



FIGURE I.1. Income inequality in the United States, 1910–2010

The top decile share in US national income dropped from 45–50 percent in the 1910s–1920s to less than 35 percent in the 1950s (this is the fall documented by Kuznets); it then rose from less than 35 percent in the 1970s to 45–50 percent in the 2000s–2010s.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

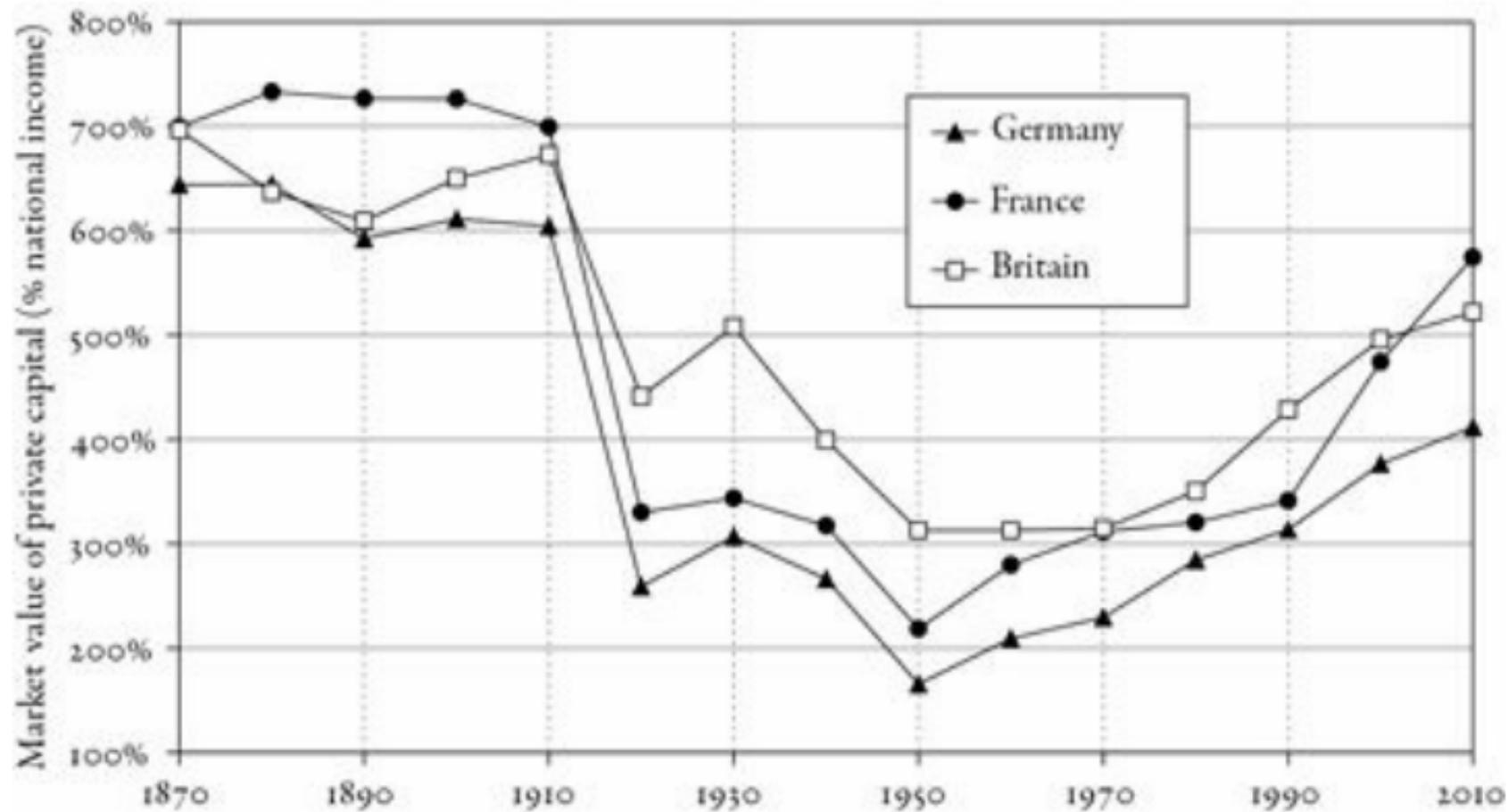


FIGURE 1.2. The capital/income ratio in Europe, 1870–2010

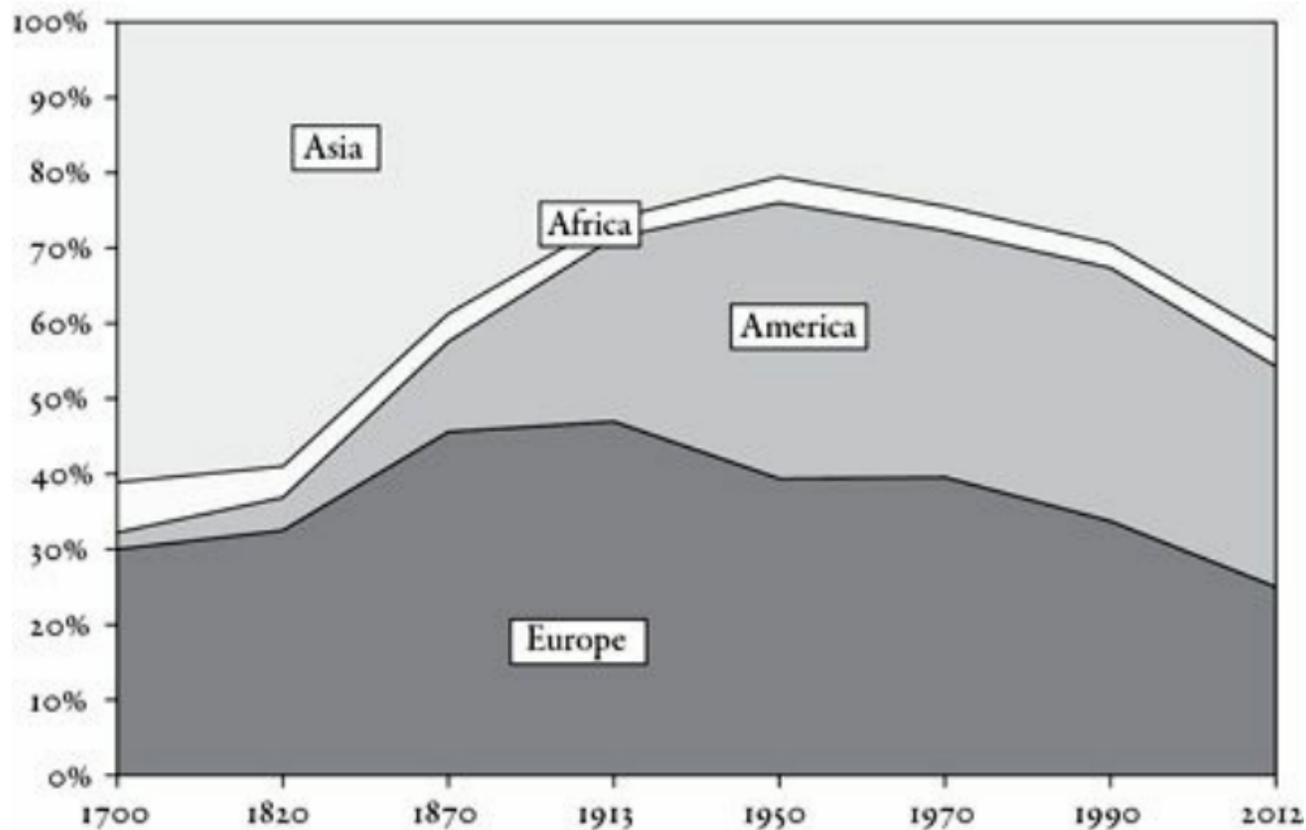


FIGURE 1.1. The distribution of world output, 1700–2012

Europe's GDP made 47 percent of world GDP in 1913, down to 25 percent in 2012.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

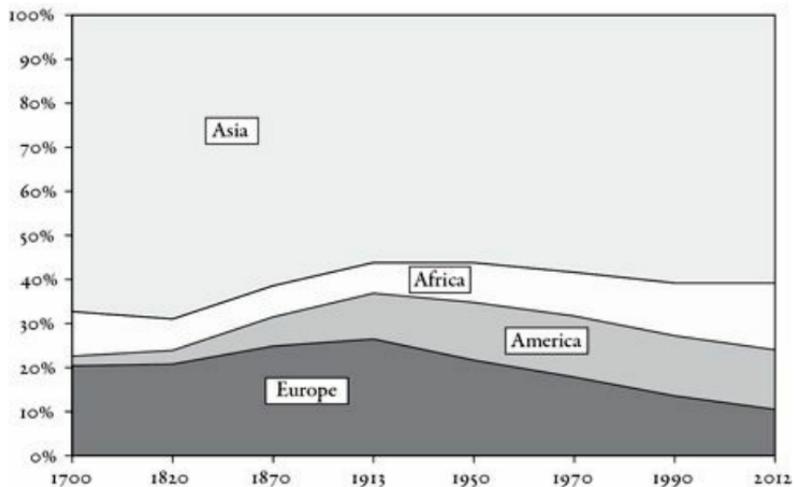


FIGURE 1.2. The distribution of world population, 1700–2012

Europe’s population made 26 percent of world population in 1913, down to 10 percent in 2012.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

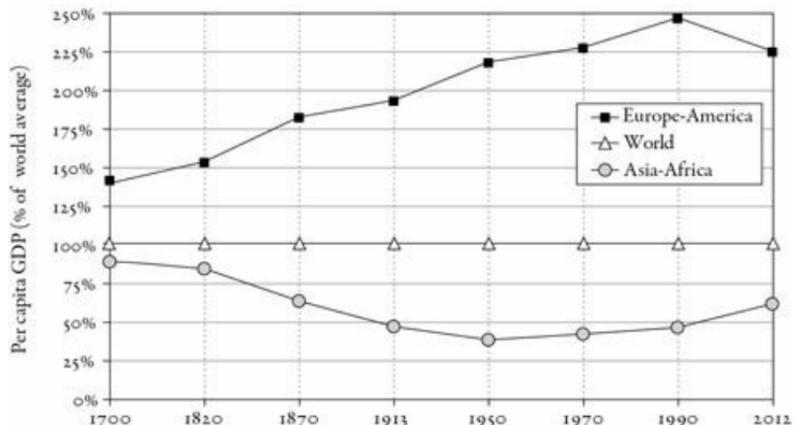


FIGURE 1.3. Global inequality, 1700–2012: divergence then convergence?

Per capita GDP in Asia-Africa went from 37 percent of world average in 1950 to 61 percent in 2012.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 1.1.  
Distribution of world GDP, 2012

Region	Population (million inhabitants)		GDP (billion euros 2012)		Per capita GDP (euros 2012)	Equivalent per capita monthly income (euros 2012)
World	7,050	100%	71,200	100%	10,100	760
Europe	740	10%	17,800	25%	24,000	1,800
incl. European Union	540	8%	14,700	21%	27,300	2,040
incl. Russia/Ukraine	200	3%	3,100	4%	15,400	1,150
America	950	13%	20,600	29%	21,500	1,620
incl. United States/Canada	350	5%	14,300	20%	40,700	3,050
incl. Latin America	600	9%	6,300	9%	10,400	780
Africa	1,070	15%	2,800	4%	2,600	200
incl. North Africa	170	2%	1,000	1%	5,700	430
incl. Sub-Saharan Africa	900	13%	1,800	3%	2,000	150
Asia	4,290	61%	30,000	42%	7,000	520
incl. China	1,350	19%	10,400	15%	7,700	580
incl. India	1,260	18%	4,000	6%	3,200	240
incl. Japan	130	2%	3,800	5%	30,000	2,250
incl. other	1,550	22%	11,800	17%	7,600	570

*Note:* World GDP, estimated in purchasing power parity, was about 71,200 billion euros in 2012. World population was about 7,050 billion inhabitants, hence a per capita GDP of €10,100 (equivalent to a monthly income of about €760 per month). All numbers were rounded to the closed dozen or hundred.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

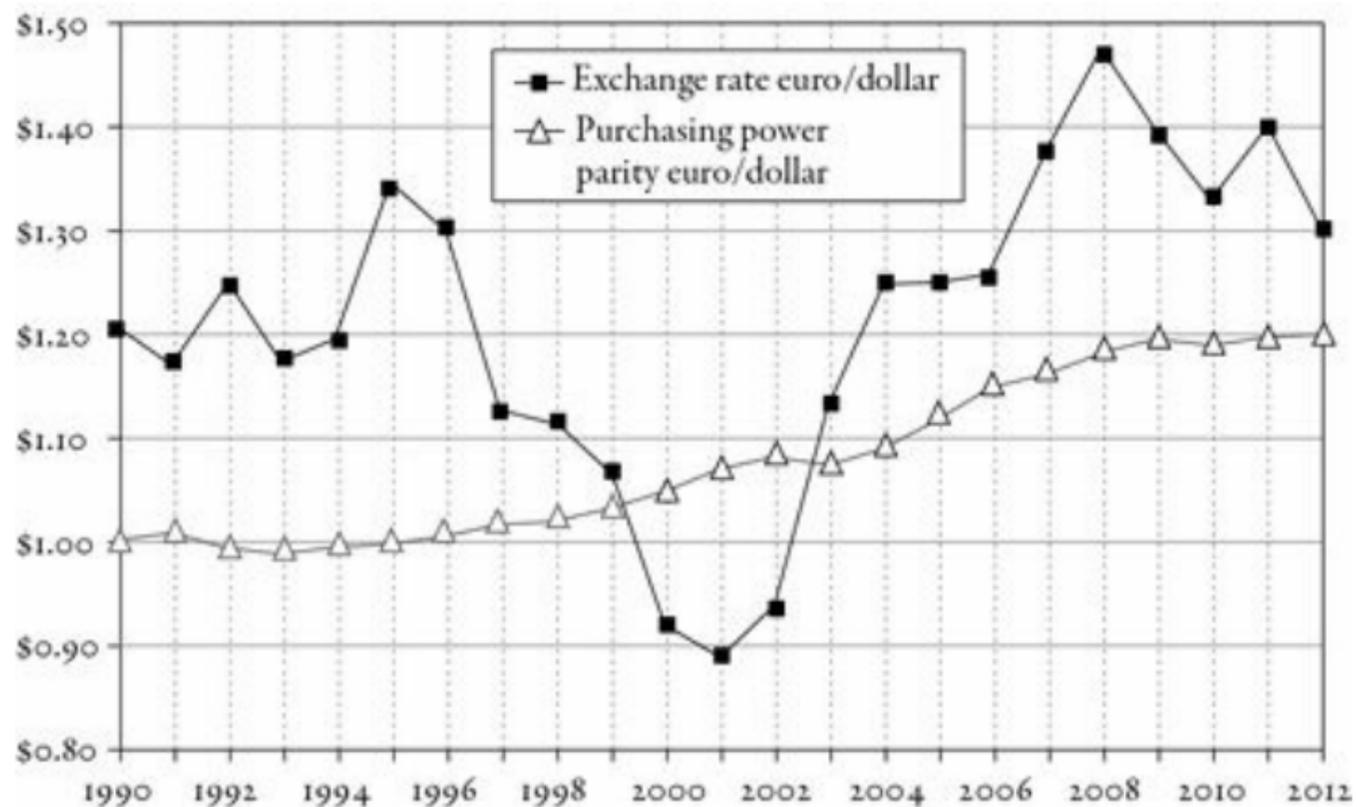


FIGURE 1.4. Exchange rate and purchasing power parity: euro/dollar

In 2012, 1 euro was worth \$1.30 according to current exchange rate, but \$1.20 in purchasing power parity.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

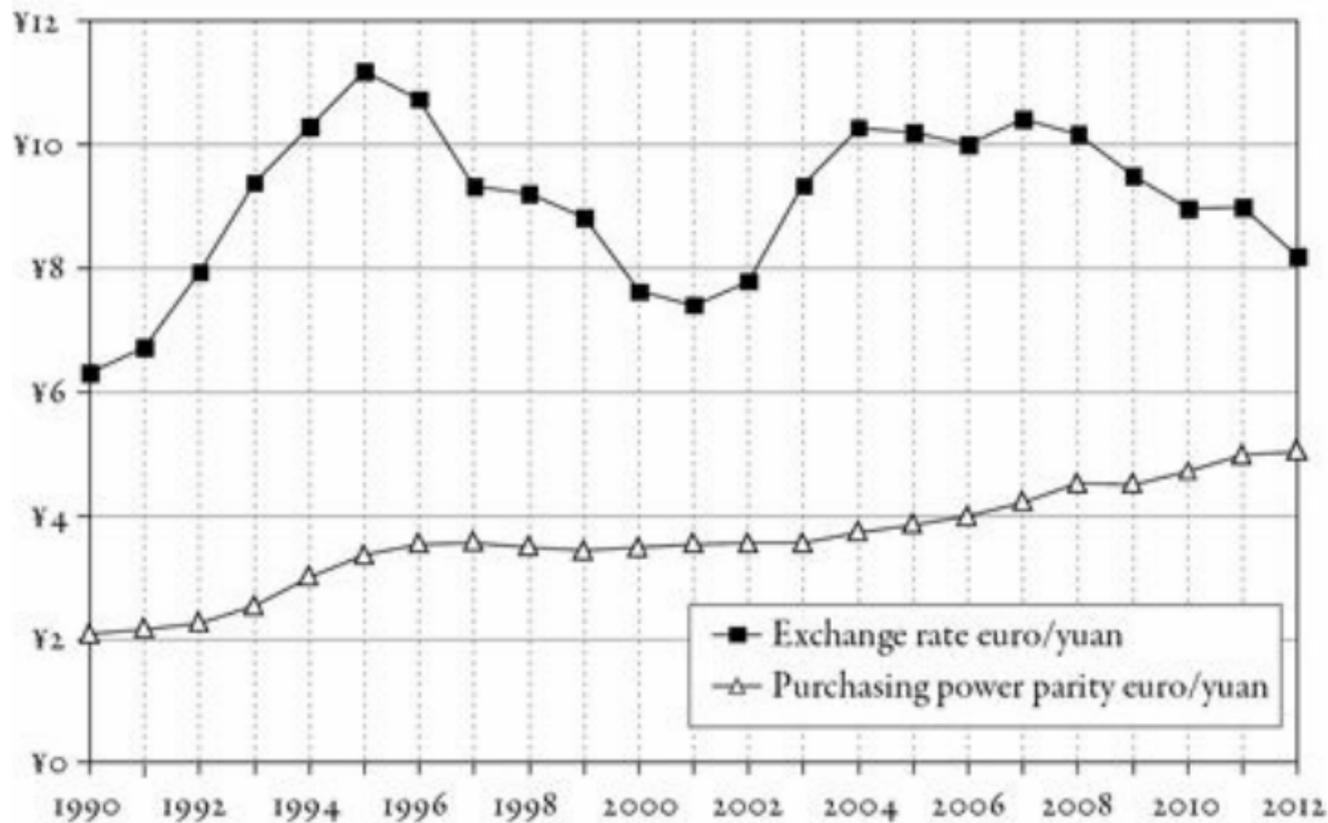


FIGURE 1.5. Exchange rate and purchasing power parity: euro/yuan

In 2012, 1 euro was worth 8 yuan according to current exchange rate, but 5 yuan in purchasing power parity.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 2.1.

*World growth since the Industrial Revolution (average annual growth rate)*

Years	World output (%)	World population (%)	Per capita output (%)
0-1700	0.1	0.1	0.0
1700-2012	1.6	0.8	0.8
1700-1820	0.5	0.4	0.1
1820-1913	1.5	0.6	0.9
1913-2012	3.0	1.4	1.6

*Note:* Between 1913 and 2012, the growth rate of world GDP was 3.0 percent per year on average. This growth rate can be broken down between 1.4 percent for world population and 1.6 percent for per capita GDP.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

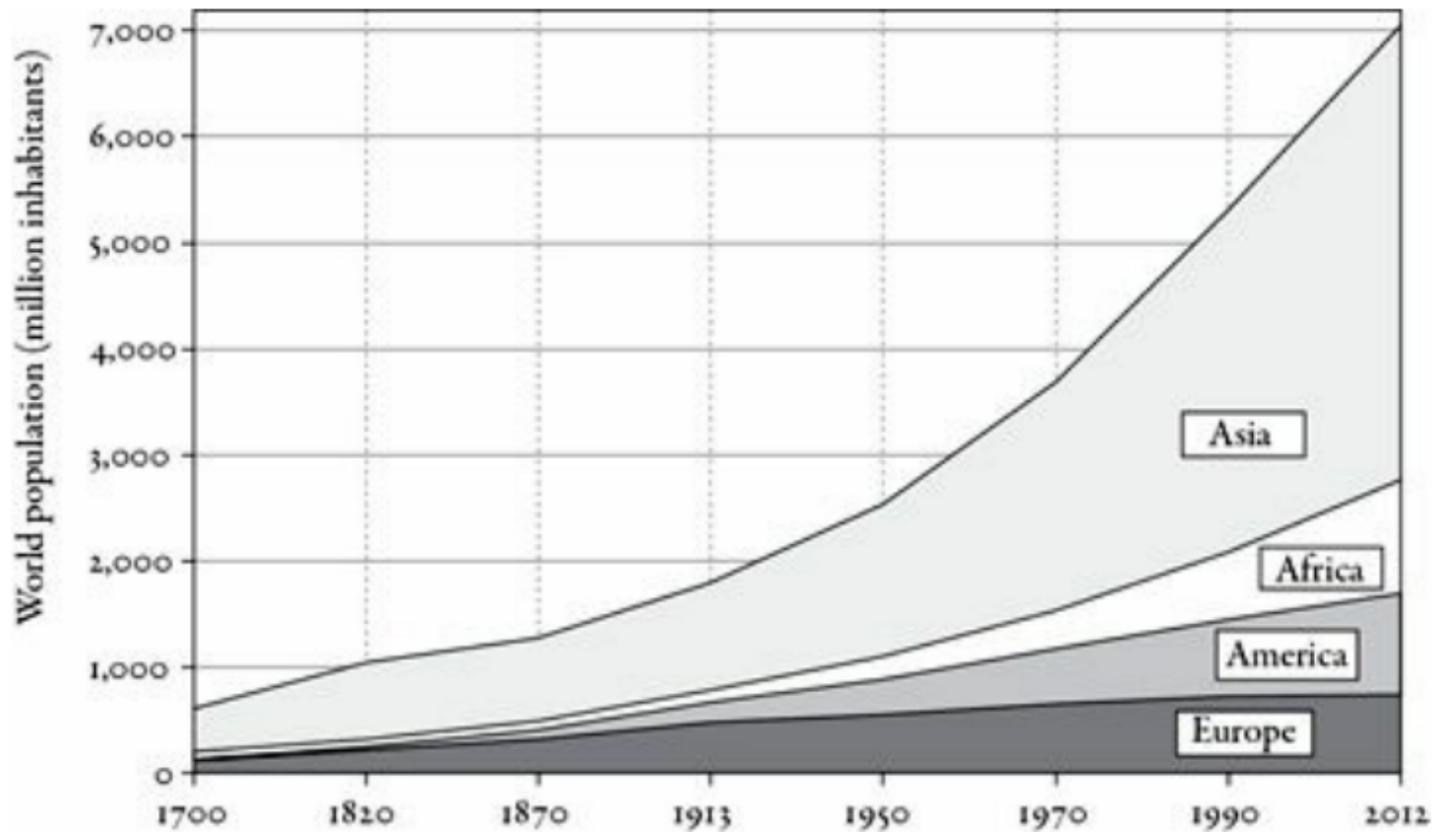


FIGURE 2.1. The growth of world population, 1700–2012

World population rose from 600 million inhabitants in 1700 to 7 billion in 2012.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 2.2.  
*The law of cumulated growth*

An annual growth rate equal to . . .	. . . is equivalent to a generational growth rate (30 years) of . . .	. . . i.e., a multiplication by a coefficient equal to . . .	. . . and a multiplication after 100 years by a coefficient equal to . . .	. . . and a multiplication after 1,000 years by a coefficient equal to . . .
0.1%	3%	1.03	1.11	2.72
0.2%	6%	1.06	1.22	7.37
0.5%	16%	1.16	1.65	147
1.0%	35%	1.35	2.70	20,959
1.5%	56%	1.56	4.43	2,924,437
2.0%	81%	1.81	7.24	398,264,652
2.5%	110%	2.10	11.8	52,949,930,179
3.5%	181%	2.81	31.2	...
5.0%	332%	4.32	131.5	...

