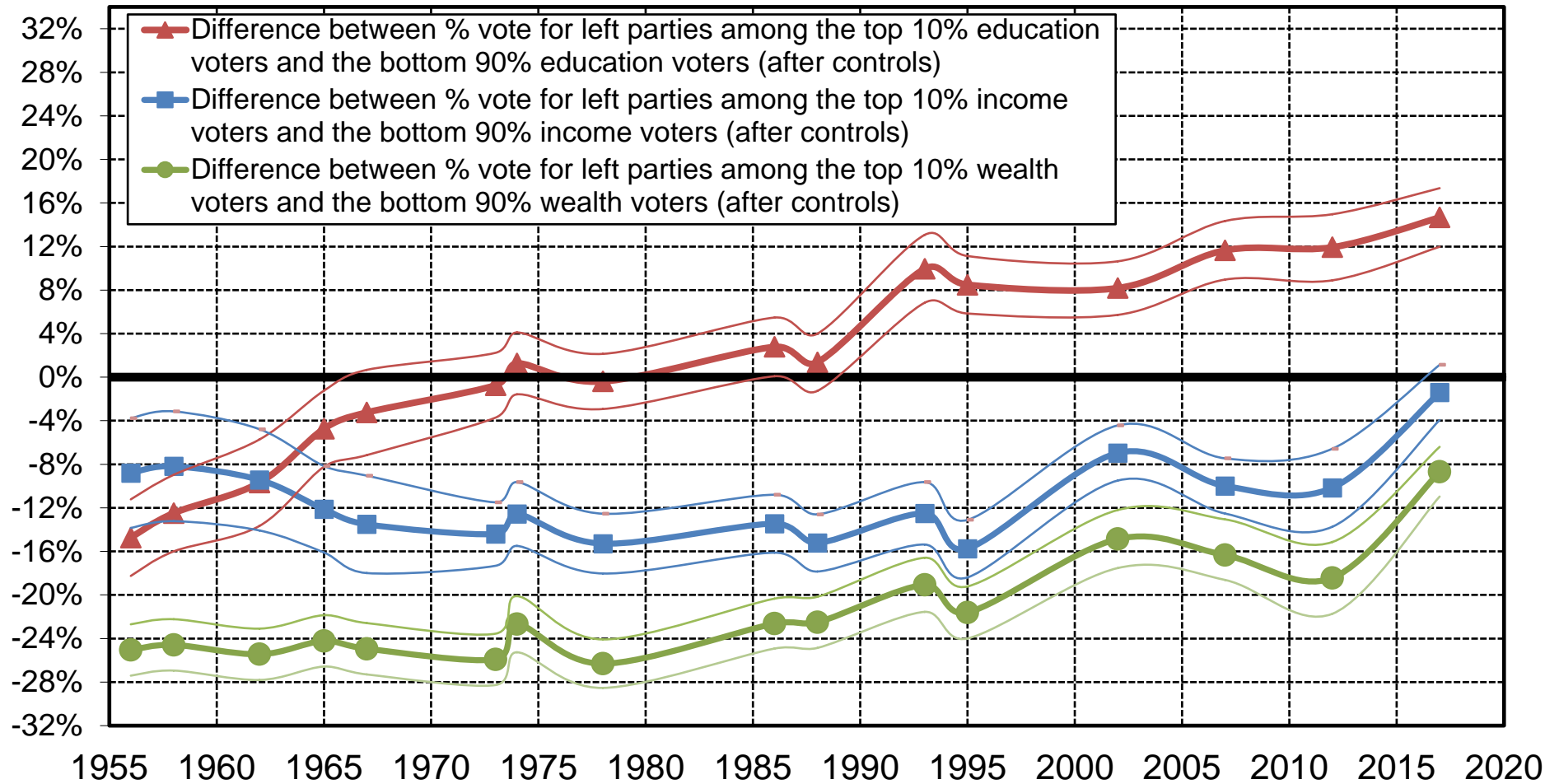
**Interpretation.** Total assets of the central banks of rich countries rose from 13% of GDP on 31/12/2000 to 51% on 31/12/2018. The assets of the central banks of Japan and Switzerland exceeded 100% of GDP in 2017-2018. Note. The average of rich countries is the arithmetic average of the 17 following 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).

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

<i>Annual average real growth rate 1987-2017 (after deduction of inflation)</i>	<b>World</b>	<b>U.S.-Europe-China</b>
<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 (table 13.1).

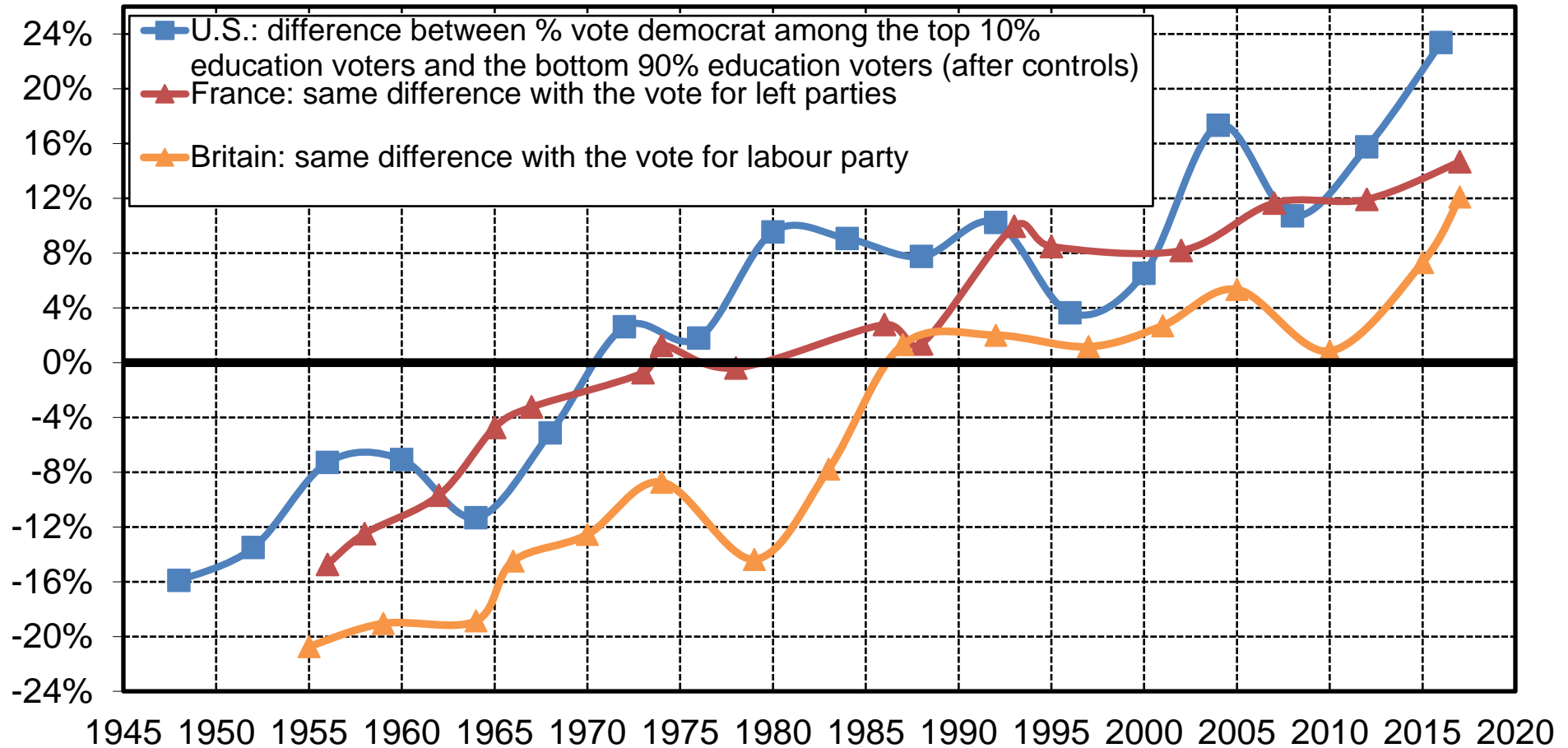
## Social cleavages & political conflict in France 1955-2020



**Interpretation.** In the 1950-1970 period, the vote for left-wing parties (socialists-communists-radicals-greens) was associated to voters with the lowest education degrees and the lowest levels of income and wealth; in the 1990-2010 period, it became associated to the voters with the highest education degrees. Note: fine lines indicate 90% confidence intervals. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.1).

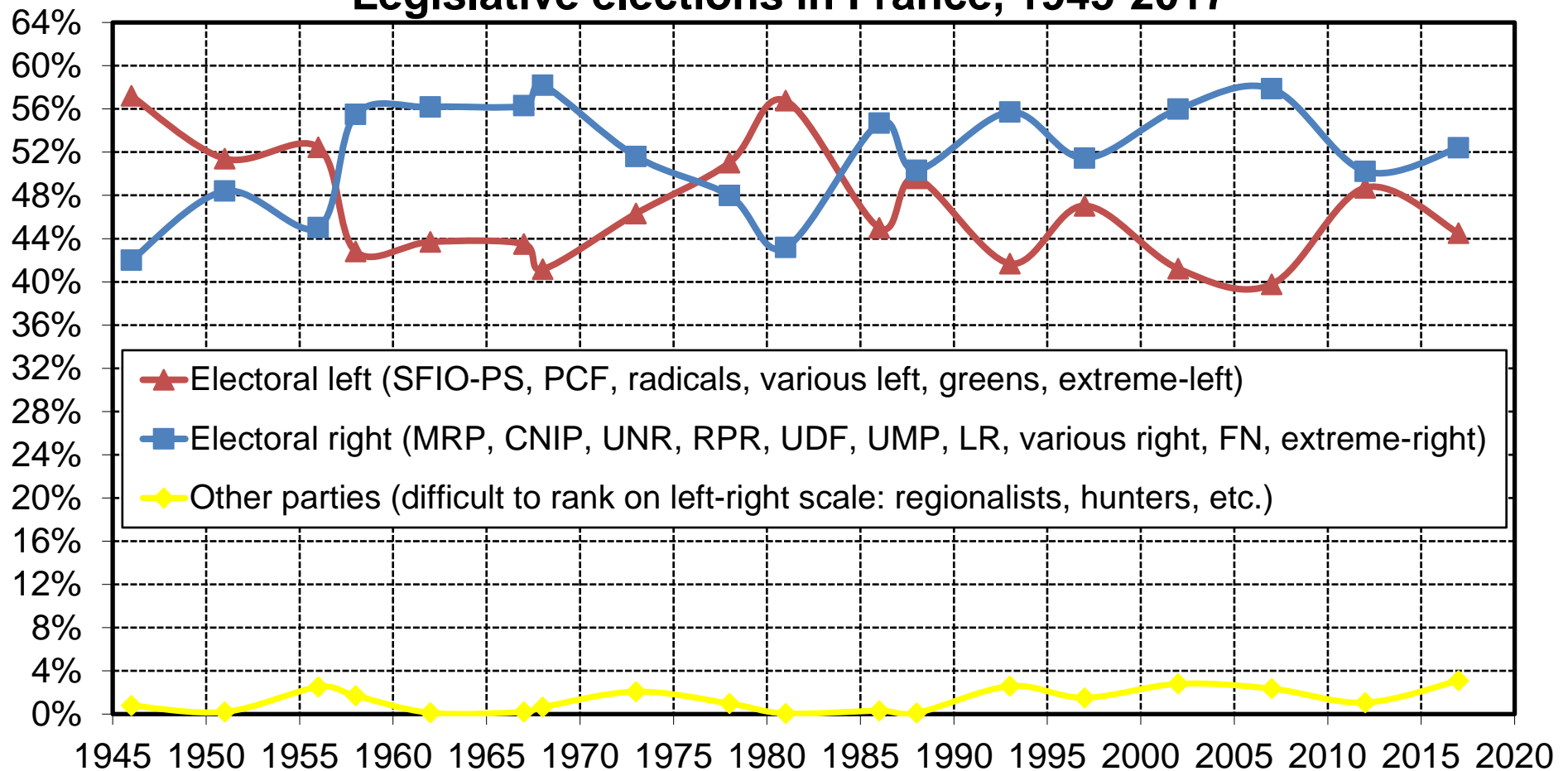


## Electoral left in Europe and the U.S. 1945-2020: from the workers' party to the party of the highly educated



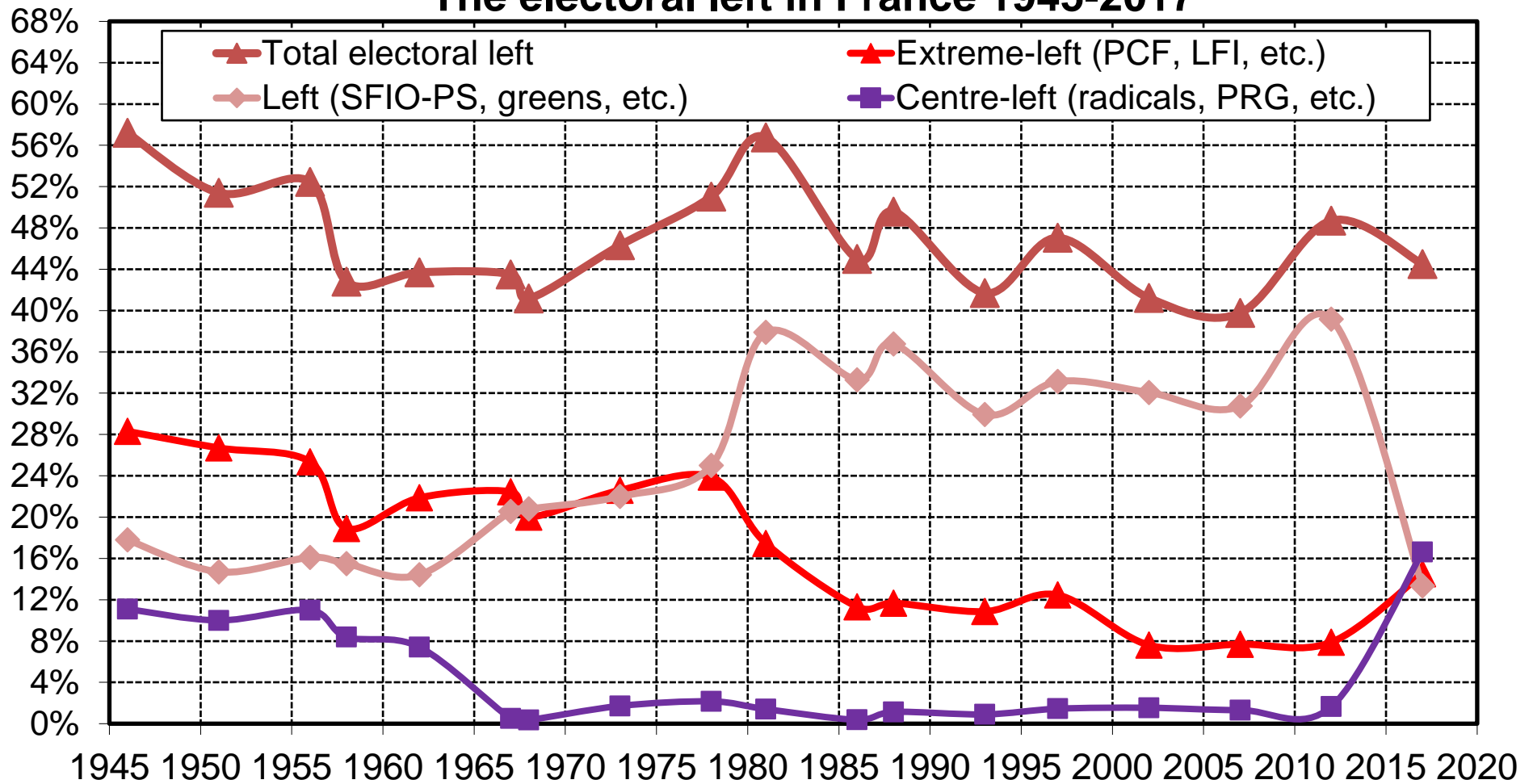
**Interpretation.** In the 1950-1970 period, the vote for the democrats in the US., left-wing parties (socialists-communists-radicals-greens) in France and the labour party in Britain was associated to voters with the lowest education; in the 1990-2010 period, it became associated to the voters with the highest education degrees. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.2).

## Legislative elections in France, 1945-2017



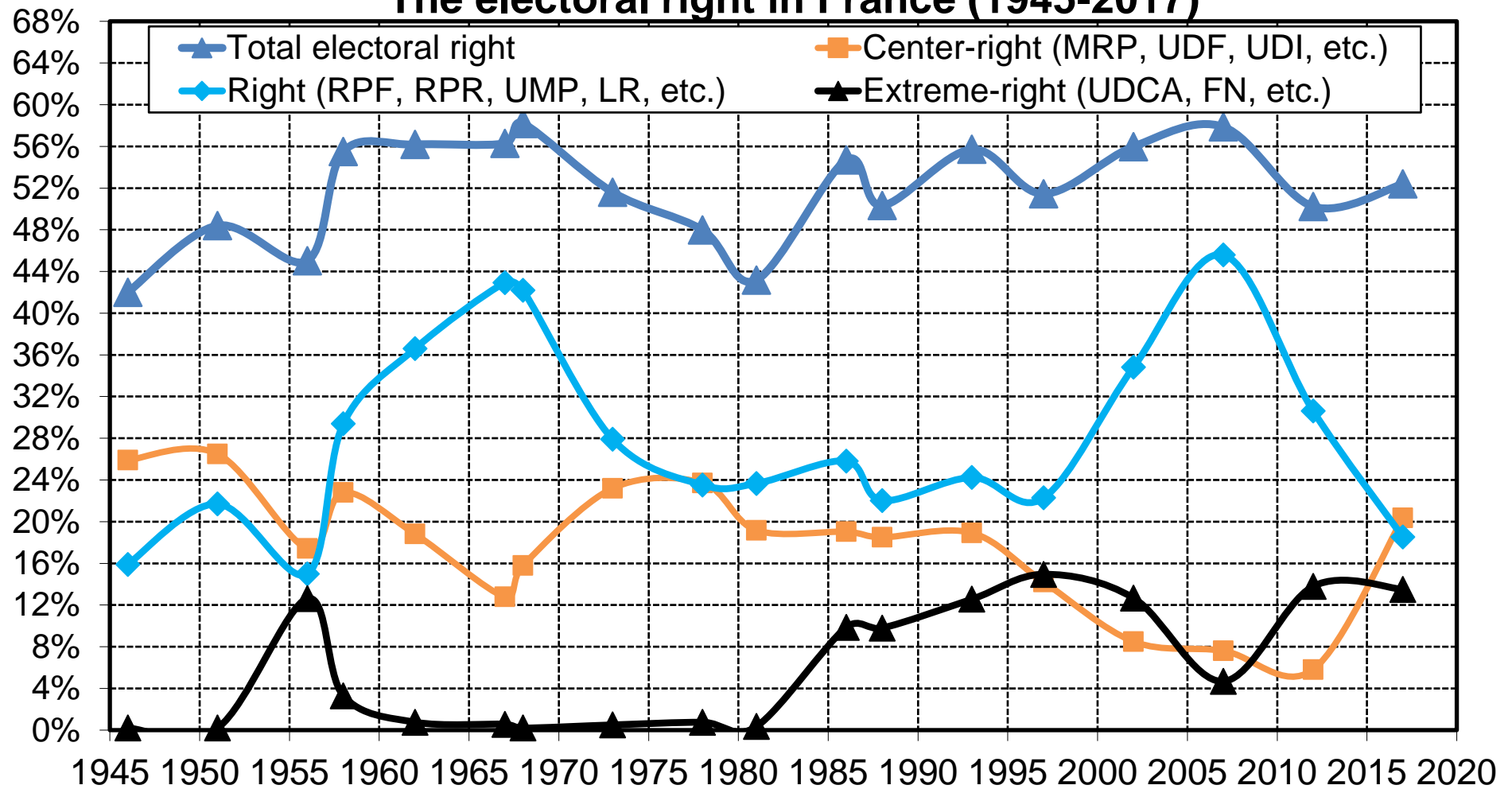
**Interpretation.** The scores obtained by left-wing parties (all parties from the center-left, left and extreme-left) and right-wing parties (all parties from center-right, right and extreme-right combined) have oscillated between 40% and 58% of the votes in the first rounds of legislative elections conducted in France over the 1945-2017 period. Note: the score obtained by the LREM-MODEM coalition in 2017 (32% of votes) was divided 50-50 between center-left and center-right (see figures 14.4-14.5). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.3).

## The electoral left in France 1945-2017



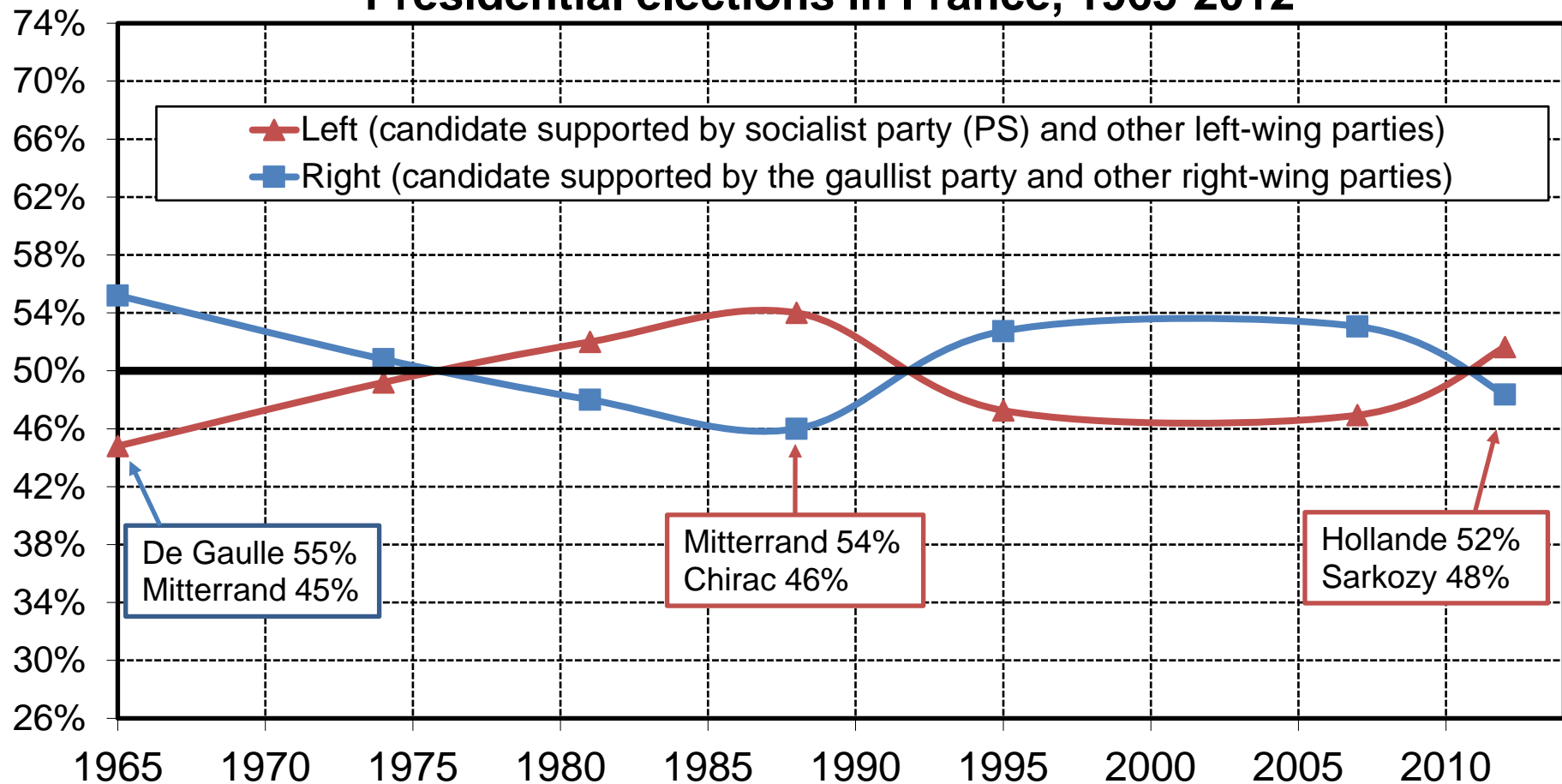
**Interpretation.** The score obtained by left-wing parties (socialistes, communistes, radicals, greens and other parties from the center-left, left and extreme-left) has oscillated between 40% and 57% of the votes in the first rounds of legislative elections conducted in France over the 1945-2017 period. **Note:** the score obtained by the LREM-MODEM coalition in 2017 (32% of votes) was divided 50-50 between center-left and center-right. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.4).

## The electoral right in France (1945-2017)



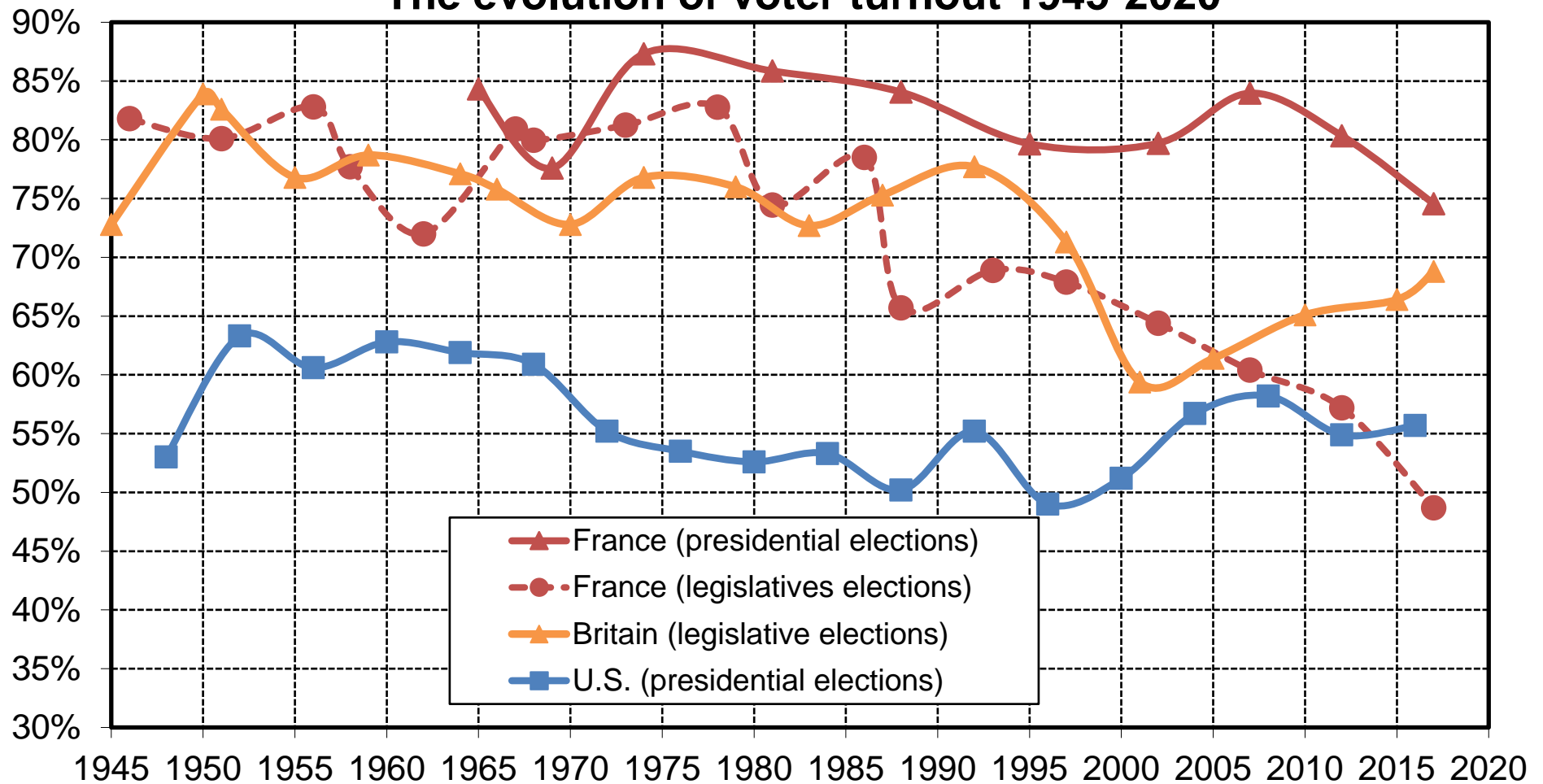
**Interpretation.** The score obtained by right-wing parties (all parties from the center-right, right and extreme-right combined) varied between 40% and 58% of the votes in the first rounds of legislative elections conducted in France over the 1945-2017 period. Note: the score obtained by the LREM-MODEM coalition in 2017 (32% of votes) was divided 50-50 between center-left and center-right. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.5).