*Note:* An annual growth rate of 1% is equivalent to a cumulative growth rate of 35% per generation (30 years), a multiplication by 2.7 every 100 years, and by over 20,000 every 1,000 years.

TABLE 2.3.

*Demographic growth since the Industrial Revolution (average annual growth rate)*

Years	World population (%)	Europe (%)	America (%)	Africa (%)	Asia (%)
0–1700	0.1	0.1	0.0	0.1	0.1
1700–2012	0.8	0.6	1.4	0.9	0.8
1700–1820	0.4	0.5	0.7	0.2	0.5
1820–1913	0.6	0.8	1.9	0.6	0.4
1913–2012	1.4	0.4	1.7	2.2	1.5
<i>Projections</i>	<i>0.7</i>	<i>-0.1</i>	<i>0.6</i>	<i>1.9</i>	<i>0.5</i>
<i>2012–2050</i>					
<i>Projections</i>	<i>0.2</i>	<i>-0.1</i>	<i>0.0</i>	<i>1.0</i>	<i>-0.2</i>
<i>2050–2100</i>					

*Note:* Between 1913 and 2012, the growth rate of world population was 1.4% per year, including 0.4% for Europe, 1.7% for America, etc.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c). Projections for 2012–2100 correspond to the UN central scenario.

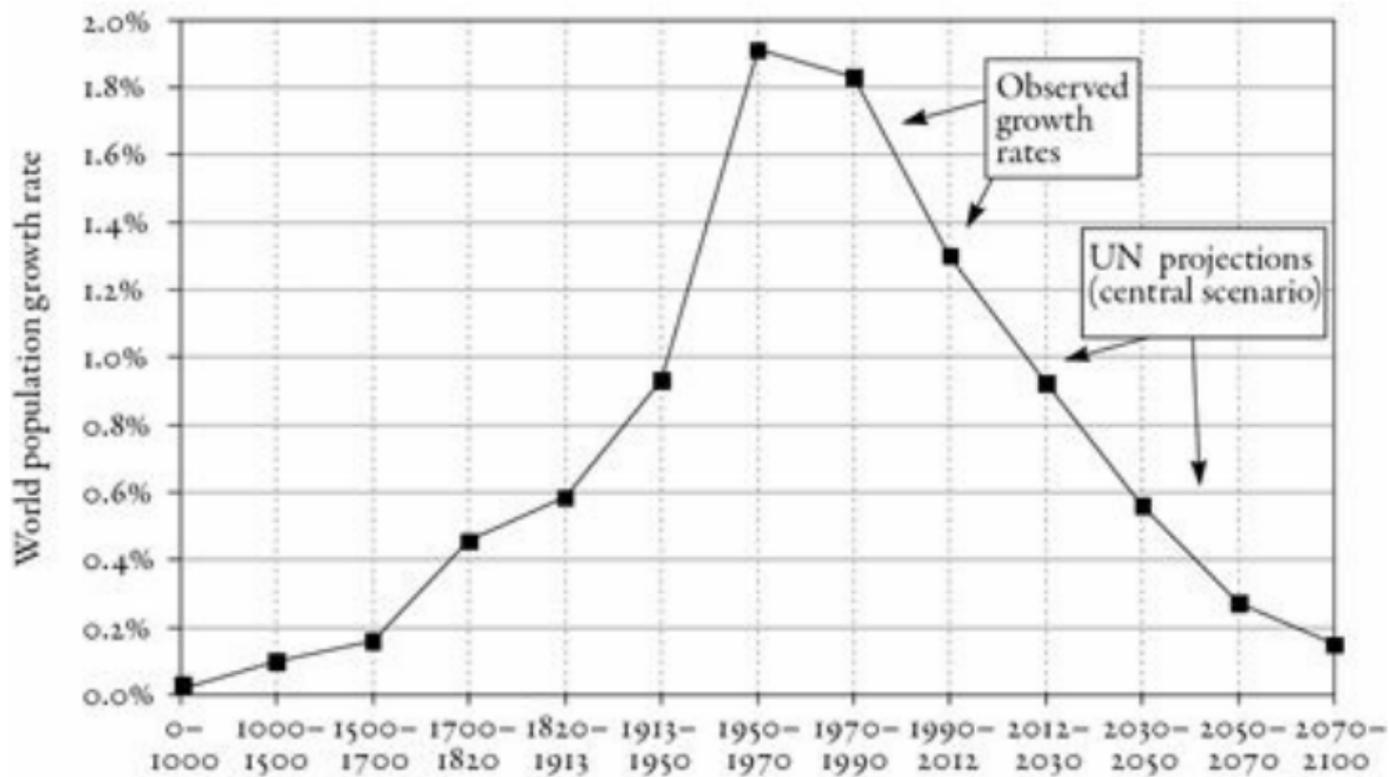


FIGURE 2.2. The growth rate of world population from Antiquity to 2100

The growth rate of world population was above 1 percent per year from 1950 to 2012 and should return toward 0 percent by the end of the twenty-first century.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 2.4.

*Employment by sector in France and the United States, 1800–2012*  
 (% of total employment)

Year	France			United States		
	Agriculture	Manufacturing	Services	Agriculture	Manufacturing	Services
1800	64	22	14	68	18	13
1900	43	29	28	41	28	31
1950	32	33	35	15	34	50
2012	3	21	76	2	18	80

*Note:* In 2012, agriculture made up 3% of total employment in France v. 21% in manufacturing and 76% in services. Construction—7% of employment in France and the United States in 2012—was included in manufacturing.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 2.5.

*Per capita output growth since the Industrial Revolution  
(average annual growth rate)*

Years	Per capita world output (%)	Europe (%)	America (%)	Africa (%)	Asia (%)
0–1700	0.0	0.0	0.0	0.0	0.0
1700–2012	0.8	1.0	1.1	0.5	0.7
1700–1820	0.1	0.1	0.4	0.0	0.0
1820–1913	0.9	1.0	1.5	0.4	0.2
1913–2012	1.6	1.9	1.5	1.1	2.0
1913–1950	0.9	0.9	1.4	0.9	0.2
1950–1970	2.8	3.8	1.9	2.1	3.5
1970–1990	1.3	1.9	1.6	0.3	2.1
1990–2012	2.1	1.9	1.5	1.4	3.8
1950–1980	2.5	3.4	2.0	1.8	3.2
1980–2012	1.7	1.8	1.3	0.8	3.1

*Note:* Between 1910 and 2012, the growth rate of per capita output was 1.7% per year on average at the world level, including 1.9% in Europe, 1.6% in America, etc.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

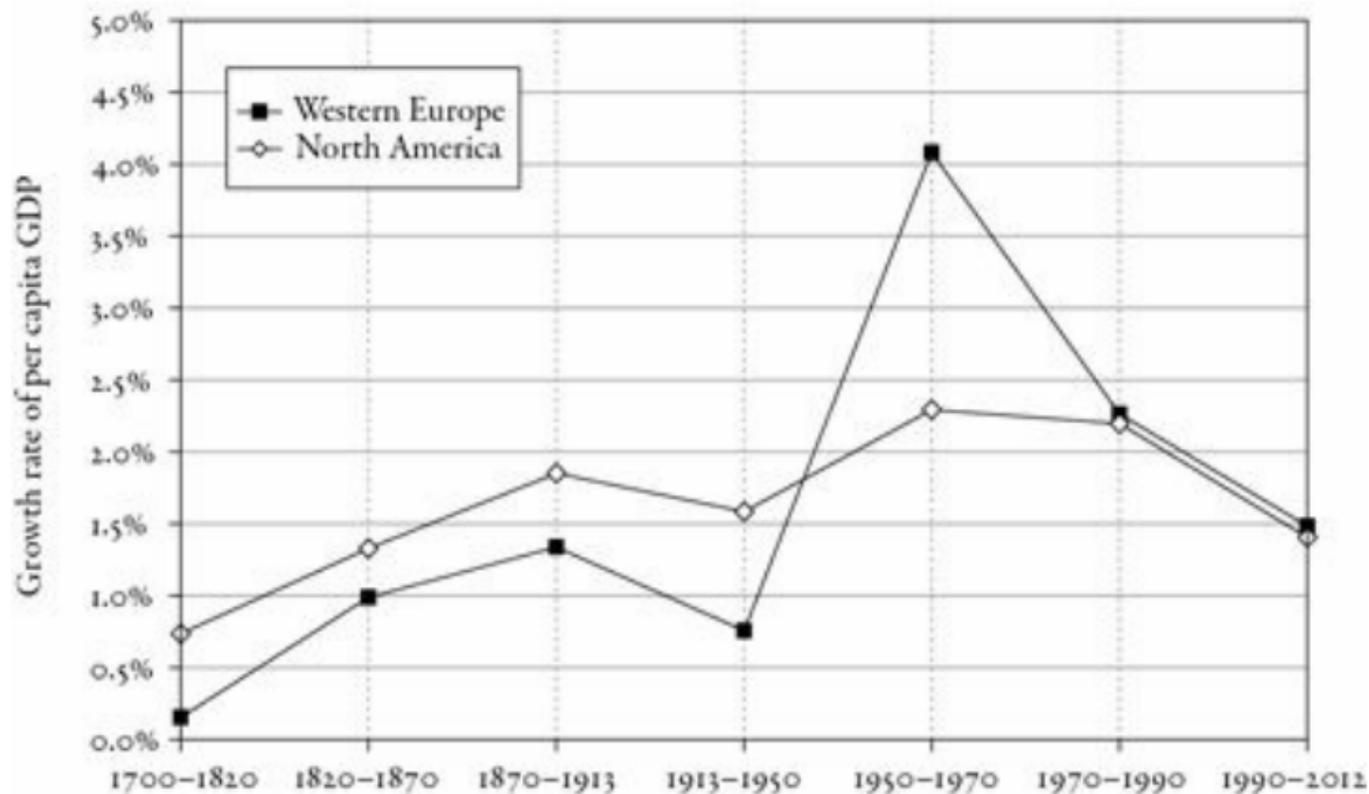


FIGURE 2.3. The growth rate of per capita output since the Industrial Revolution

The growth rate of per capita output surpassed 4 percent per year in Europe between 1950 and 1970, before returning to American levels.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

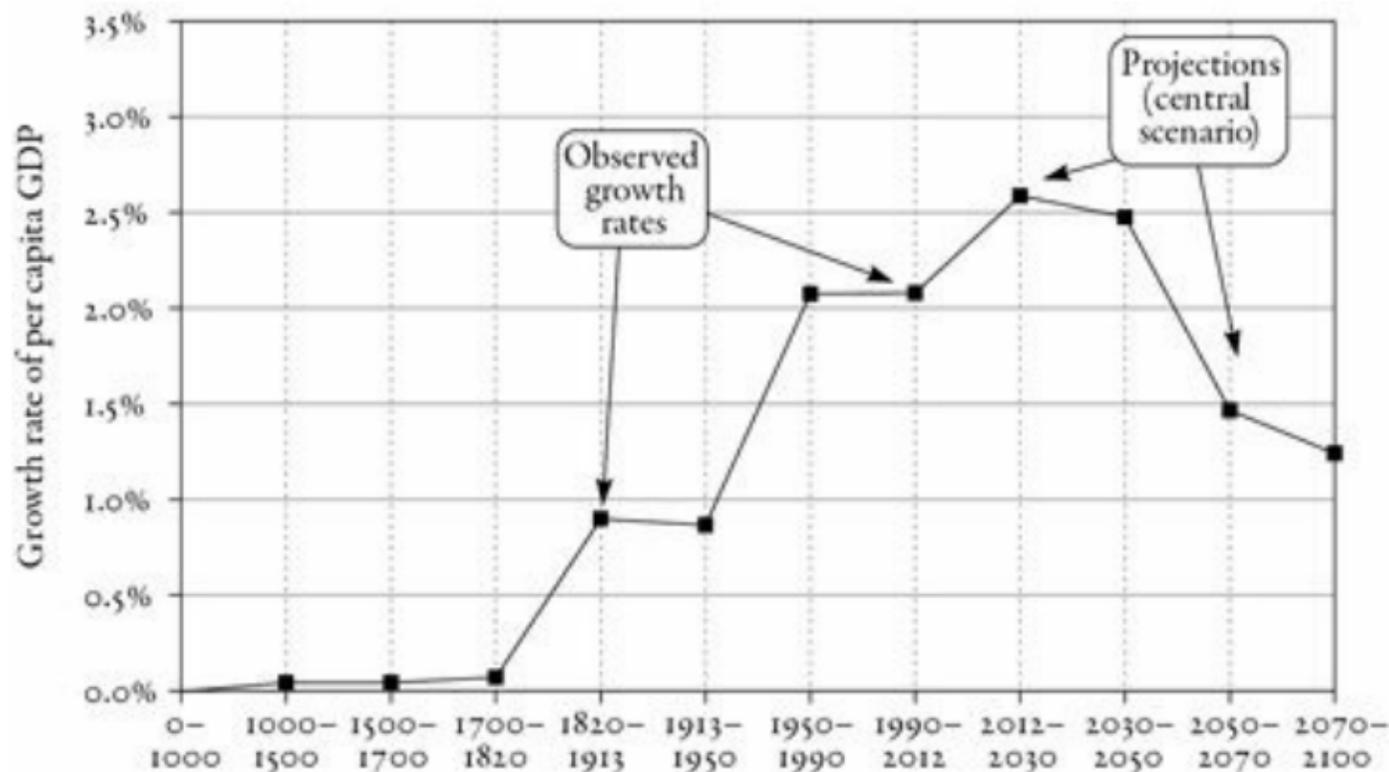


FIGURE 2.4. The growth rate of world per capita output from Antiquity to 2100

The growth rate of per capita output surpassed 2 percent from 1950 to 2012. If the convergence process goes on, it will surpass 2.5 percent from 2012 to 2050, and then will drop below 1.5 percent.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

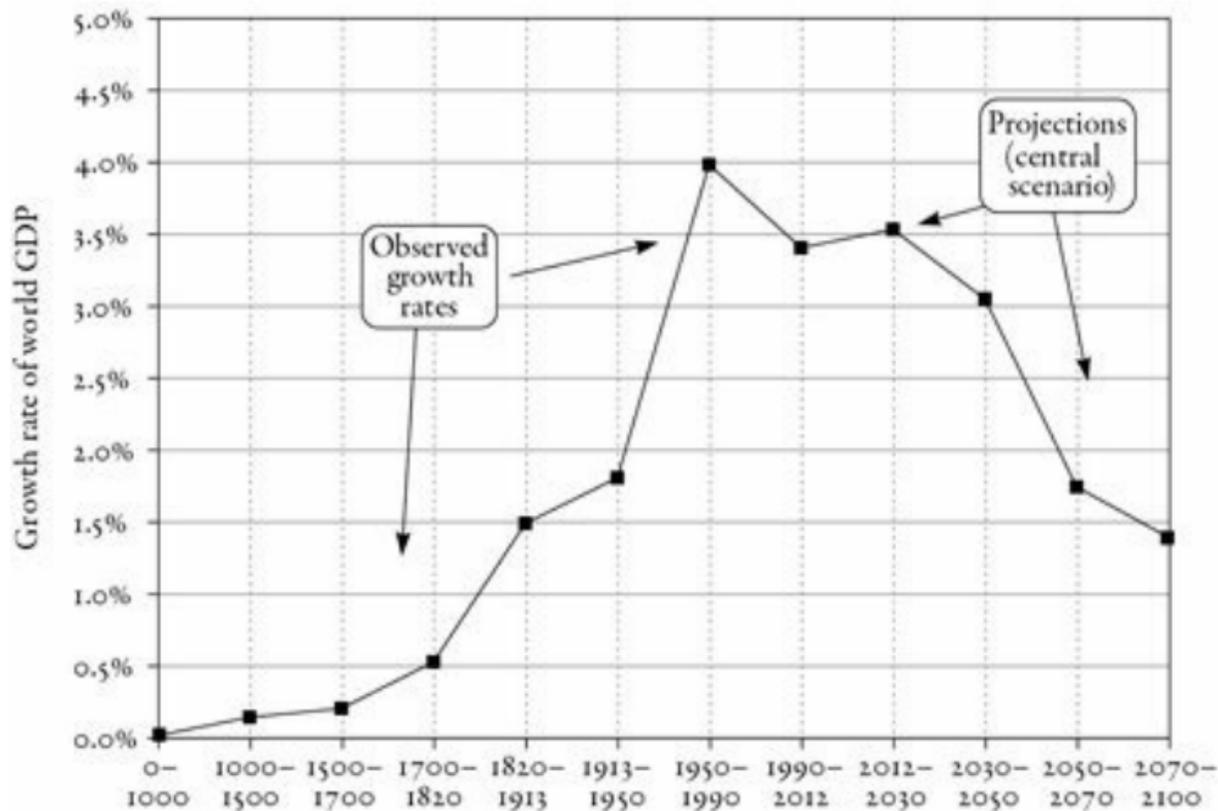


FIGURE 2.5. The growth rate of world output from Antiquity to 2100

The growth rate of world output surpassed 4 percent from 1950 to 1990. If the convergence process goes on, it will drop below 2 percent by 2050.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

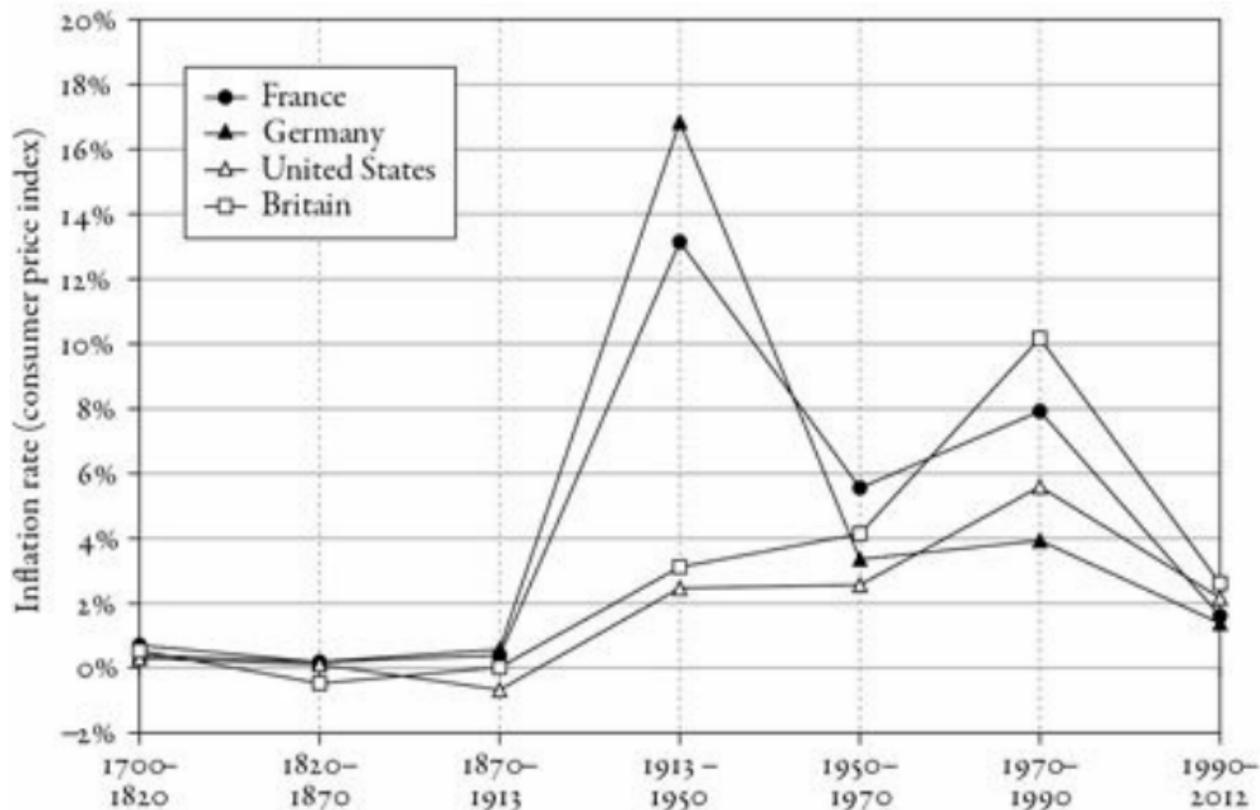


FIGURE 2.6. Inflation since the Industrial Revolution

Inflation in the rich countries was zero in the eighteenth and nineteenth centuries, high in the twentieth century, and roughly 2 percent a year since 1990.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

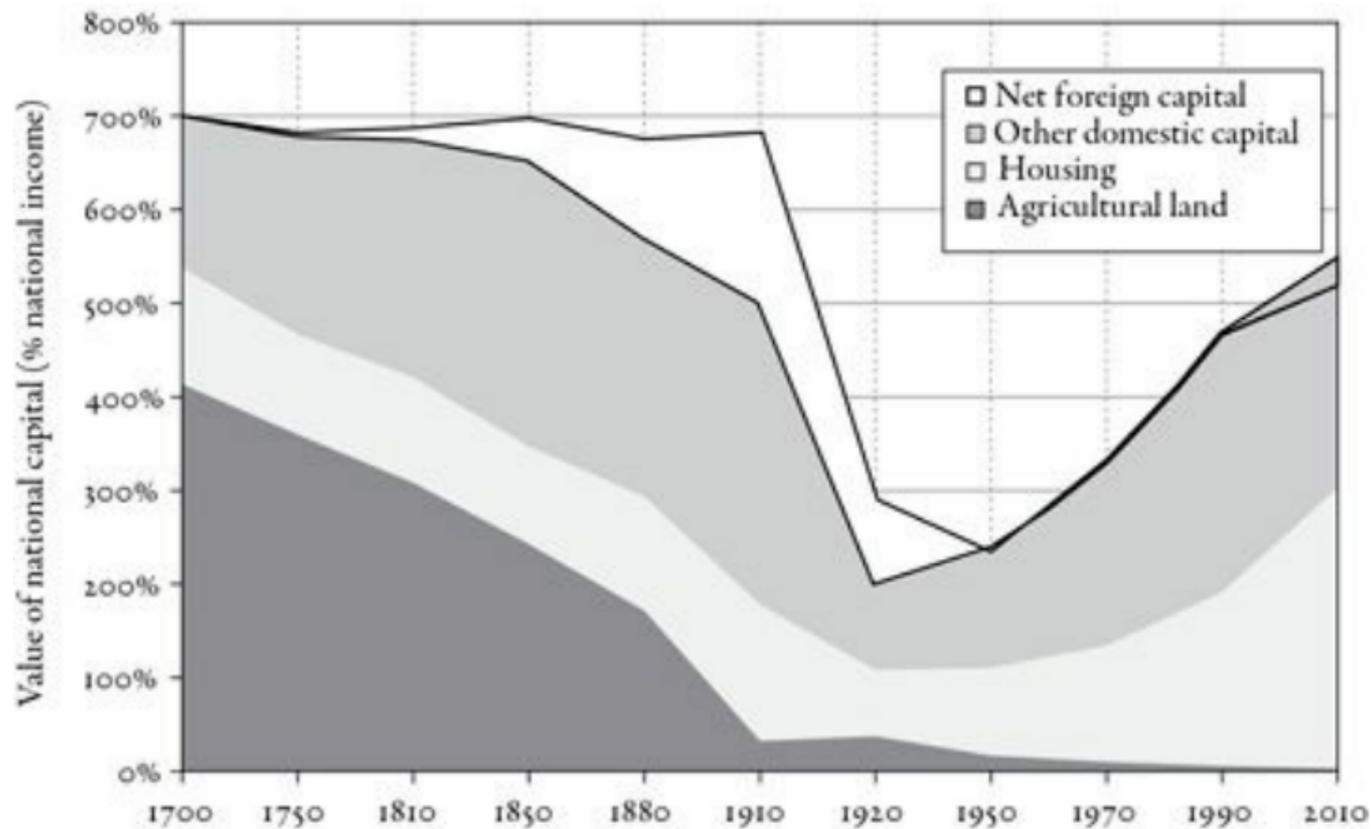


FIGURE 3.1. Capital in Britain, 1700–2010

National capital is worth about seven years of national income in Britain in 1700 (including four in agricultural land).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

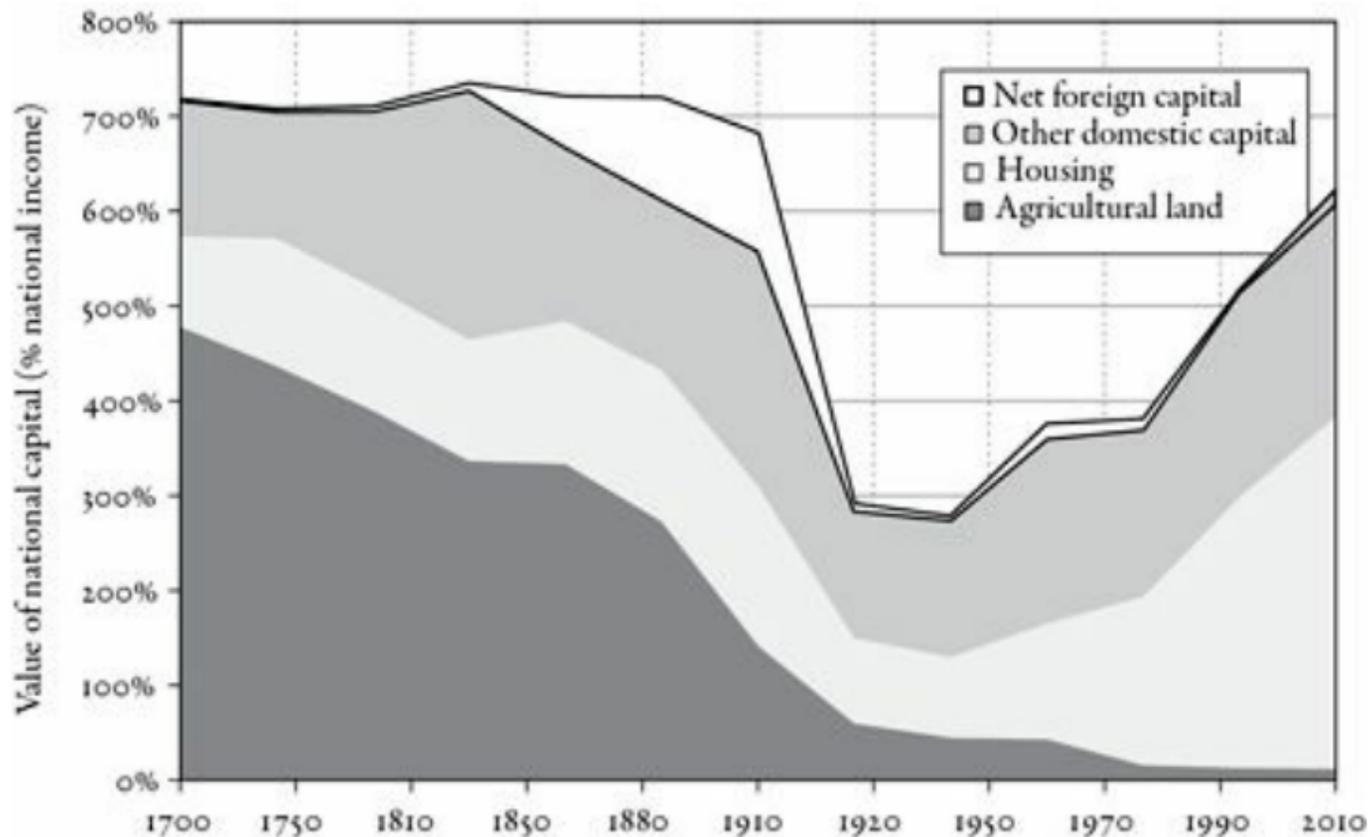


FIGURE 3.2. Capital in France, 1700–2010

National capital is worth almost seven years of national income in France in 1910 (including one invested abroad).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 3.1.

*Public wealth and private wealth in France in 2012*

	Value of capital (% national income) <sup>a</sup>		Value of capital (% national capital)	
National capital (public capital + private capital)	605		100	
Public capital (net public wealth: difference between assets and debt held by government and other public agencies)	31	5		
	Assets	Debt	Assets	Debt
	145%	114%	24%	19%
Private capital (net private wealth: difference between assets and debt held by private individuals [households])	574	95		
	Assets	Debt	Assets	Debt
	646%	72%	107%	12%

*Note:* In 2012, the total value of national capital in France was equal to 605% of national income (6.05 times national income), including 31% for public capital (5% of total) and 574% for private capital (95% of total).

a. National income is equal to GDP minus capital depreciation plus net foreign income; in practice, it is typically equal to about 90% of GDP in France in 2012; see Chapter 1 and the online technical appendix.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

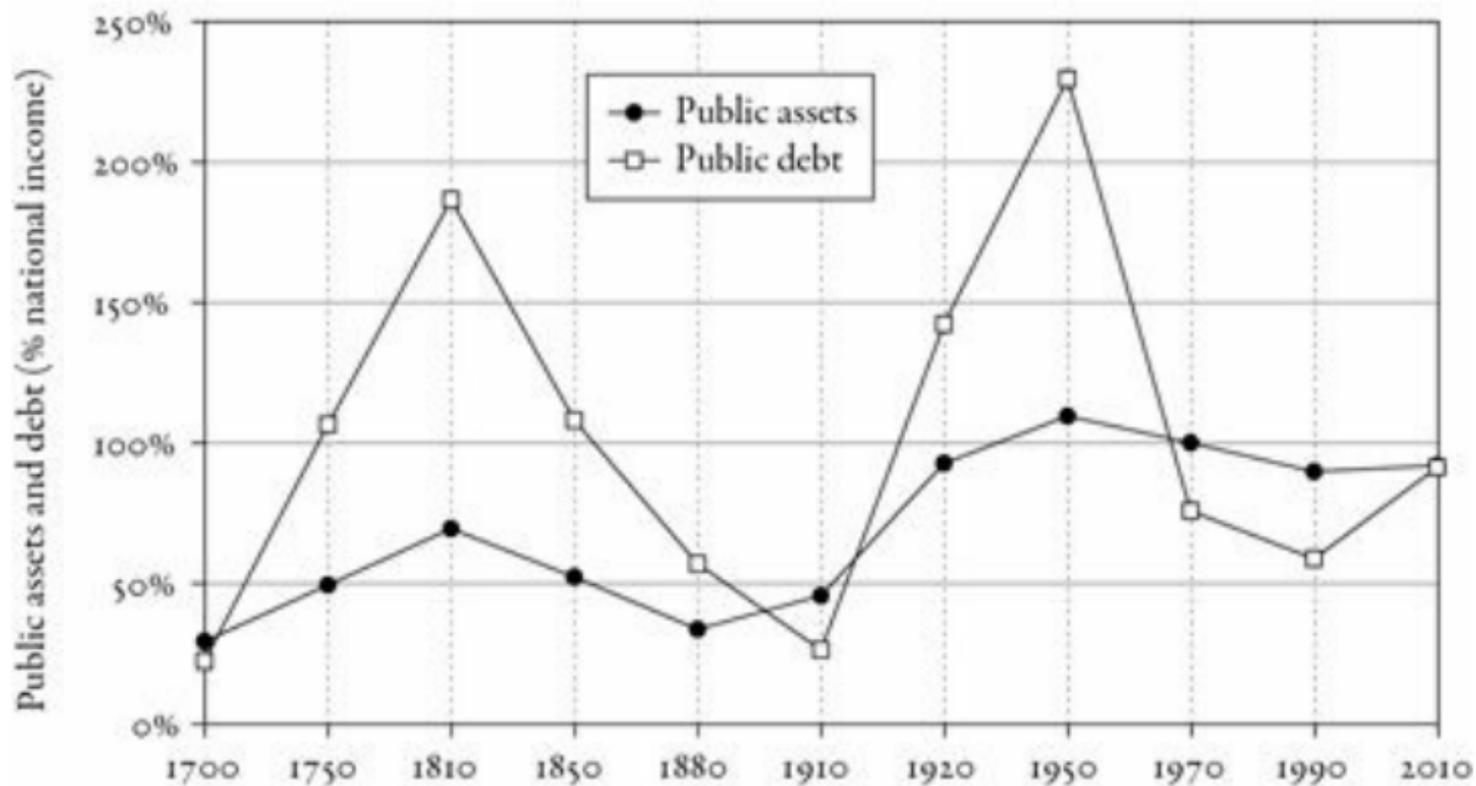


FIGURE 3.3. Public wealth in Britain, 1700–2010

Public debt surpassed two years of national income in 1950 (versus one year for public assets).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

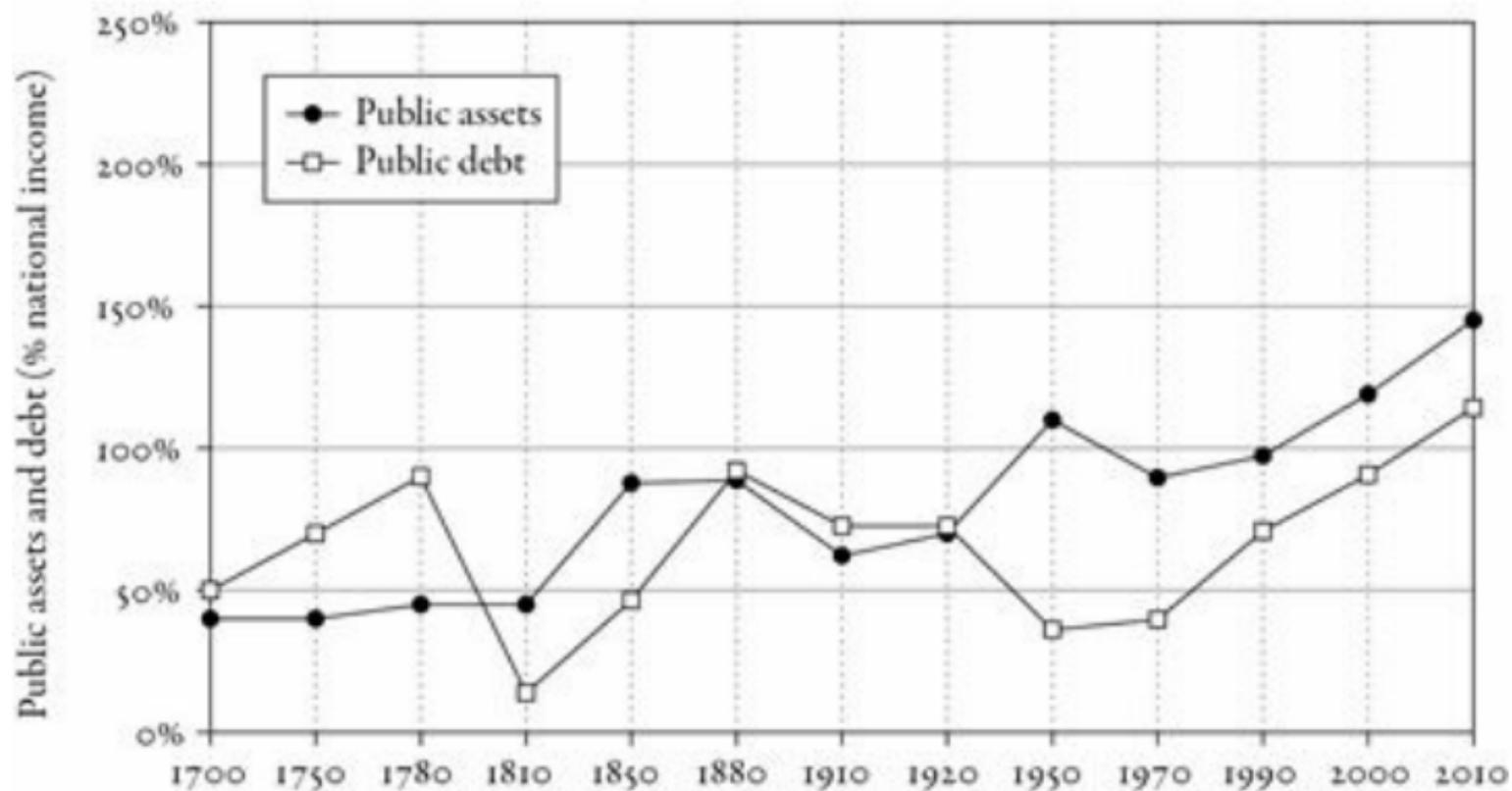


FIGURE 3.4. Public wealth in France, 1700–2010

Public debt is about one year of national income in France in 1780 as well as in 1880 and in 2000–2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

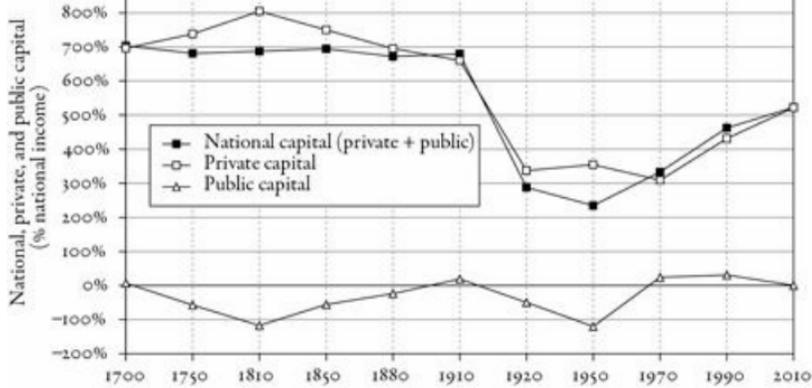


FIGURE 3.5. Private and public capital in Britain, 1700–2010

In 1810, private capital is worth eight years of national income in Britain (versus seven years for national capital).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

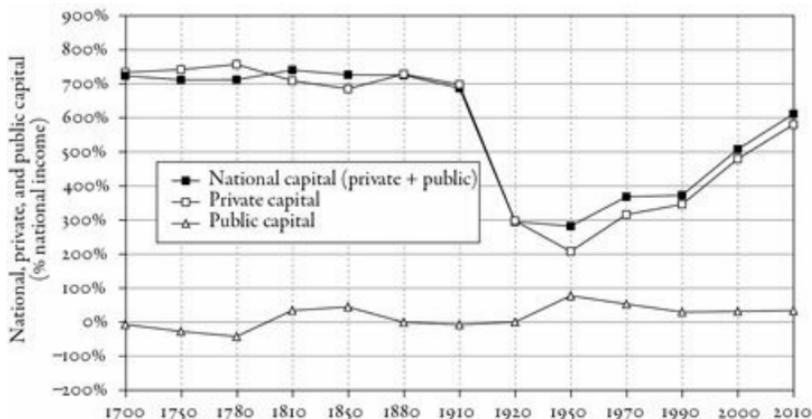


FIGURE 3.6. Private and public capital in France, 1700–2010

In 1950, public capital is worth almost one year of national income versus two years for private capital.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

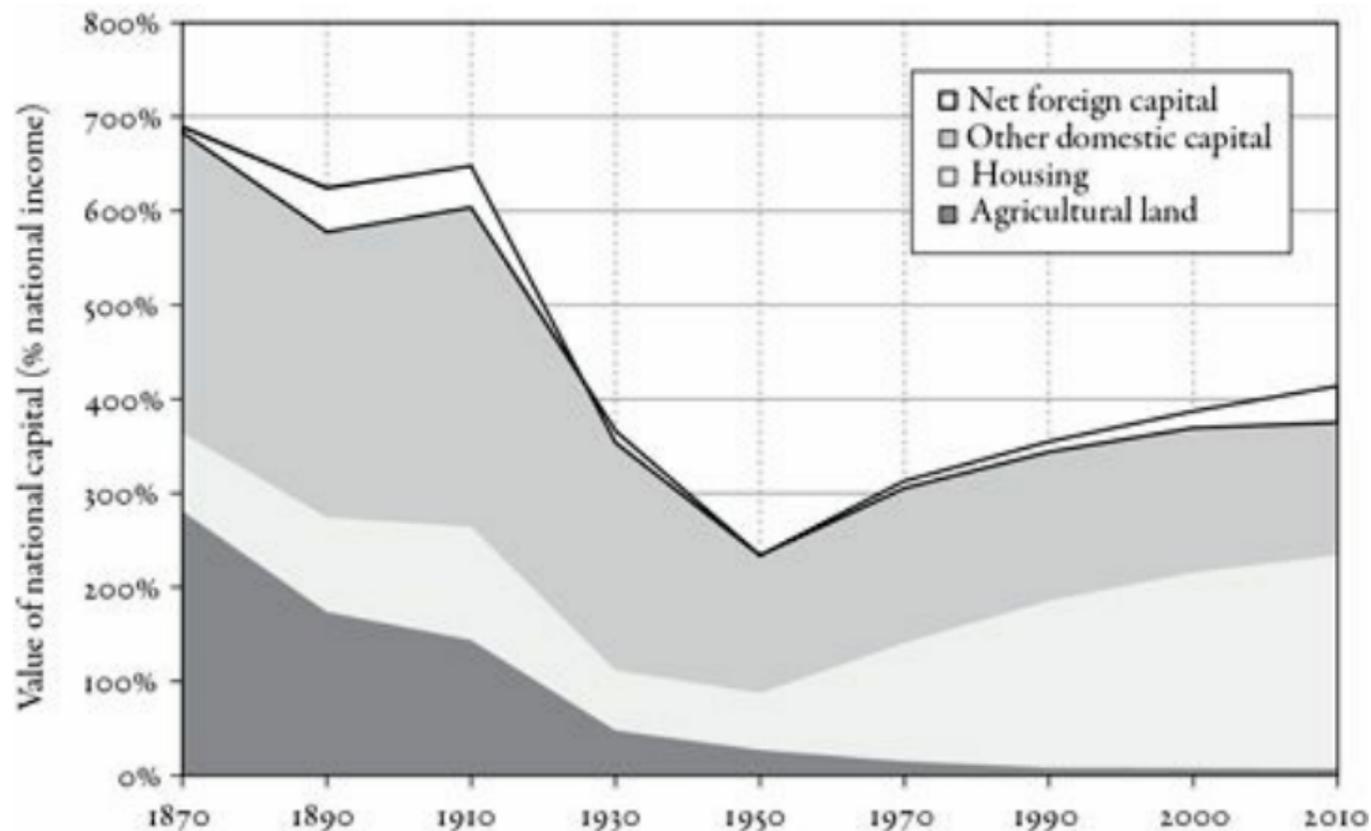


FIGURE 4.1. Capital in Germany, 1870–2010

National capital is worth 6.5 years of national income in Germany in 1910 (including about 0.5 year invested abroad).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

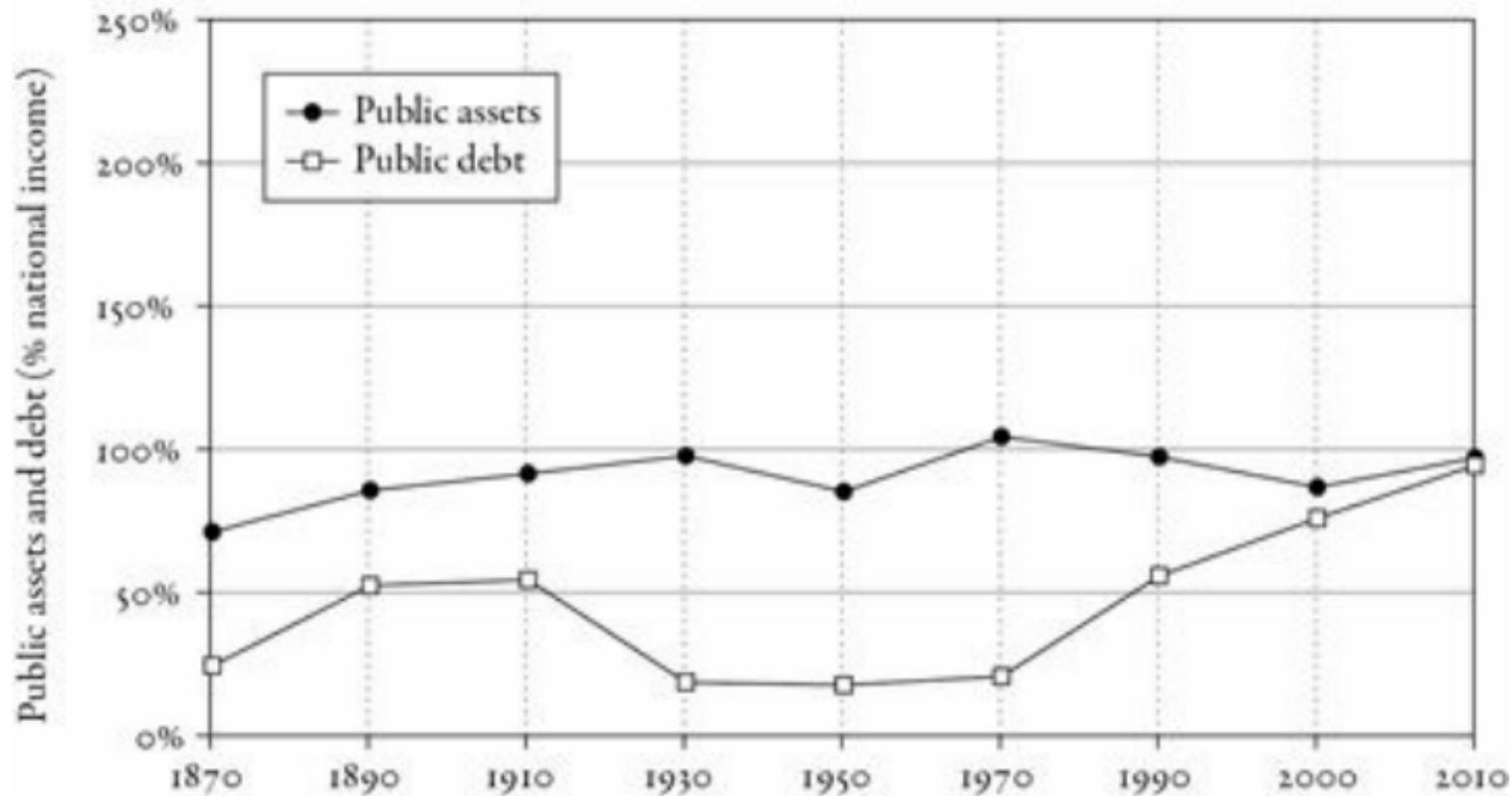


FIGURE 4.2. Public wealth in Germany, 1870–2010

Public debt is worth almost one year of national income in Germany in 2010 (as much as assets).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

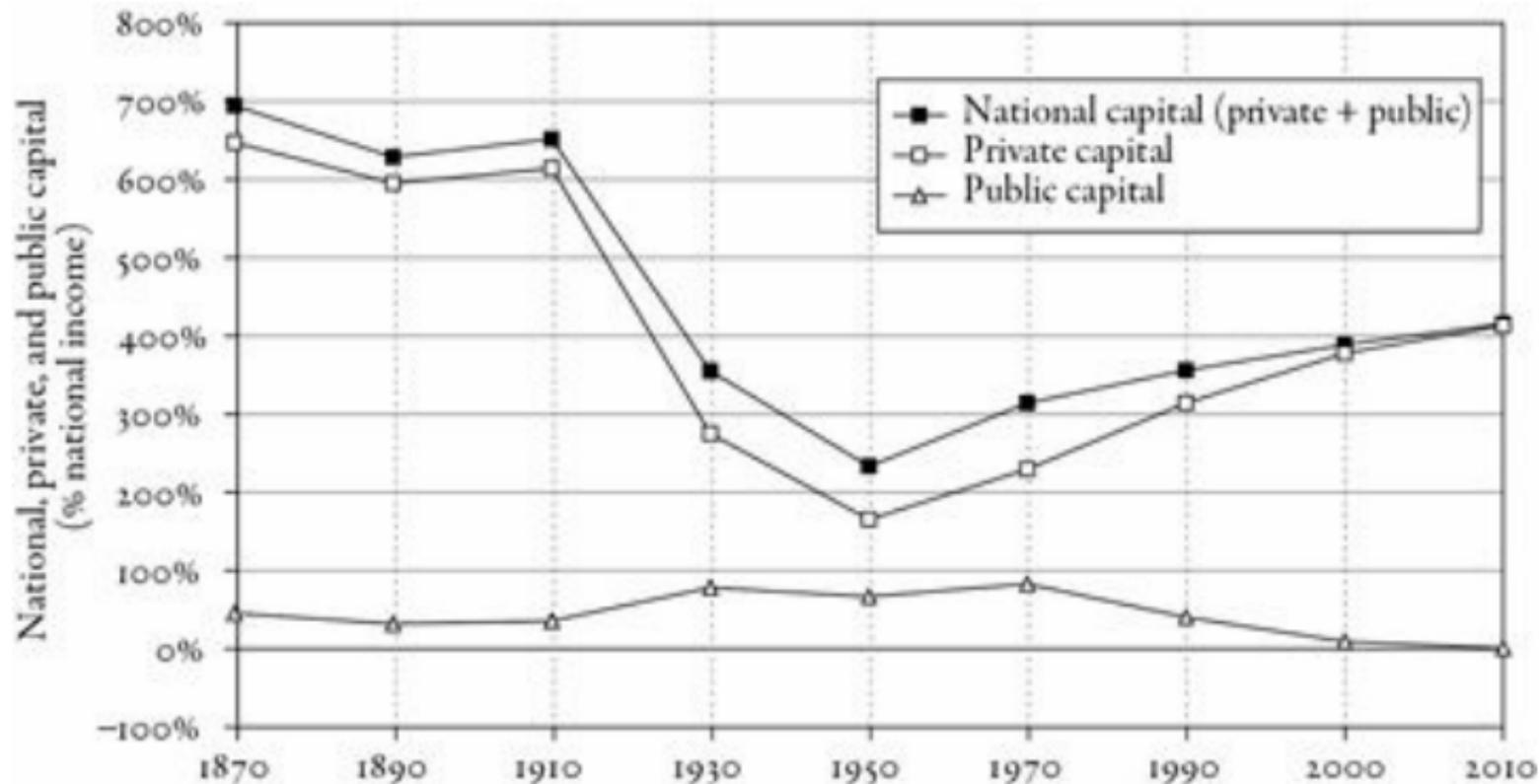


FIGURE 4.3. Private and public capital in Germany, 1870–2010

In 1970, public capital is worth almost one year of national income, versus slightly more than two for private capital.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