## Presidential elections in France, 1965-2012



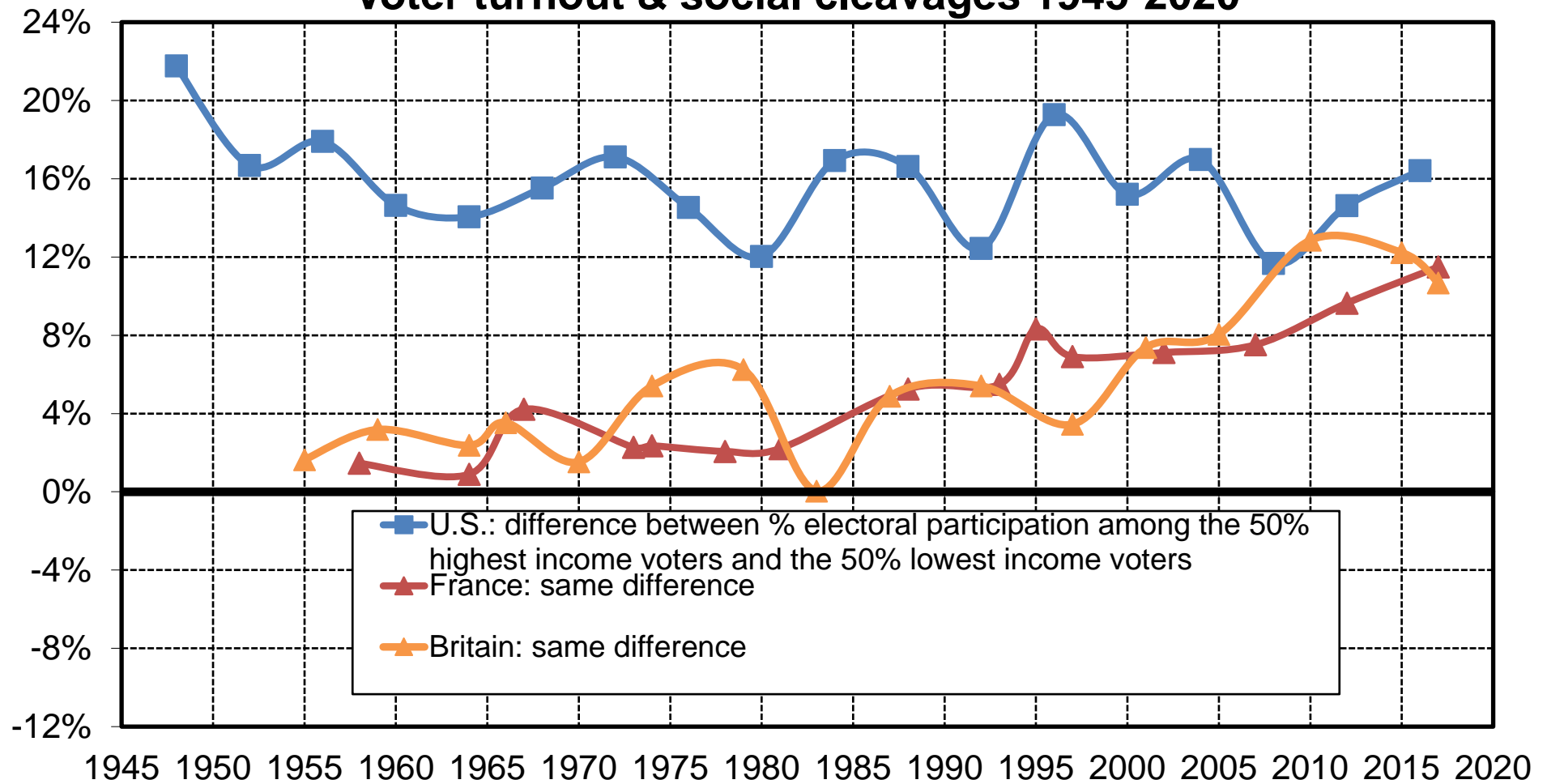
**Interpretation.** The scores obtained during the second rounds left-right of French presidential elections reported here are the following 1965 (De Gaulle 55%, Mitterrand 45%), 1974 (Giscard 51%, Mitterrand 49%), 1981 (Mitterrand 52%, Giscard 48%), 1988 (Mitterrand 54%, Chirac 46%), 1995 (Chirac 53%, Jospin 47%), 2007 (Sarkozy 53%, Royal 47%), 2012 (Hollande 52%, Sarkozy 48%). Other second rounds (opposing the right, the center and the extreme-right) were not reported here: 1969 (Pompidou 58%, Poher 42%), 2002 (Chirac 82%, Le Pen 18%), 2017 (Macron 66%, Le Pen 34%). Sources and series: see piketty.pse.ens.fr/ideology (figure 14.6).

## The evolution of voter turnout 1945-2020



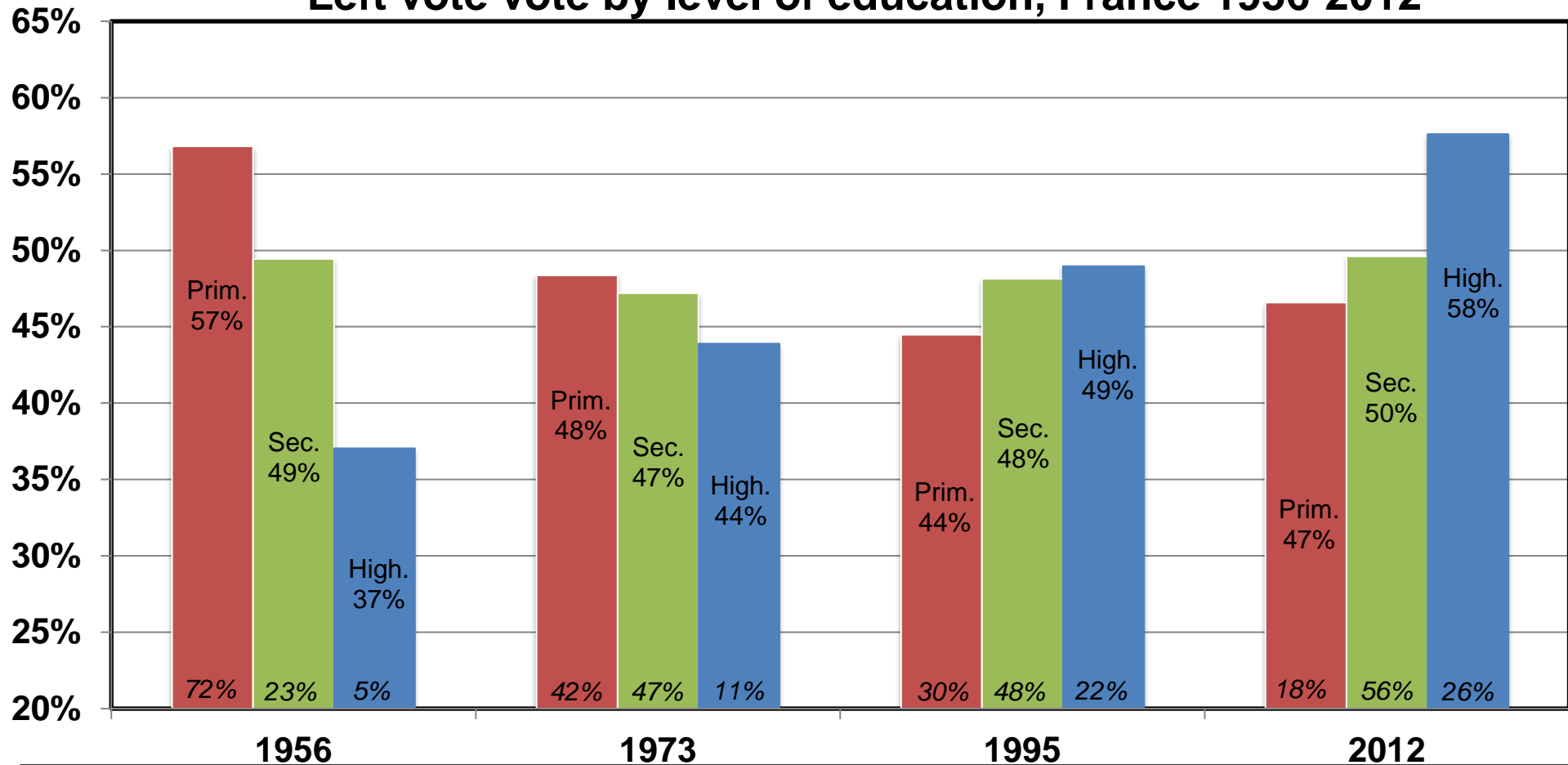
**Interpretation.** Voter turnout has been relatively stable around 80%-85% in French presidential elections since 1965 (with however a small fall to 75% in 2017). The fall has been much stronger in legislative elections, which was around 80% until the 1970s, and was less than 50% in 2017. Electoral participation dropped in Britain before rising again since 2010. In the U.S., it has generally fluctuated around 50%-60%. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.7).

## Voter turnout & social cleavages 1945-2020



**Interpretation.** During the 1950-1980 period, electoral participation in France and Britain was at most 2%-3% higher among the 50% highest income voters than among the 50% lowest income voters. This gap rose significantly since the 1980s and reached 10%-12% in the 2010s, thereby approaching the levels historically observed in the U.S. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.8).

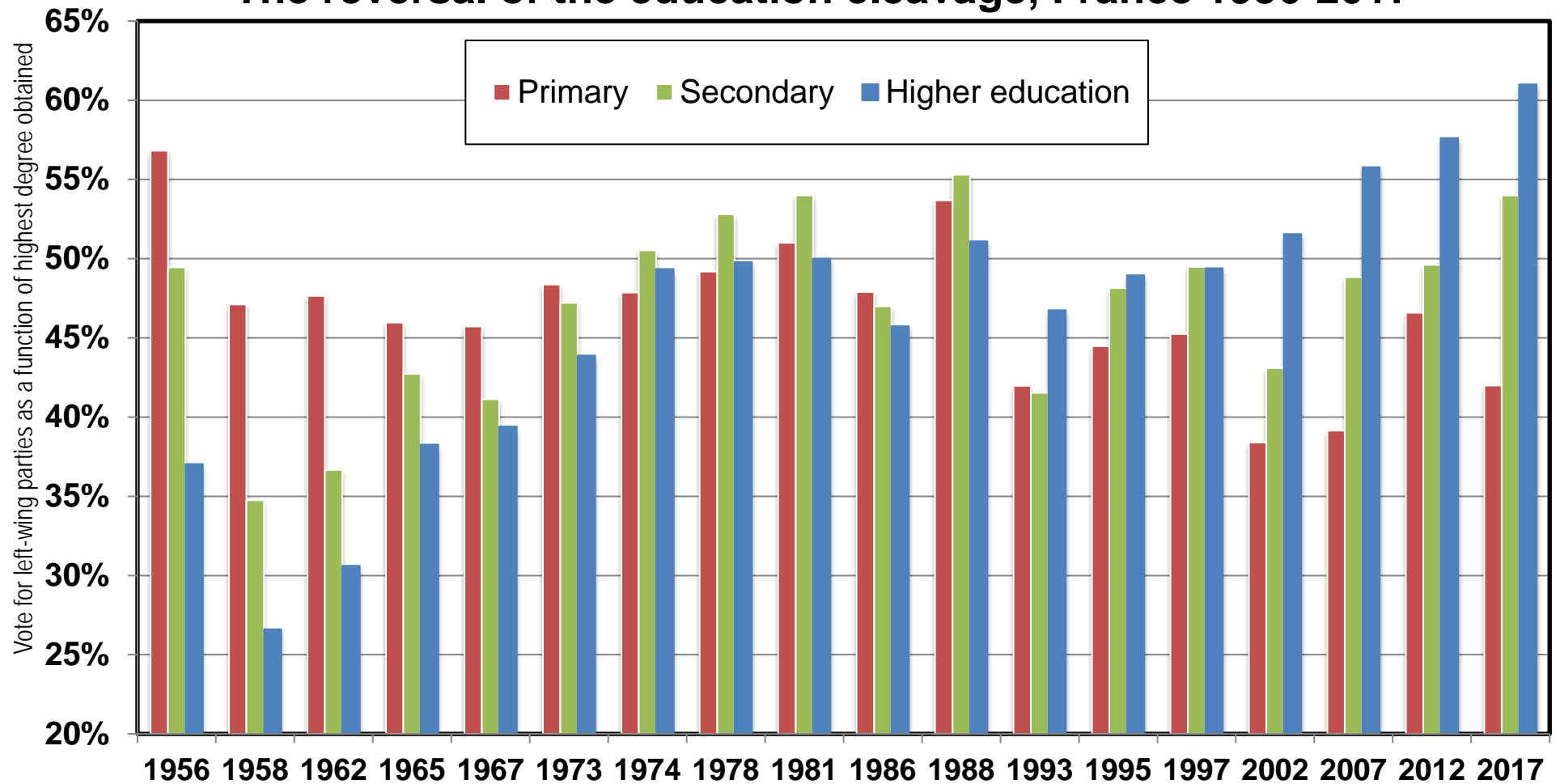
## Left vote vote by level of education, France 1956-2012



**Interpretation.** In the 1956 legislative elections, 57% of voters with a primary education or less (certificat d'études primaires) (i.e. 72% of the electorate at the time) voted for left-wing parties (socialists-communists-radicals), vs. 50% of voters with secondary diplomas (23% of the electorate) and 37% of voters with higher education diplomas (5% of the electorate). In the 2012 presidential elections, the education cleavage was totally reversed: the left-wing candidate obtained 58% of the vote in the second round among voters with higher education diplomas, vs 47% of the vote among voters with primary education only. Sources and series: see piketty.pse.ens.fr/ideology (figure 14.9).

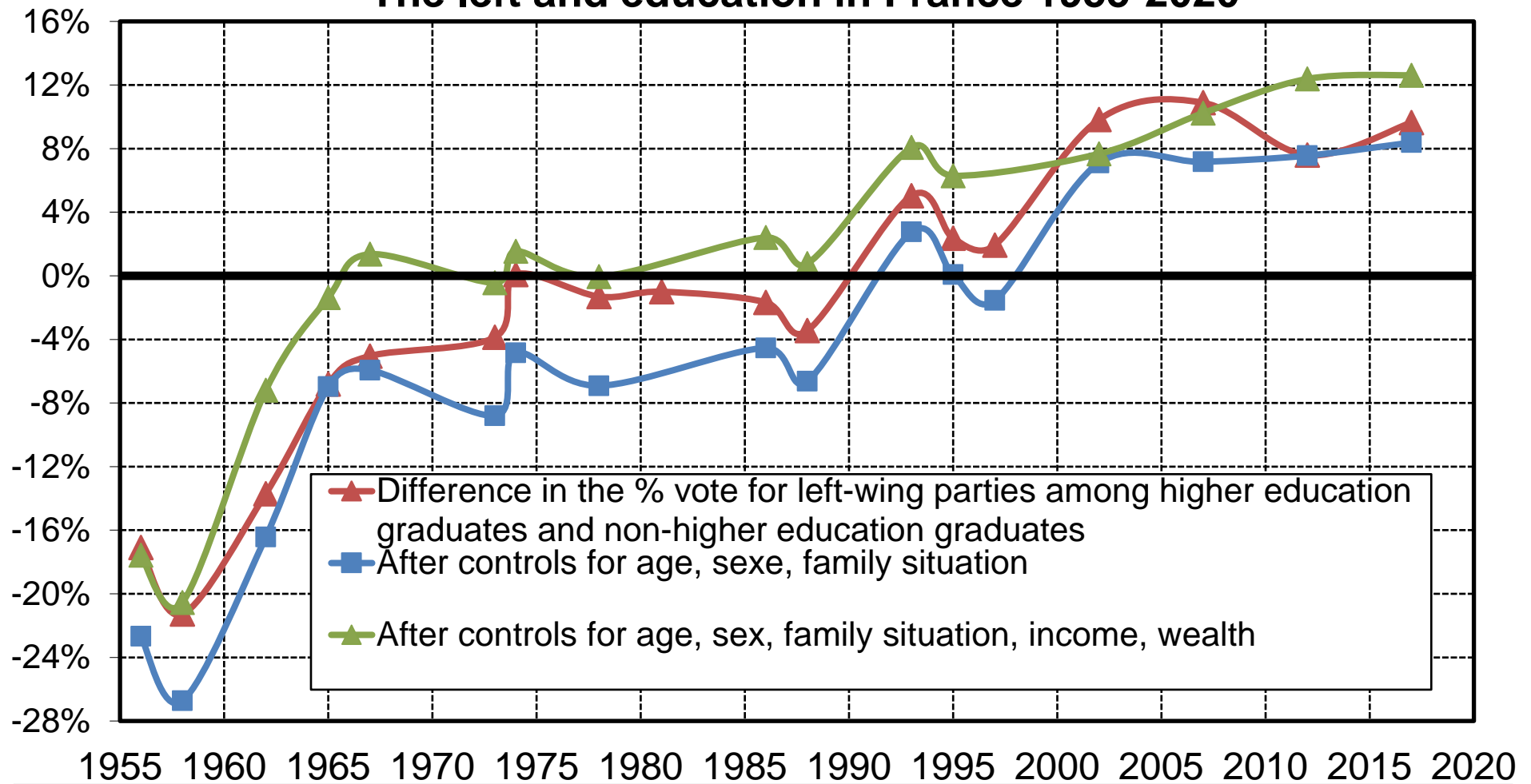


## The reversal of the education cleavage, France 1956-2017



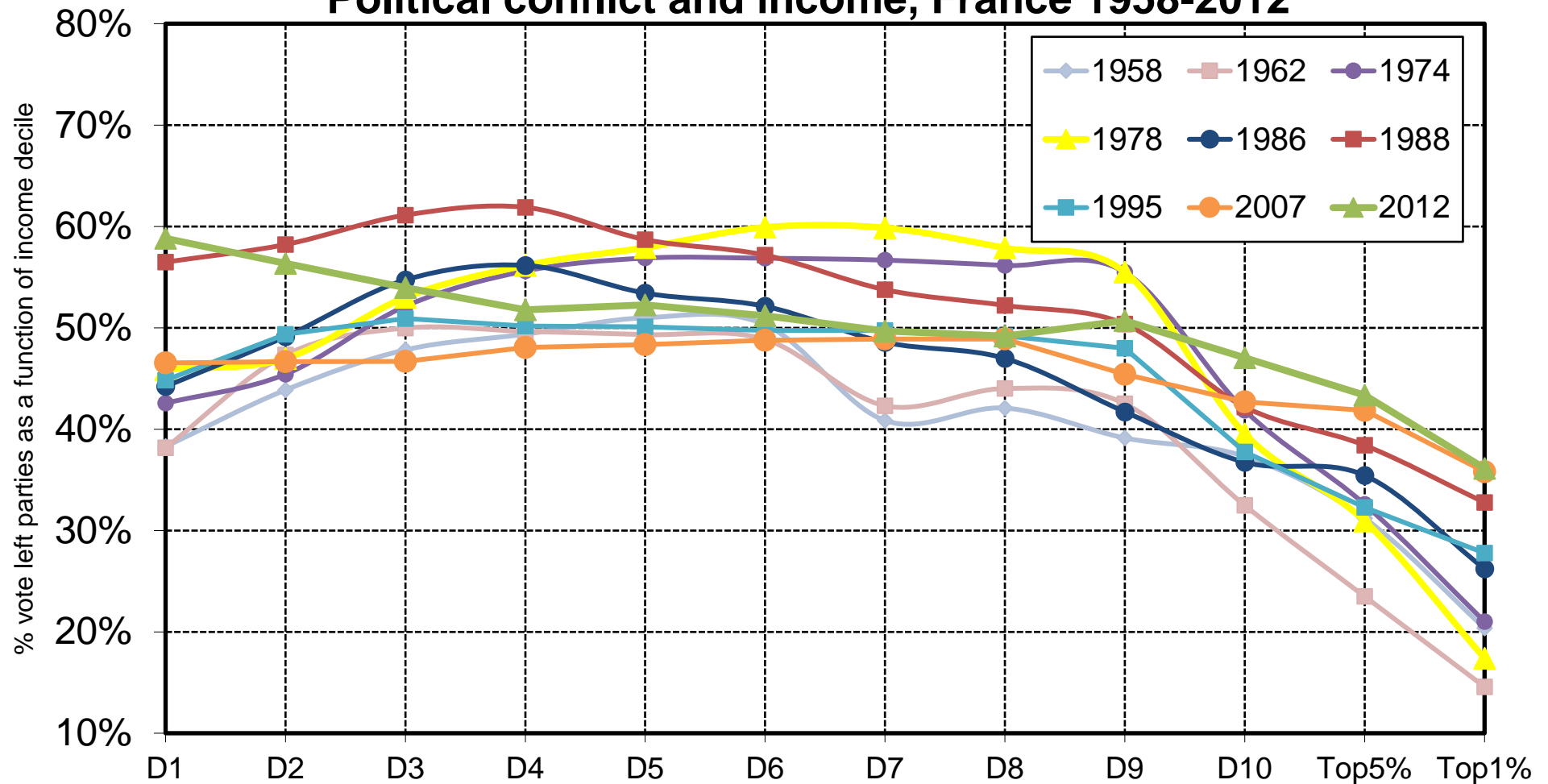
**Interpretation.** During the 1950s and 1960s, the vote for left-wing parties (socialists-communists-radicals-greens) was highest among voters with no degree (except primary education degrees), then fell among secondary and higher education degree holders. In the 2000s and 2010s, the pattern is completely reversed. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.10).

## The left and education in France 1955-2020



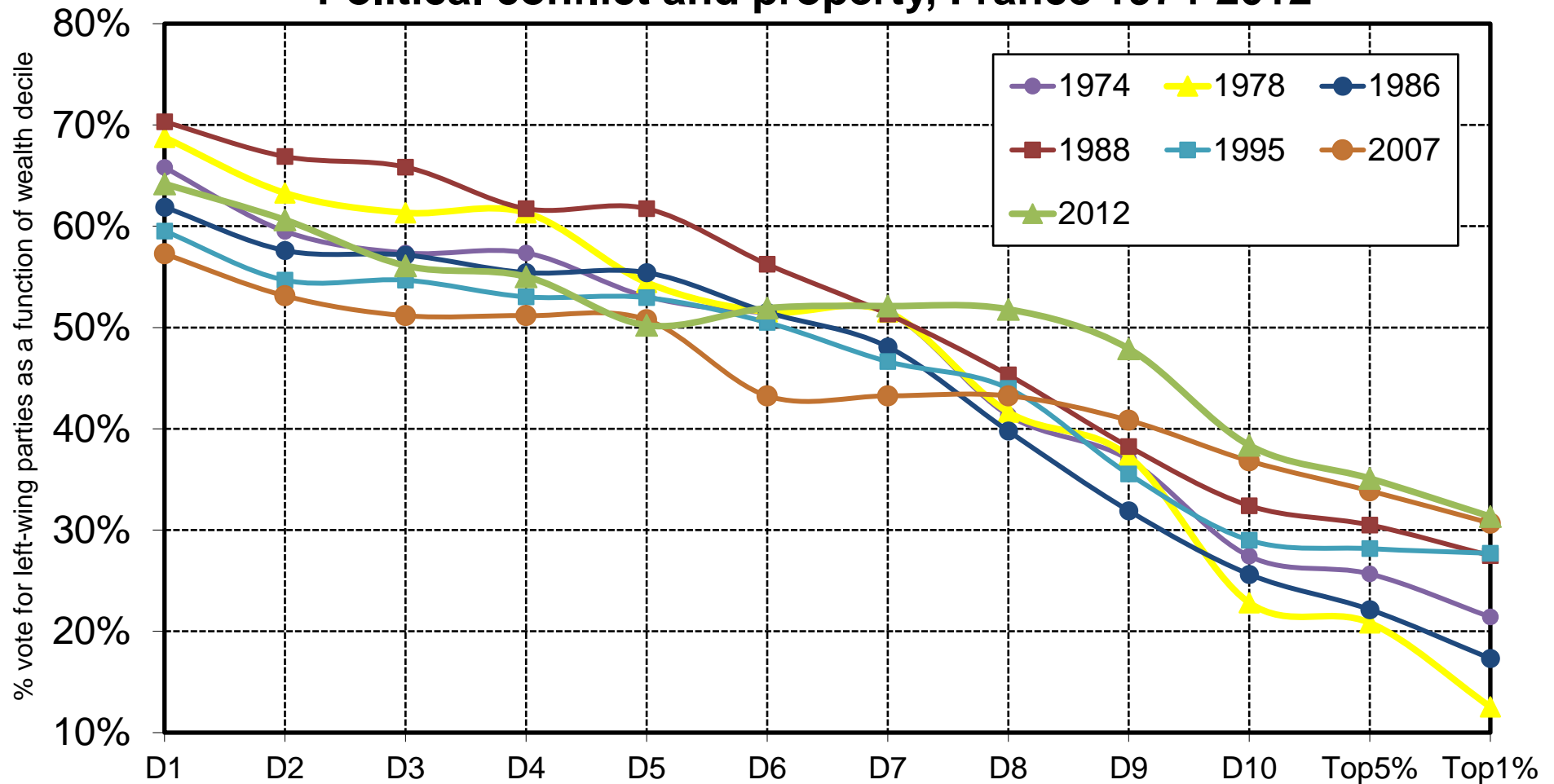
**Interpretation.** In 1956, left-wing parties (socialists-communists-radicals) obtained a score that was 17 points lower among higher education graduates than among non-higher education graduates; in 2012, this score was 8 points higher among higher education graduates. Controlling for other variables does not affect the trend (only the level). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.11).

## Political conflict and income, France 1958-2012



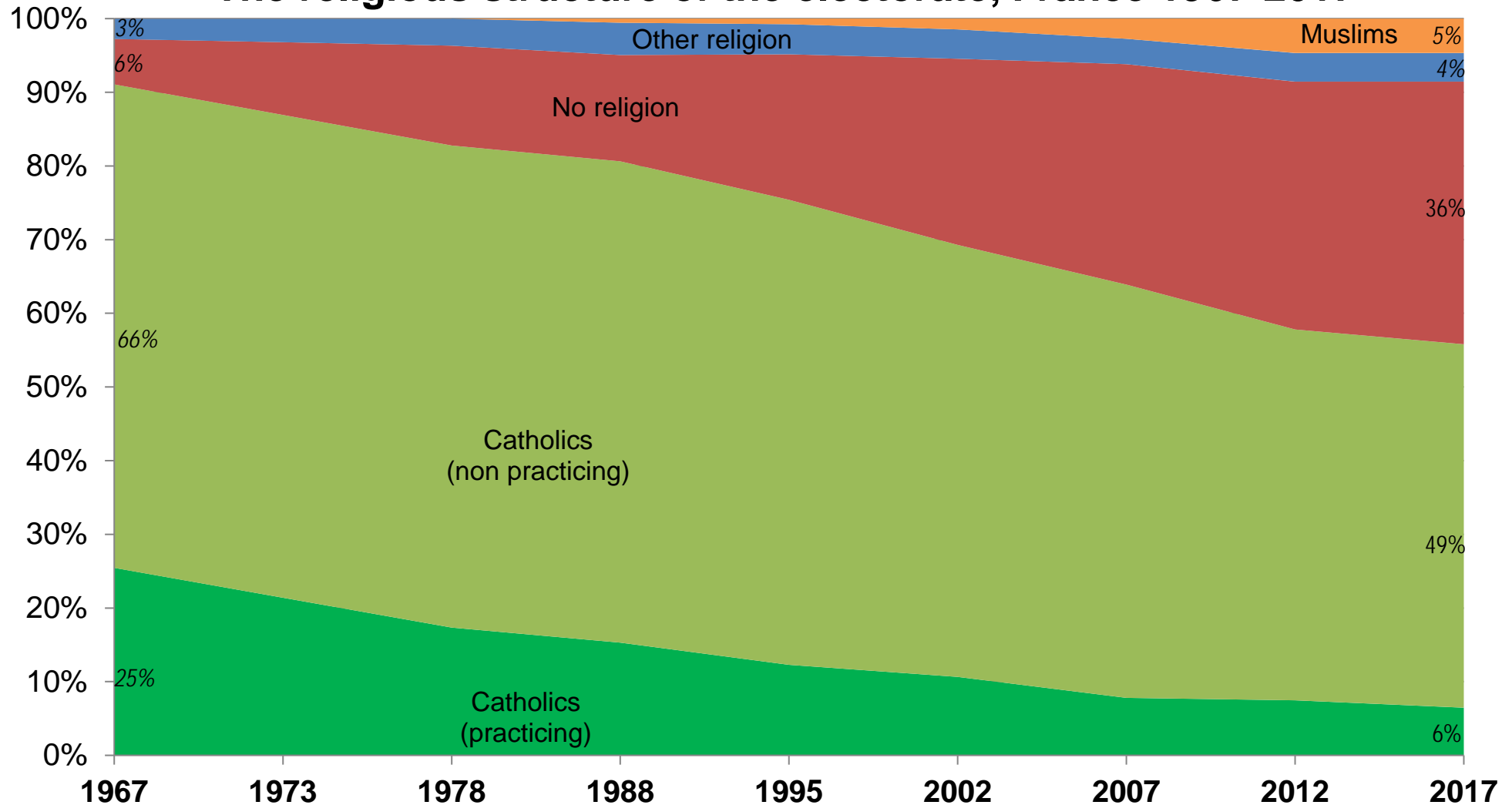
**Interpretation.** In 1978, left-wing parties (socialists-communists-radicals-greens) obtained 46% of the vote among bottom 10% income voters, 38% among top 10% income voters and 17% among top 1% income voters. Generally speaking, the left vote profile is relatively flat among the bottom 90% income voters, and strongly decreasing among top 10% income voters, especially at the beginning of the period. Note: D1 refers to the 10% lowest incomes, D2 to the next 10%,..., and D10 to the 10% highest incomes. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.12).