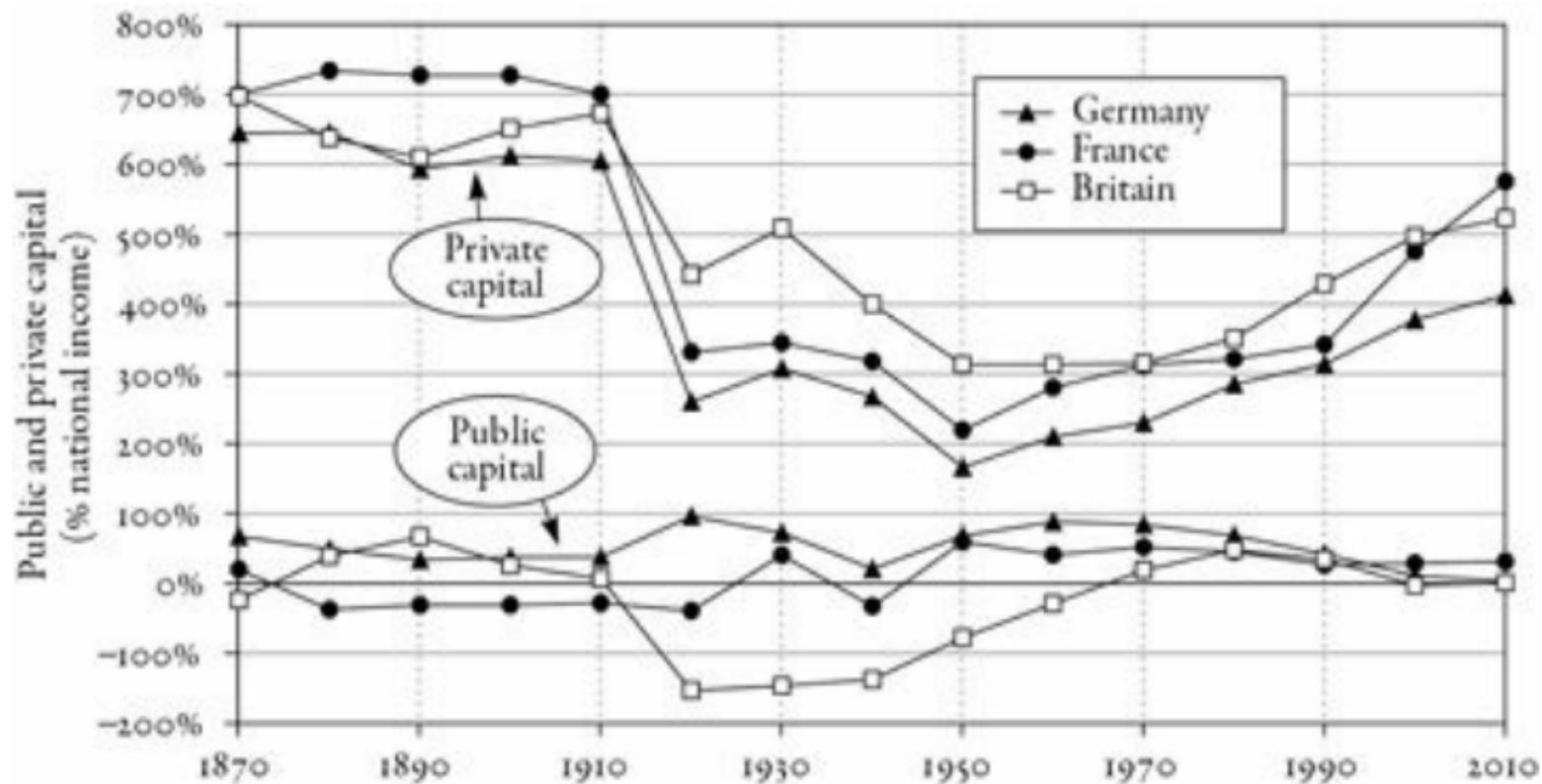


FIGURE 4.4. Private and public capital in Europe, 1870–2010

The fluctuations of national capital in Europe in the long run are mostly due to the fluctuations of private capital.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

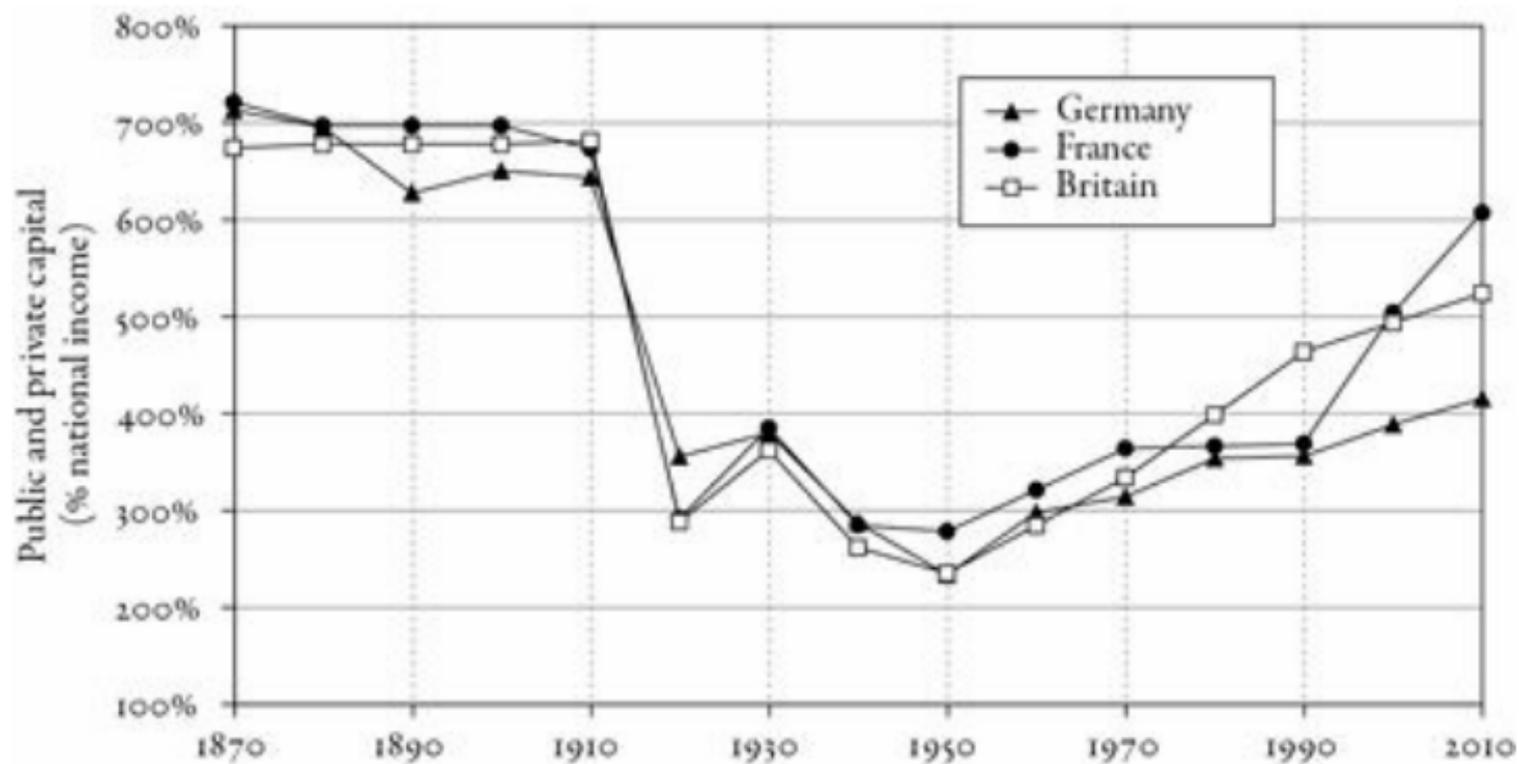


FIGURE 4.5. National capital in Europe, 1870–2010

National capital (sum of public and private capital) is worth between two and three years of national income in Europe in 1950.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

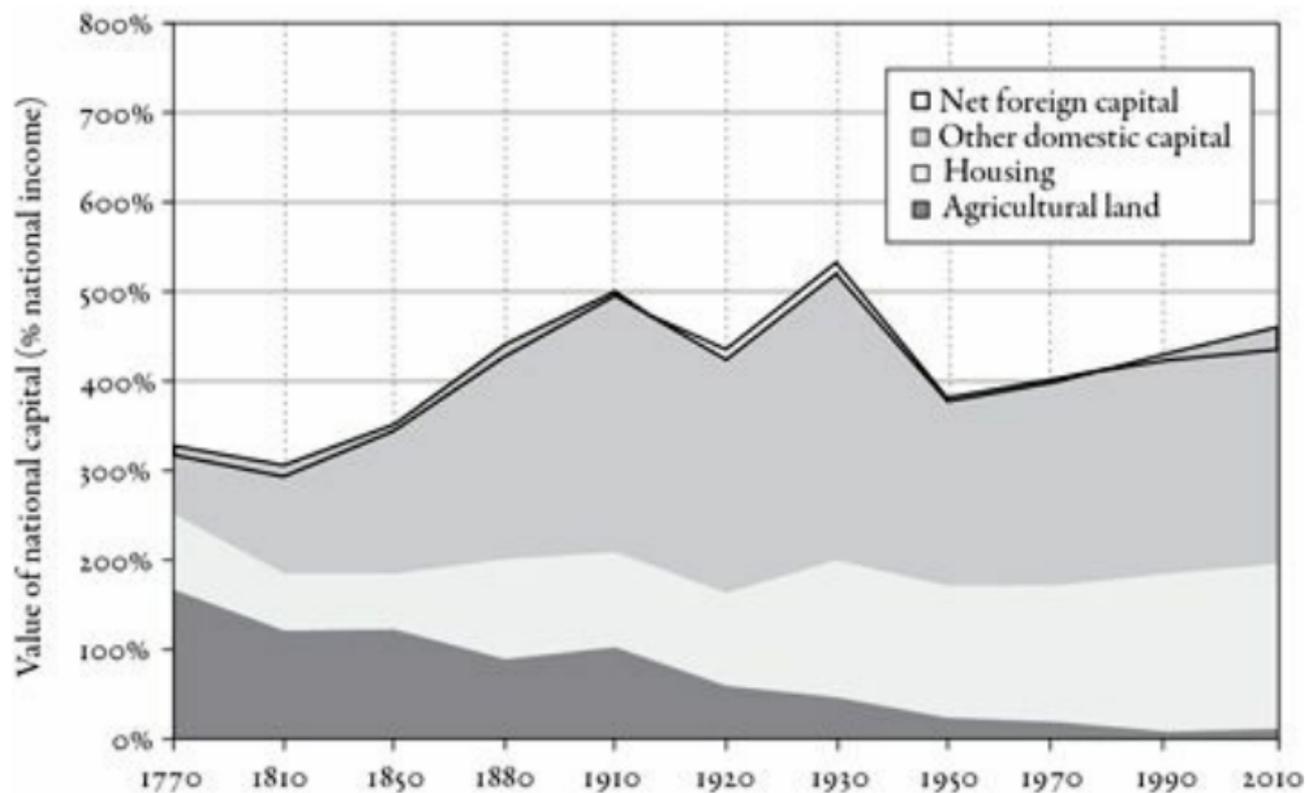


FIGURE 4.6. Capital in the United States, 1770–2010

National capital is worth three years of national income in the United States in 1770 (including 1.5 years in agricultural land).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

income from 1910 to 2010 (see [Figure 4.6](#)), whereas in Europe it dropped from more than seven years to less than three before rebounding to five or six (see [Figures 3.1–2](#)).

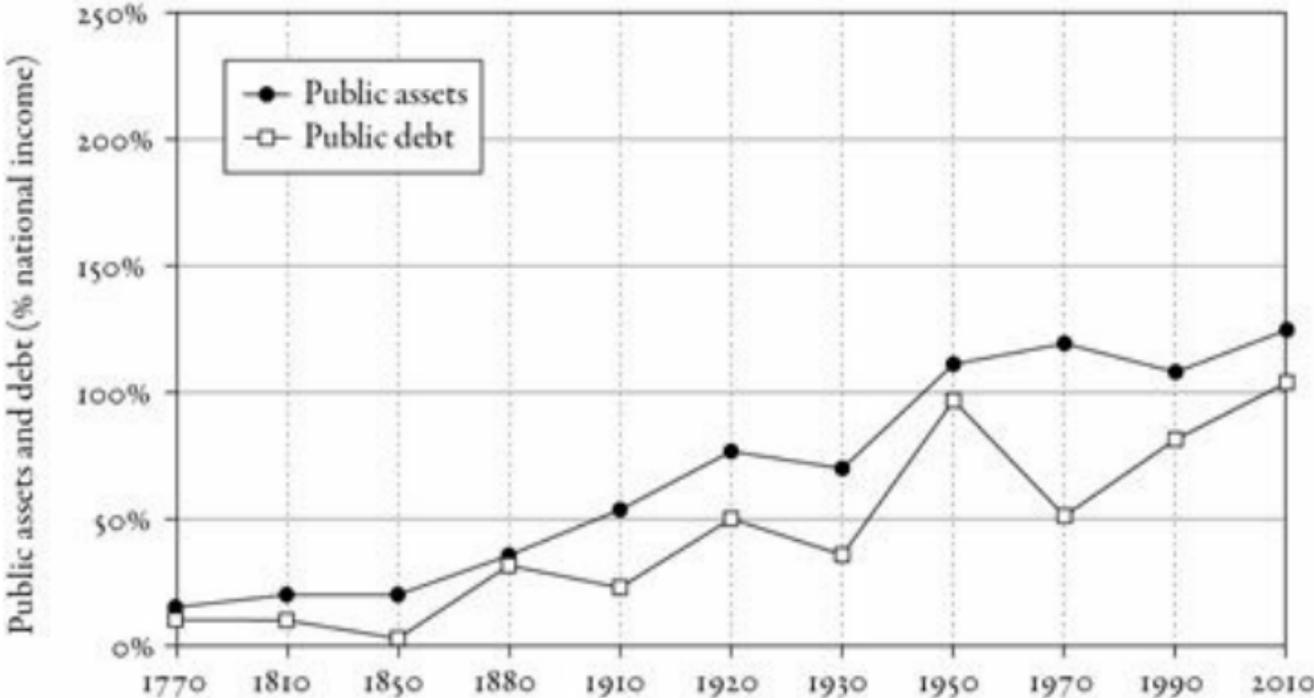


FIGURE 4.7. Public wealth in the United States, 1770–2010

Public debt is worth one year of national income in the United States in 1950 (almost as much as assets).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

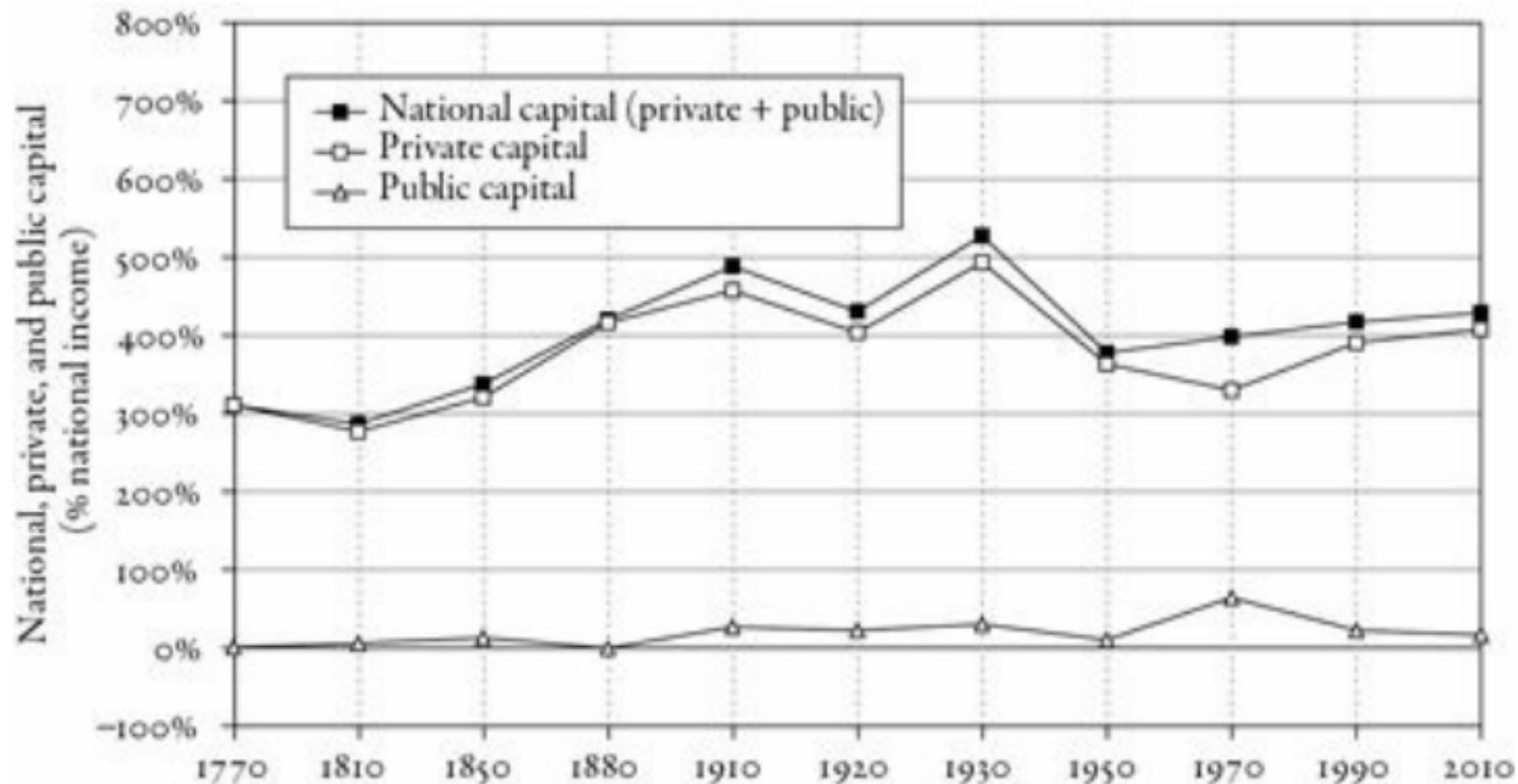


FIGURE 4.8. Private and public capital in the United States, 1770–2010

In 2010, public capital is worth 20 percent of national income, versus over 400 percent for private capital.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

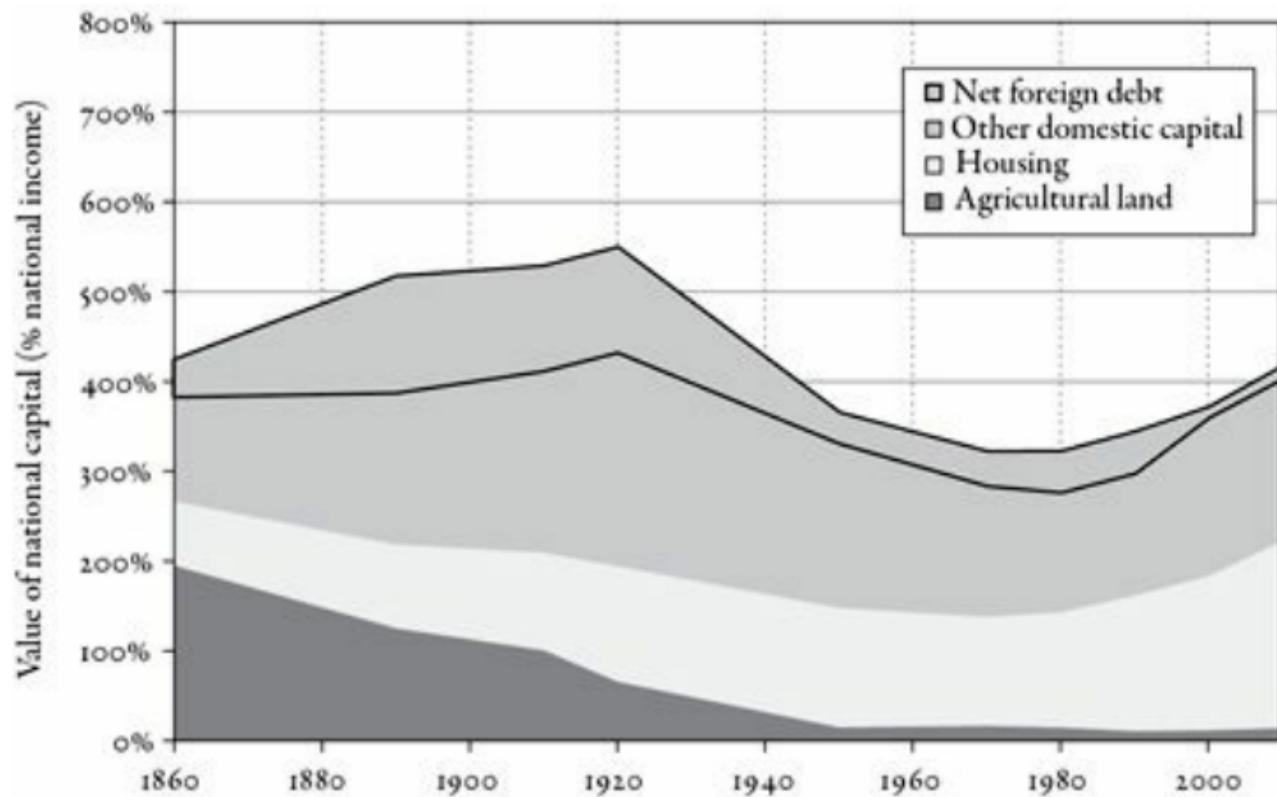


FIGURE 4.9. Capital in Canada, 1860–2010

In Canada, a substantial part of domestic capital has always been held by the rest of the world, so that national capital has always been less than domestic capital.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

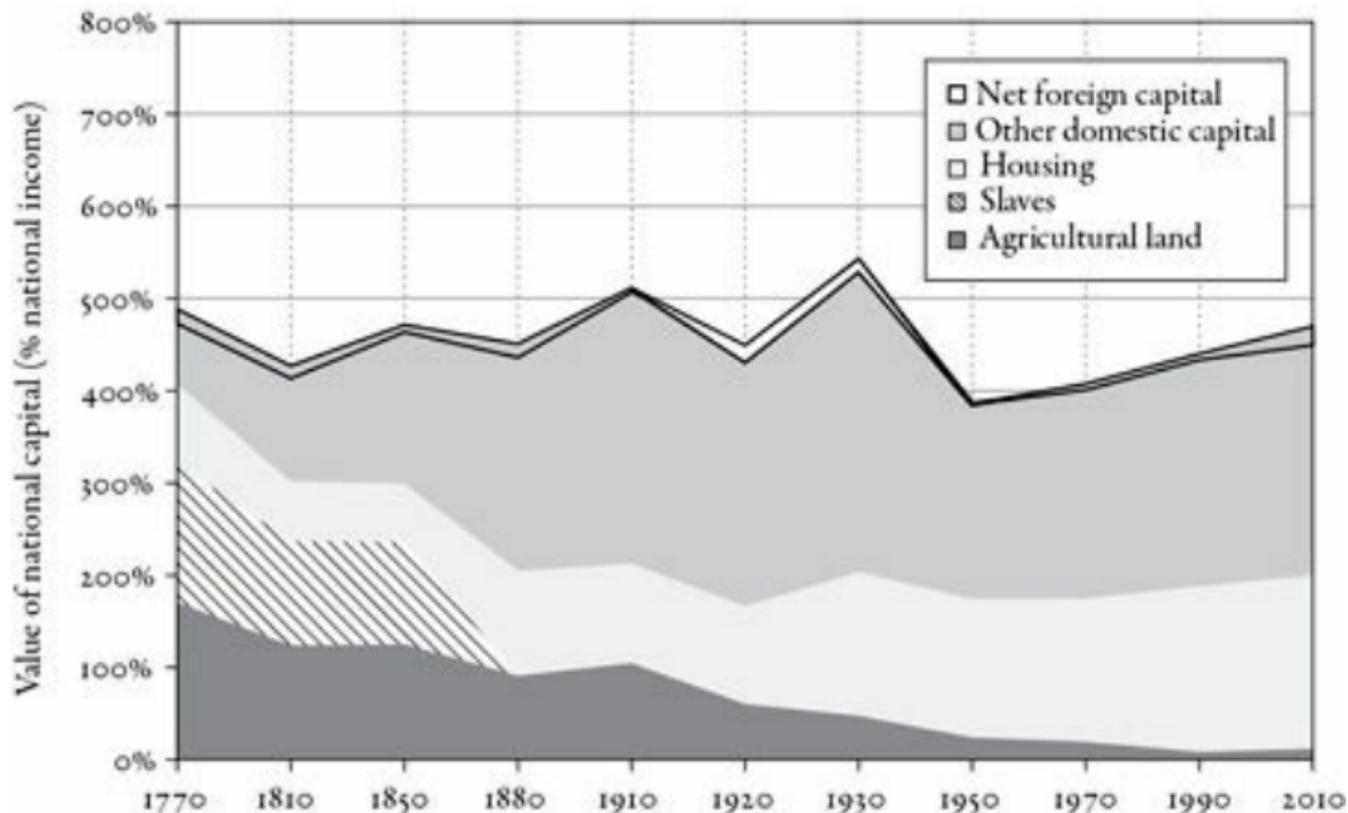


FIGURE 4.10. Capital and slavery in the United States

The market value of slaves was about 1.5 years of US national income around 1770 (as much as land).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

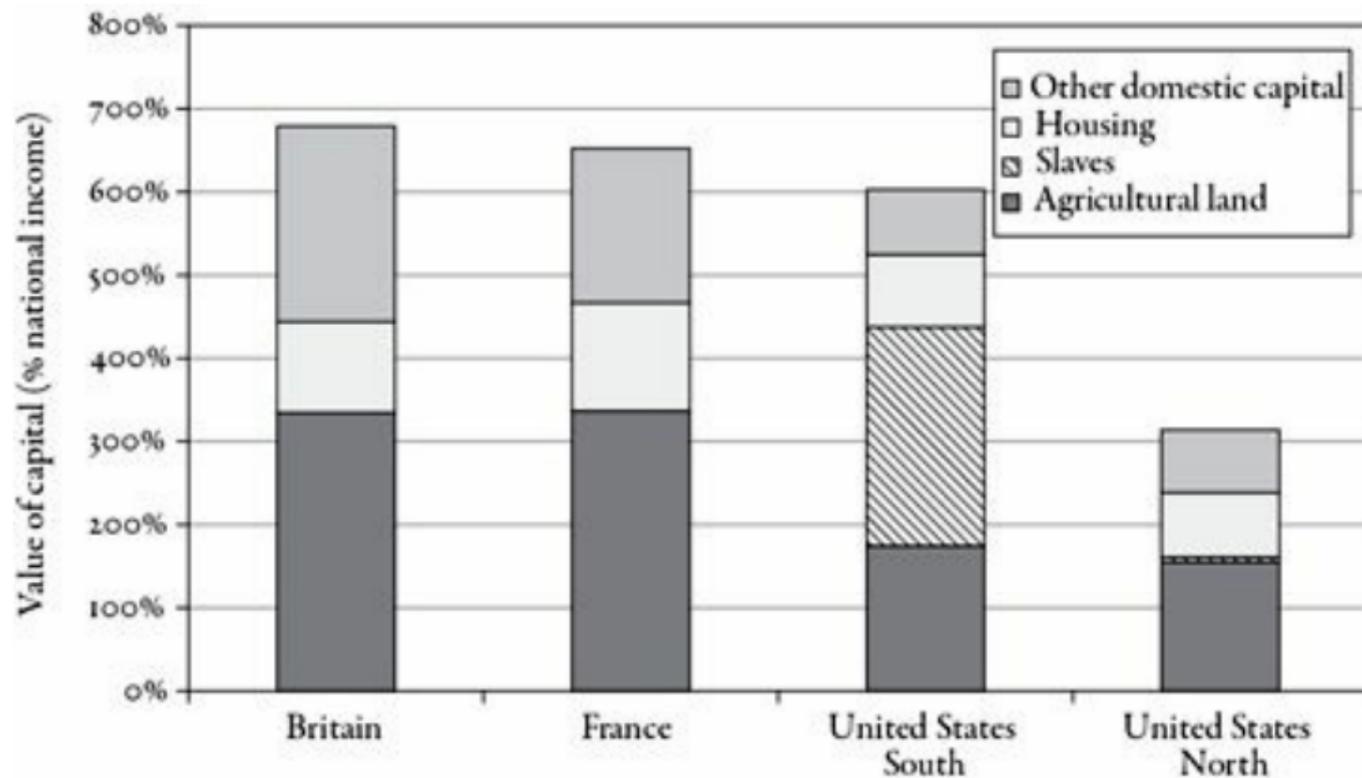


FIGURE 4.11. Capital around 1770–1810: Old and New World

The combined value of agricultural land and slaves in the Southern United States surpassed four years of national income around 1770–1810.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

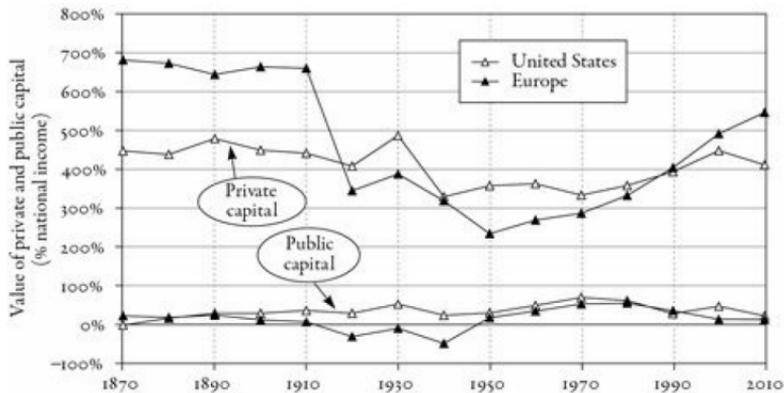


FIGURE 5.1. Private and public capital: Europe and America, 1870–2010

The fluctuations of national capital in the long run correspond mostly to the fluctuations of private capital (both in Europe and in the United States).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

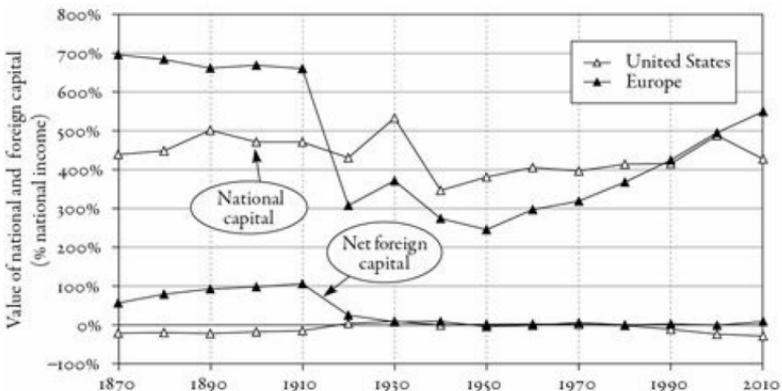


FIGURE 5.2. National capital in Europe and America, 1870–2010

National capital (public and private) is worth 6.5 years of national income in Europe in 1910, versus 4.5 years in America.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

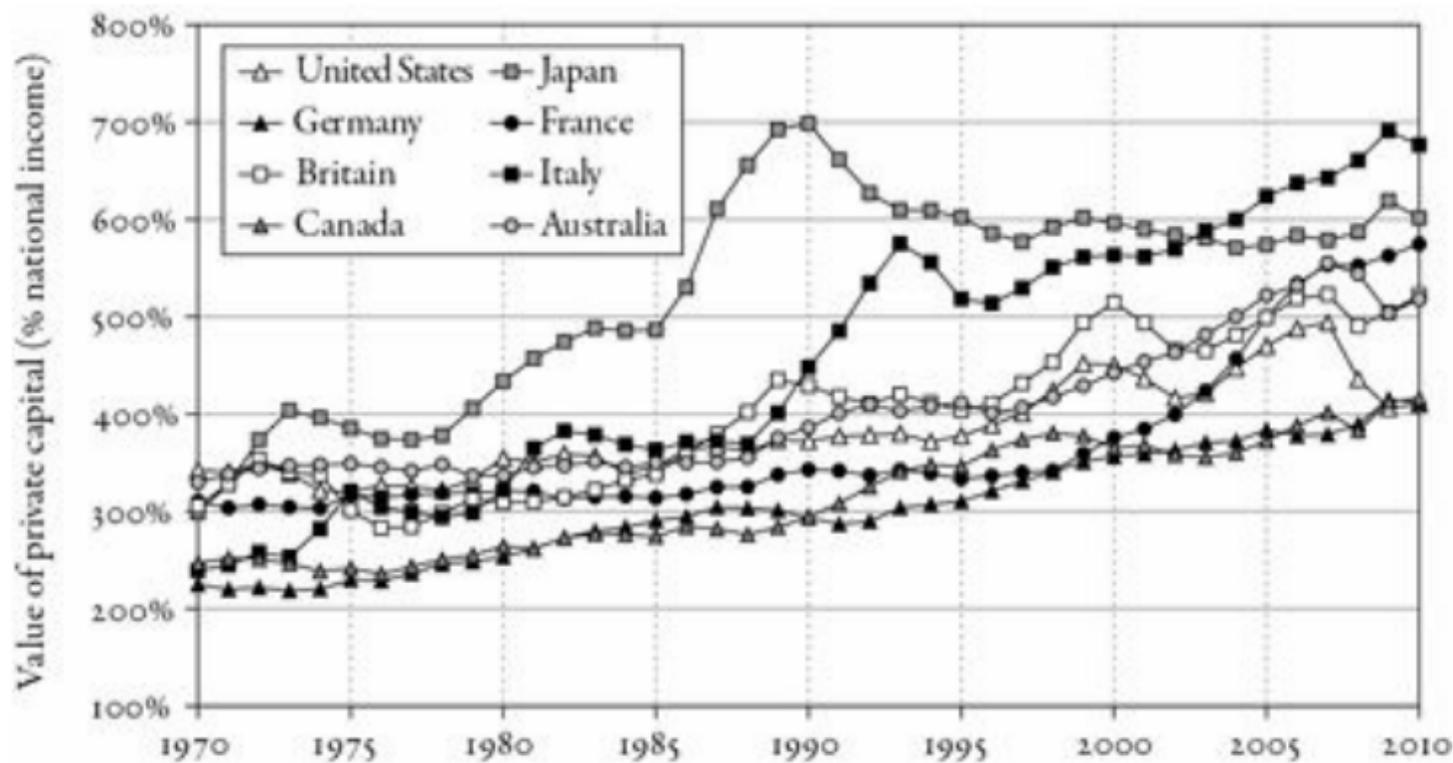


FIGURE 5.3. Private capital in rich countries, 1970–2010

Private capital is worth between two and 3.5 years of national income in rich countries in 1970, and between four and seven years of national income in 2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 5.1.

*Growth rates and saving rates in rich countries, 1970–2010*

Country	Growth rate of national income (%)	Growth rate of population (%)	Growth rate of per capita national income (%)	Private saving (net of depreciation) (% national income)
United States	2.8	1.0	1.8	7.7
Japan	2.5	0.5	2.0	14.6
Germany	2.0	0.2	1.8	12.2
France	2.2	0.5	1.7	11.1
Britain	2.2	0.3	1.9	7.3
Italy	1.9	0.3	1.6	15.0
Canada	2.8	1.1	1.7	12.1
Australia	3.2	1.4	1.7	9.9

*Note:* Saving rates and demographic growth vary a lot within rich countries; growth rates of per capita national income vary much less.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 5.2.

*Private saving in rich countries, 1970–2010*

Country	Private saving (net of depreciation) (% national income)	Incl. household net saving (%)	Incl. corporate net saving (net retained earnings) (%)
United States	7.7	4.6	3.1
Japan	14.6	6.8	7.8
Germany	12.2	9.4	2.8
France	11.1	9.0	2.1
Britain	7.4	2.8	4.6
Italy	15.0	14.6	0.4
Canada	12.1	7.2	4.9
Australia	9.9	5.9	3.9

*Note:* A large part (variable across countries) of private saving comes from corporate retained earnings (undistributed profits).

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 5.3.

*Gross and net saving in rich countries, 1970–2010*

Country	Gross private savings (% national income)	Minus: Capital depreciation (%)	Equals: Net private saving (%)
United States	18.8	11.1	7.7
Japan	33.4	18.9	14.6
Germany	28.5	16.2	12.2
France	22.0	10.9	11.1
Britain	19.7	12.3	7.3
Italy	30.1	15.1	15.0
Canada	24.5	12.4	12.1
Australia	25.1	15.2	9.9

*Note:* A large part of gross saving (generally about half) corresponds to capital depreciation; i.e., it is used solely to repair or replace used capital.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

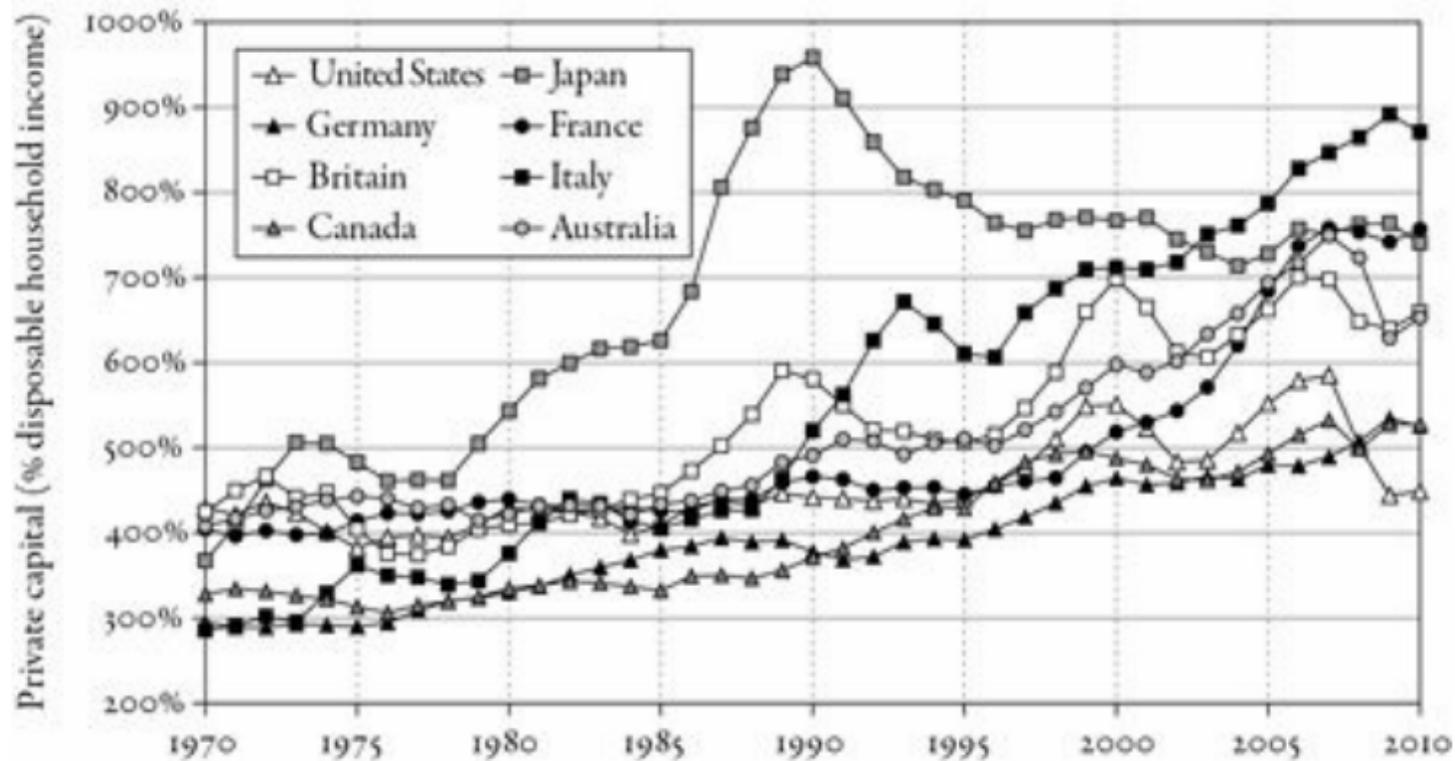


FIGURE 5.4. Private capital measured in years of disposable income

Expressed in years of household disposable income (about 70–80 percent of national income), the capital/income ratio appears to be larger than when it is expressed in years of national income.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

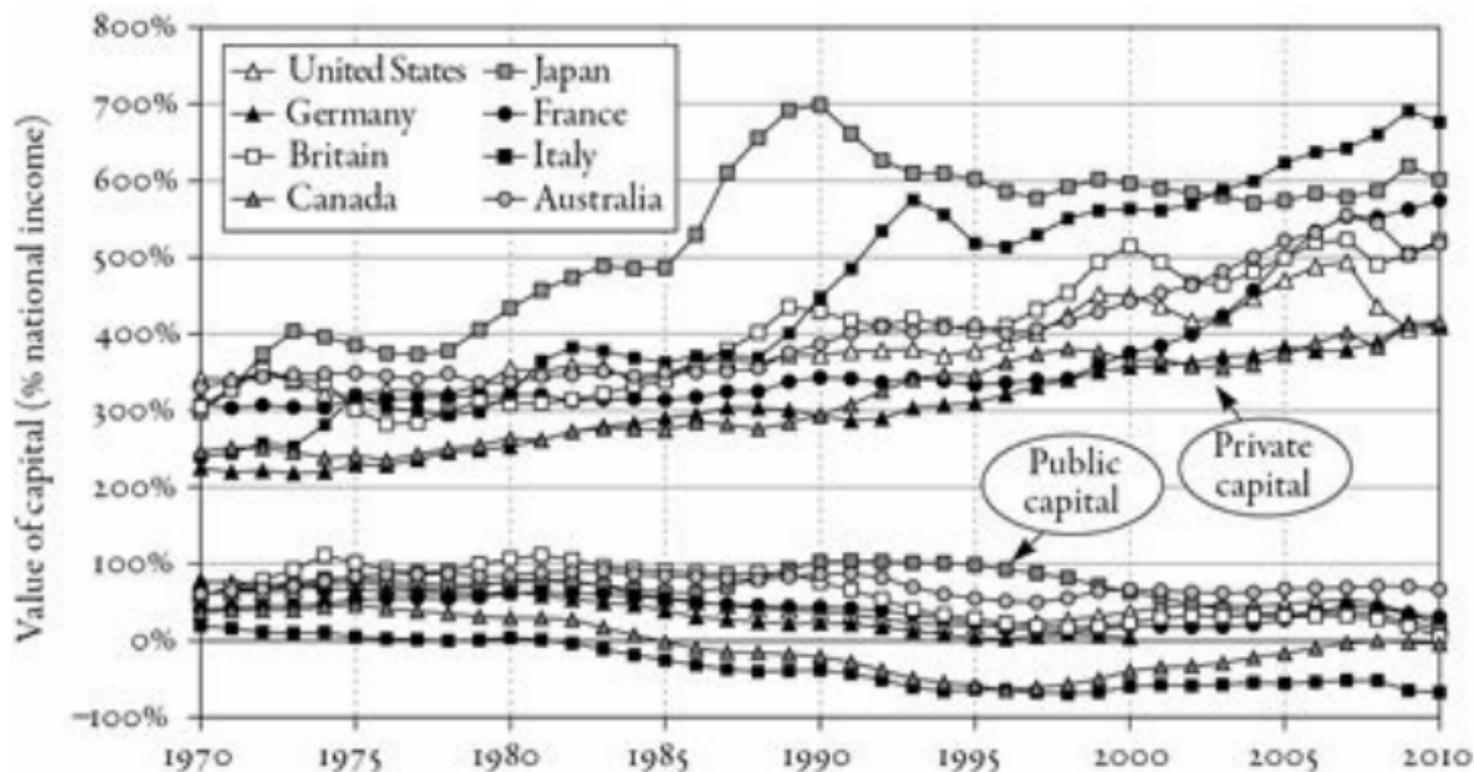


FIGURE 5.5. Private and public capital in rich countries, 1970–2010

In Italy, private capital rose from 240 percent to 680 percent of national income between 1970 and 2010, while public capital dropped from 20 percent to -70 percent.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 5.4.