## Political conflict and property, France 1974-2012



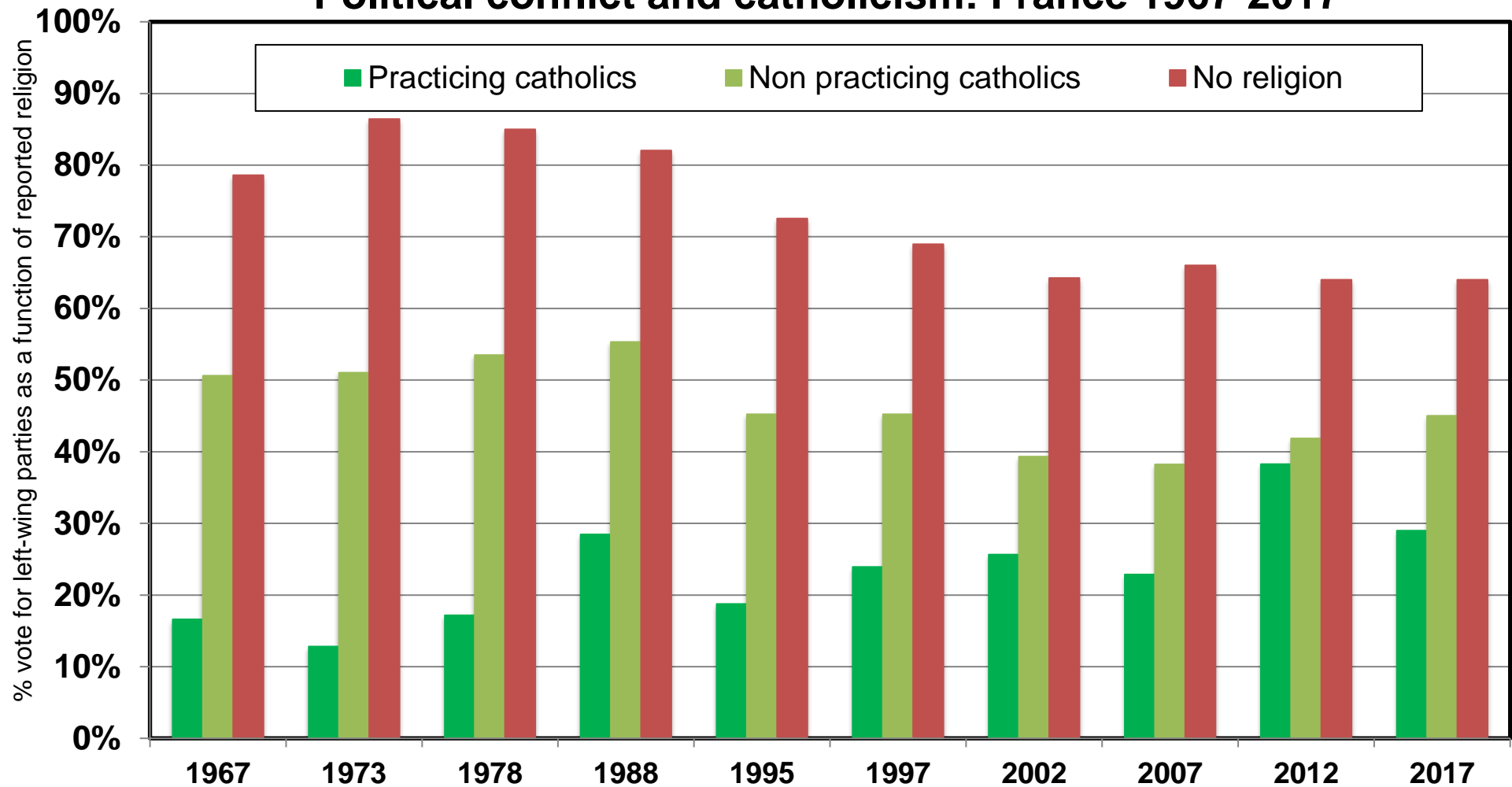
**Interpretation.** In 1978, left-wing parties (socialists-communists-radicals-greens) obtained 69% of the vote among bottom 10% wealth voters, 23% among top 10% wealth voters and 13% among top 1% wealth voters. Generally speaking, the left vote profile with respect to wealth is sharply declining (much more strongly than with respect to income), especially at the beginning of the period. Note: D1 refers to the 10% lowest wealth holders, D2 to the next 10%,..., and D10 to the 10% highest wealth holders. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology). (figure 14.13)

## The religious structure of the electorate, France 1967-2017



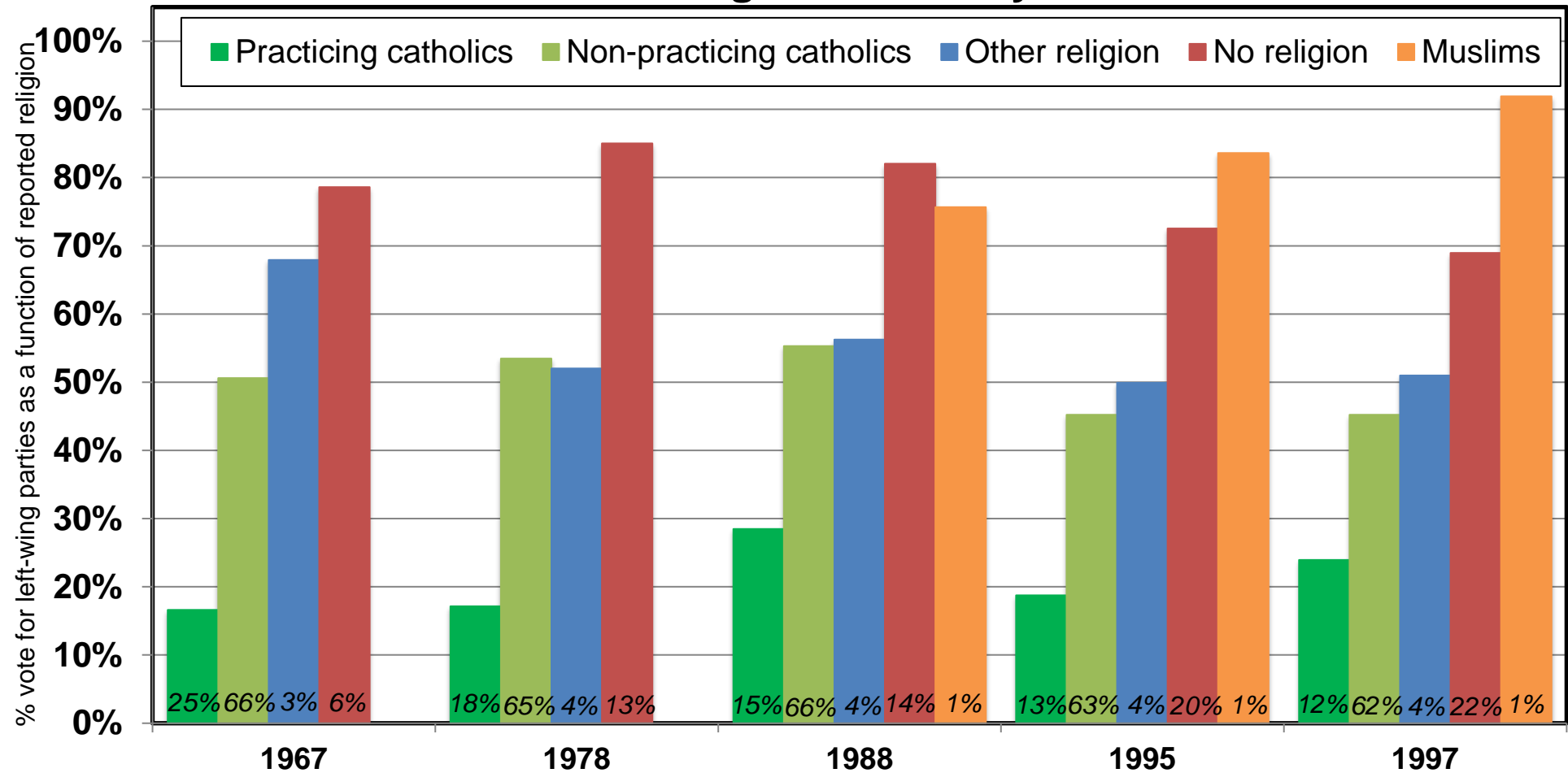
**Interpretation.** Between 1967 and 2017, the proportion of the electorate reporting to be practicing catholic (going to the church at least once per month) dropped from 25% to 6%. Non practicing catholics dropped from 66% to 49%, those reporting no religion increased from 6% to 36%, other religions (protestantism, judaism, buddhism, etc., except islam) from 3% to 4%, and muslims from less than 1% to about 5% of the electorate. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.14).

## Political conflict and catholicism: France 1967-2017



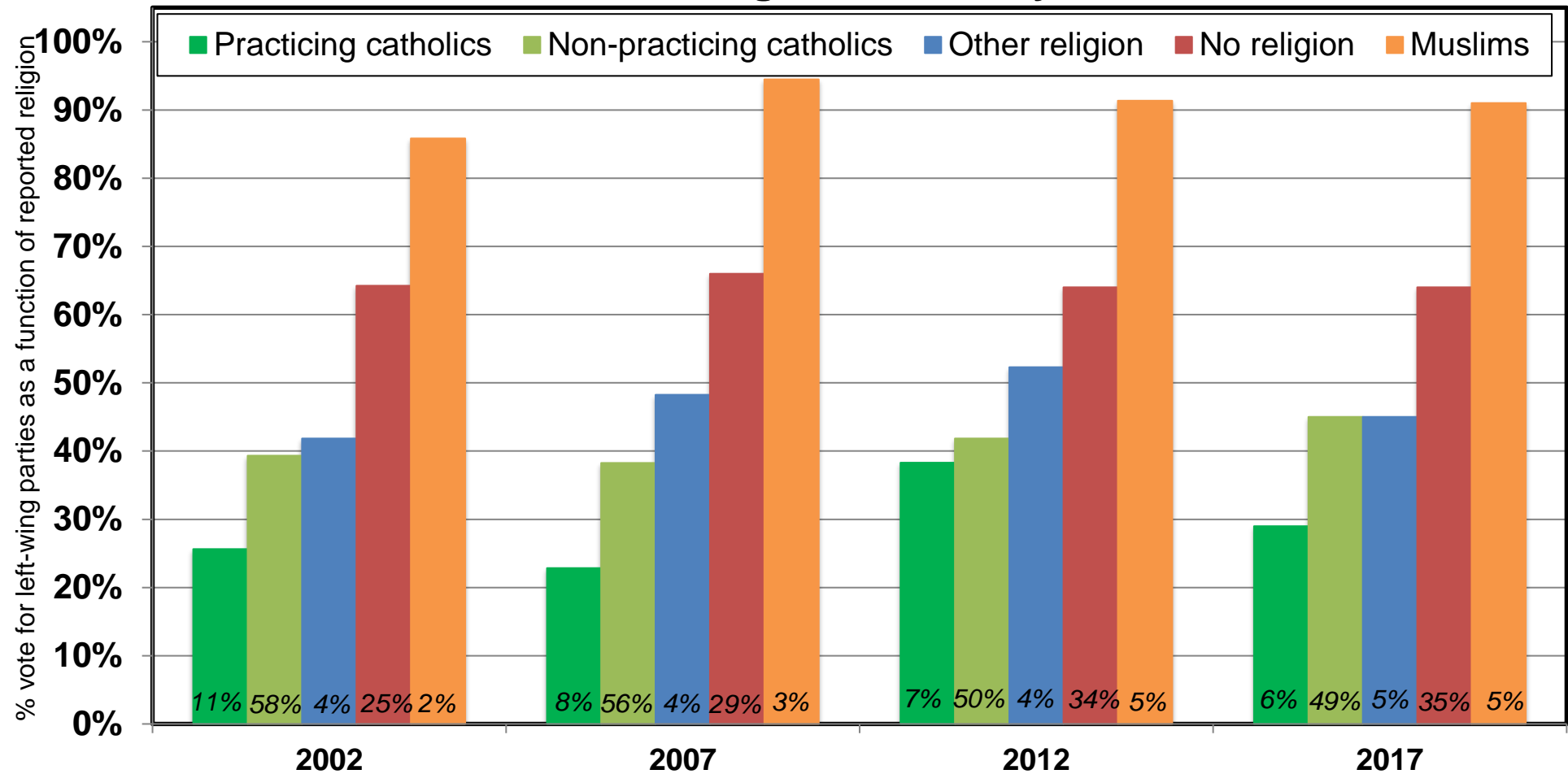
**Interpretation.** Self-reported practicing and non-practicing catholic voters have always voted less strongly for left-wing parties than voters reporting no religion, but the gap has reduced over time. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.15).

## Political conflict & religious diversity: France 1967-1997



**Interpretation.** Self-reported muslim voters vote significantly more for left-wing parties than voters with no religion beginning in 1997. Before 1988, muslims were classified with other religions (protestantism, judaism, buddhims, hinduism, etc.), and made less than 1% of the electorate . Sources and series: see piketty.pse.ens.fr/ideology (figure 14.16).

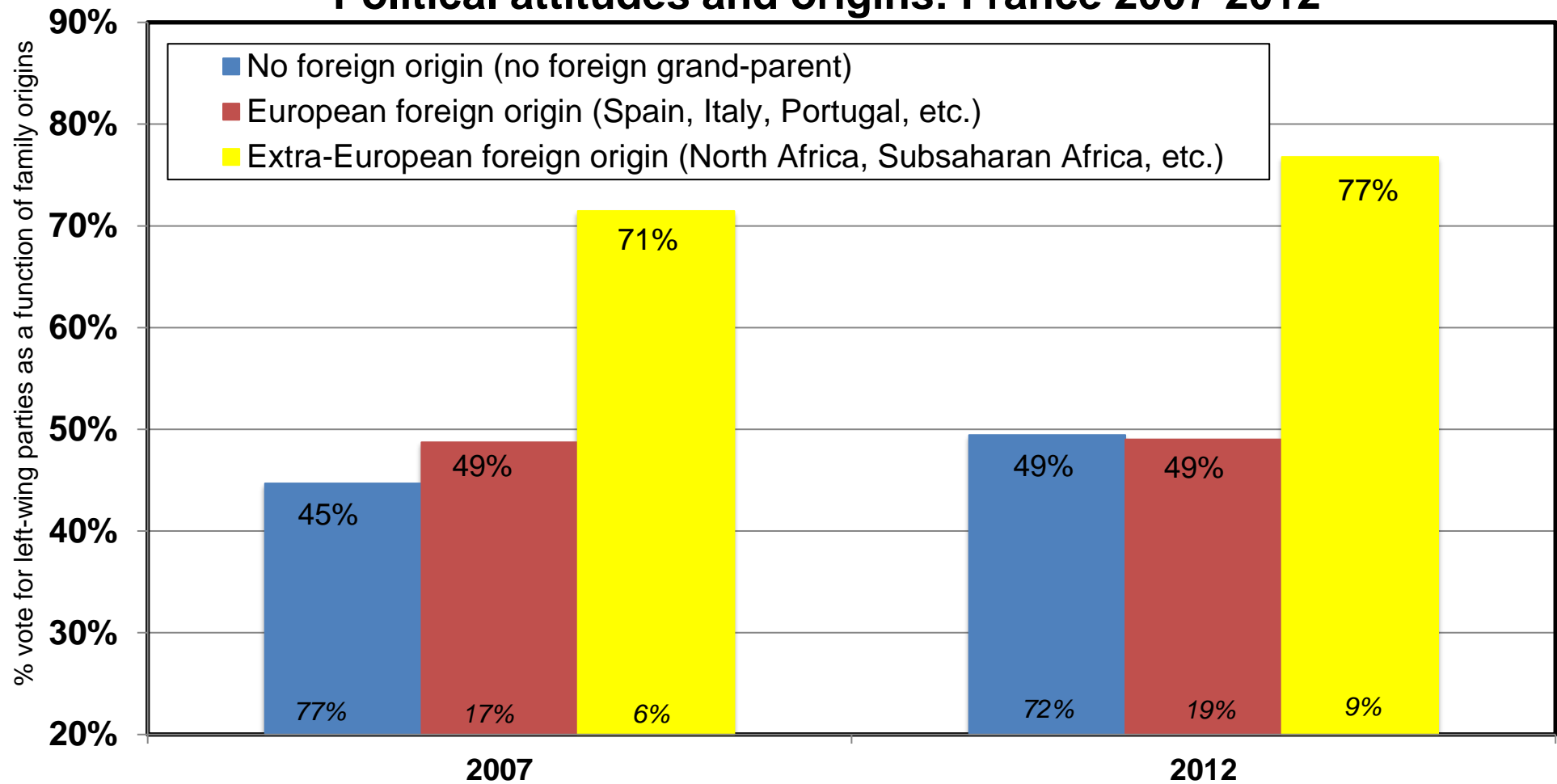
## Political conflict & religious diversity: France 2002-2017



**Interpretation.** About 80%-90% of self-reported muslim voters vote for left-wing parties in all elections in France since the 1990s. Before 1988, muslims were classified with other religions (protestantism, judaism, buddhims, hinduism, etc.), and made less than 1% of the electorate . Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.17).

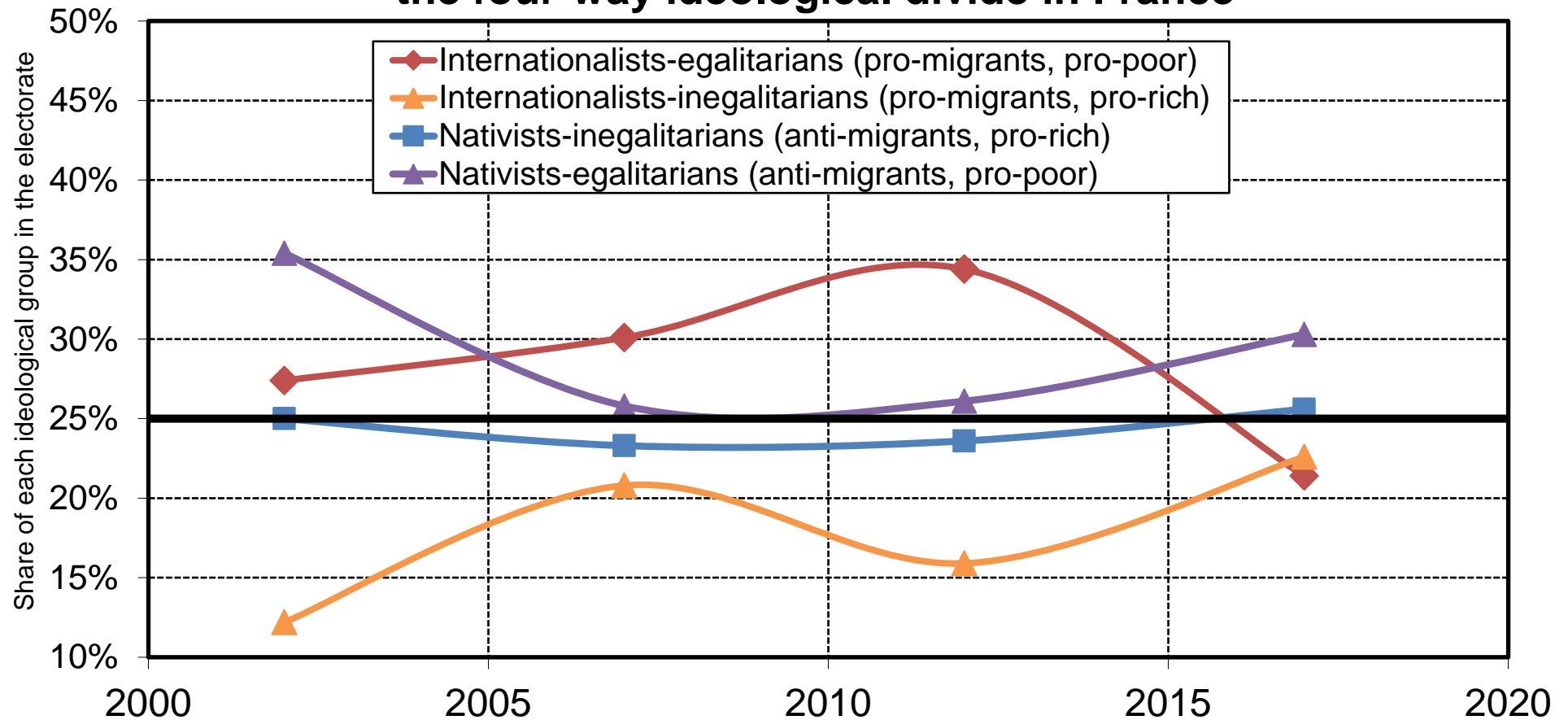


## Political attitudes and origins: France 2007-2012



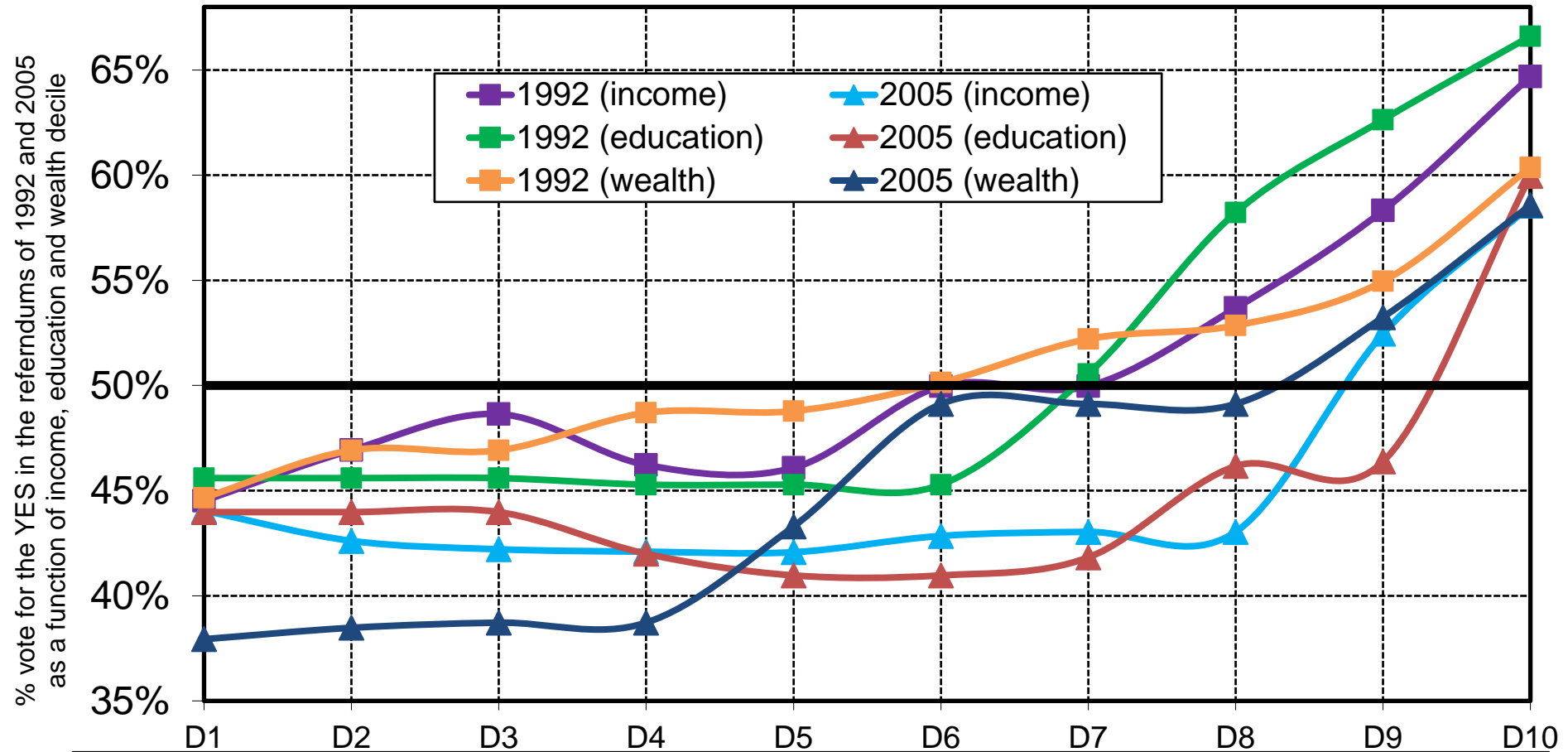
**Interpretation.** In 2012, the socialist candidate received 49% of the vote among voters with no foreign origin (no foreign grand-parent), 49% of the vote among voters with European foreign origin (in practice mostly Spain, Italy, Portugal) and 77% of the vote among voters with extra-European foreign origins (in practice mostly North Africa and Subsaharan Africa). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.18).

## Borders and property: the four-way ideological divide in France



**Interpretation.** In 2017, 21% of voters can be classified as "internationalists-egalitarians" (they consider that there are not too many migrants and that inequalities between the rich and the poor ought to be reduced); 26% as "nativists-inegalitarians" (they consider that there are too many migrants and that there is no need to reduce the inequalities between the rich and the poor); 23% as "internationalists-inegalitarians" (pro-migrants, pro-rich) and 30% as "nativists-egalitarians" (anti-migrants, pro-poor). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.19).

## The European cleavage in France: the referenda of 1992 and 2005



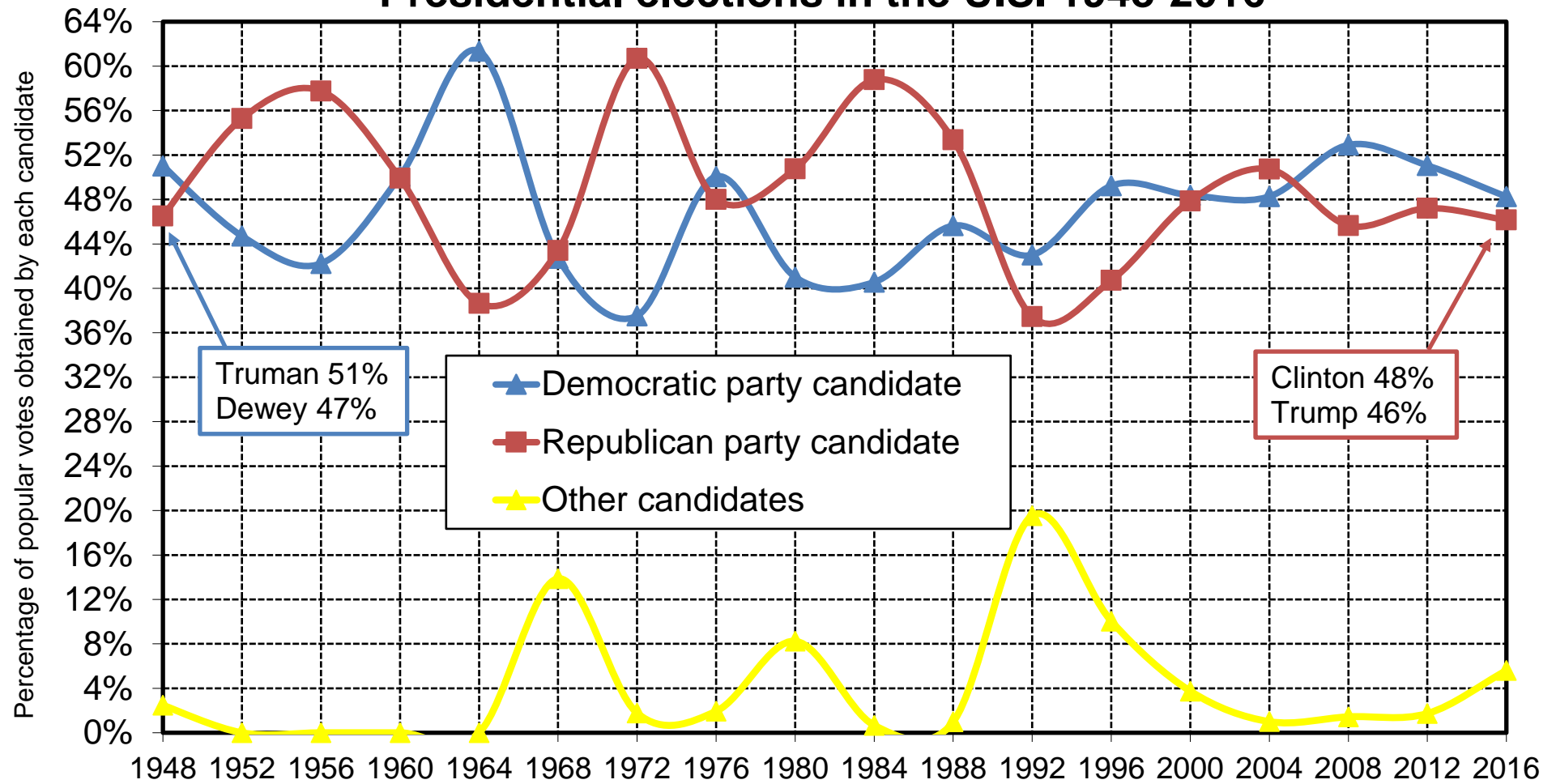
**Interpretation.** In the 1992 referendum over the Maastricht treaty ("yes" won with 51%) as well as in the 2005 referendum on the European constitutional treaty ("yes" lost with 45%), one observes a very strong social cleavage: top deciles of income, educational degrees and wealth vote strongly for the "yes", while bottom deciles vote for the "no". Note: D1 represents the bottom 10% (for the distribution of income, education or wealth), D2 the next 10%,..., and D10 the top 10%. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 14.20).

## Politico-ideological conflict in France 2017: an electorate divided into four quarters

Presidential election 2017 (1 <sup>st</sup> round)	All voters	Melenchon /Hamon (vote "egalitarian- internationalist")	Macron (vote "inegalitarian- internationalist")	Fillon (vote "inegalitarian- nativist")	Le Pen /Dupont-Aignan (vote "egalitarian- nativist")
	<b>100%</b>	<b>28%</b>	<b>24%</b>	<b>22%</b>	<b>26%</b>
"There are too many migrants in France" (% agree)	<b>56%</b>	32%	39%	62%	91%
"In order to achieve social justice, one should take to the rich and give to the poor" (% agree)	<b>51%</b>	67%	46%	27%	61%
Higher education graduates (%)	<b>33%</b>	39%	41%	36%	16%
Monthly income > 4000€ (%)	<b>15%</b>	9%	20%	26%	8%
Home owners (%)	<b>60%</b>	48%	69%	78%	51%

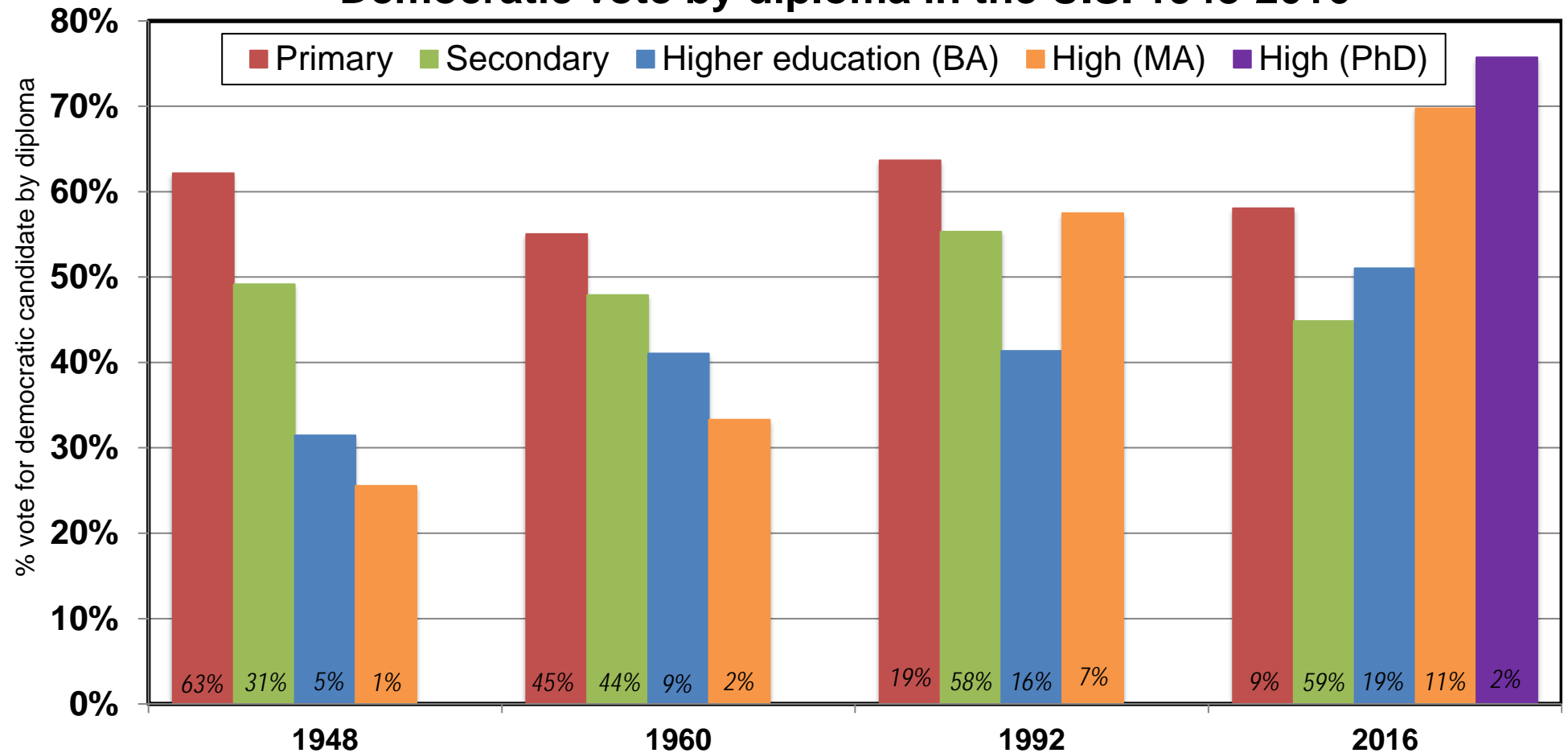
**Interpretation.** In 2017, 28% of first-round voters voted for Melenchon-Hamon; 32% of them considered that there are too many migrants in France (vs 56% on average among all voters) and 67% that we should take from the rich and give to the poor (vs 51% on average). In that sense this electorate is ideologically "egalitarian-internationalist", while the Macron electorate is "inegalitarian-internationalist" (pro-migrants, pro-rich), the Fillon electorate "inegalitarian-nativist" (anti-migrants, pro-rich) and the Le Pen/Dupont Aignan electorate "egalitarian-nativist" (anti-migrants, pro-poor). Note: the votes for Arthaud/Poutou (2%) and Asselineau/Cheminade/Lassale (2%) were added to Melenchon/Hamon and Fillon. Sources and series: see piketty.pse.ens.fr/ideology (table 14.1).

## Presidential elections in the U.S. 1948-2016



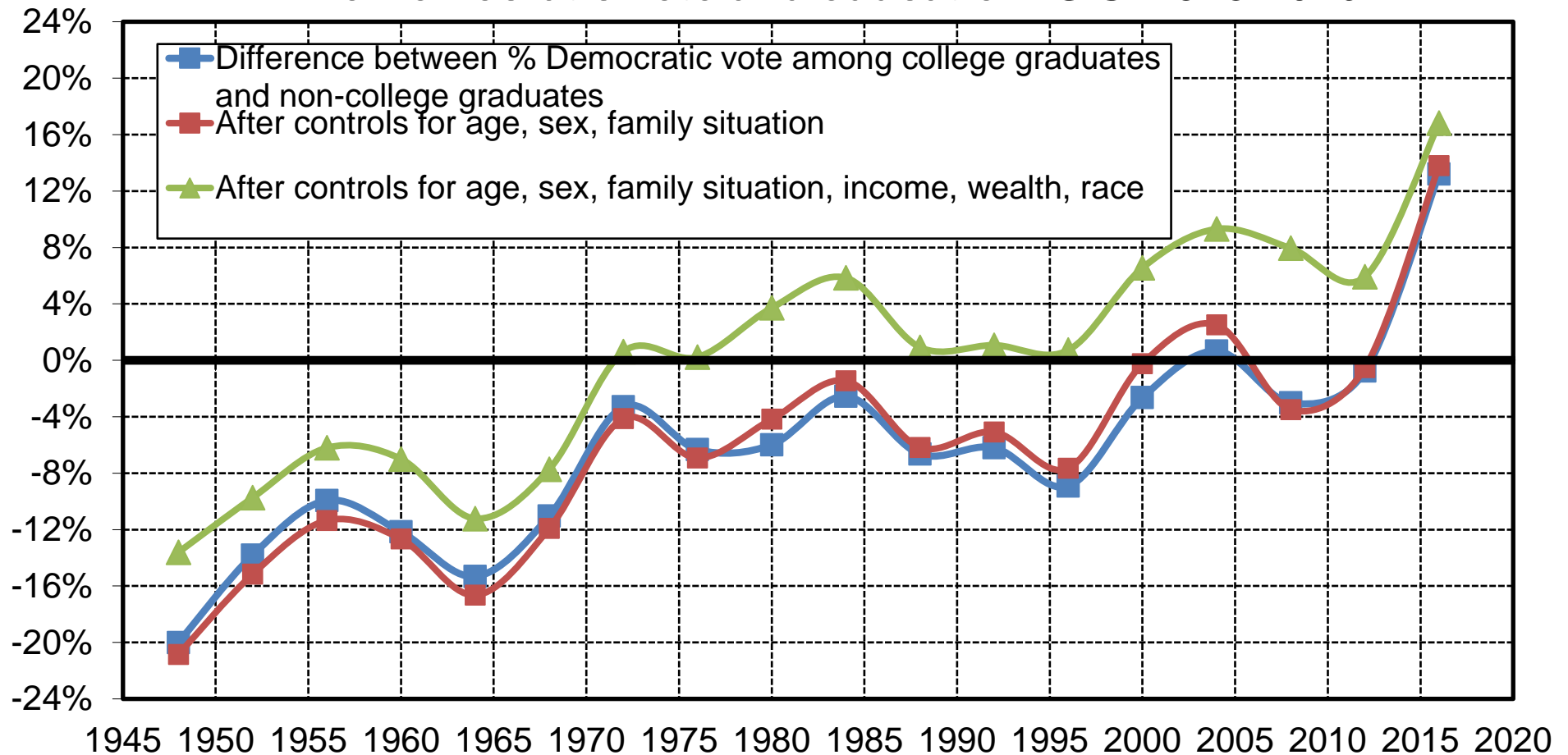
**Interpretation.** The scores obtained by democratic and republican parties candidates in presidential elections conducted in the U.S. between 1948 and 2016 have generally varied between 40% and 60% of the vote (popular vote, all States combined). The scores obtained by other candidates have generally been relatively small (less than 10% of the vote), with the exception of Wallace in 1968 (14%) and Perot in 1992 and 1996 (20% and 10%). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.1).

## Democratic vote by diploma in the U.S. 1948-2016



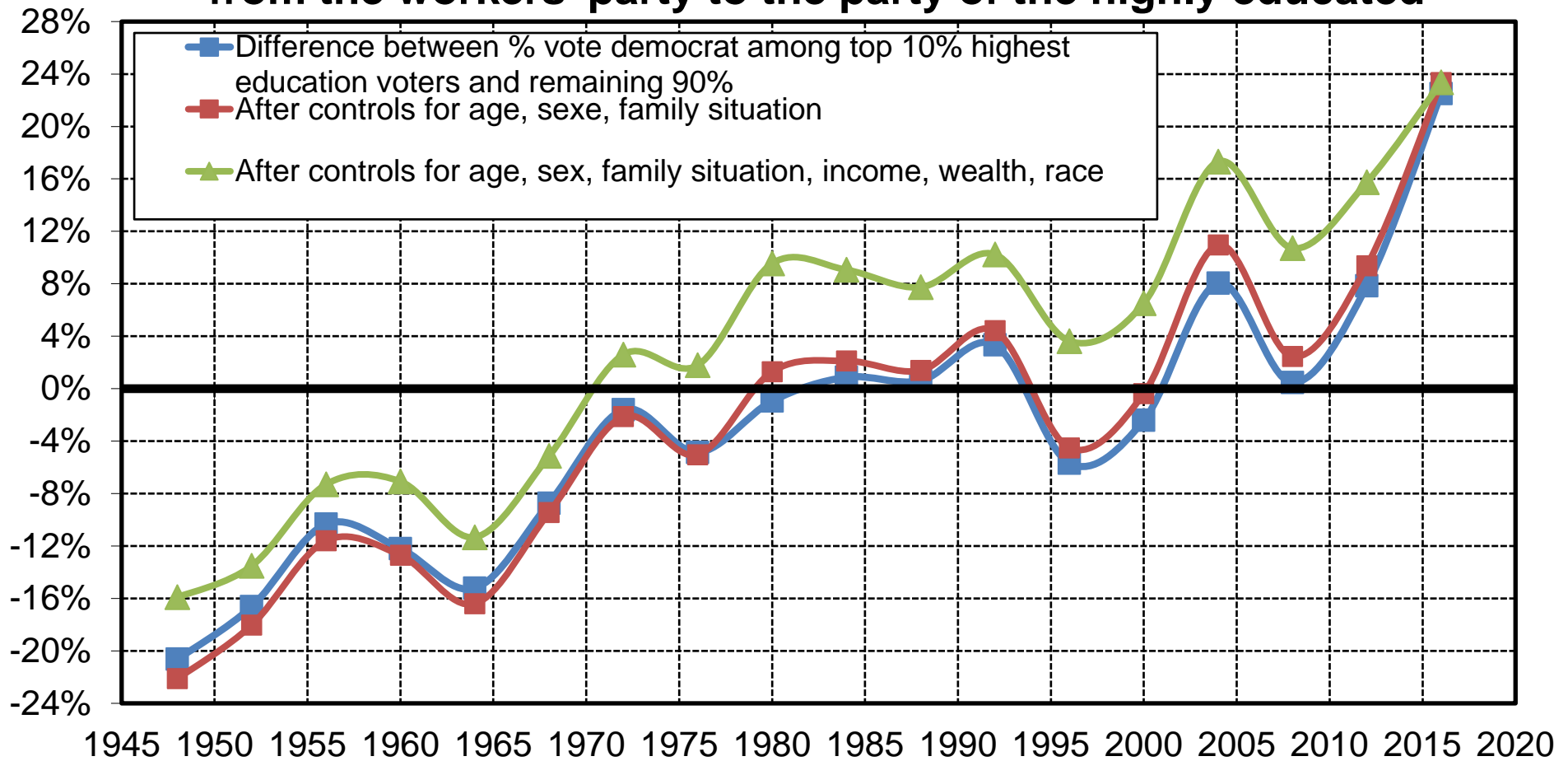
**Interpretation.** In 1948, the democratic candidate (Truman) obtained 62% of the vote among voters with primary education (no high school diploma) (63% of the electorate at the time) and 26% among voters with advanced higher education diplomas (1% of the electorate). In 2016, the democratic candidate (Clinton) obtained 45% of the vote among voters with secondary education (56% of the electorate) and 75% among those holding a PhD (2% of the electorate). Like in France, we see a full reversal of the educational cleavage between 1948 and 2016. Note: BA : bachelor degree or equivalent. MA: master & other advanced degrees (law/medical school). PhD: doctorate. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.2).

## The Democratic vote and education: U.S. 1948-2016



**Interpretation.** In 1948, the democratic candidate obtained a score that was 20 points smaller among college graduates than among college graduates; in 2016, this score is 14 points higher among college graduates. Controlling for other variables ("other things equal") does not affect the trend (only the levels). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.3).

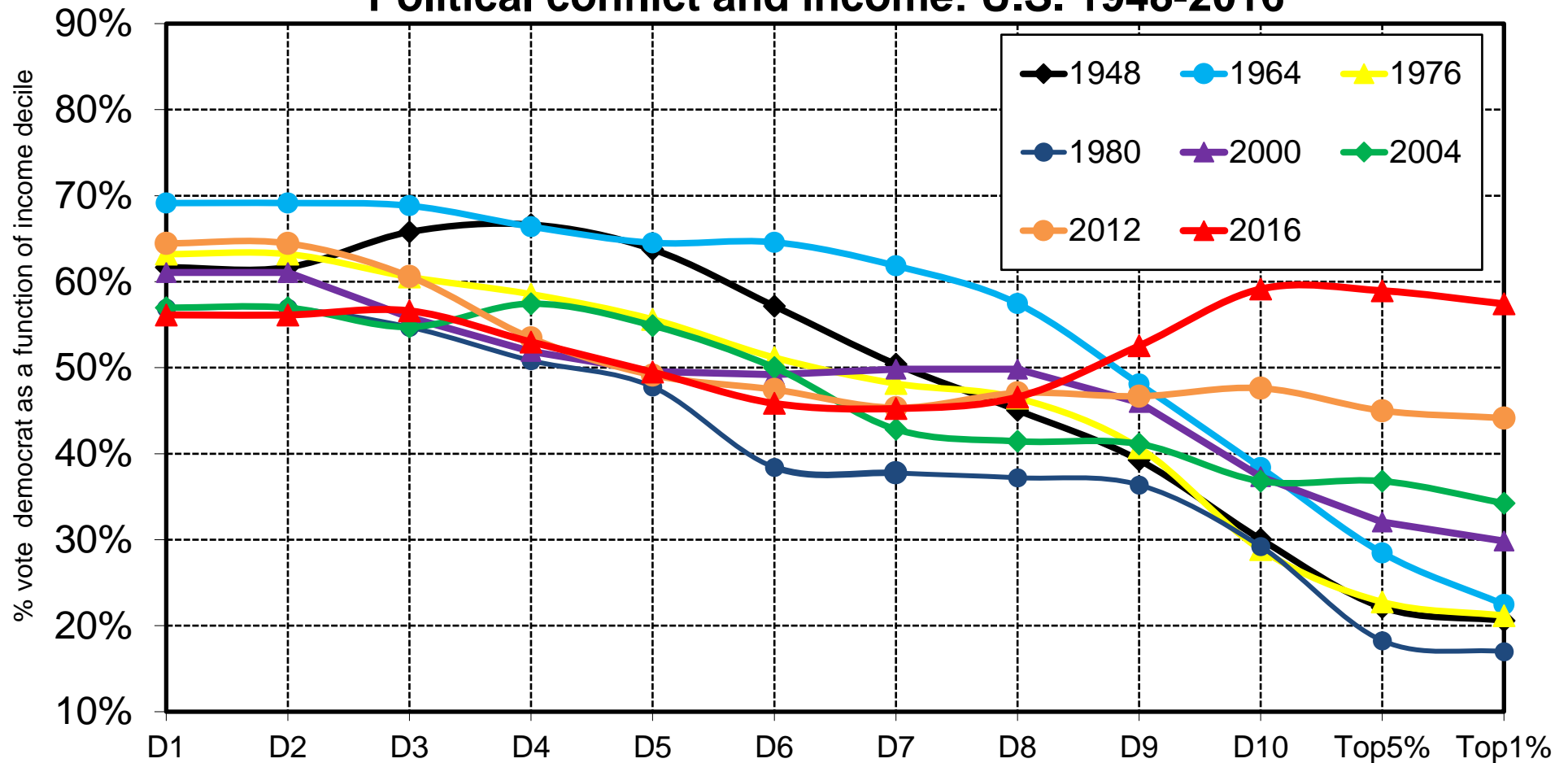
## Democratic vote in the U.S. 1948-2016: from the workers' party to the party of the highly educated



**Interpretation.** In 1948, the democratic candidate obtained a score that was 21 points smaller among the top 10% highest-education voters than among the remaining 90%; in 2016, this score is 23 points higher among the top 10% highest-education voters. Controlling for other variables ("other things equal") does not affect the trend (only the levels). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.4).

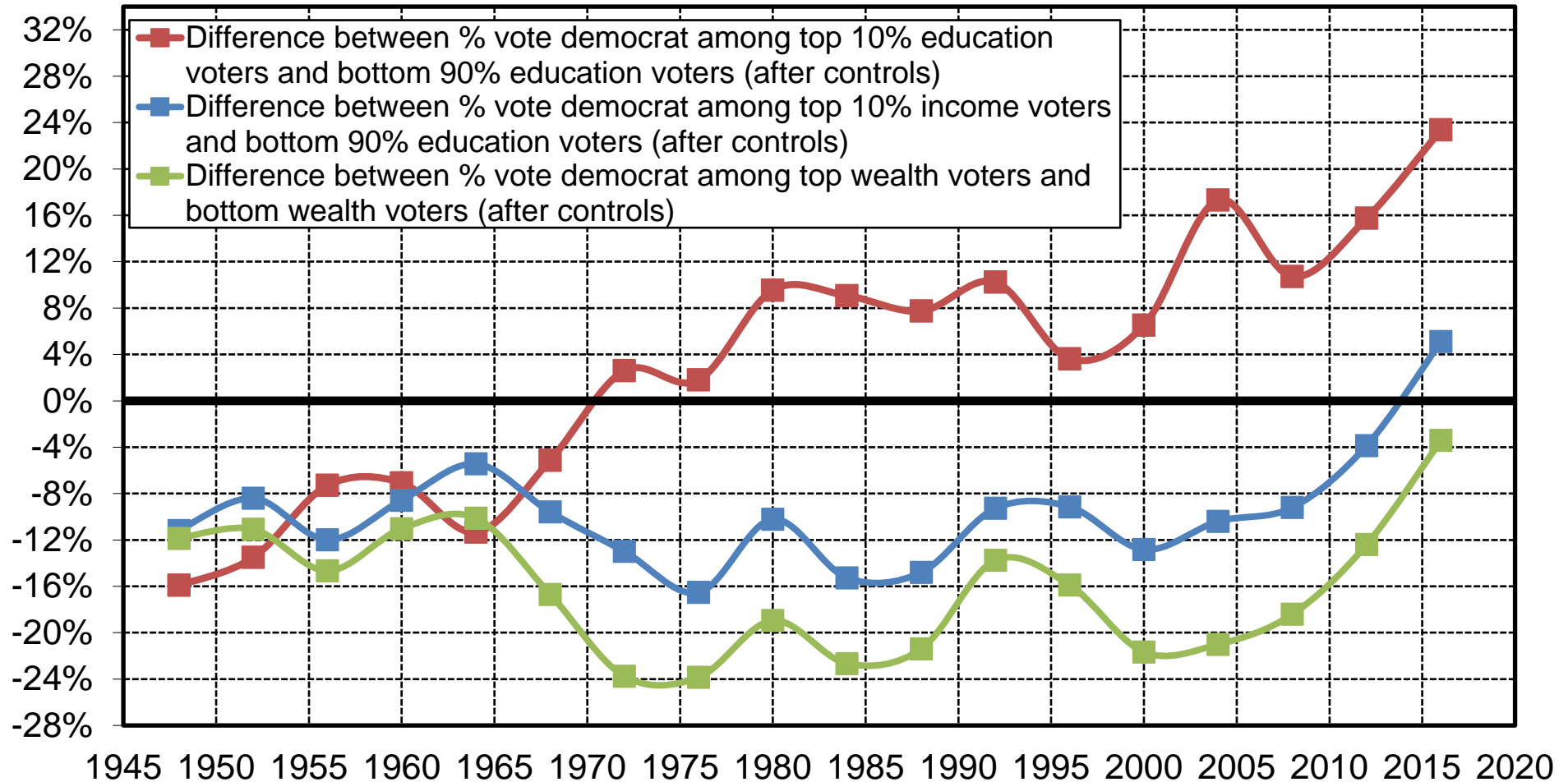


## Political conflict and income: U.S. 1948-2016



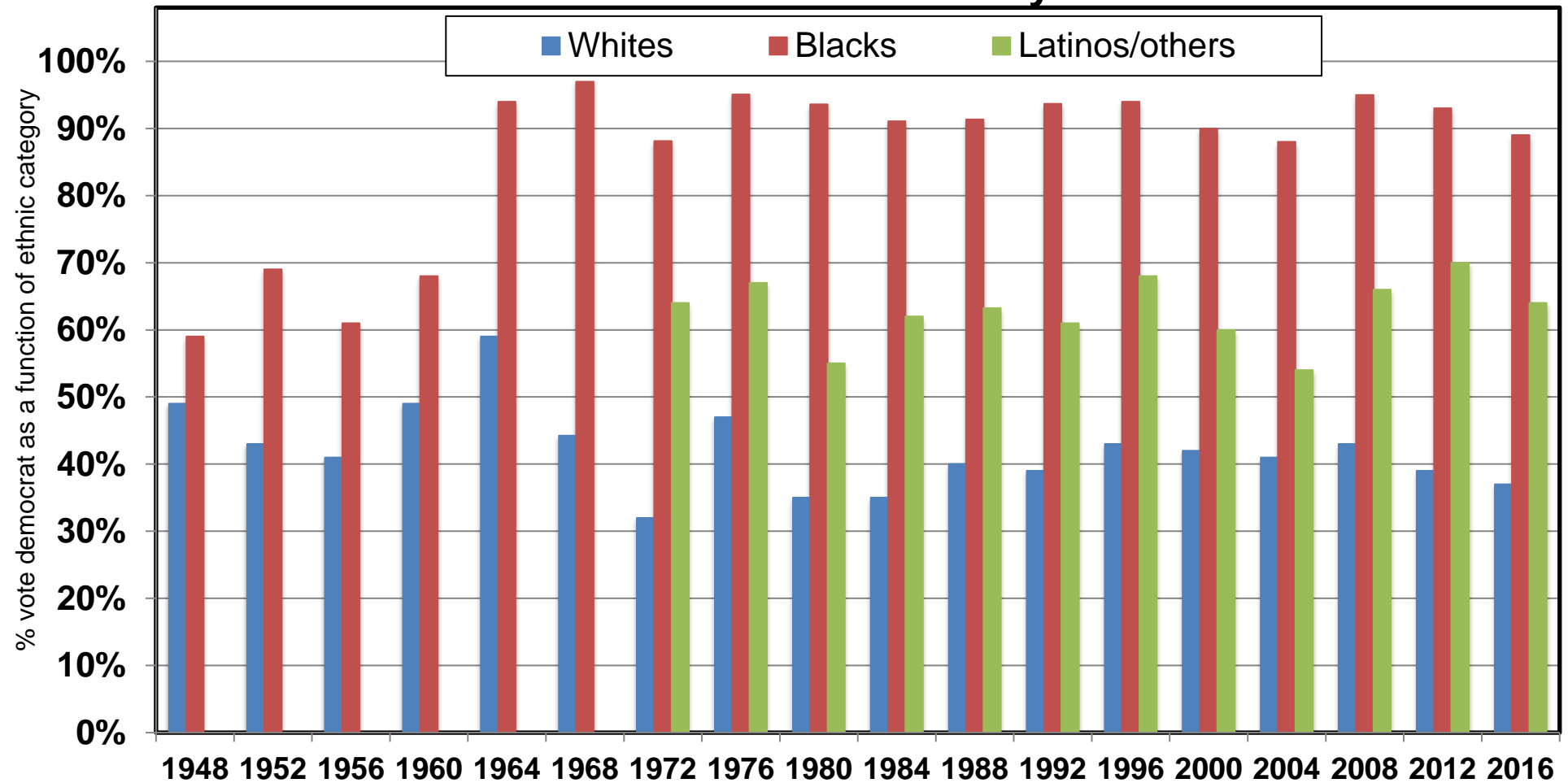
**Interpretation.** In 1964, the democratic candidate obtained 69% of the votes among the voters with the 10% lowest incomes, 37% of the vote among those with the top 10% highest incomes and 22% among top 1% income holders. Generally speaking, the profile of democratic vote is declining with respect to income, especially at the beginning of the period. In 2016, for the first time, the profile is reversed: 59% of the top income decile voters support the democratic candidate. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.5).