*Private and public saving in rich countries, 1970–2010*

Country	National saving (private + public) (net of depreciation) (% national income)	Private saving (%)	Public saving (%)
United States	5.2	7.6	-2.4
Japan	14.6	14.5	0.1
Germany	10.2	12.2	-2.0
France	9.2	11.1	-1.9
Britain	5.3	7.3	-2.0
Italy	8.5	15.0	-6.5
Canada	10.1	12.1	-2.0
Australia	8.9	9.8	-0.9

*Note:* A large part (variable across countries) of private saving is absorbed by public deficits, so that national saving (private + public) is less than private saving.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

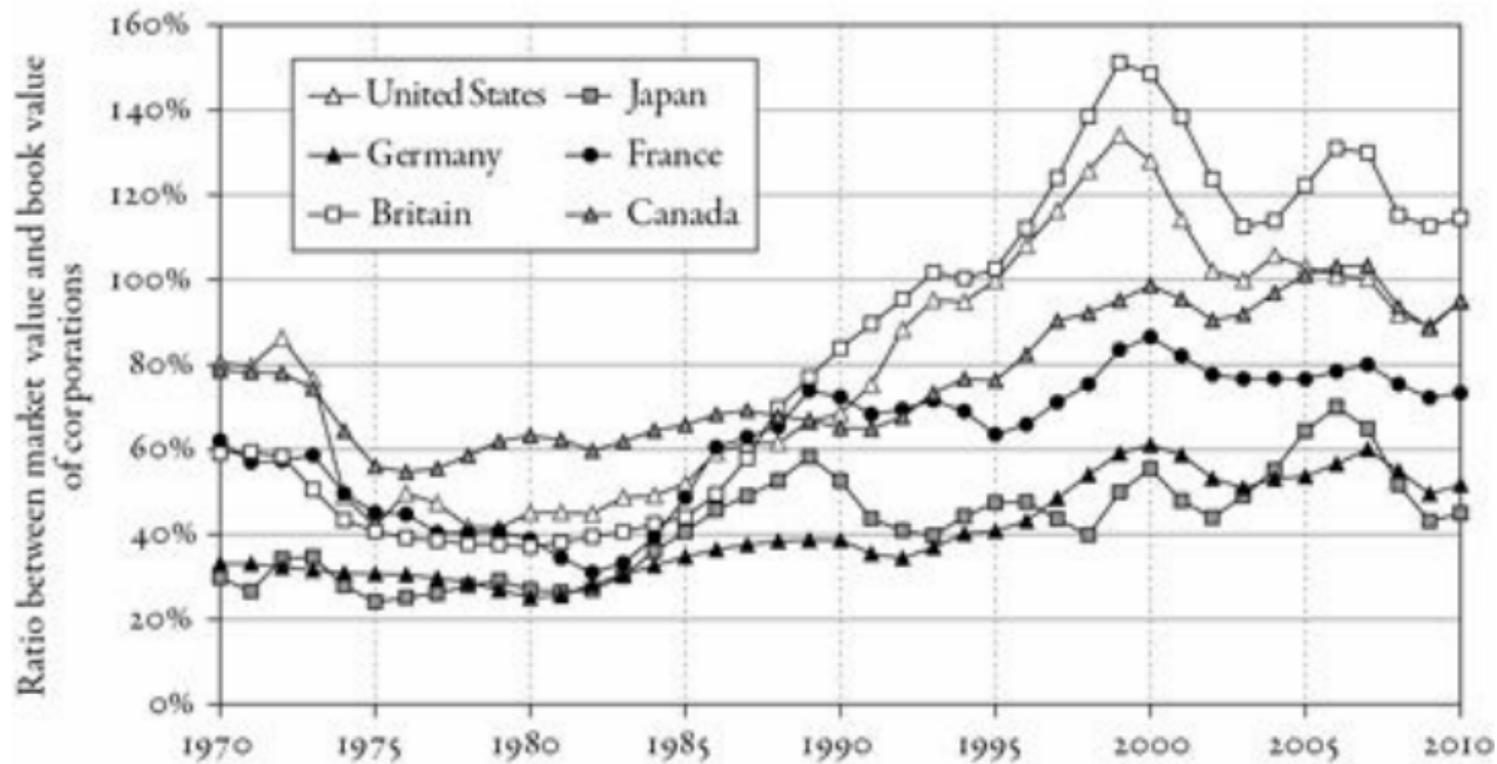


FIGURE 5.6. Market value and book value of corporations

Tobin's Q (i.e. the ratio between market value and book value of corporations) has risen in rich countries since the 1970s–1980s.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

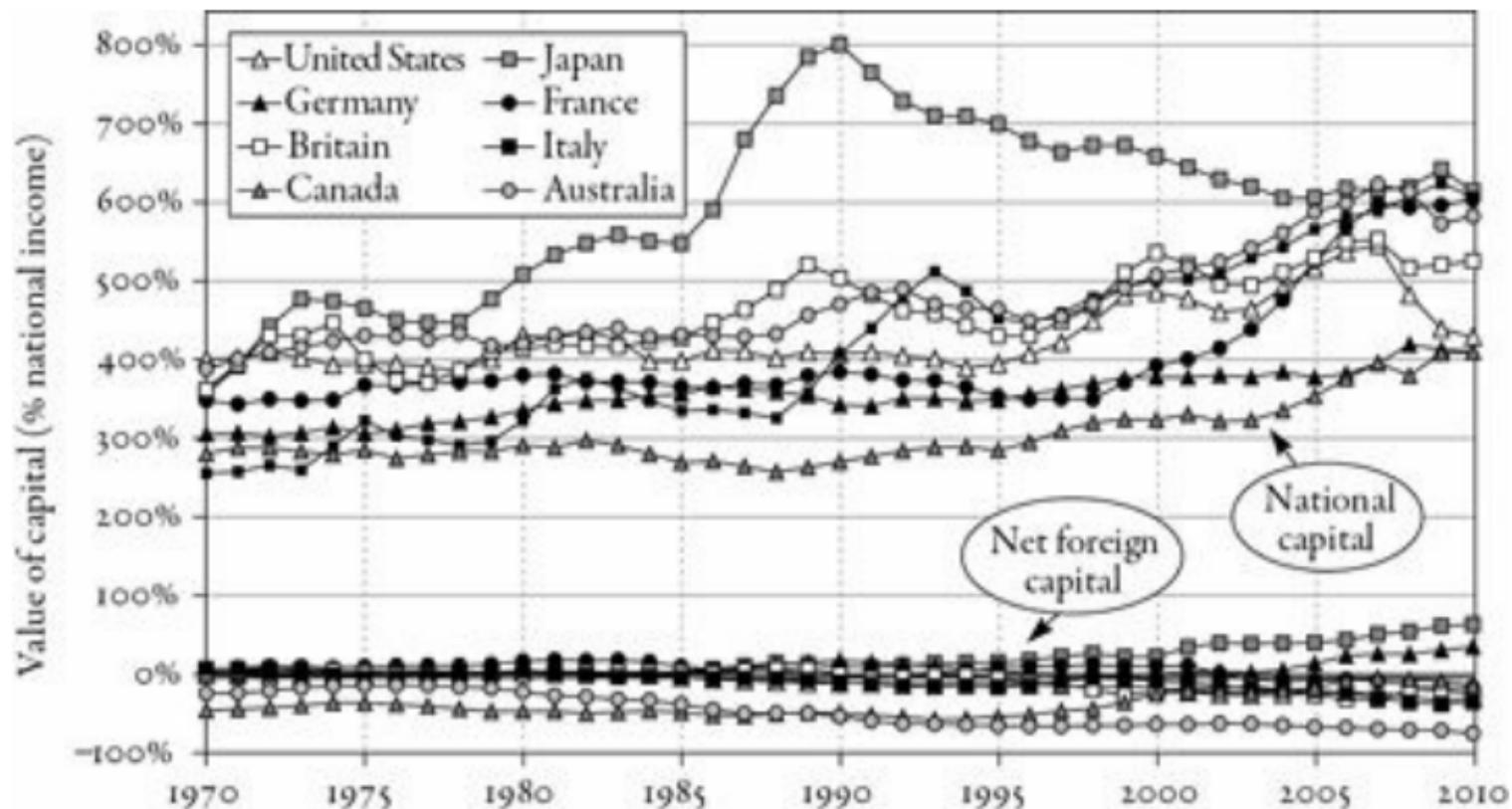


FIGURE 5.7. National capital in rich countries, 1970–2010

Net foreign assets held by Japan and Germany are worth between 0.5 and one year of national income in 2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

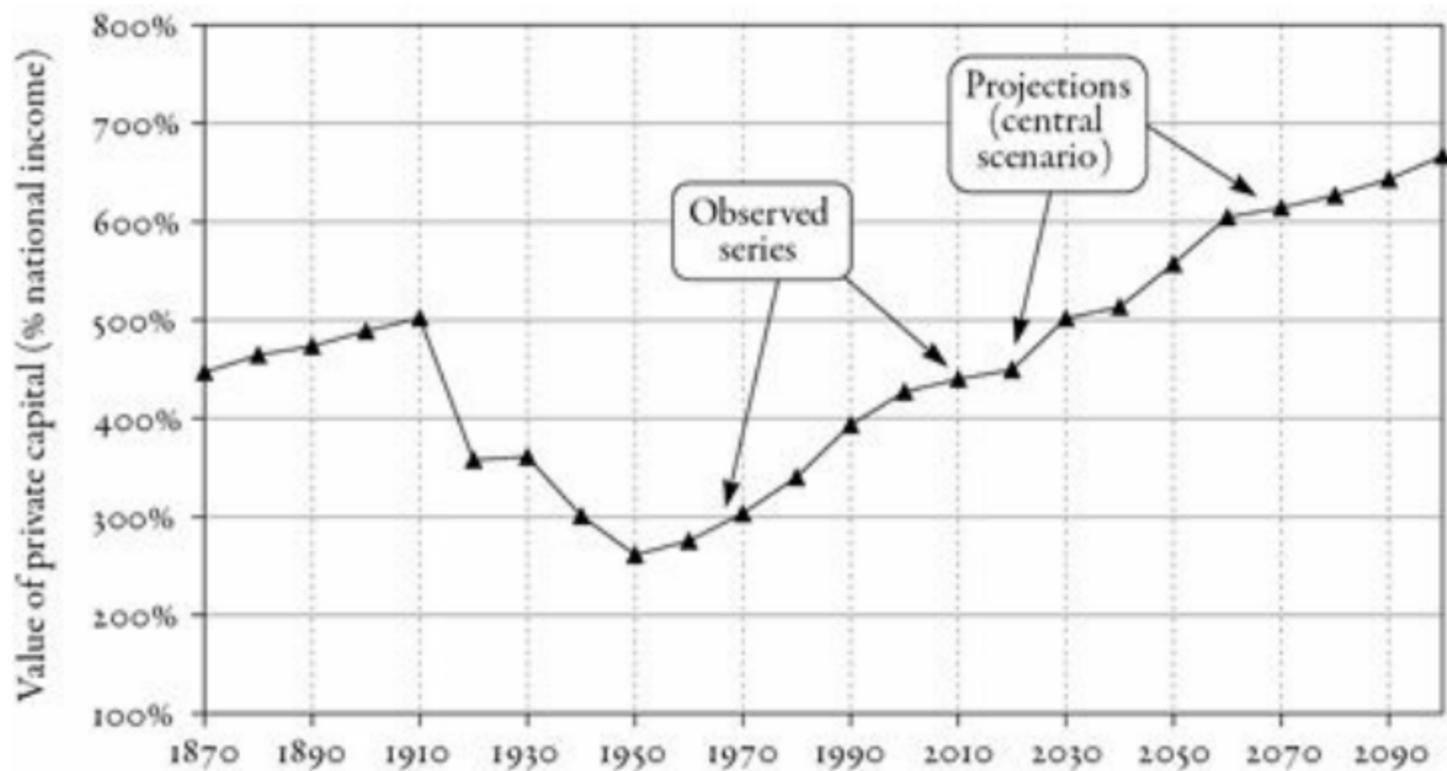


FIGURE 5.8. The world capital/income ratio, 1870–2100

According to simulations (central scenario), the world capital/income ratio could be close to 700 percent by the end of the twenty-first century.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

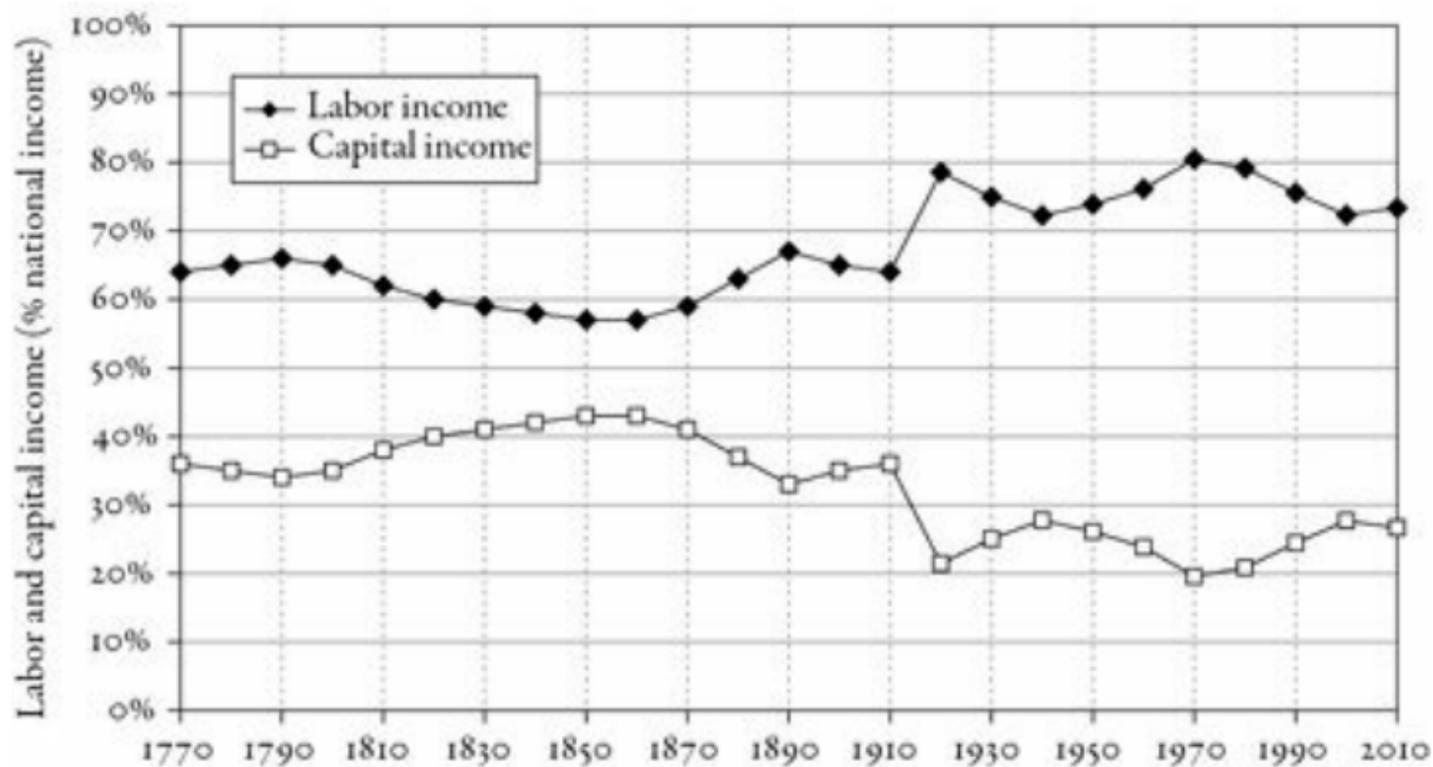


FIGURE 6.1. The capital-labor split in Britain, 1770–2010

During the nineteenth century, capital income (rent, profits, dividends, interest ...) absorbed about 40 percent of national income versus 60 percent for labor income (including both wage and non-wage income).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

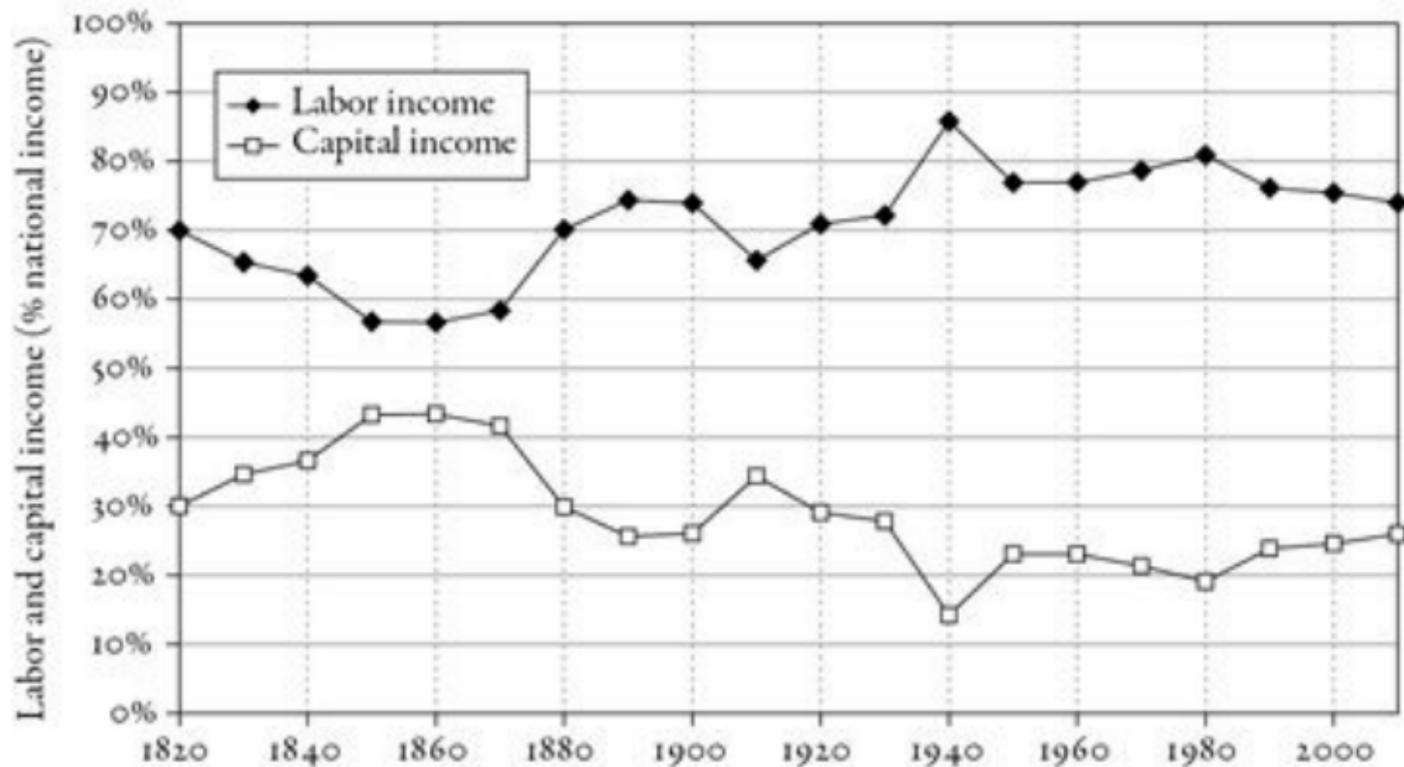


FIGURE 6.2. The capital-labor split in France, 1820–2010

In the twenty-first century, capital income (rent, profits, dividends, interest ...) absorbs about 30 percent of national income versus 70 percent for labor income (including both wage and non-wage income).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).



FIGURE 6.3. The pure rate of return on capital in Britain, 1770–2010

The pure rate of return to capital is roughly stable around 4–5 percent in the long run.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

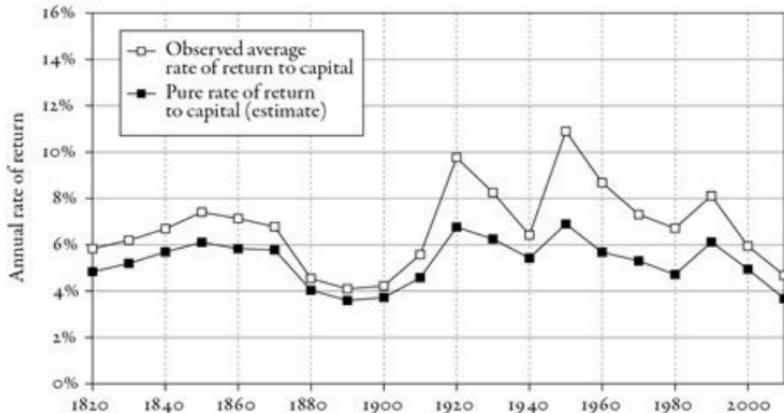


FIGURE 6.4. The pure rate of return on capital in France, 1820–2010

The observed average rate of return displays larger fluctuations than the pure rate of return during the twentieth century.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

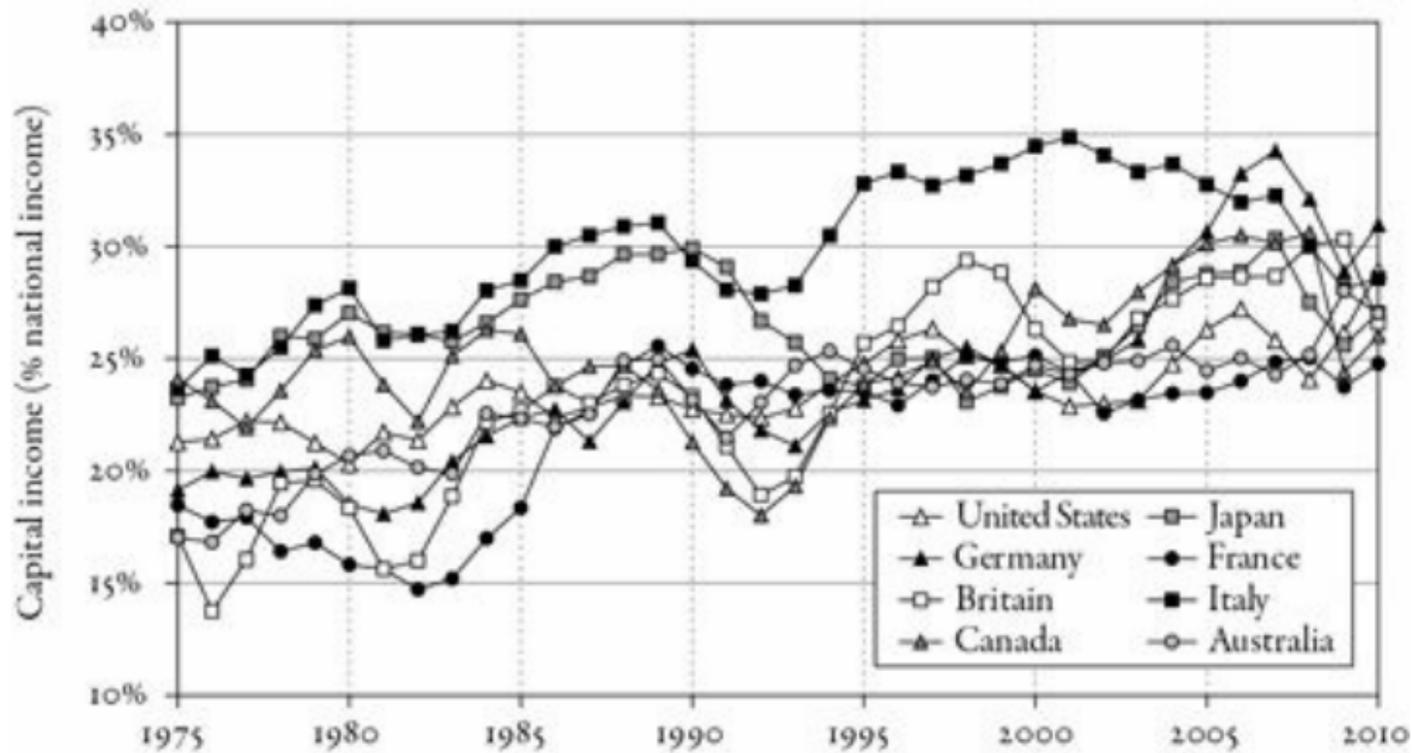


FIGURE 6.5. The capital share in rich countries, 1975–2010

Capital income absorbs between 15 percent and 25 percent of national income in rich countries in 1970, and between 25 percent and 30 percent in 2000–2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c)

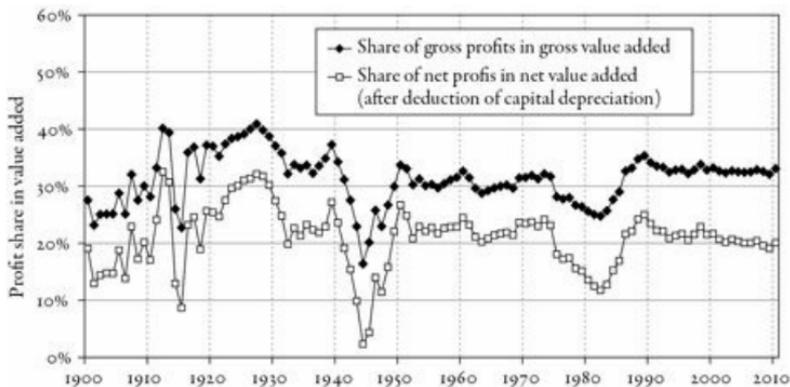


FIGURE 6.6. The profit share in the value added of corporations in France, 1900–2010

The share of gross profits in gross value added of corporations rose from 25 percent in 1982 to 33 percent in 2010; the share of net profits in net value added rose from 12 percent to 20 percent.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).



FIGURE 6.7. The share of housing rent in national income in France, 1900–2010

The share of housing rent (rental value of dwellings) rose from 2 percent of national income in 1948 to 10 percent in 2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).



FIGURE 6.8. The capital share in national income in France, 1900–2010

The share of capital income (net profits and rents) rose from 15 percent of national income in 1982 to 27 percent in 2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 7.1.  
*Inequality of labor income across time and space*

Share of different groups in total labor income	Low inequality (= Scandinavia, 1970s–1980s)	Medium inequality (= Europe 2010)	High inequality (= US 2010)	Very high inequality (= US 2030?)
The top 10% (“upper class”)	20%	25%	35%	45%
Including the top 1% (“dominant class”)	5%	7%	12%	17%
Including the next 9% (“well-to-do class”)	15%	18%	23%	28%
The middle 40% (“middle class”)	45%	45%	40%	35%
The bottom 50% (“lower class”)	35%	30%	25%	20%
Corresponding Gini coefficient (synthetic inequality index)	0.19	0.26	0.36	0.46

*Note:* In societies where labor income inequality is relatively low (such as in Scandinavian countries in the 1970s–1980s), the top 10% most well paid receive about 20% of total labor income; the bottom 50% least well paid about 35%; the middle 40% about 45%. The corresponding Gini index (a synthetic inequality index with values from 0 to 1) is equal to 0.19. See the online technical appendix.

TABLE 7.2.  
*Inequality of capital ownership across time and space*

Share of different groups in total capital	Low inequality (never observed; ideal society?)	Medium inequality (= Scandinavia, 1970s–1980s)	Medium–high inequality (= Europe 2010)	High inequality (= US 2010)	Very high inequality (= Europe 1910)
The top 10% “upper class”	30%	50%	60%	70%	90%
Including the top 1% (“dominant class”)	10%	20%	25%	35%	50%
Including the next 9% (“well- to-do class”)	20%	30%	35%	35%	40%
The middle 40% (“middle class”)	45%	40%	35%	25%	5%
The bottom 50% (“lower class”)	25%	10%	5%	5%	5%
Corresponding Gini coefficient (synthetic inequality index)	0.33	0.58	0.67	0.73	0.85

*Note:* In societies with “medium” inequality of capital ownership (such as Scandinavian countries in the 1970s–1980s), the top 10% richest in wealth own about 50% of aggregate wealth; the bottom 50% poorest about 10%; and the middle 40% about 40%. The corresponding Gini coefficient is equal to 0.58. See the online technical appendix.

TABLE 7.3.

*Inequality of total income (labor and capital) across time and space*

Share of different groups in total income (labor + capital)	Low inequality ( $\approx$ Scandinavia, 1970s–1980s)	Medium inequality ( $\approx$ Europe 2010)	High inequality ( $\approx$ US 2010, Europe 1910)	Very high inequality ( $\approx$ US 2030?)
The top 10% (“upper class”)	25%	35%	50%	60%
Including the top 1% (“dominant class”)	7%	10%	20%	25%
Including the next 9% (“well- to-do class”)	18%	25%	30%	35%
The middle 40% (“middle class”)	45%	40%	30%	25%
The bottom 50% (“lower class”)	30%	25%	20%	15%
Corresponding Gini coefficient (synthetic inequality index)	0.26	0.36	0.49	0.58

*Note:* In societies where the inequality of total income is relatively low (such as Scandinavian countries during the 1970s–1980s), the 10% highest incomes receive about 20% of total income; the 50% lowest incomes receive about 30%. The corresponding Gini coefficient is equal to 0.26. See the online technical appendix.

Figure 8.1 depicts the upper decile's share of both national income and wages over time. Three facts stand out.

First, income inequality has greatly diminished in France since the Belle Époque: the upper decile's share of national income decreased from 45–50 percent on the eve of World War I to 30–35 percent today.



FIGURE 8.1. Income inequality in France, 1910–2010

Inequality of total income (labor and capital) has dropped in France during the twentieth century, while wage inequality has remained the same.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).



FIGURE 8.2. The fall of rentiers in France, 1910–2010

The fall in the top percentile share (the top 1 percent highest incomes) in France between 1914 and 1945 is due to the fall of top capital incomes.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

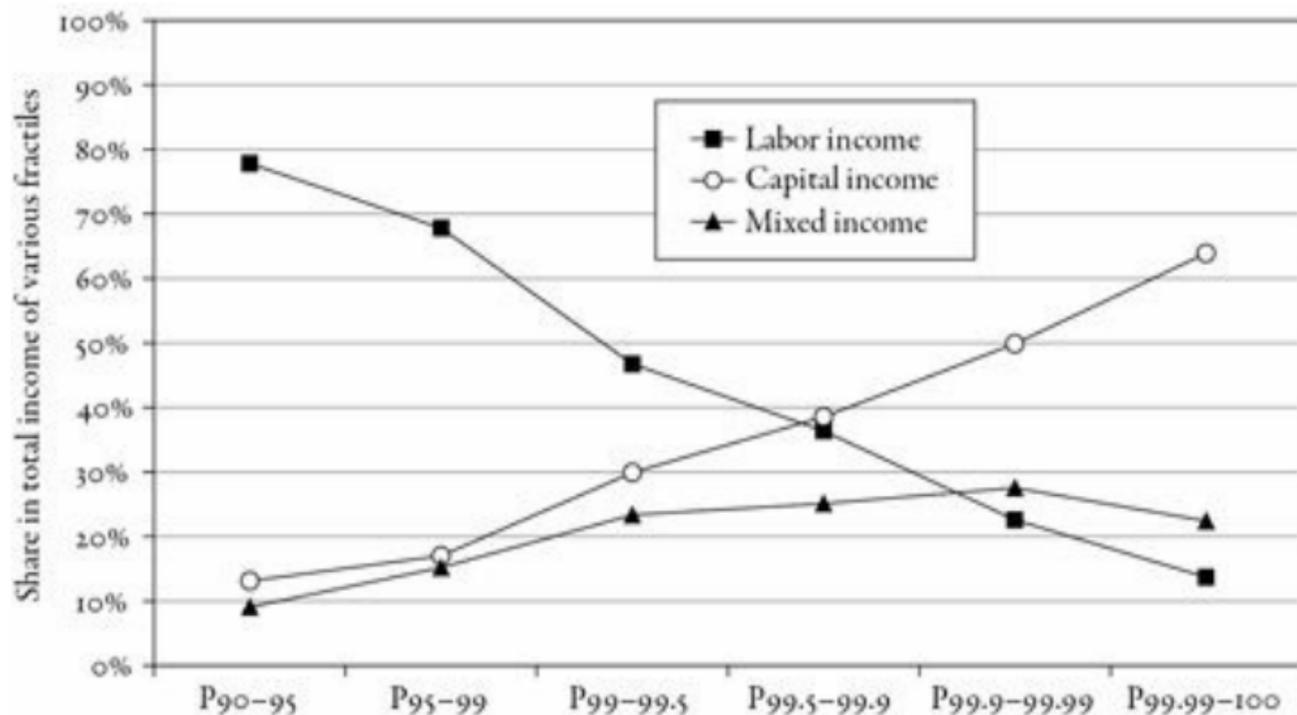


FIGURE 8.3. The composition of top incomes in France in 1932

Labor income becomes less and less important as one goes up within the top decile of total income. Notes: (i) “P90–95” includes individuals between percentiles 90 to 95, “P95–99” includes the next 4 percent, “P99–99.5” the next 0.5 percent, etc.; (ii) Labor income: wages, bonuses, pensions. Capital income: dividends, interest, rent. Mixed income: self-employment income.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

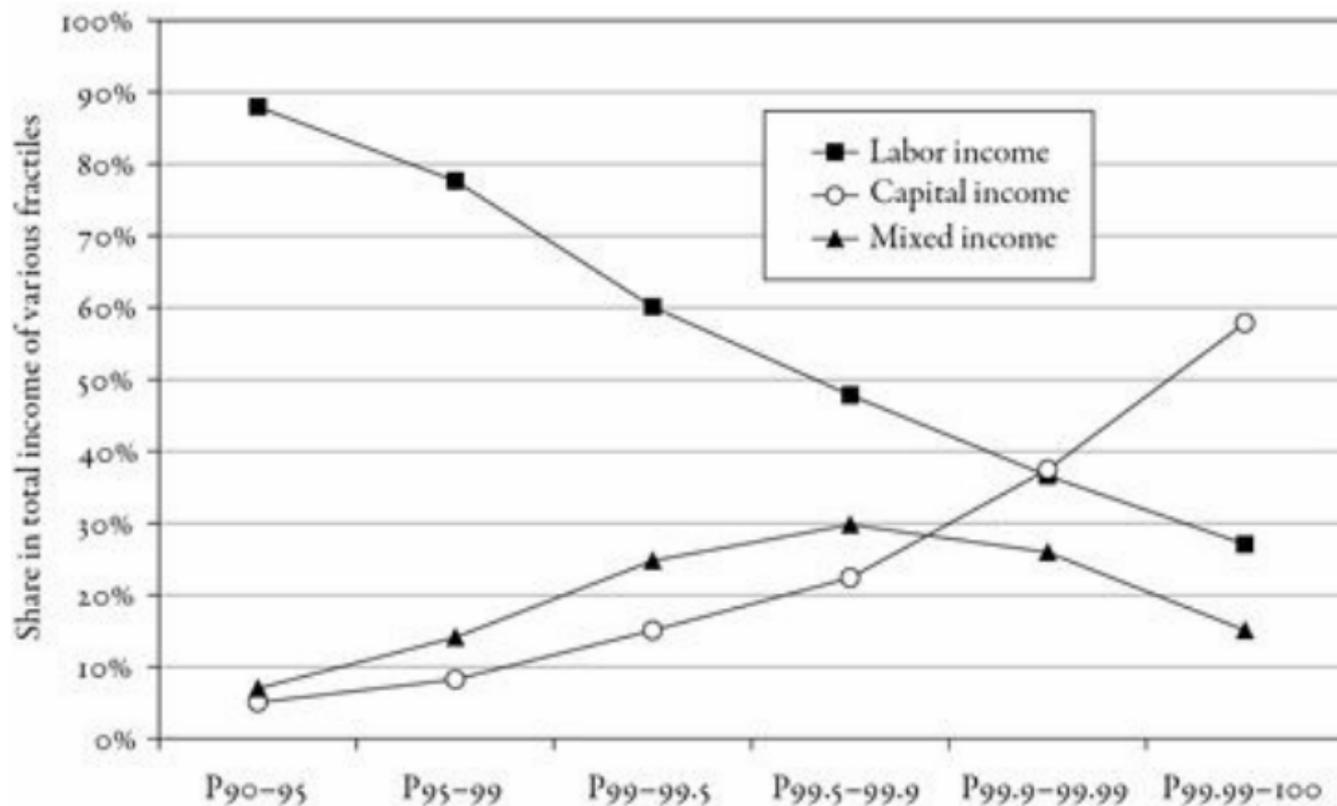


FIGURE 8.4. The composition of top incomes in France in 2005

Capital income becomes dominant at the level of the top 0.1 percent in France in 2005, as opposed to the top 0.5 percent in 1932.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

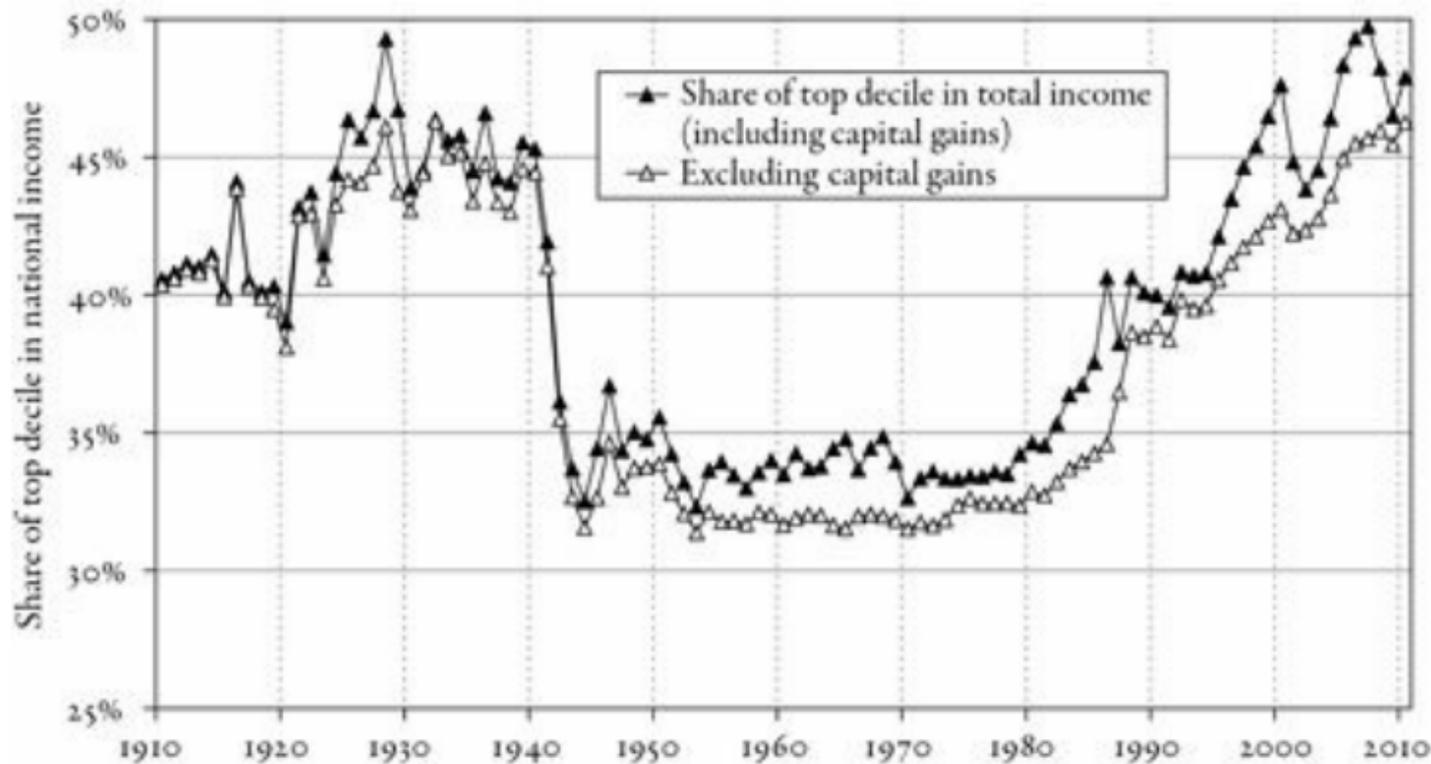


FIGURE 8.5. Income inequality in the United States, 1910–2010

The top decile income share rose from less than 35 percent of total income in the 1970s to almost 50 percent in the 2000s–2010s.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

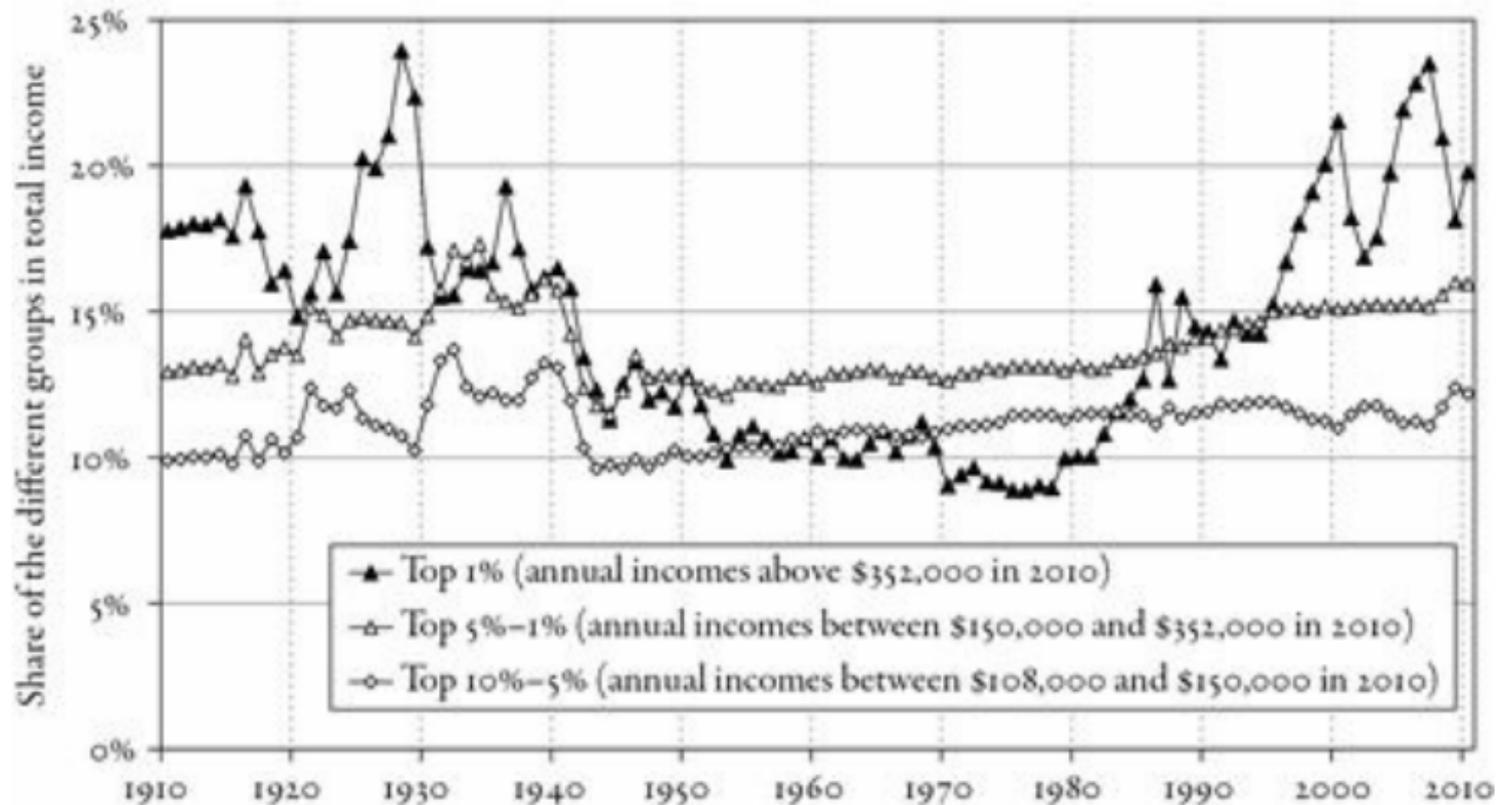


FIGURE 8.6. Decomposition of the top decile, United States, 1910–2010

The rise of the top decile income share since the 1970s is mostly due to the top percentile.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

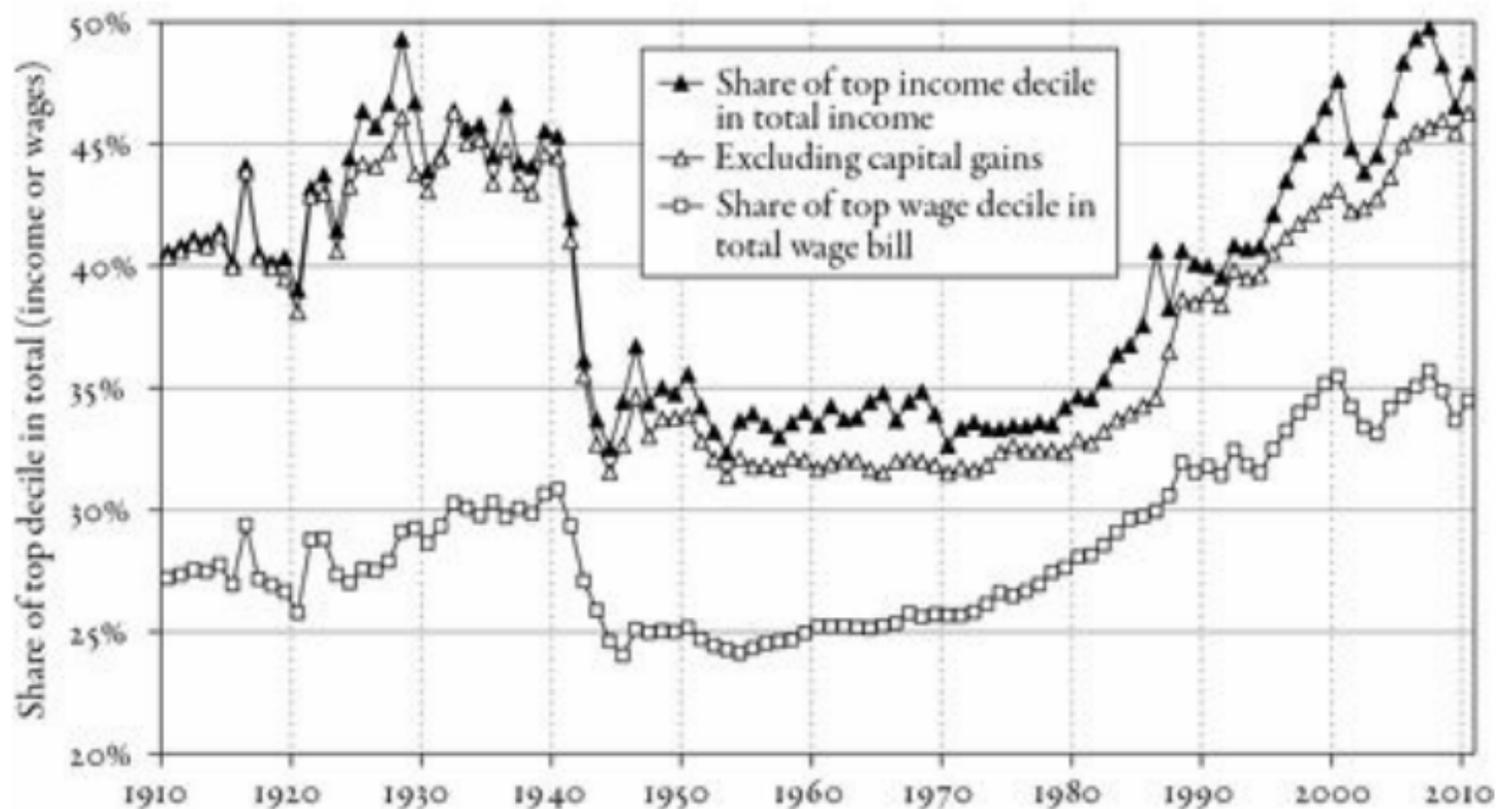


FIGURE 8.7. High incomes and high wages in the United States, 1910–2010

The rise of income inequality since the 1970s is largely due to the rise of wage inequality.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).