## Social cleavages and political conflict: U.S. 1948-2016



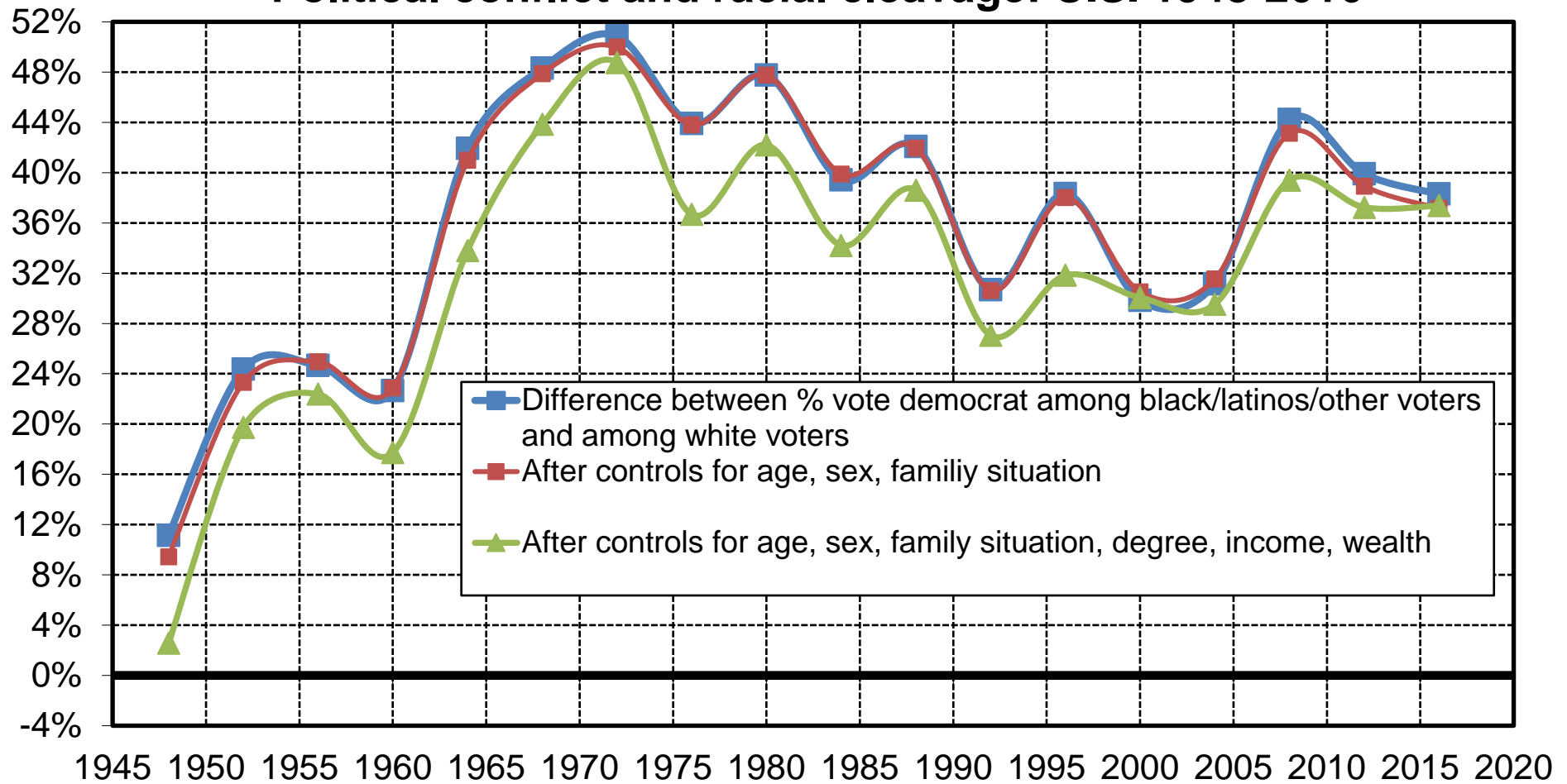
**Interpretation.** During the 1950-1970 period, the democratic vote was associated to voters with the lowest levels of education and the lowest levels of income and wealth. In the 1980-2010 period it became associated to the voters with the highest diplomas. In the 2010-2020 period, it is maybe close to become associated with the highest income and wealth voters. Sources and series: see piketty.pse.ens.fr/ideology (figure 15.6).

## Political conflict and ethnic identity: U.S. 1948-2016



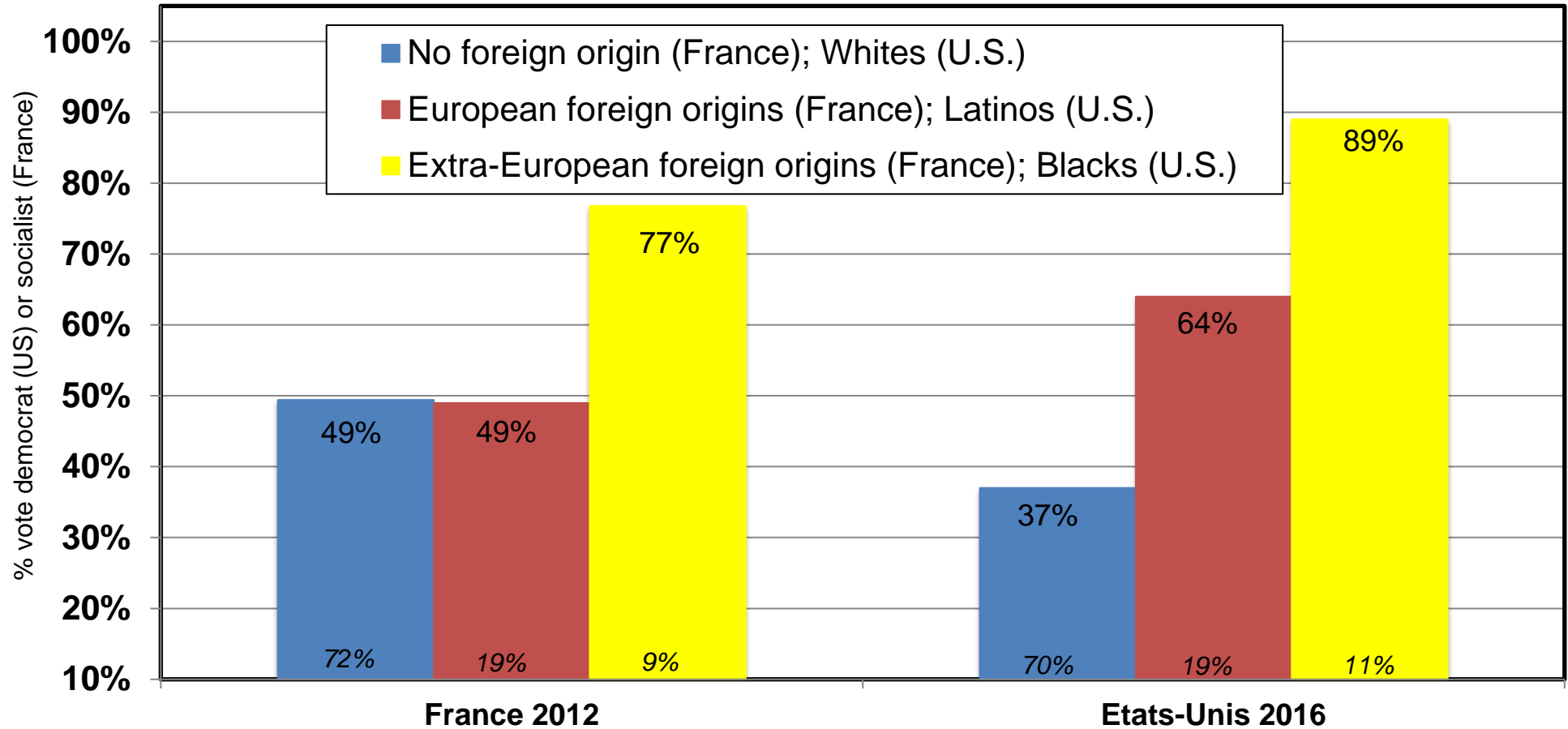
**Interpretation.** In 2016, the democratic candidate obtained 37% of the vote among white voters (70% of the electorate), 89% of the vote among black voters (11% of the electorate) and 64% of the vote among Latinos and other non-whites (19% of the electorate, including 16% for Latinos). In 1972, the democratic candidate obtained 32% of the vote among whites (89% of the electorate), 82% among blacks (10% of the electorate) and 64% among Latinos and other categories (1% of the electorate). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.7).

## Political conflict and racial cleavage: U.S. 1948-2016



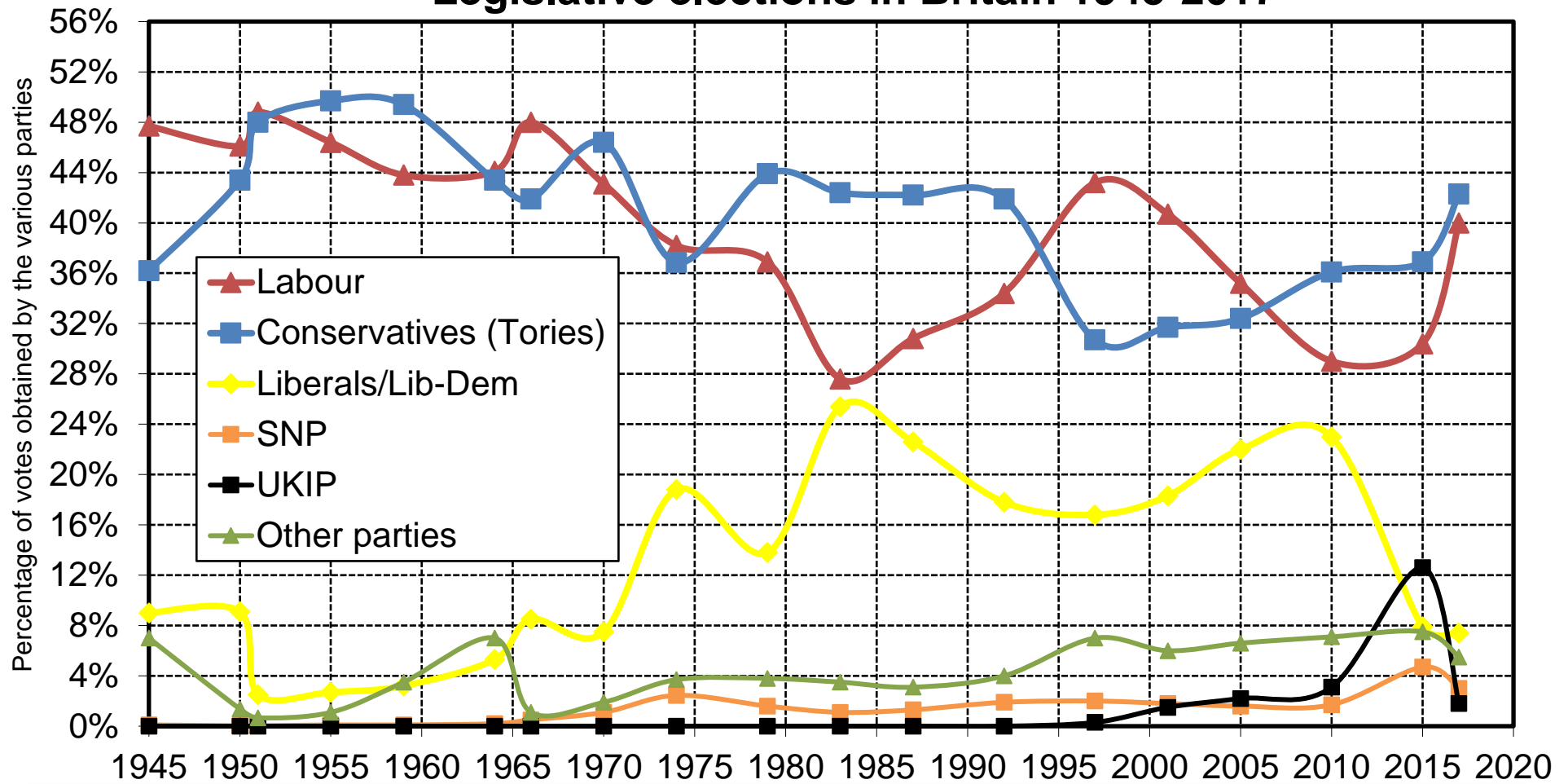
**Interpretation.** In 1948, the democratic vote was 11 points higher among black and other minority voters (9% of the electorate) than among white voters (91% of the electorate). In 2016, the democratic vote was 39 points higher among black and other minority voters (30% of the electorate) than among white voters (70% of the electorate). Taking into account control variables has a limited impact on this gap.  
Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.8).

## Political conflict and origins: France & the US



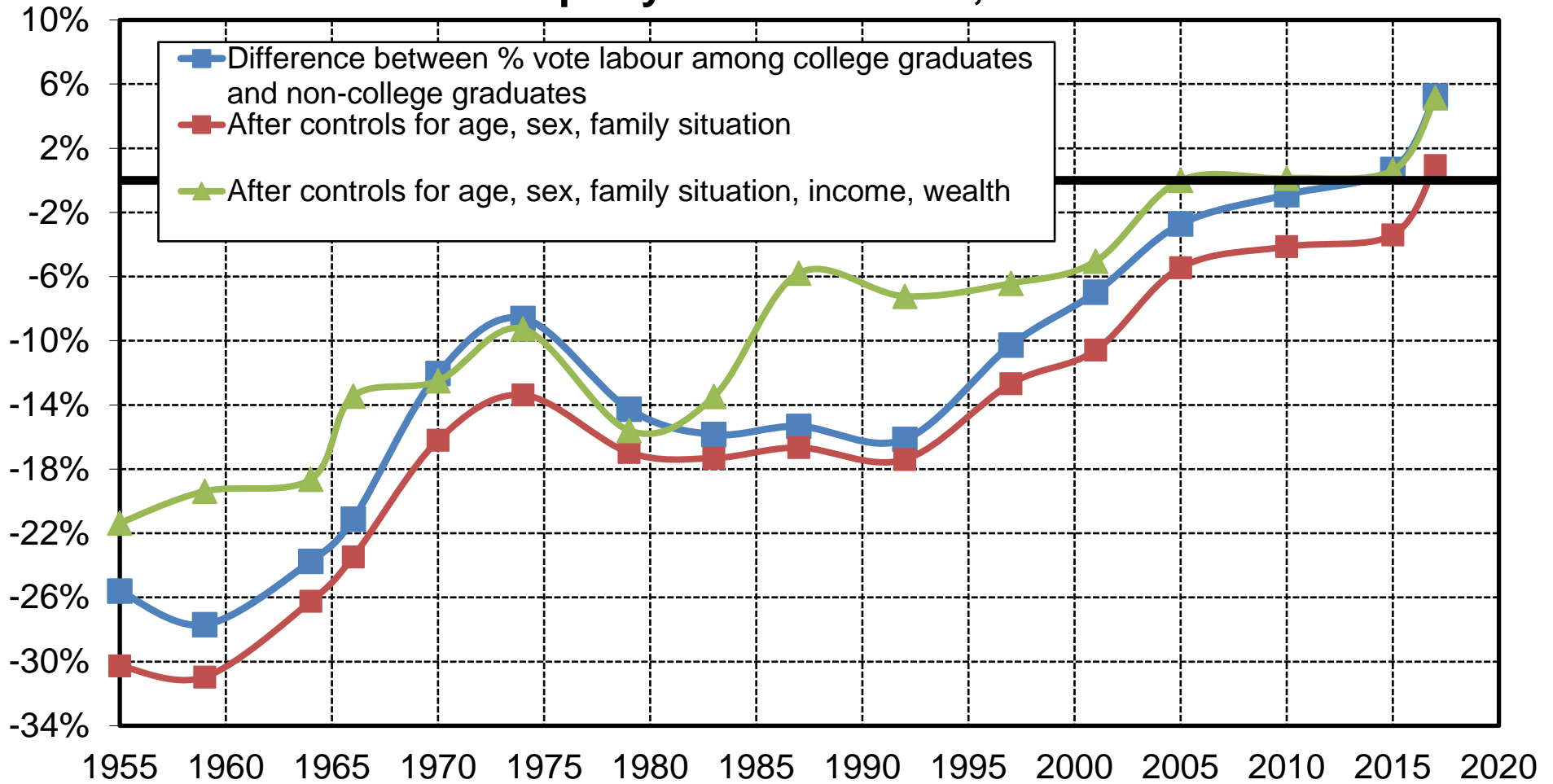
**Interpretation.** In 2012, the socialist candidate in the second round of the French presidential election obtained 49% of the vote among voters with no foreign origin (no reported foreign grand-parent) and among voters with European foreign origins (in practice mostly Spain, Italy, Portugal) and 77% of the vote among voters with extra-European foreign origins (in practice mostly North Africa and Sub-Saharan Africa). In 2016, the democratic candidate at the U.S. presidential election obtained 37% of the vote among white voters, 64% among latinos and other minority voters and 89% among black voters. Sources and series: see piketty.pse.ens.fr/ideology (figure 15.9).

## Legislative elections in Britain 1945-2017



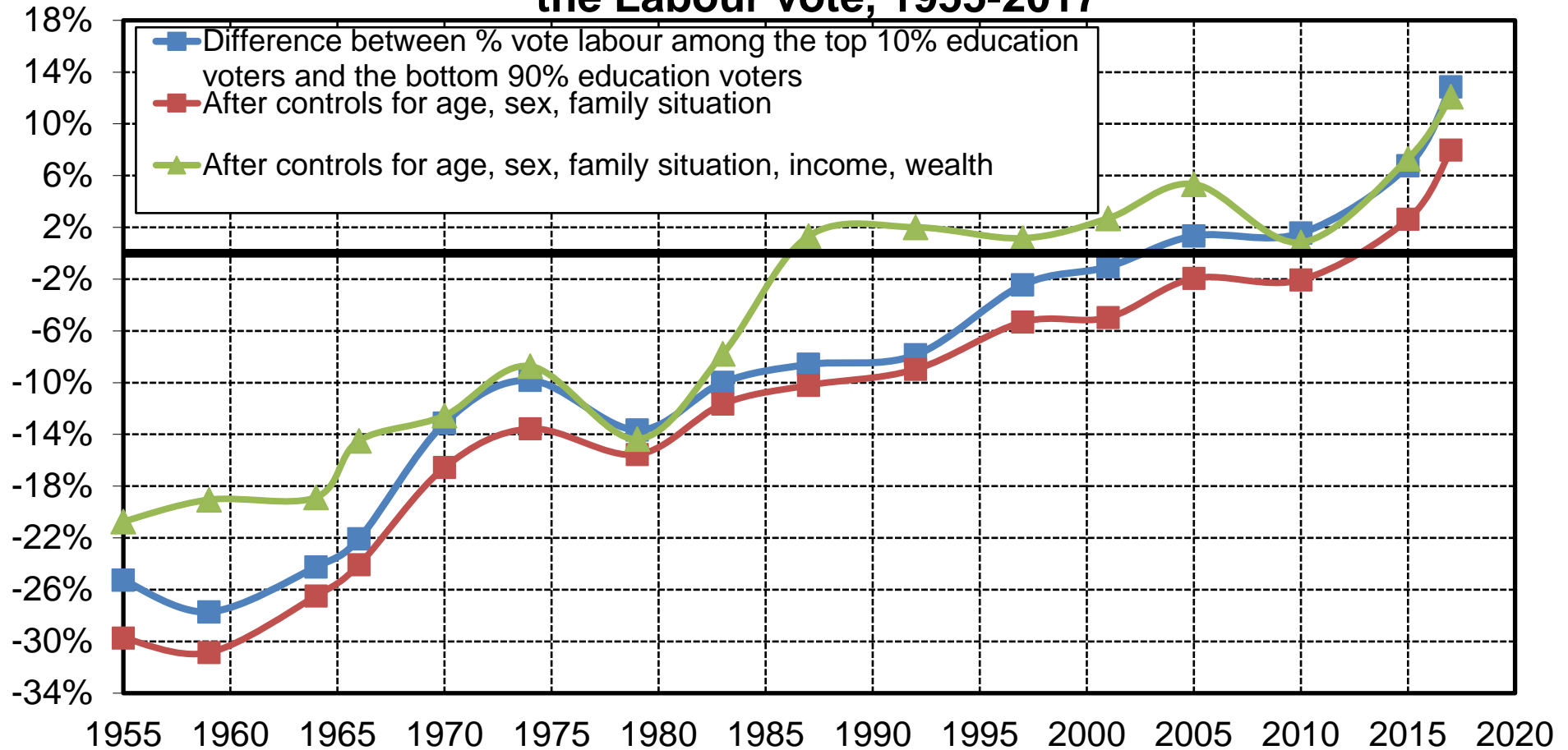
**Interpretation.** In the 1945 legislative elections, the Labour party obtained 48% of the vote and the Conservatives 36% of the vote (hence a total of 84% of the vote for the two main parties). In the 2017 legislative elections, the Conservatives obtained 42% of the vote, and the Labour party 40% of the vote (hence a total of 82%). **Note.** Liberals/Lib-Dem: Liberals, Liberals-democrats, SDP Alliance. SNP: Scottish National Party. UKIP: UK Independence Party. Other parties include green and regionalist parties. **Sources and séries:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.10).

## Labour party and education, 1955-2017



**Interpretation.** In 1955, the Labour party obtained a score that was 26 points lower among college graduates than among non-college graduates; in 2017, the score of the Labour party was 6 points higher among college graduates. Taking into account control variables does not affect the trend (only the level). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.11).

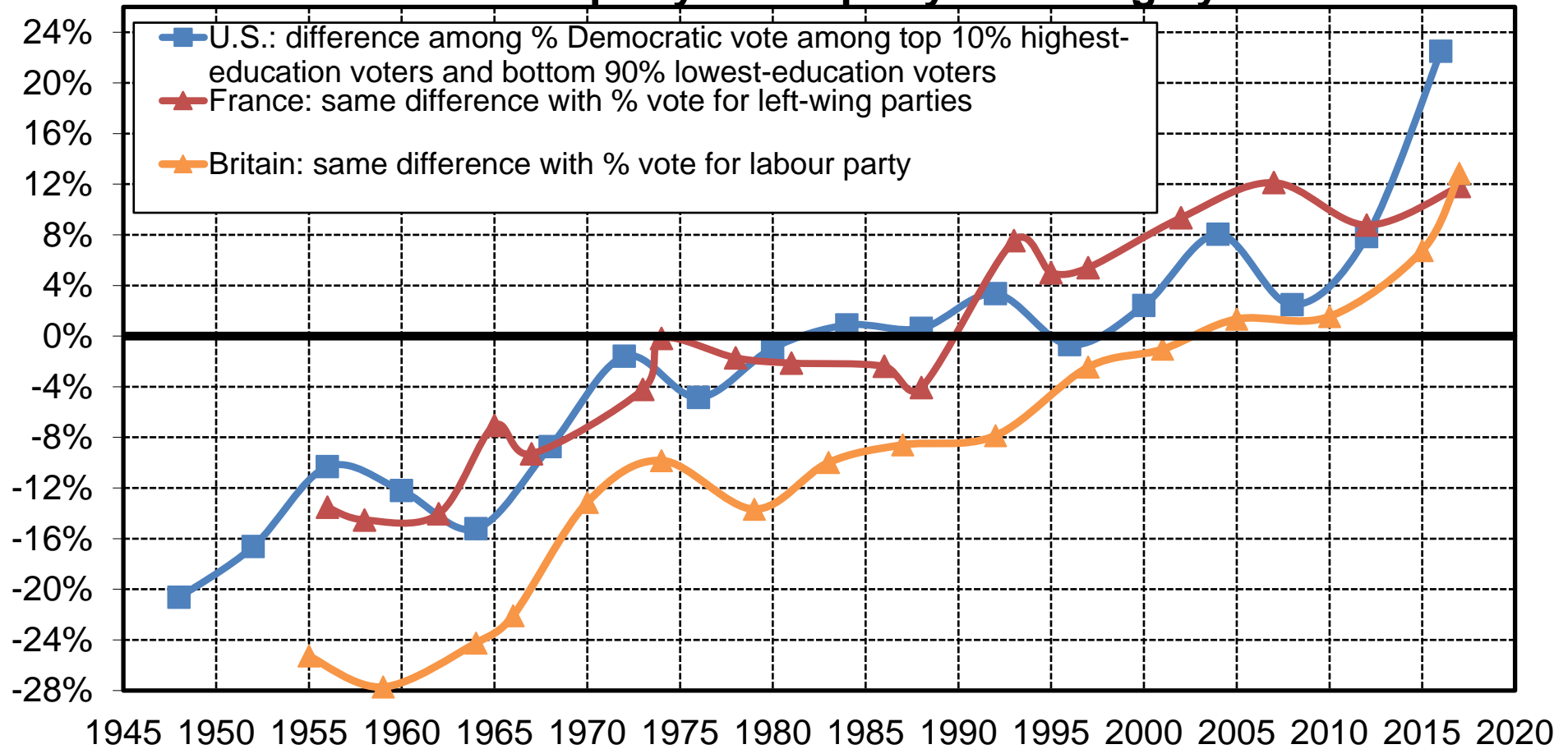
## From the workers' party to the party of the highly educated: the Labour vote, 1955-2017



**Interpretation.** In 1955, the Labour party obtained a score that was 25 points lower among top 10% highest-education voters than among bottom 90% lowest-education voters; in 2017, the score of the Labour party was 13 points higher among top 10% education voters. Taking into account control variables does not affect the trend (only the level). Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.12).

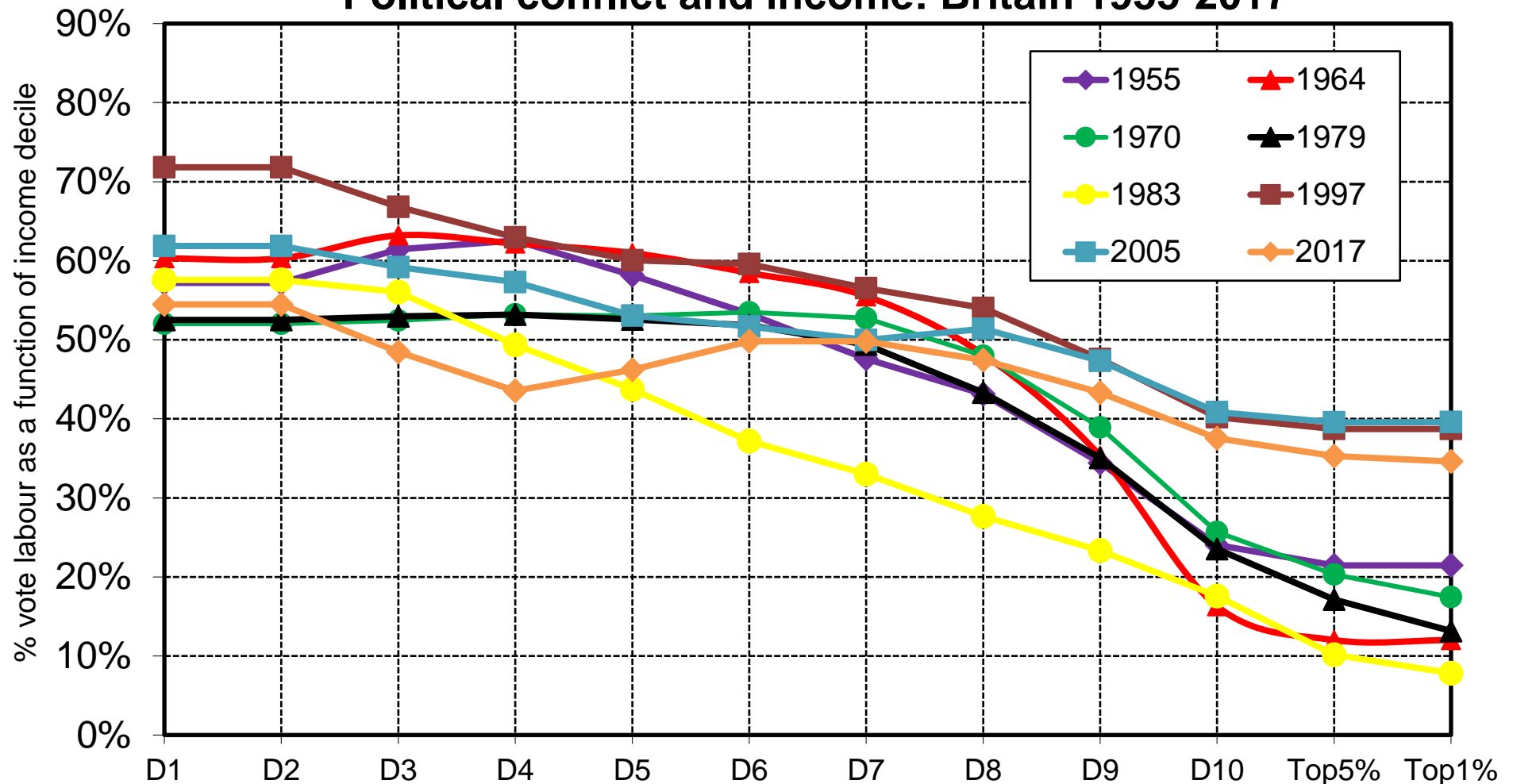


## The electoral left in Europe & the US, 1945-2020: from the workers' party to the party of the highly educated



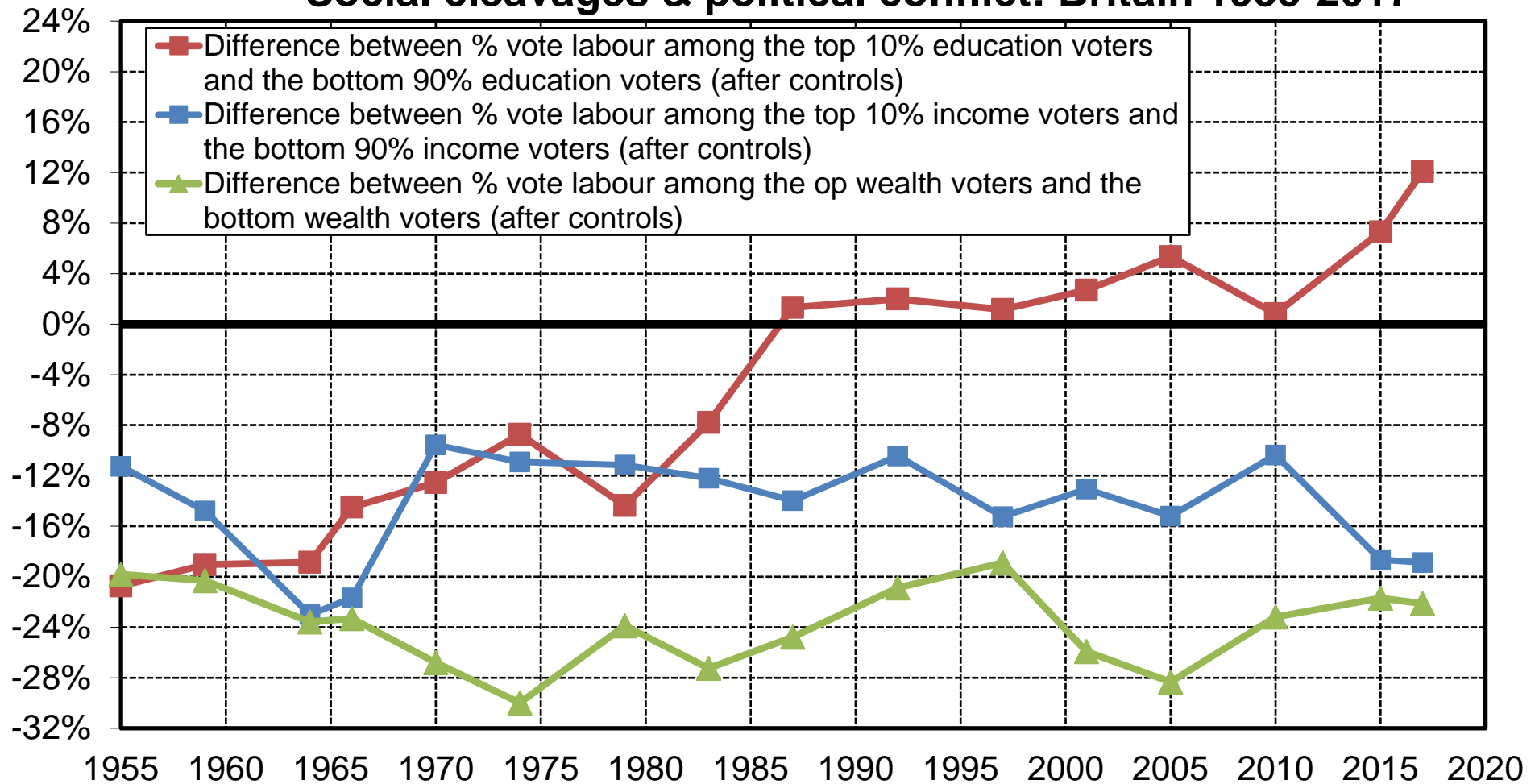
**Interpretation.** During the 1950-1970 period, the vote for the democratic party in the U.S., left-wing parties in France (socialists-communists-radicals-greens) in France and the labour party in Britain was associated with the voters with the lowest educational diplomas; in the 1990-2010 period is became associated with the voters with the highest education diplomas. The British evolution is slightly lagging behind the French and U.S. evolutions but goes in the same direction. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.13)

## Political conflict and income: Britain 1955-2017



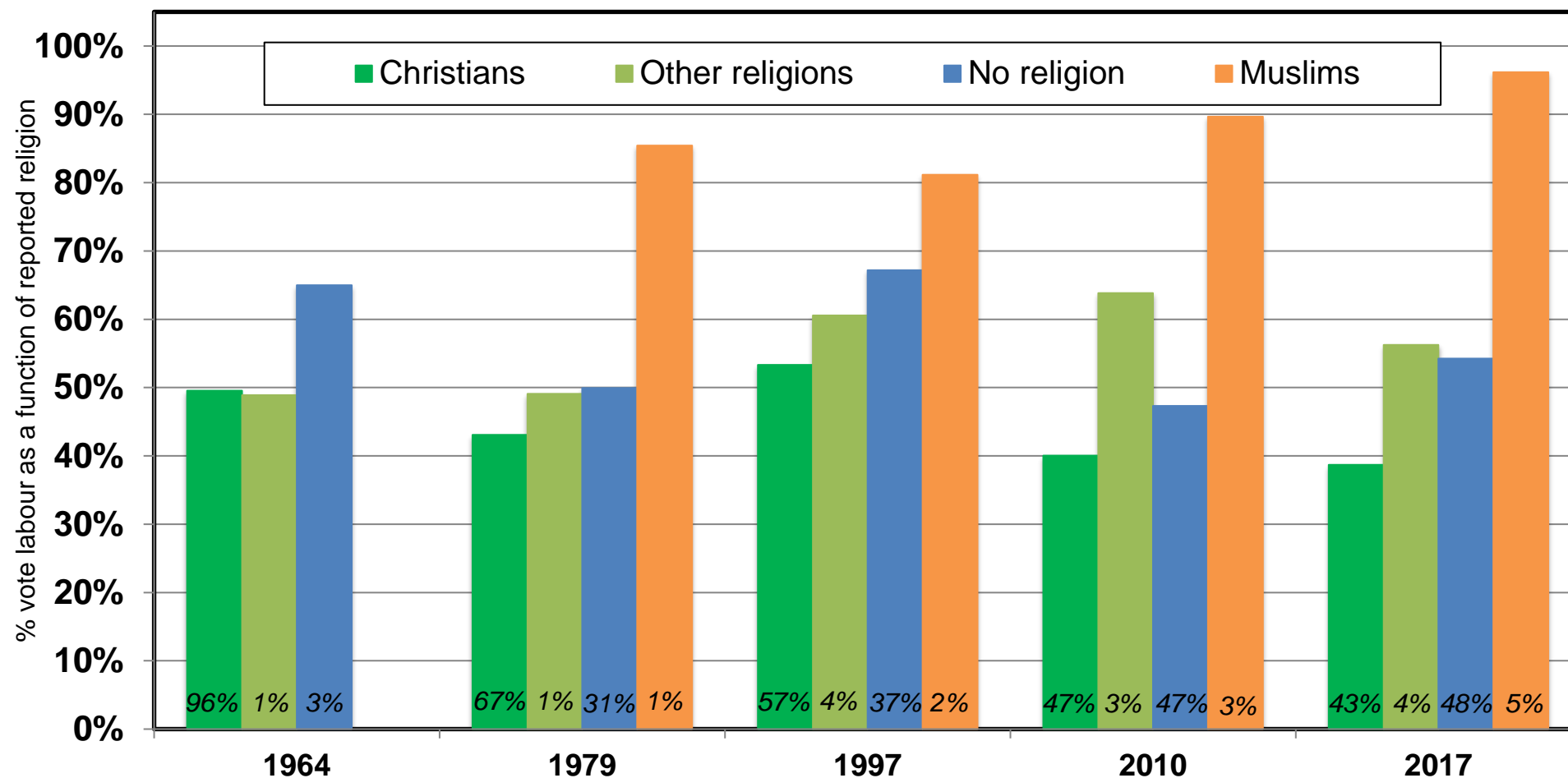
**Interpretation.** The profile of the vote for the labour party as a function of income decile has generally been strongly decreasing, particularly at the level of the 10% highest incomes, and especially from the 1950s to the 1980s. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.14).

## Social cleavages & political conflict: Britain 1955-2017



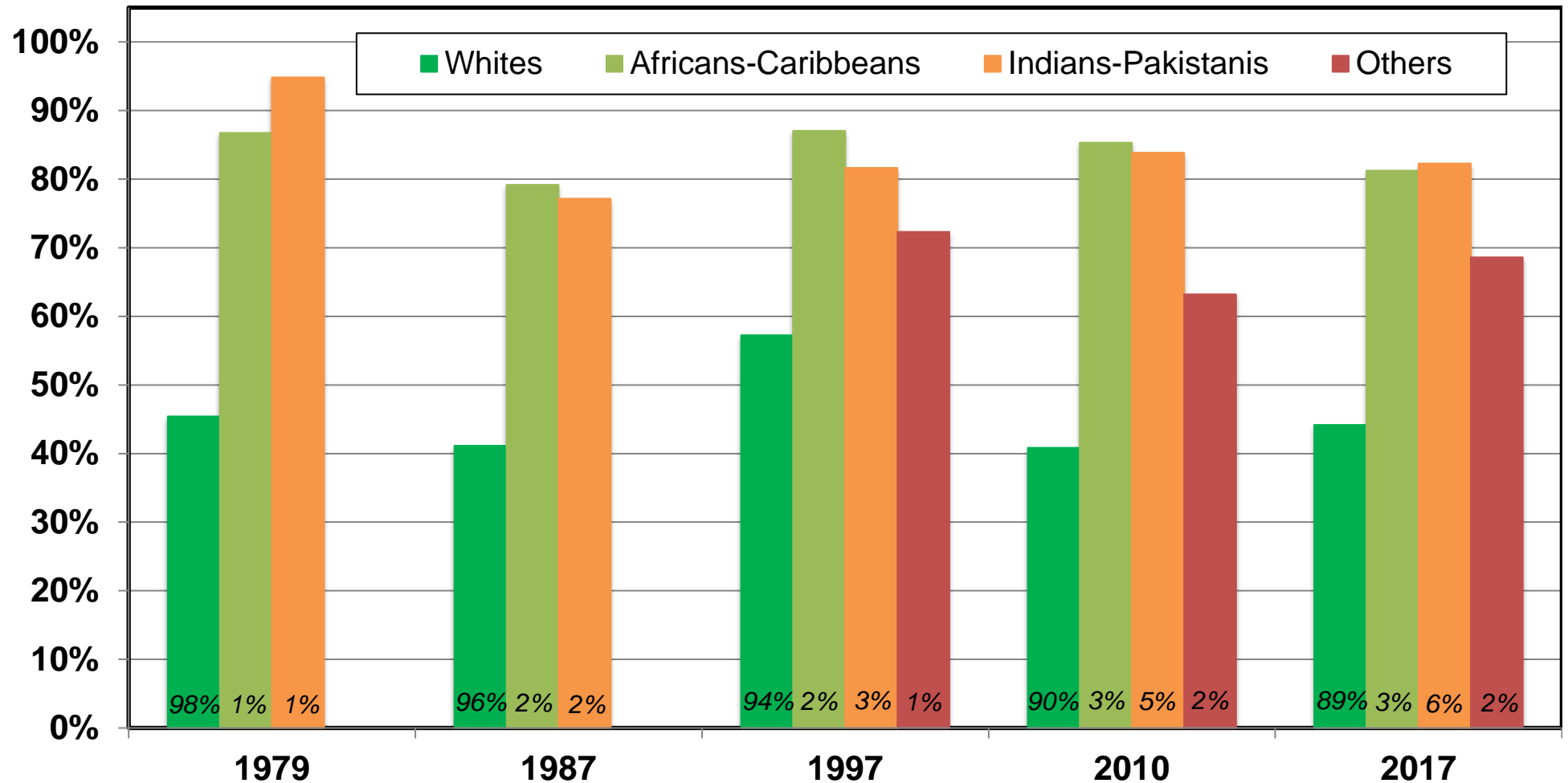
**Interpretation.** The labour vote was associated during the 1950-1980 period to the voters with the highest diplomas and levels of income and wealth; since the 1990s, it became associated to the highest education degrees. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.15).

## Political conflict & religious diversity: Britain 1964-2017



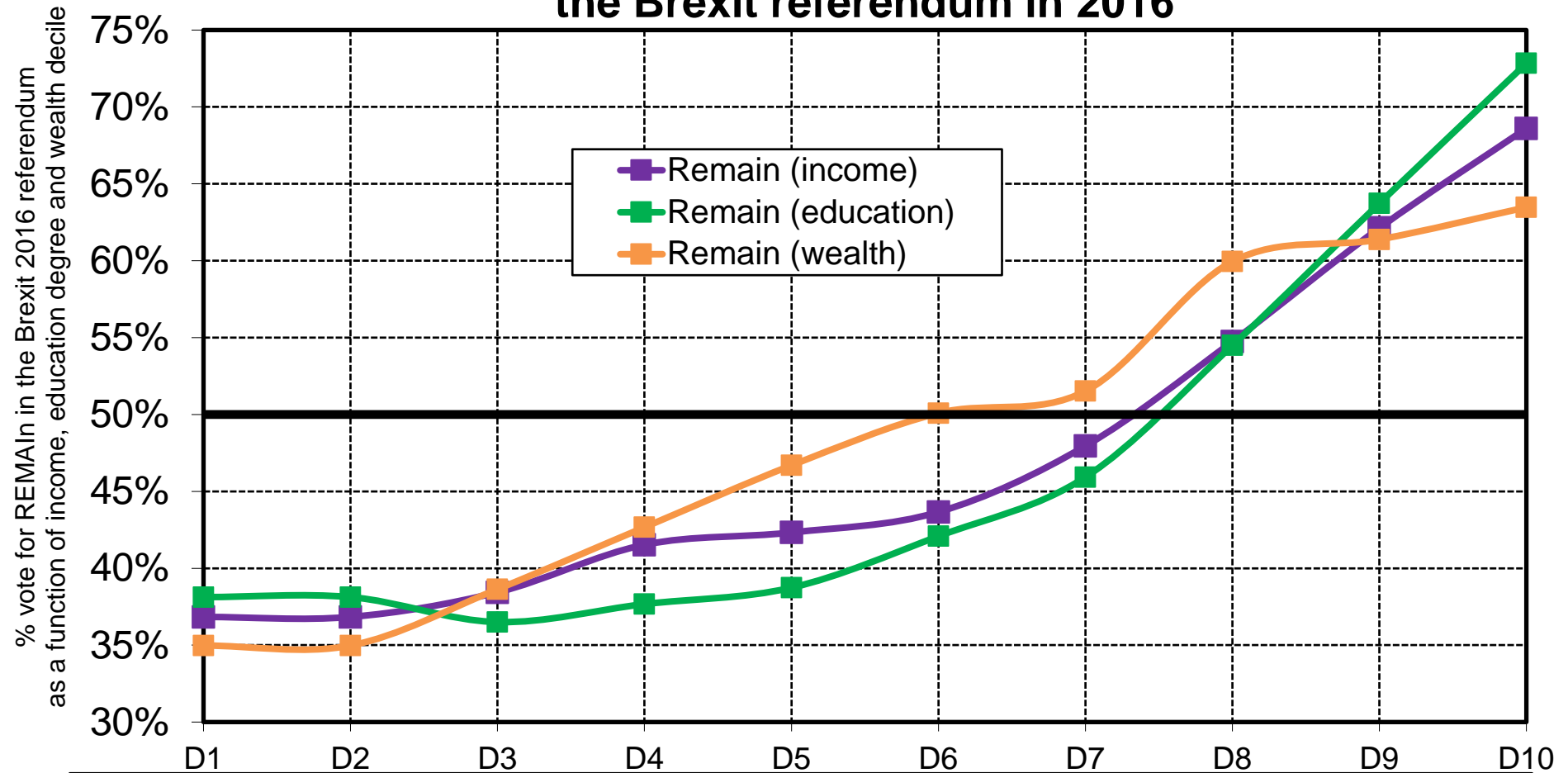
**Interpretation.** In 2017, the labour party obtained 39% of the vote among self-reported christian voters (anglicans, other protestants, catholics), 56% among voters reporting other religions (judaism, hinduism, etc., except islam), 54% among voters with no religion and 96% among self-reported muslim voters. Sources and series: see piketty.pse.ens.fr/ideology (figure 15.16).

## Political conflict & ethnic categories, Britain 1979-2017



**Interpretation.** In 2017, the labour party obtained 44% of the vote among voters describing themselves as "Whites", 81% among "Africans-Caribbeans", 82% among "Indians-Pakistanis-Bengladeshis" and 69% among "others" ("Chinese", "Arabs", etc.). In 2017, 5% of the electorate refused to answer to the ethnic question, and 77% among them voted labour . Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.17).

## The European cleavage in Britain: the Brexit referendum in 2016

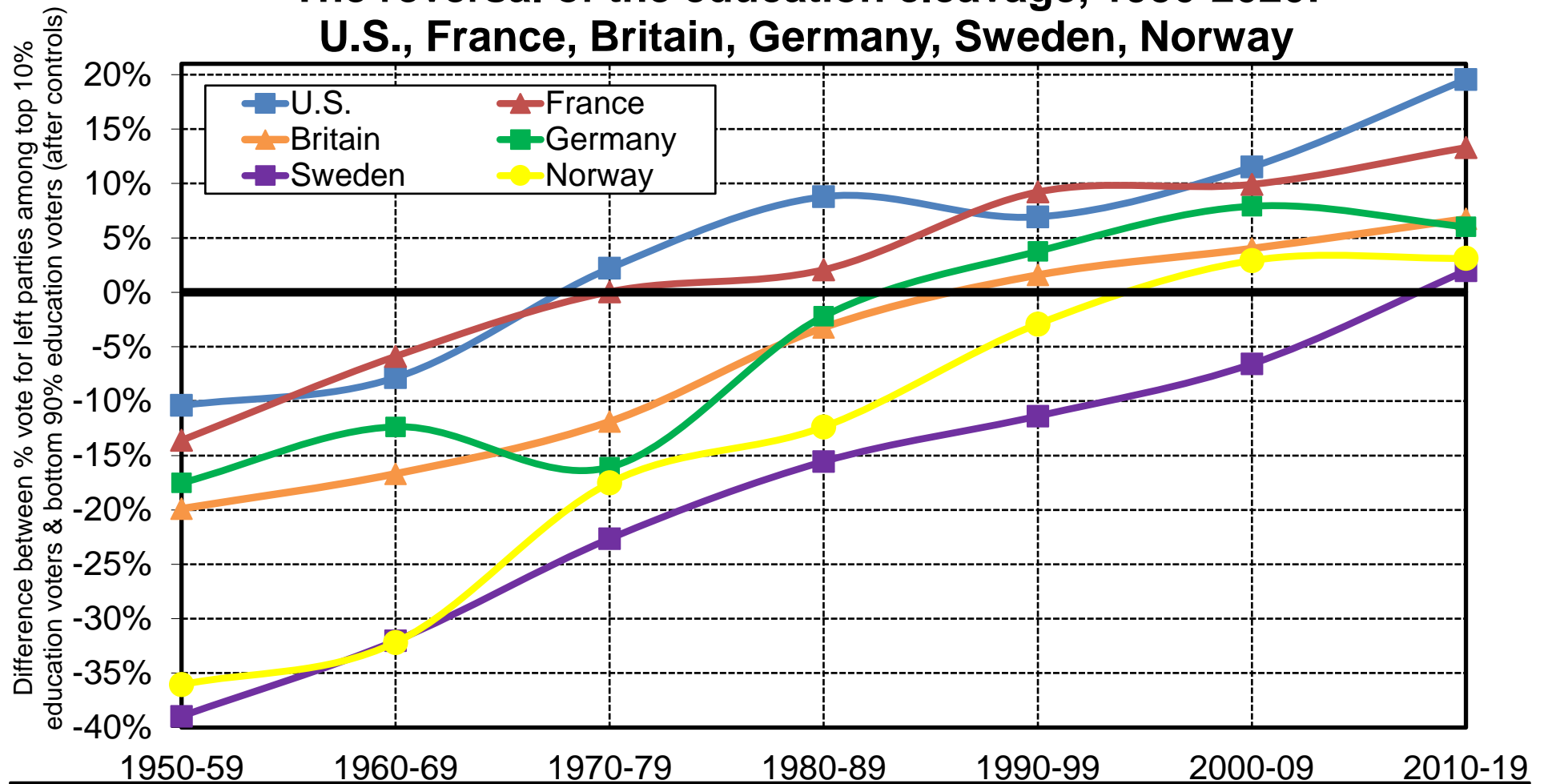


**Interpretation.** In the 2016 referendum over Brexit (victory of Leave with 52%), one observes a very strong social cleavage of the vote: the top deciles of income, education and wealth vote strongly for Remain, while bottom deciles vote for Leave.

**Note:** D1 refers to the bottom 10% (either for income, education or wealth), D2 for the next 10%, etc., and D10 for the top 10%.

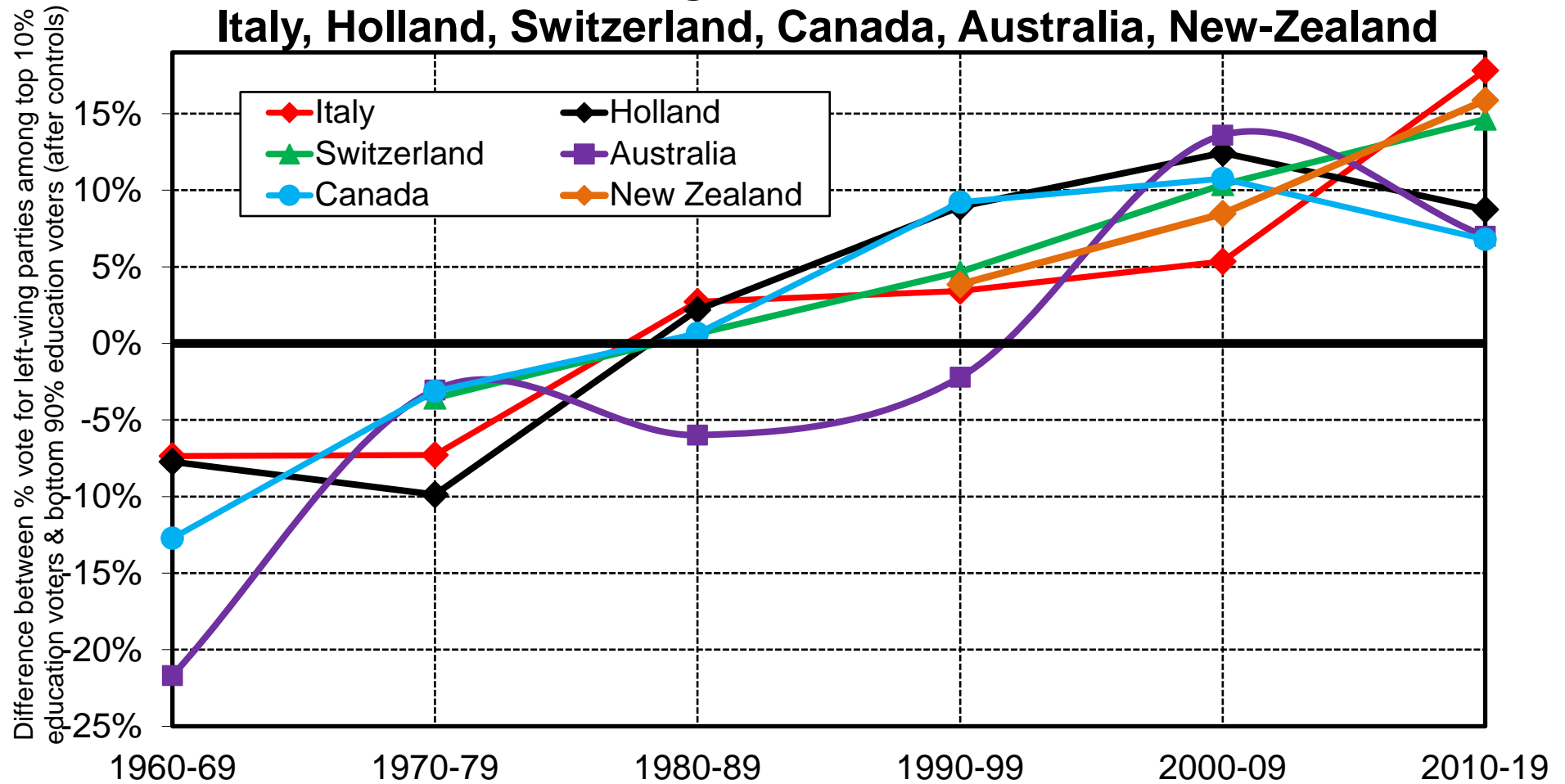
**Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 15.18).

## The reversal of the education cleavage, 1950-2020: U.S., France, Britain, Germany, Sweden, Norway



**Interpretation.** During the 1950-1970 period, the vote for the democratic party in the U.S. and for the various left-wing parties in Europe (labour, social-democrats, socialists, communists, greens, etc.) was stronger among the voters with the lowest education levels; in the period 2000-2020, it has become associated with the voters with the highest diplomas. The trend happens later in Nordic Europe, but follows the same direction. Note: "1950-59" includes elections conducted between 1950 and 1959, etc. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.1).

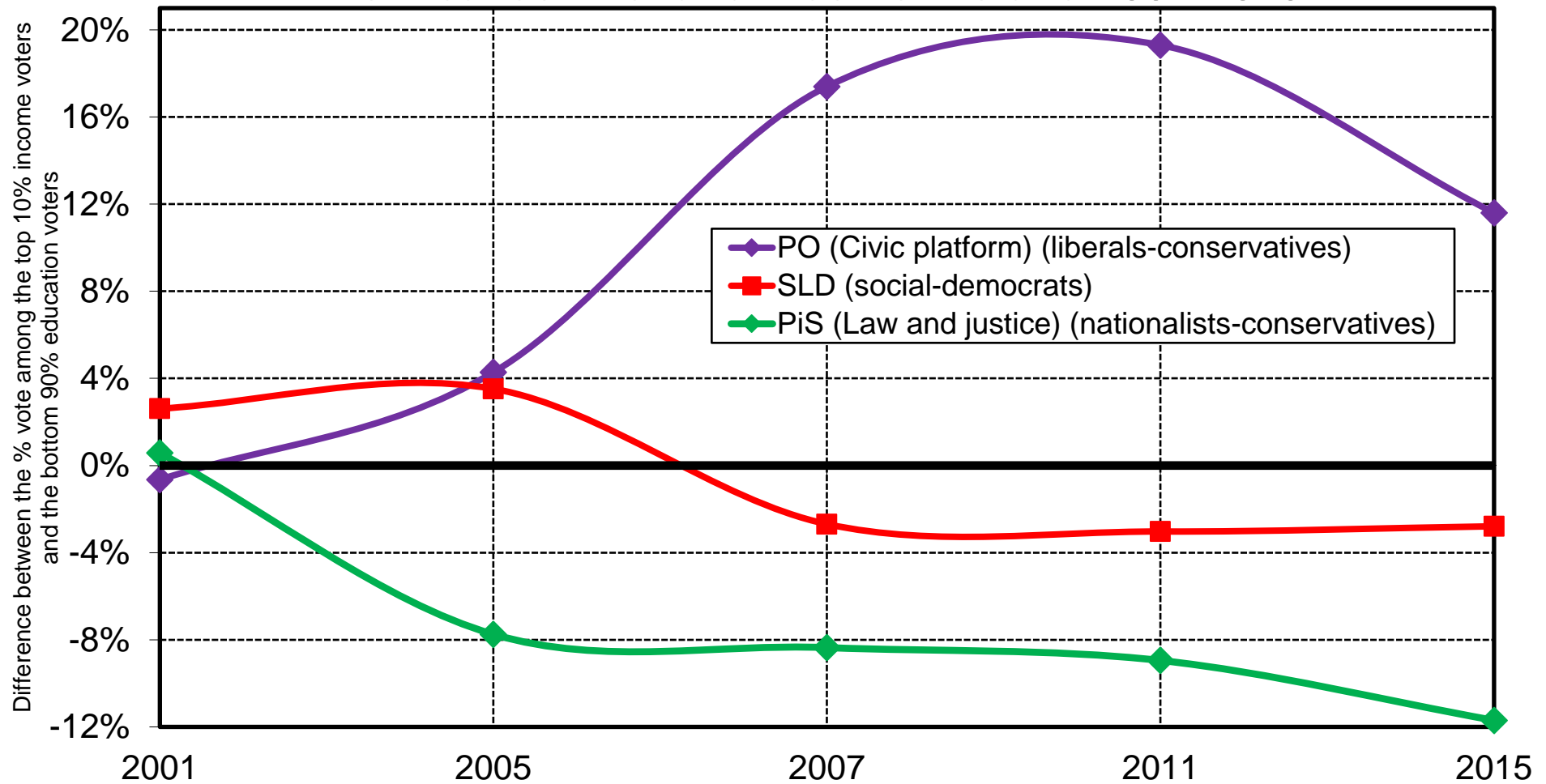
## Political cleavage and education, 1960-2020: Italy, Holland, Switzerland, Canada, Australia, New-Zealand



**Interpretation.** During the 1960-1980 period, the vote for left-wing parties (labour, social-democrats, socialists, communists, radicals, greens, etc.) was associated to the voters with the lowest education levels; in the period 2000-2020, it has become associated to those with the highest diplomas. This general evolution happened in the U.S. and in Europe, as well as in Canada, Australia and New Zealand. Note: "1960-69" includes elections conducted between 1960 and 1969, "1970-79" those conducted from 1970 to 1979, etc. **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.2).

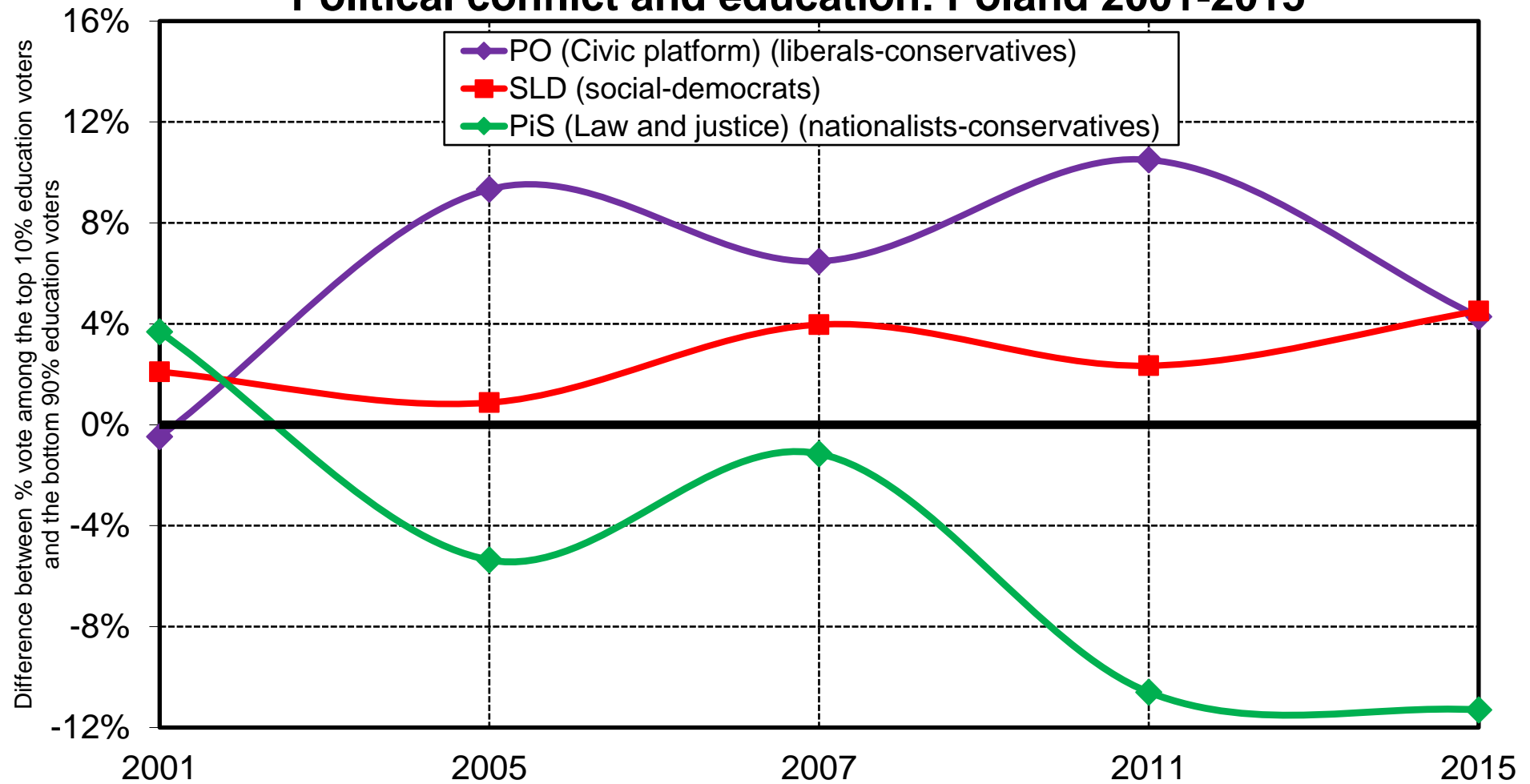


## Political conflict and income: Poland 2001-2015



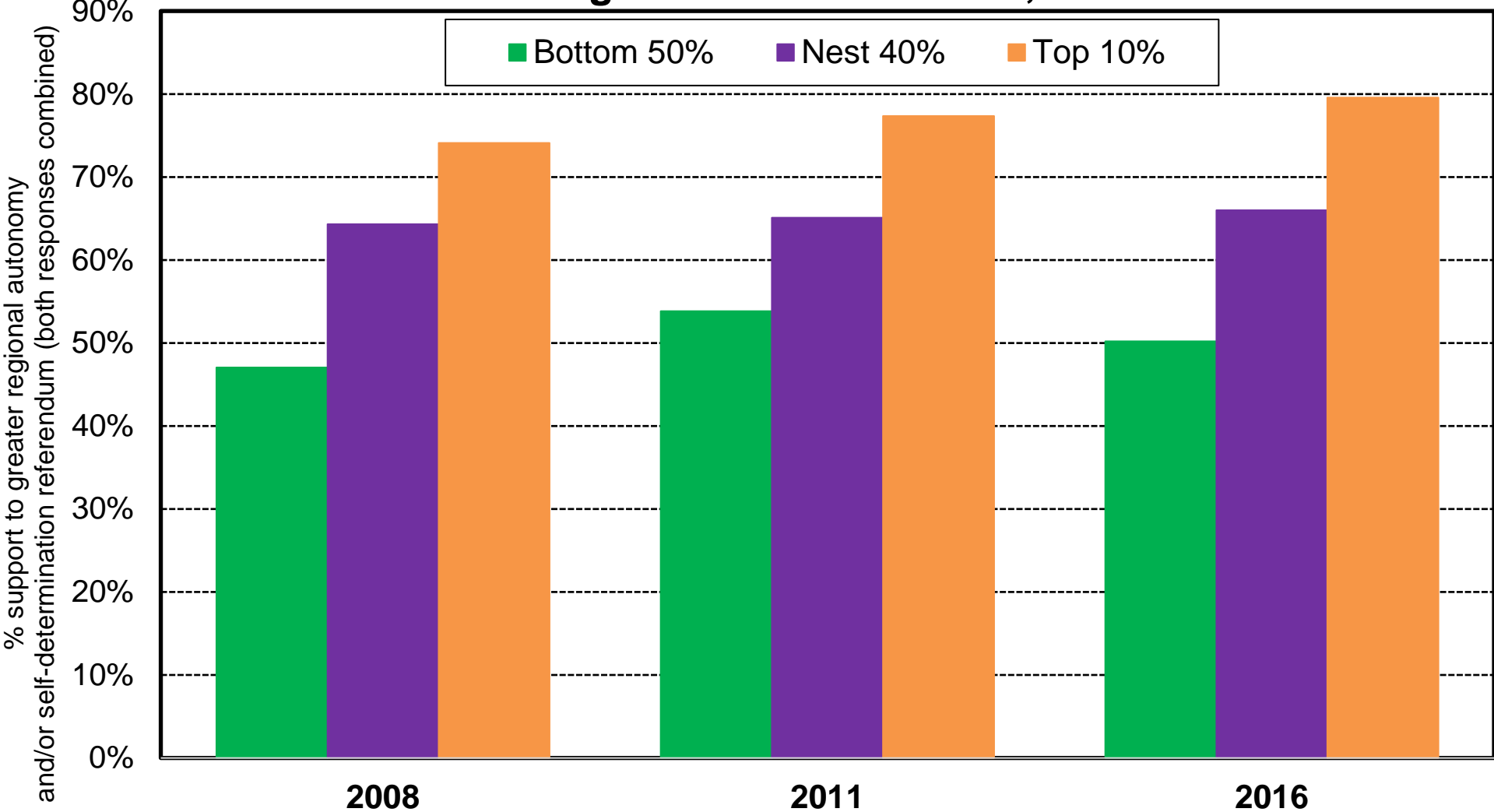
**Interpretation.** Between the elections of 2001 and 2015, the vote for PO (Civic platform) (liberals-conservatives) became strongly associated to voters with the highest income, while the vote for PiS (Law and justice) (nationalists-conservatives) became concentrated among voters with the lowest incomes. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.3).

## Political conflict and education: Poland 2001-2015



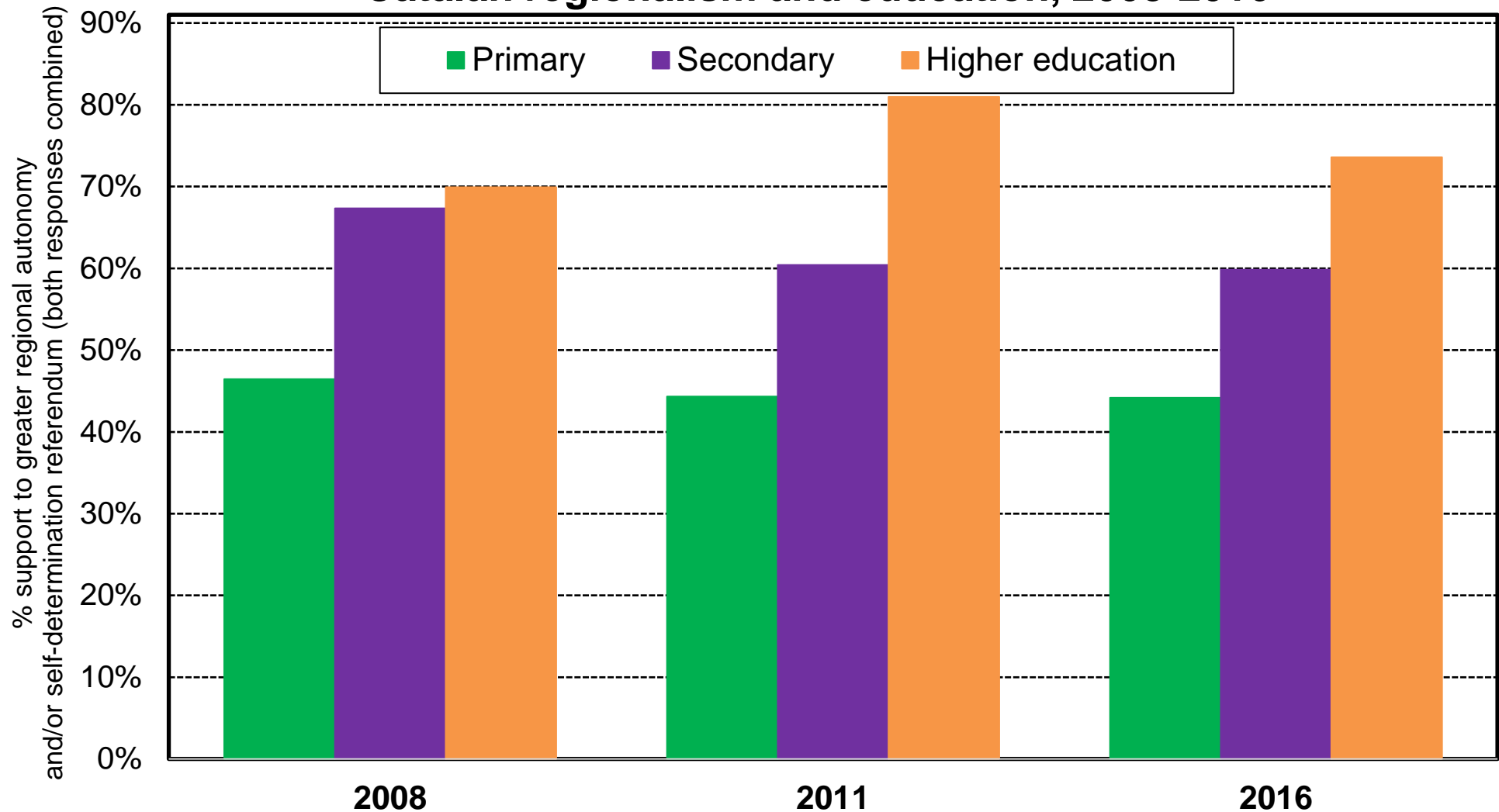
**Interpretation.** Between the elections of 2001 and 2015, the vote for PO (Civic platform) (liberals-conservatives) became associated to voters with the highest education levels, while the vote for PiS (Law and justice) (nationalists-conservatives) became concentrated among voters with the lowest diplomas. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.4).

# Catalan regionalism and income, 2008-2016



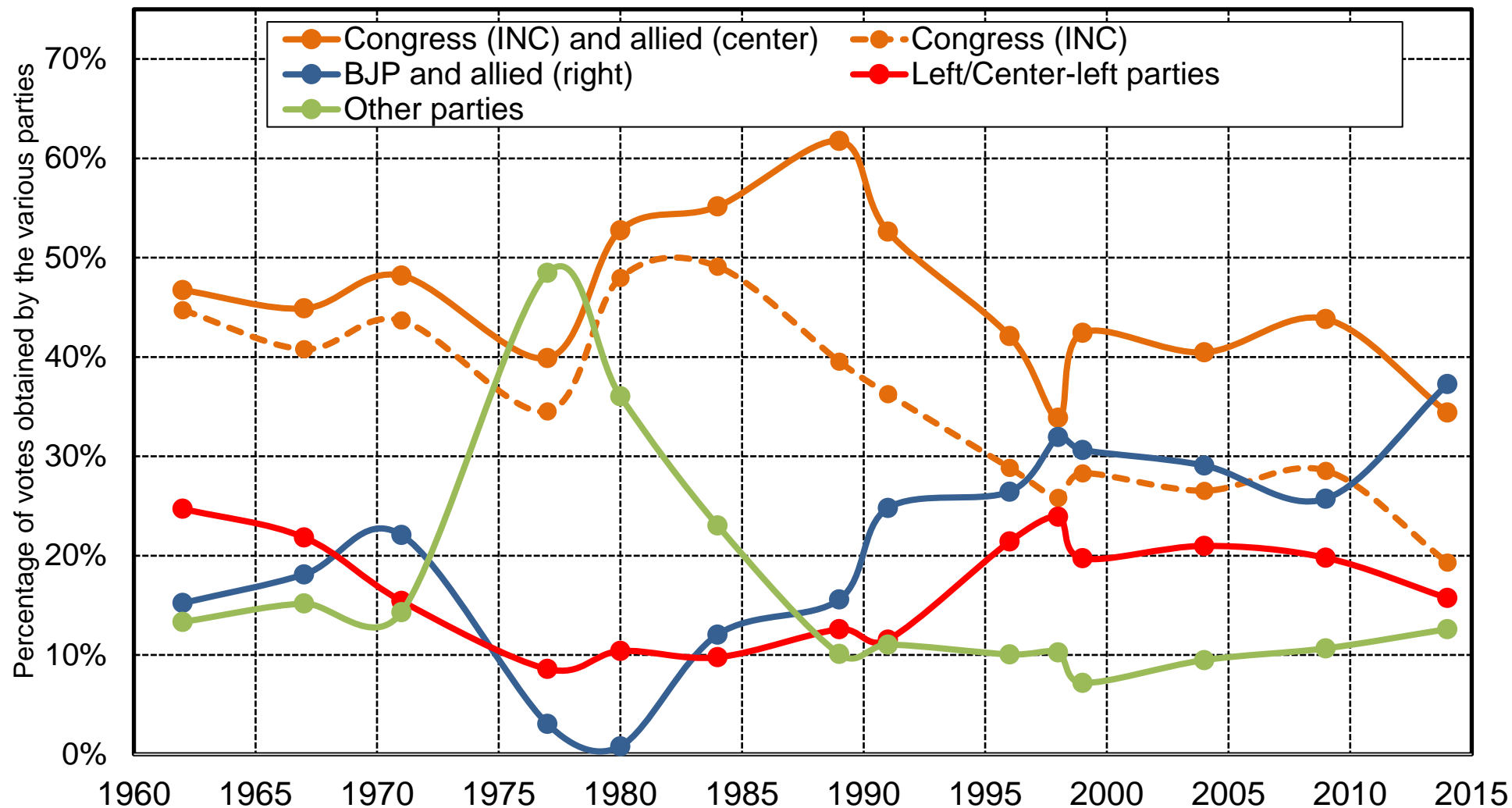
**Interpretation.** In 2008, 47% of Catalan voters belonging to the bottom 50% incomes supported greater regional autonomy or a self-determination referendum (both answers were added), vs 64% among the voters with the next 40% incomes and 74% among the top 10% income voters. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.5).

## Catalan regionalism and education, 2008-2016



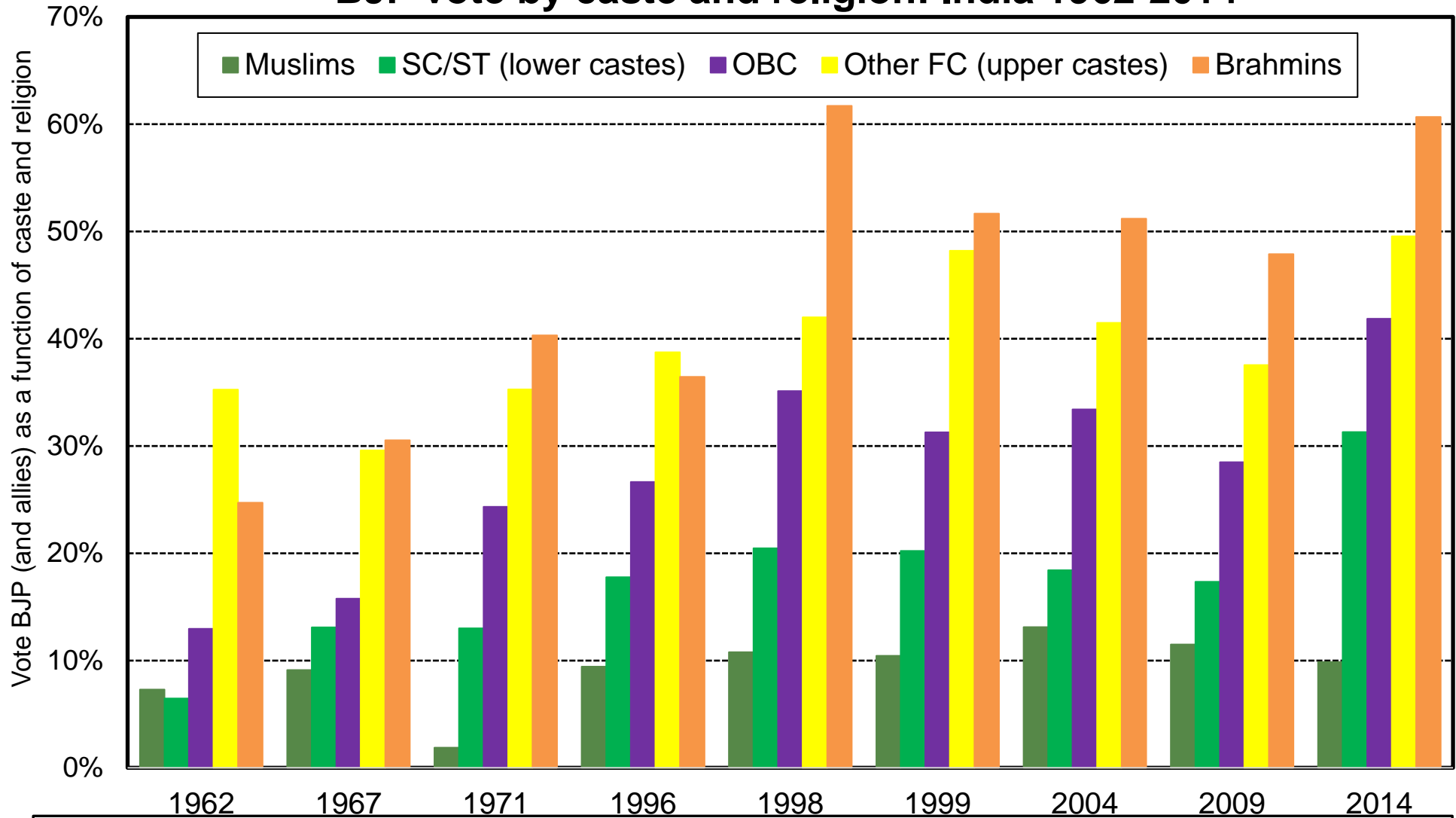
**Interpretation.** In 2008, 44% of Catalan voters with no diploma (except primary education level) supported greater regional autonomy or a self-determination referendum (both answers were added), vs 60% among the voters with secondary degrees and 74% among those with higher education diplomas. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.6).

## Legislative elections in India (Lok Sabha), 1962-2014



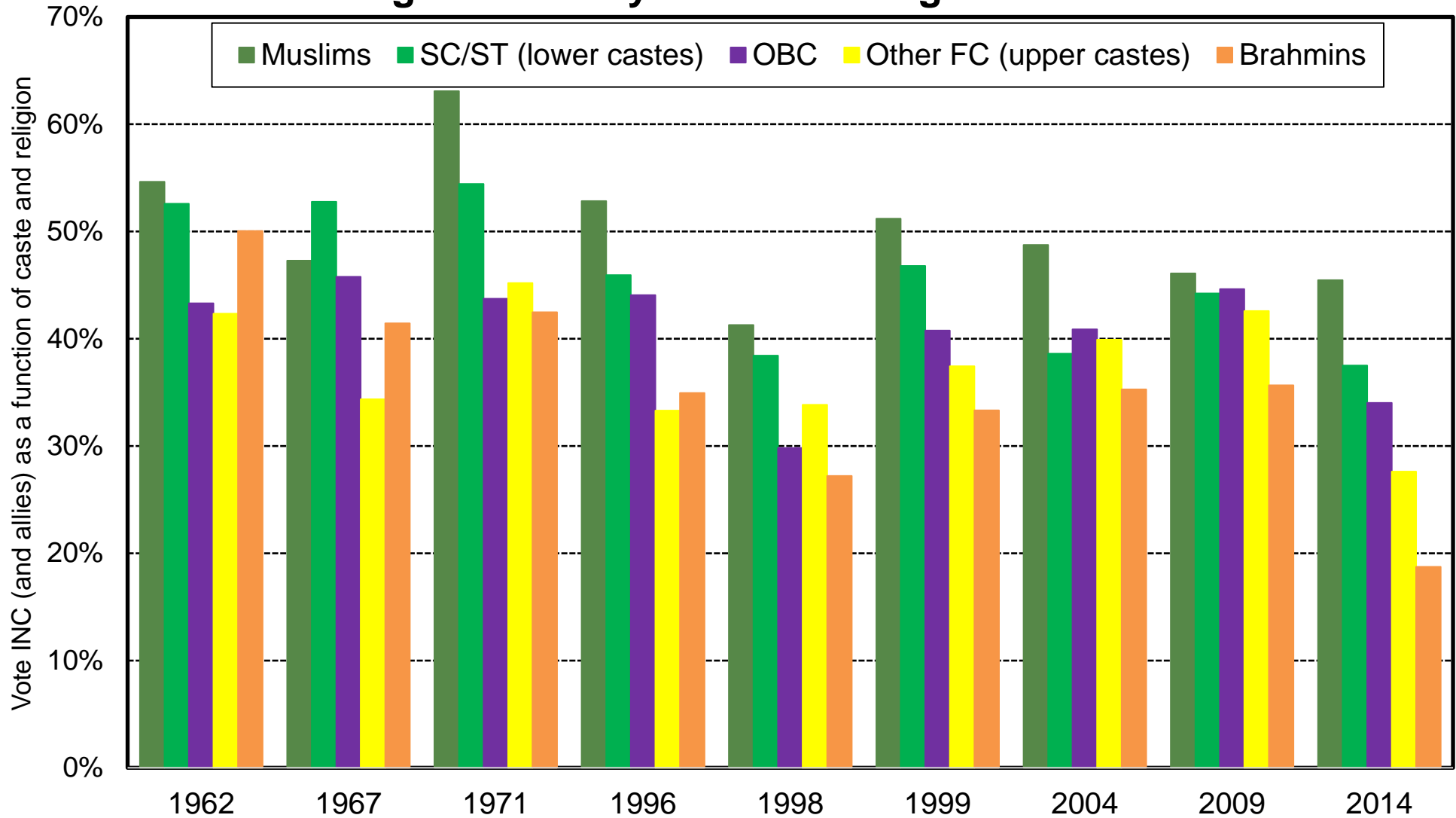
**Interpretation.** In the 2014 legislative elections, the Congress party (INC, Indian National Congress) and its allied parties (center) obtained 34% of the vote (including 19% for INC alone), the BJP (hindus nationalists) and its allied parties (right) 37% of the vote, the left and center-left parties (SP, BSP, CPIU, etc.) 16% of the vote and other parties 13% of the vote. Note: in the 1977 elections (post-emergency), the Janata Dal included all opponents to INC (from left and right), and it classified here with "other parties". **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.7).

## BJP vote by caste and religion: India 1962-2014



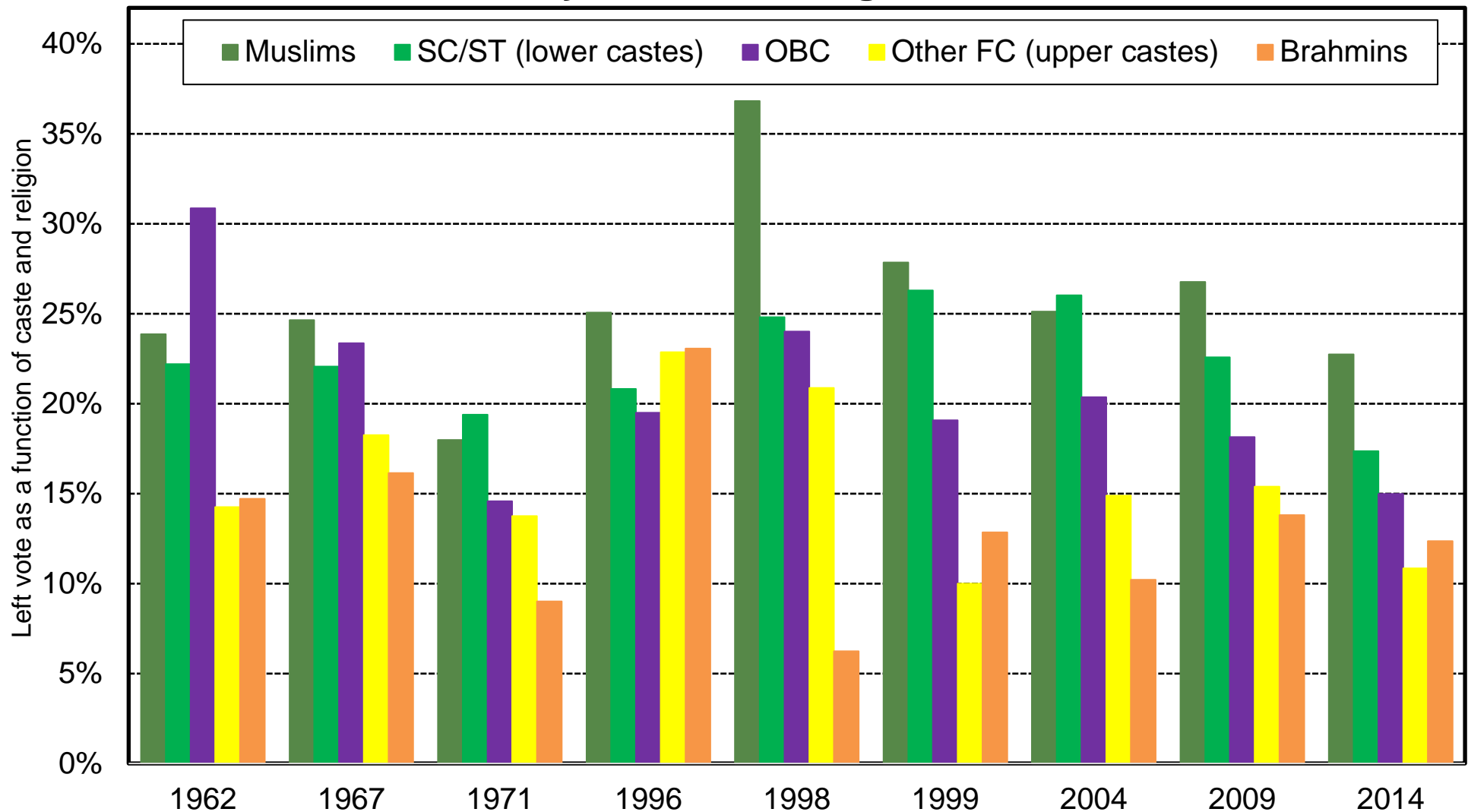
**Interpretation.** In 2014, 10% of muslim voters voted for the BJP (hindus nationalists) and allied parties, vs 31% among SC/ST (scheduled castes/ scheduled tribes, lower castes), 42% among OBC (other backward classes, intermediate castes), 49% among other FC (forward castes, upper castes except brahmins) and 61% among brahmins. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.8).

## Congress vote by caste and religion: India 1962-2014



**Interpretation.** In 2014, 45% of muslim voters voted for the Congress (Indian National Congress) and allied parties, vs 38% among SC/ST (scheduled castes/ scheduled tribes, lower castes), 34% among OBC (other backward classes, intermediate castes), 27% among other FC (forward castes, upper castes except brahmins) and 18% among brahmins. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.9).

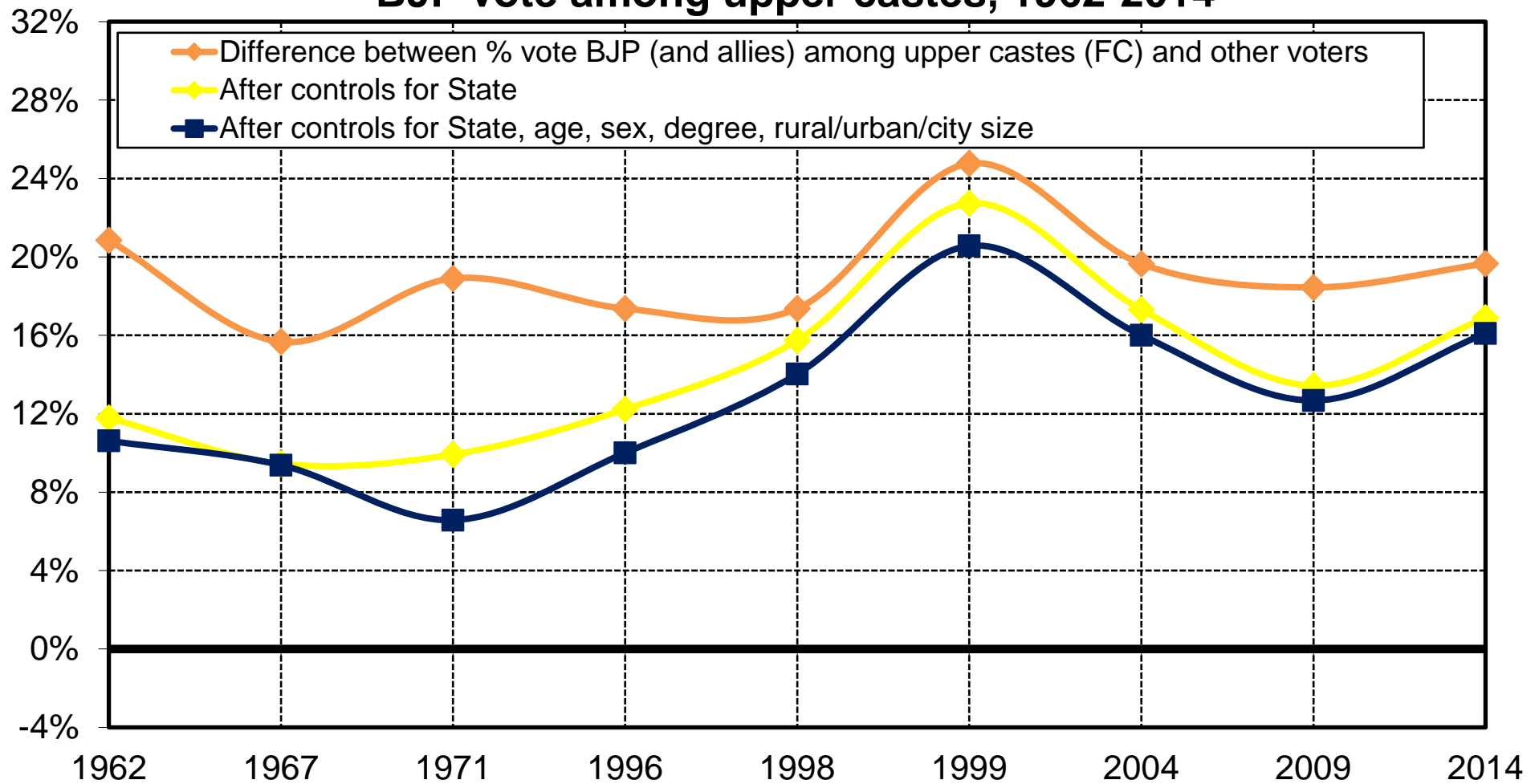
## Left vote by caste and religion: India 1962-2014



**Interpretation.** In 2014, 23% of muslim voters voted for the left and center-left parties (SP, BSP, CPI, etc.), vs 17% among SC/ST (scheduled castes/ scheduled tribes, lower castes), 15% among OBC (other backward classes, intermediate castes), 11% among other FC (forward castes, upper castes except brahmins) and 12% among brahmins. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.10).

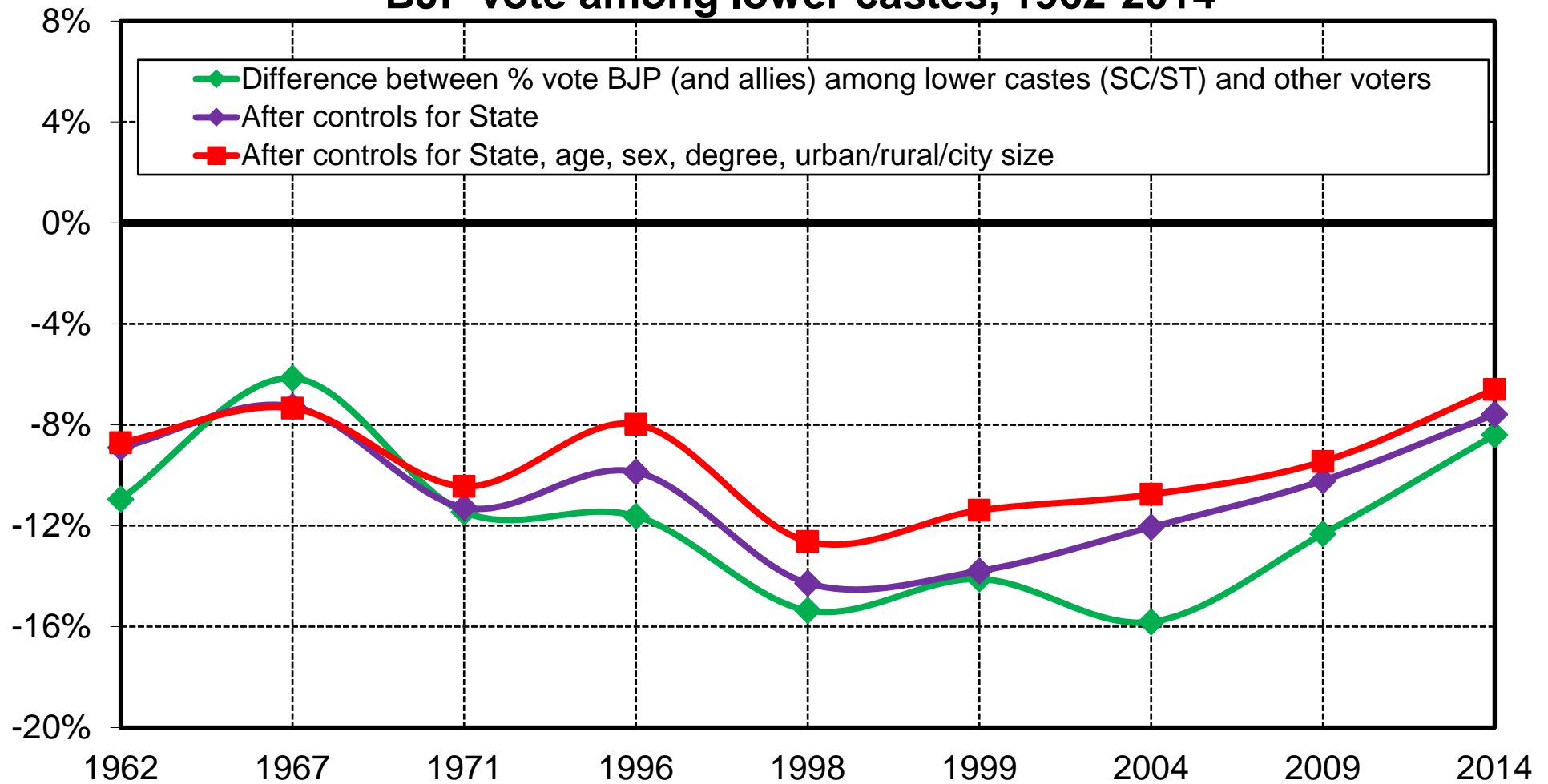


## BJP vote among upper castes, 1962-2014



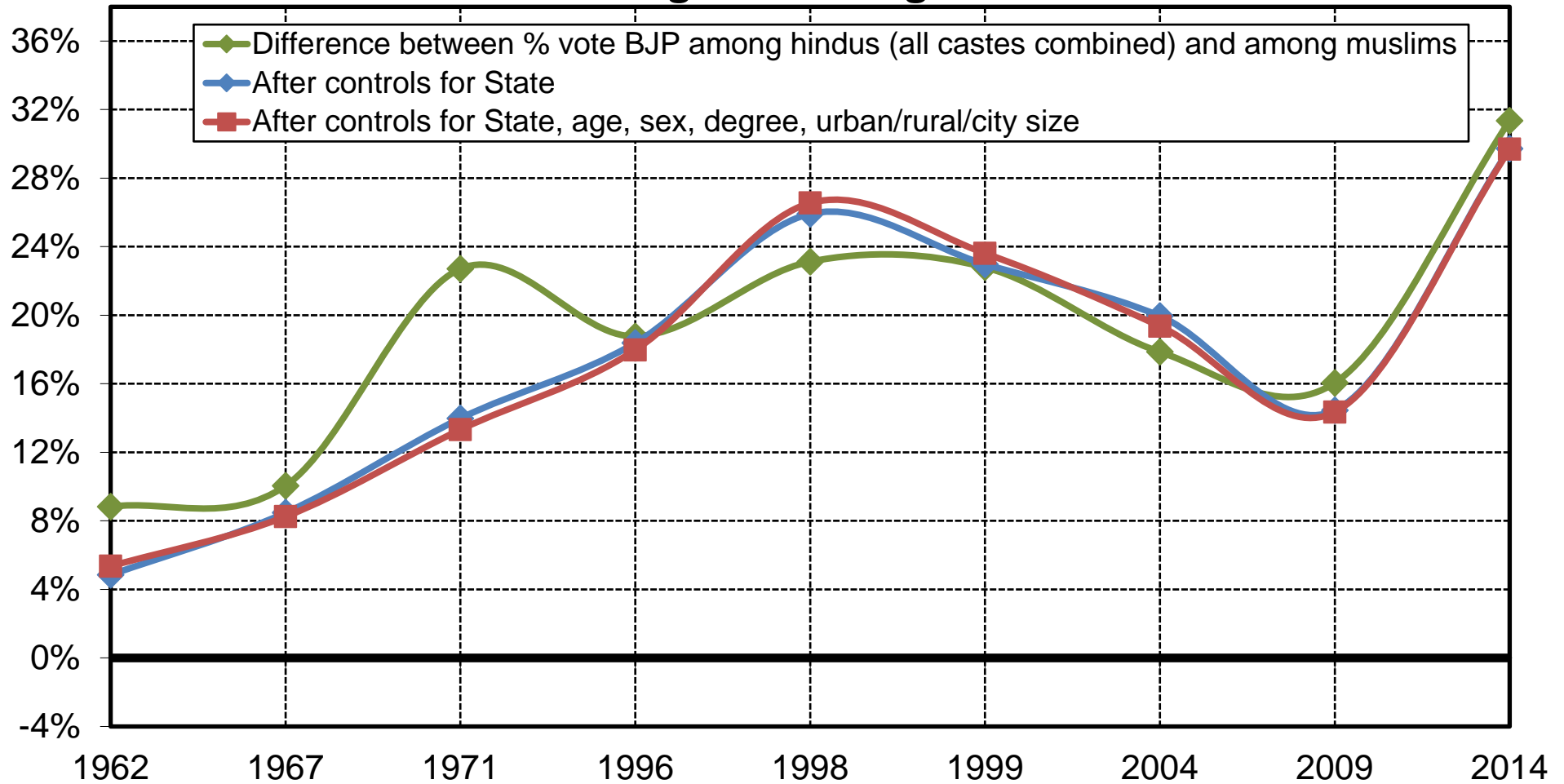
**Interpretation.** During the 1962-2014 period, upper caste voters (FC, forward castes) have always voted more than others for the BJP (and allies), before and after taking into account control variables. The impact of caste (after taking into account other variables) appears to have become more important over time. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.11).

## BJP vote among lower castes, 1962-2014



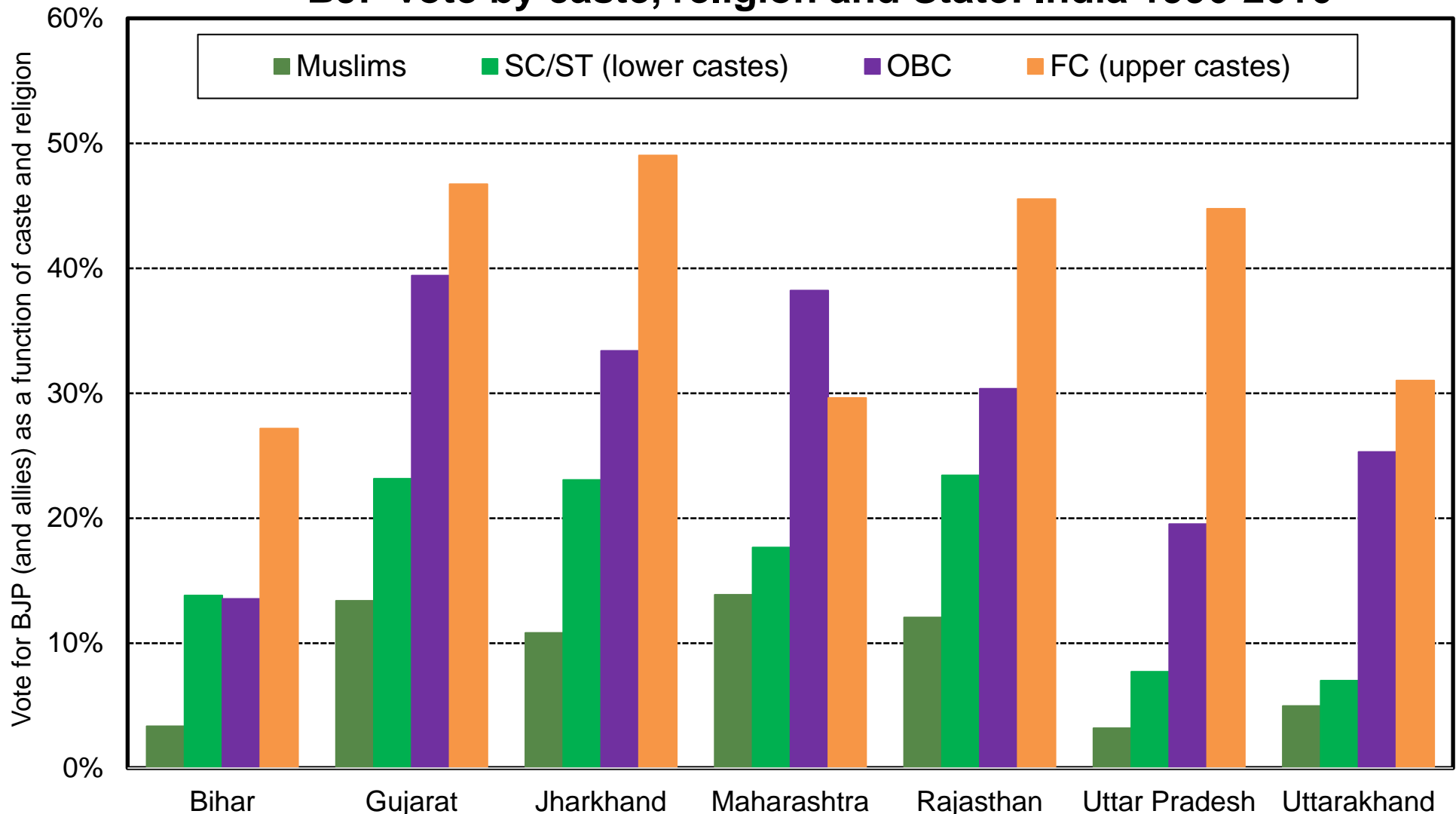
**Interpretation.** During the 1962-2014 period, lower caste voters (SC/ST, scheduled castes/scheduled tribes) have always voted less than others for the BJP (and allies), before and after taking into account control variables. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.12).

## The BJP & the religious cleavage: India 1962-2014



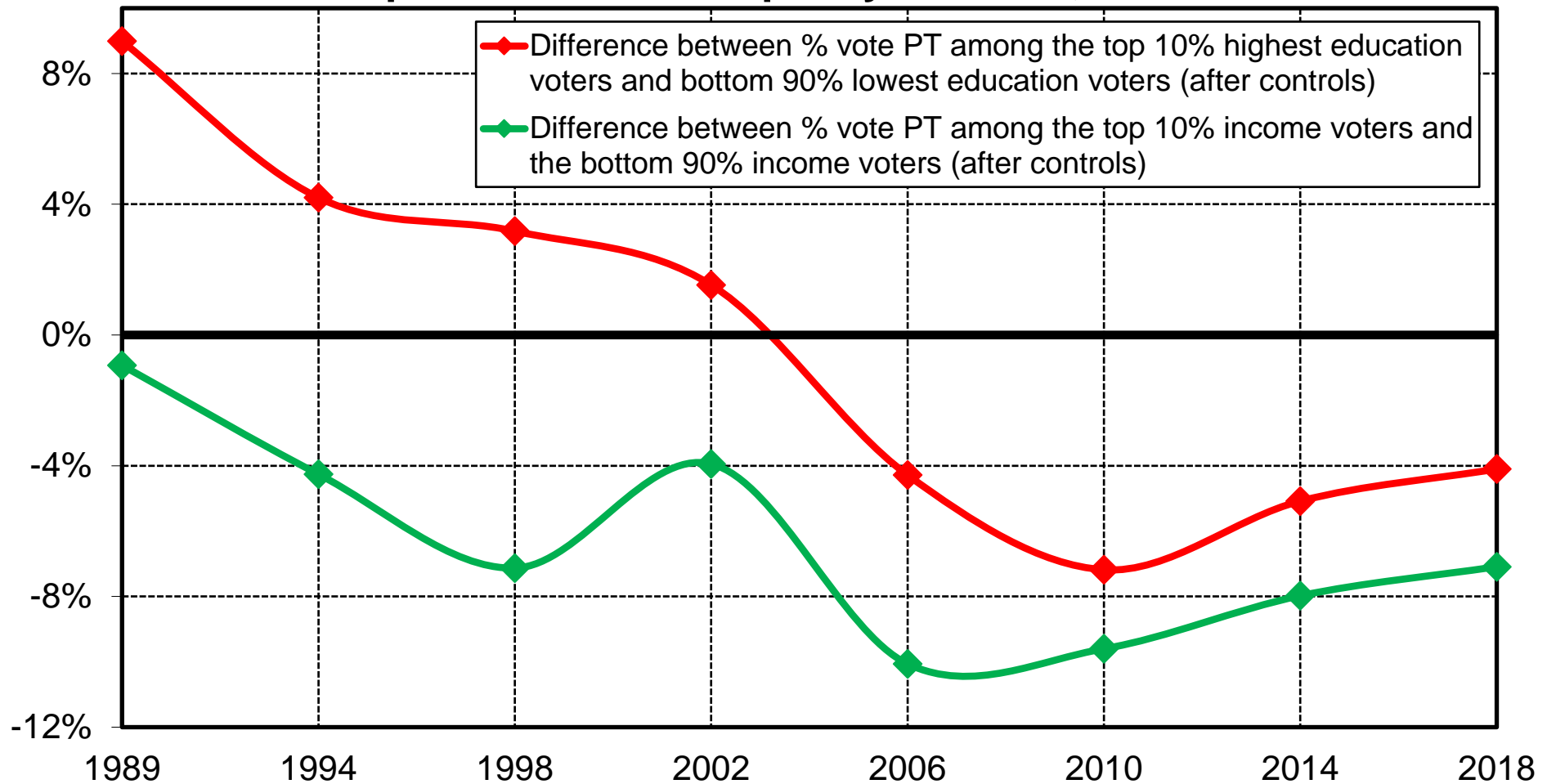
**Interpretation.** During the 1962-2014 period, hindus voters (all castes combined: SC/ST, OBC and FC) have always voted more than muslim voters for the BJP (and allies), before and after taking into account control variables. The magnitude of the religious cleavage has strongly increased over time. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.13).

## BJP vote by caste, religion and State: India 1996-2016



**Interpretation.** In all Indian States, the BJP (and allies) always obtains a higher score among upper castes (FC, forward castes) than among OBC (other backward classes, intermediate castes), SC/ST (scheduled castes/schedules tribes, lower castes) and muslim voters. Note: the results reported here refer to the average regional elections conducted over the 1996-2016 period. Sources and series: see piketty.pse.ens.fr/ideology (figure 16.14).

## The politisation of inequality in Brasil, 1989-2018



**Intepretation.** During the 1989-2018 period, the vote in favour of PT (Workers Party) in Brasil has become more and more associated with voters with the lowest levels of income and degrees, which was not the case in the first elections conducted after the end of the military dictatorship. Sources and series: see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 16.15).

## The circulation of property and progressive taxation

### Progressive tax on property (funding of the capital endowment allocated to each young adult)

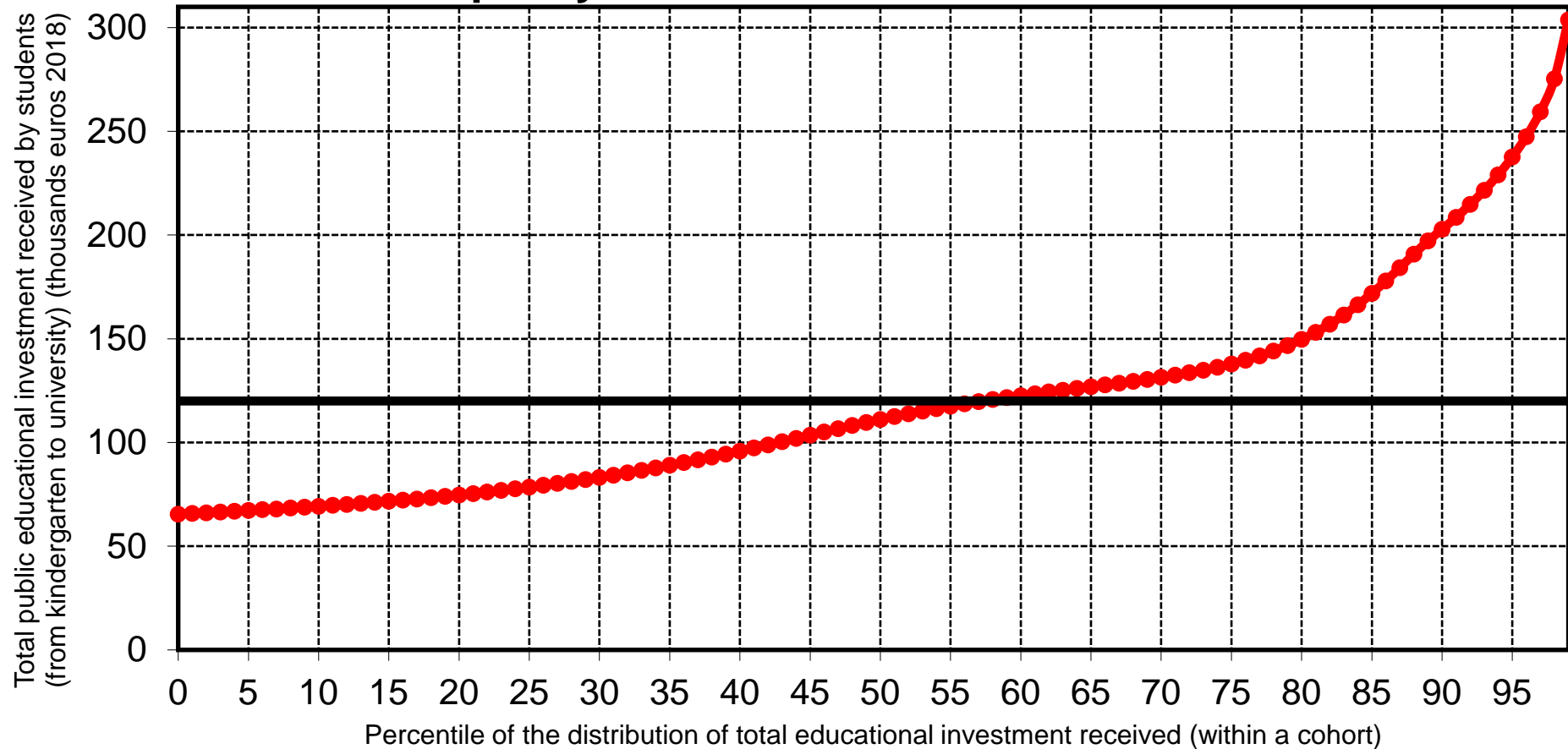
Multiple of average wealth	Annual tax on property (effective tax rate)	Tax on inheritances (effective tax rate)
0,5	0,1%	5%
2	1%	20%
5	2%	50%
10	5%	60%
100	10%	70%
1000	60%	80%
10000	90%	90%

### Progressive tax on income (funding of basic income and social and ecological State)

Multiple of average income	Effective tax rate (including social contributions and carbon tax)
0,5	10%
2	40%
5	50%
10	60%
100	70%
1000	80%
10000	90%

**Interpretation.** The proposed tax system includes a progressive tax on property (annual tax and inheritance tax) funding a capital endowment for all young adults and a progressive tax on income (including social contributions and progressive tax on carbon emissions) funding the basic income and the social and ecological State (health, education, pensions, unemployment, energy, etc.). This system favouring the circulation of property is one of the constituting elements of participatory socialism, together with a 50-50 split of voting rights among workers representatives and shareholders in corporations. **Note:** in the exemple given here, the progressive property tax raises about 5% of national income (allowing to fund a capital endowment of about 60% of average net wealth, to be allocated to each young adult at 25-year of age) and the progressive income tax about 45% of national income (allowing to fund an annual basic income of about 60% of after-tax income, costing about 5% of national income, and the social and ecological State for about 40% of national income). **Sources:** see piketty.pse.ens.fr/ideology (table 17.1).

## The inequality of educational investment: France 2018



**Interpretation.** Total public educational investment received during their studies (from kindergarten to university) by students of the cohort reaching 18 in 2018 will be about 120 k€ (i.e. about 15 years of studies for an average cost of 8000€ per year). Within this generation, the 10% of students receiving the smallest educational investment receive about 65-70 k€, while the 10% receiving the most receive between 200 k€ and 300 k€. **Note:** average costs per year of study in the French educational system in 2015-2018 rank from 5-6 k€ in kindergarten-primary to 8-10 k€ in secondary, 9-10 k€ in universities and 15-16 k€ in preparatory classes to *grandes écoles* (elite tracks). **Sources and series:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (figure 17.1).

# A novel organisation of globalisation: transnational democracy

## Transnational Assembly

In charge of **global public goods** (climate, research, etc.) and of **global fiscal justice** (common taxes on high wealth and income holders and large corporations, carbon taxes)

National Assembly  
Country A

National Assembly  
Country B

National Assembly  
Country C

National Assembly  
Country D

...

**Interpretation.** According to the proposed organisation, the treaties regulating globalisation (flows of goods, capital and individuals) will henceforth include the creation between the signatories States and Regional Unions of a Transnational Assembly in charge of global public goods (climate, research, etc.) and global fiscal justice (common taxes on high wealth and income holders and large corporations, carbon taxes). **Note.** Countries A, B, C, D can be States like France, Germany, Italy, Spain, etc., in which case the Transnational Assembly will be the European Assembly; or countries A, B, etc. could be Regional Unions like the European Union, the African Union, etc., in which case the Transnational Assembly would be that of the Euro-African Union. The Transnational Assembly could be formed of deputies from the National Assemblies and/or of transnational deputies especially elected for this purpose, depending on the situation. **Sources:** see [piketty.pse.ens.fr/ideology](http://piketty.pse.ens.fr/ideology) (table 17.2).