FIGURE 8.8. The transformation of the top 1 percent in the United States

The rise in the top 1 percent highest incomes since the 1970s is largely due to the rise in the top 1 percent highest wages.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

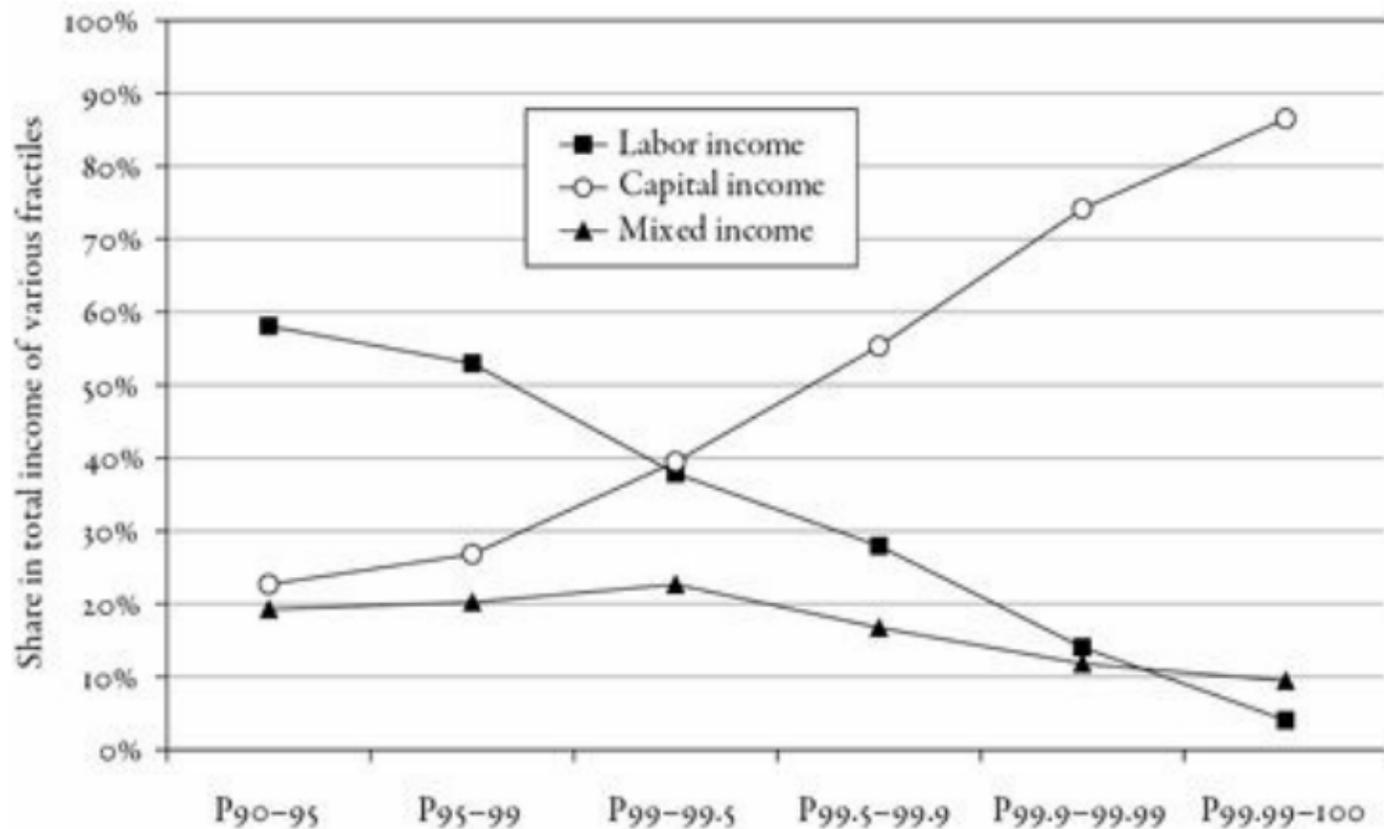


FIGURE 8.9. The composition of top incomes in the United States in 1929

Labor income becomes less and less important as one moves up within the top income decile.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

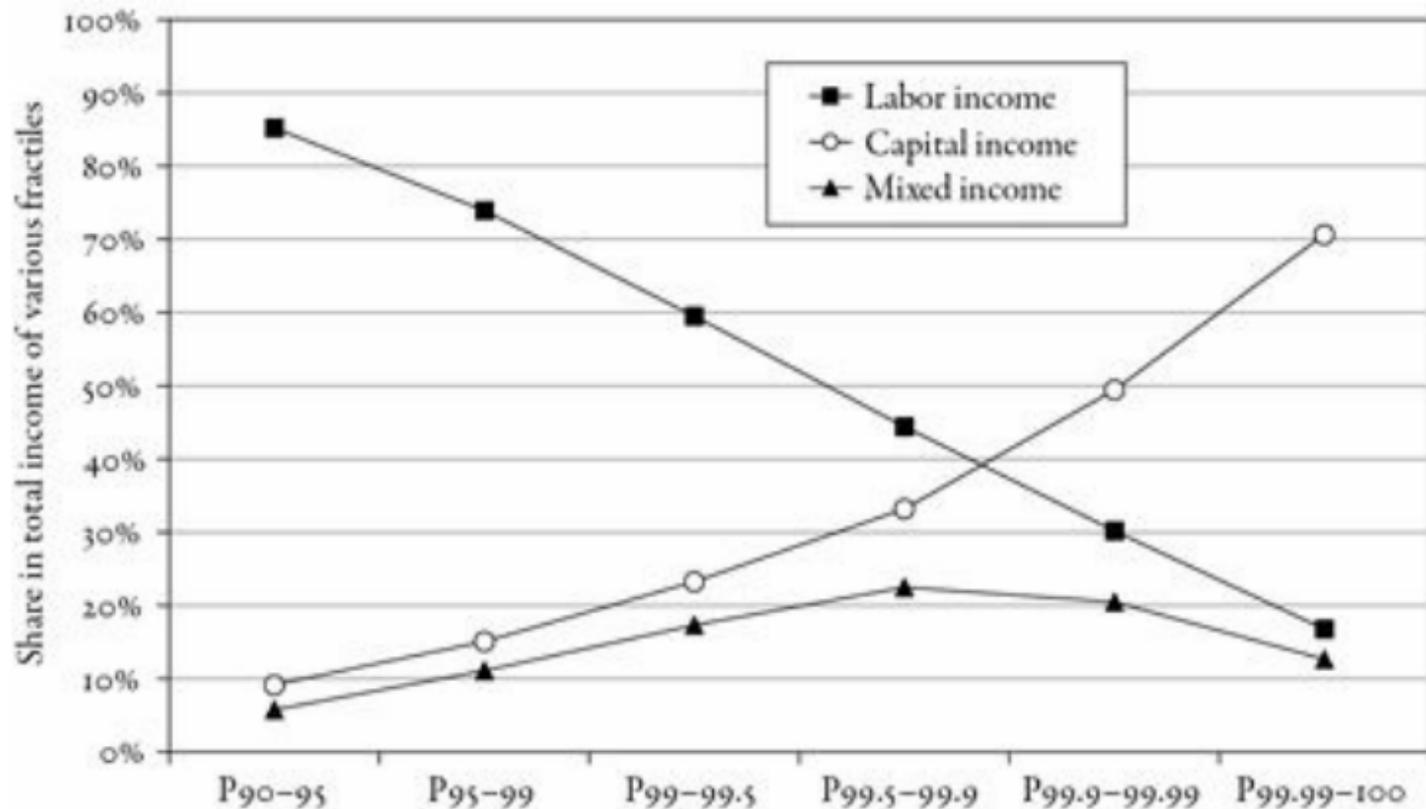


FIGURE 8.10. The composition of top incomes in the United States, 2007

Capital income becomes dominant at the level of top 0.1 percent in 2007, as opposed to the top 1 percent in 1929.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

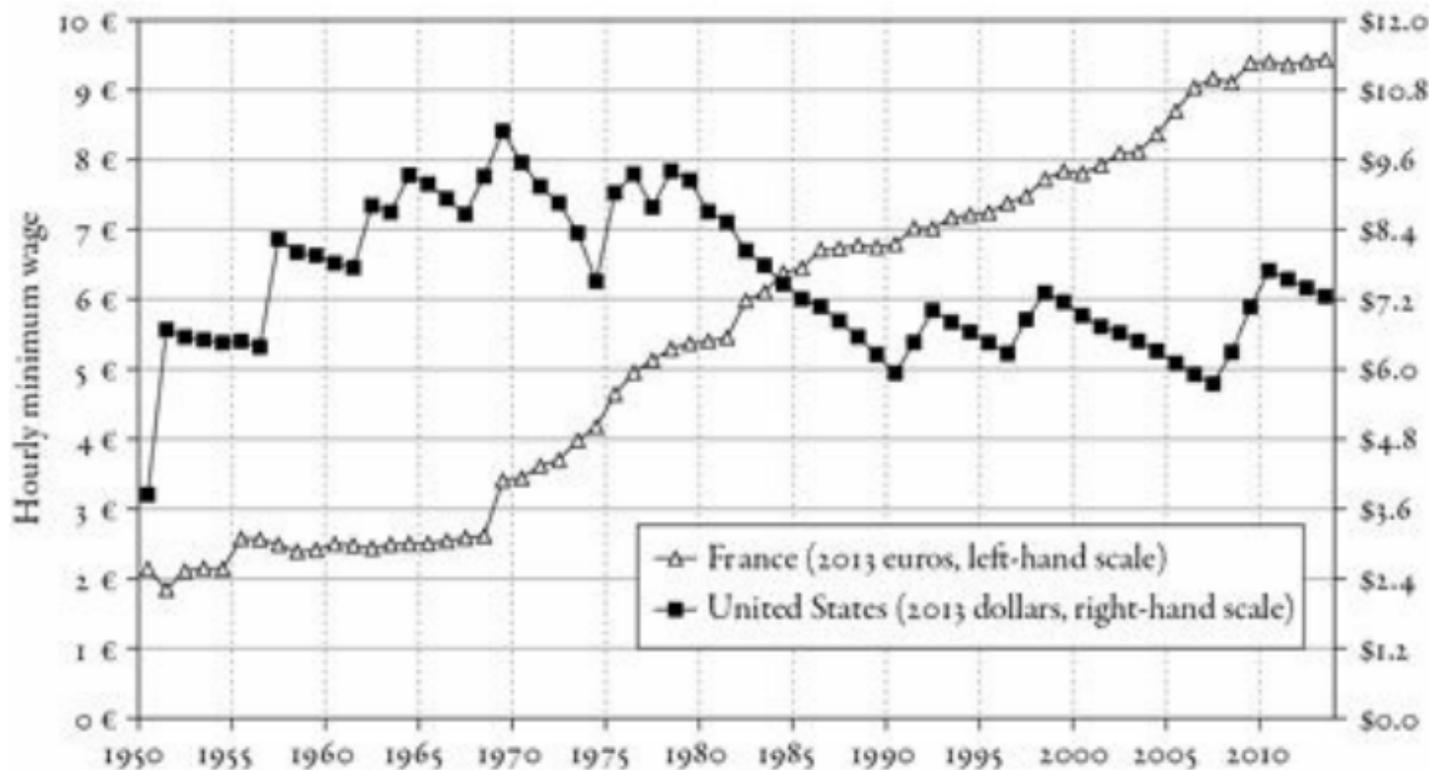


FIGURE 9.1. Minimum wage in France and the United States, 1950–2013

Expressed in 2013 purchasing power, the hourly minimum wage rose from \$3.80 to \$7.30 between 1950 and 2013 in the United States, and from €2.10 to €9.40 in France.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).



FIGURE 9.2. Income inequality in Anglo-Saxon countries, 1910–2010

The share of top percentile in total income rose since the 1970s in all Anglo-Saxon countries, but with different magnitudes.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).



FIGURE 9.3. Income inequality in Continental Europe and Japan, 1910–2010

As compared to Anglo-Saxon countries, the share of top percentile barely increased since the 1970s in Continental Europe and Japan.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

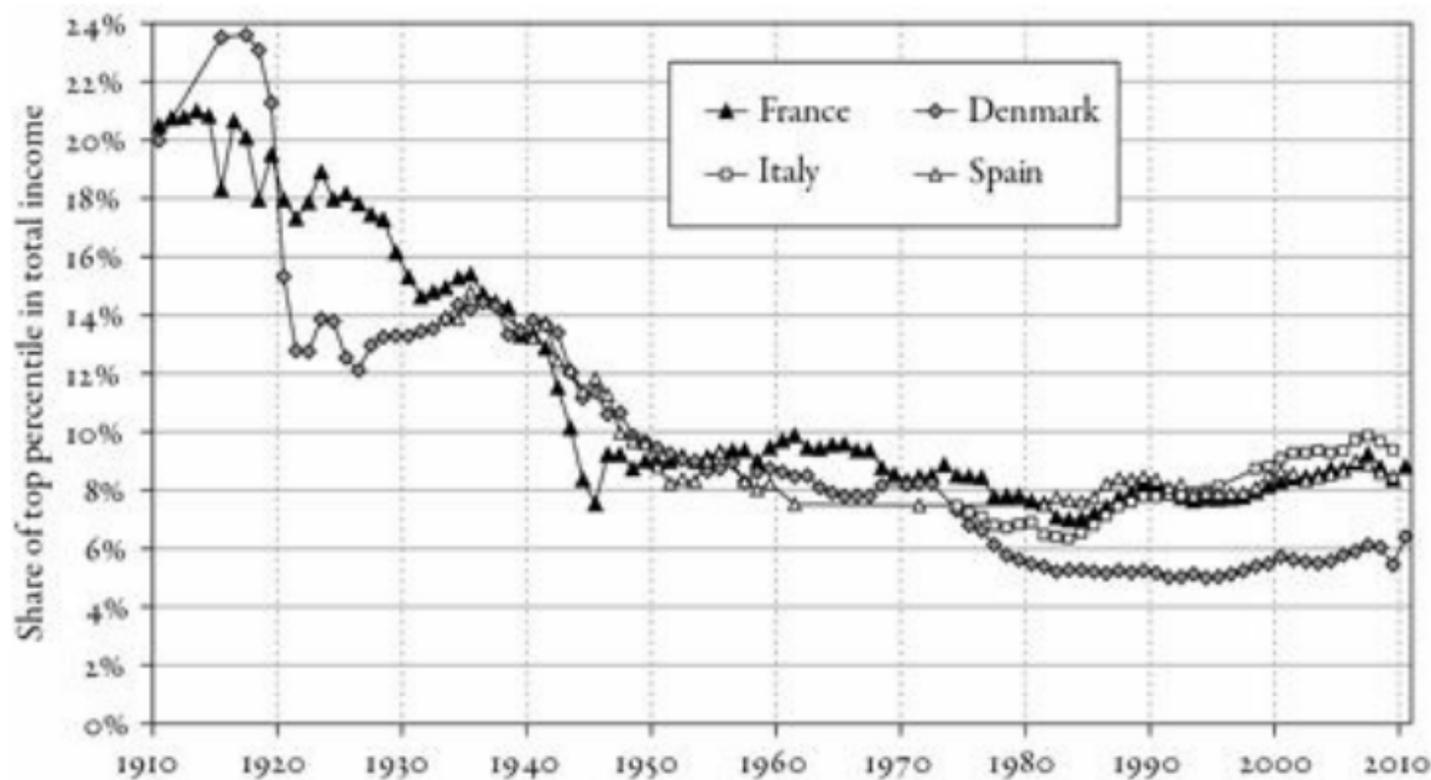


FIGURE 9.4. Income inequality in Northern and Southern Europe, 1910–2010

As compared to Anglo-Saxon countries, the top percentile income share barely increased in Northern and Southern Europe since the 1970s.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

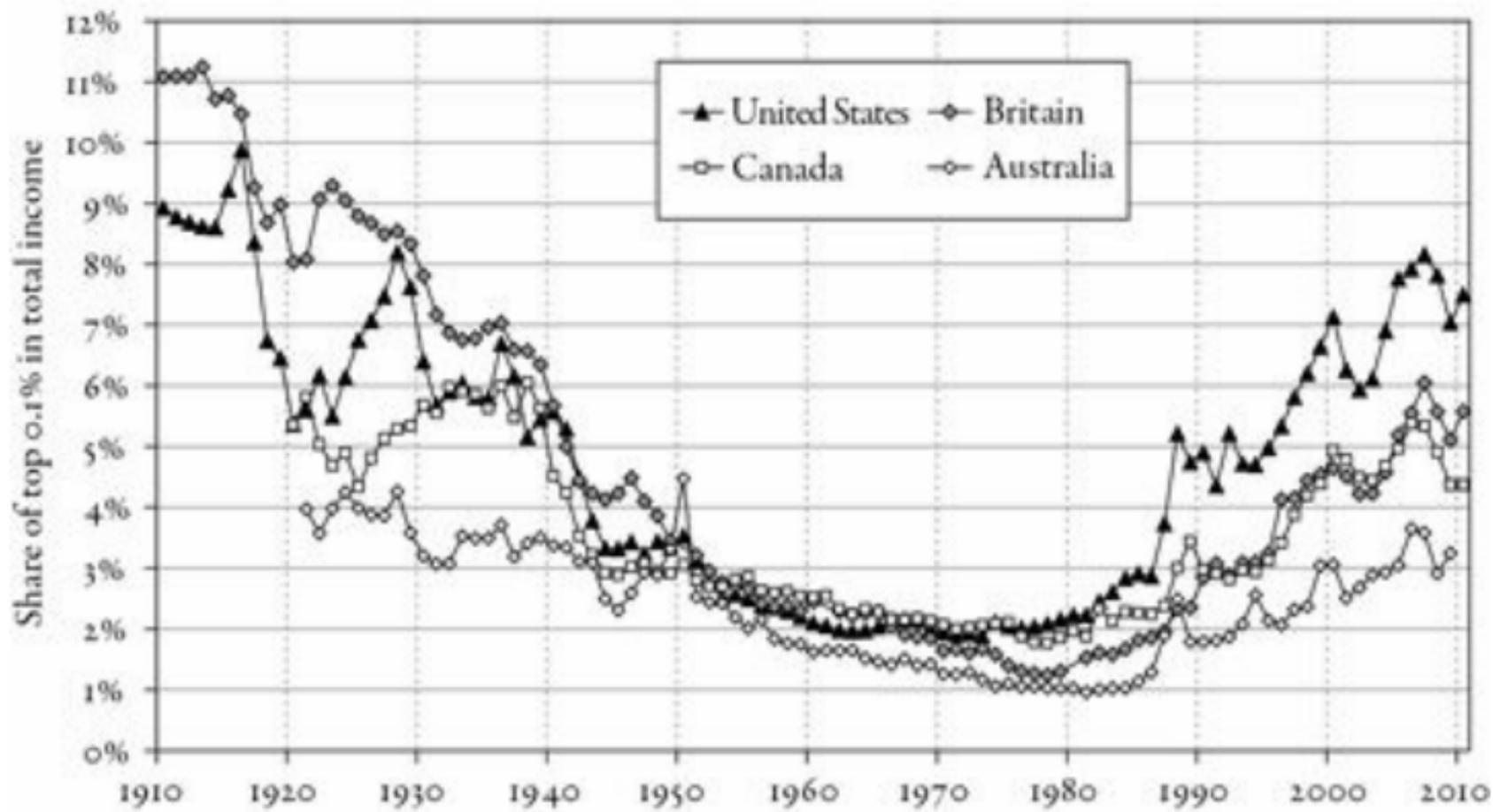


FIGURE 9.5. The top decile income share in Anglo-Saxon countries, 1910–2010

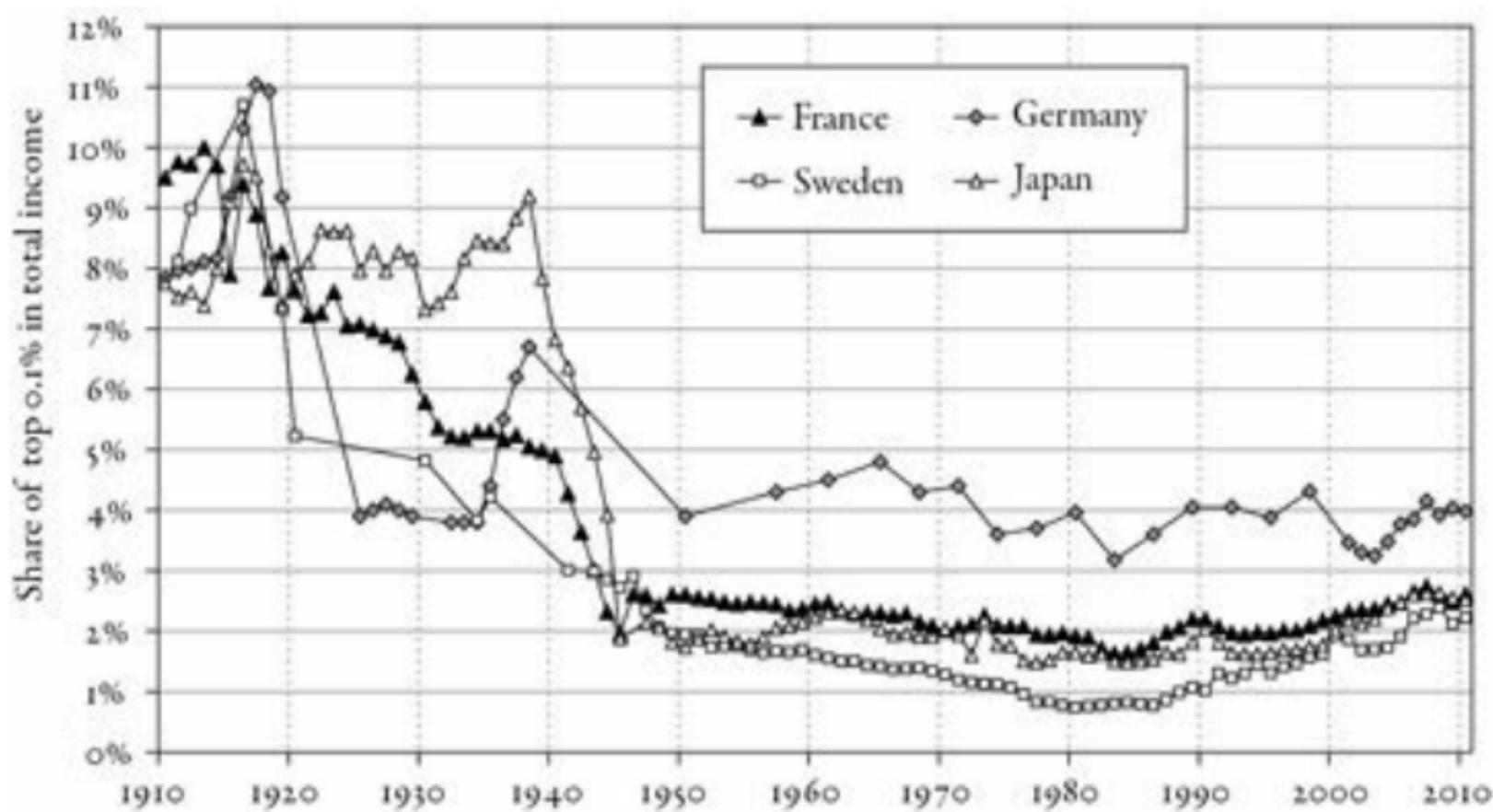


FIGURE 9.6. The top decile income share in Continental Europe and Japan, 1910–2010

As compared to Anglo-Saxon countries, the top 0.1 percent income share barely increased in Continental Europe and Japan.

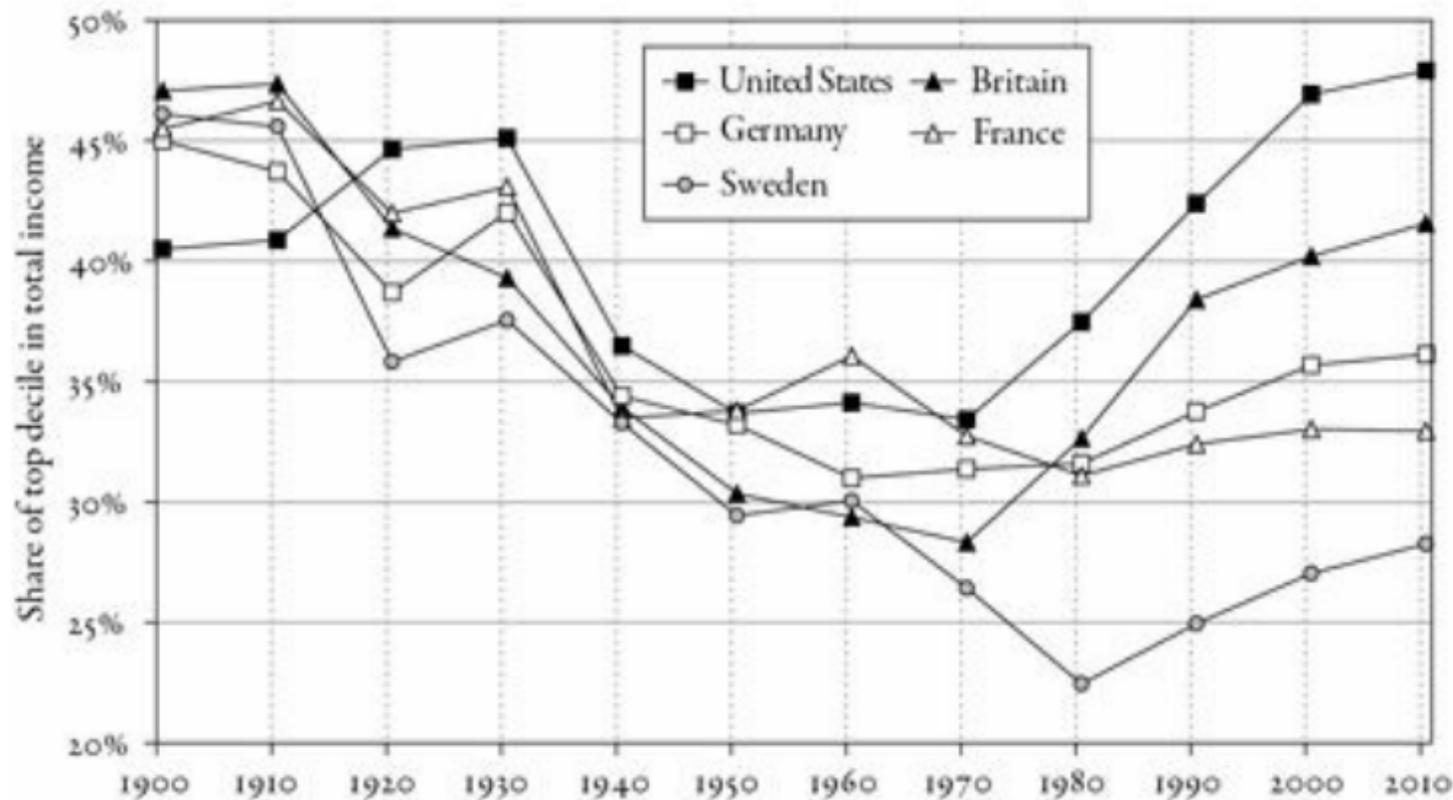


FIGURE 9.7. The top decile income share in Europe and the United States, 1900–2010

In the 1950s–1970s, the top decile income share was about 30–35 percent of total income in Europe as in the United States.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

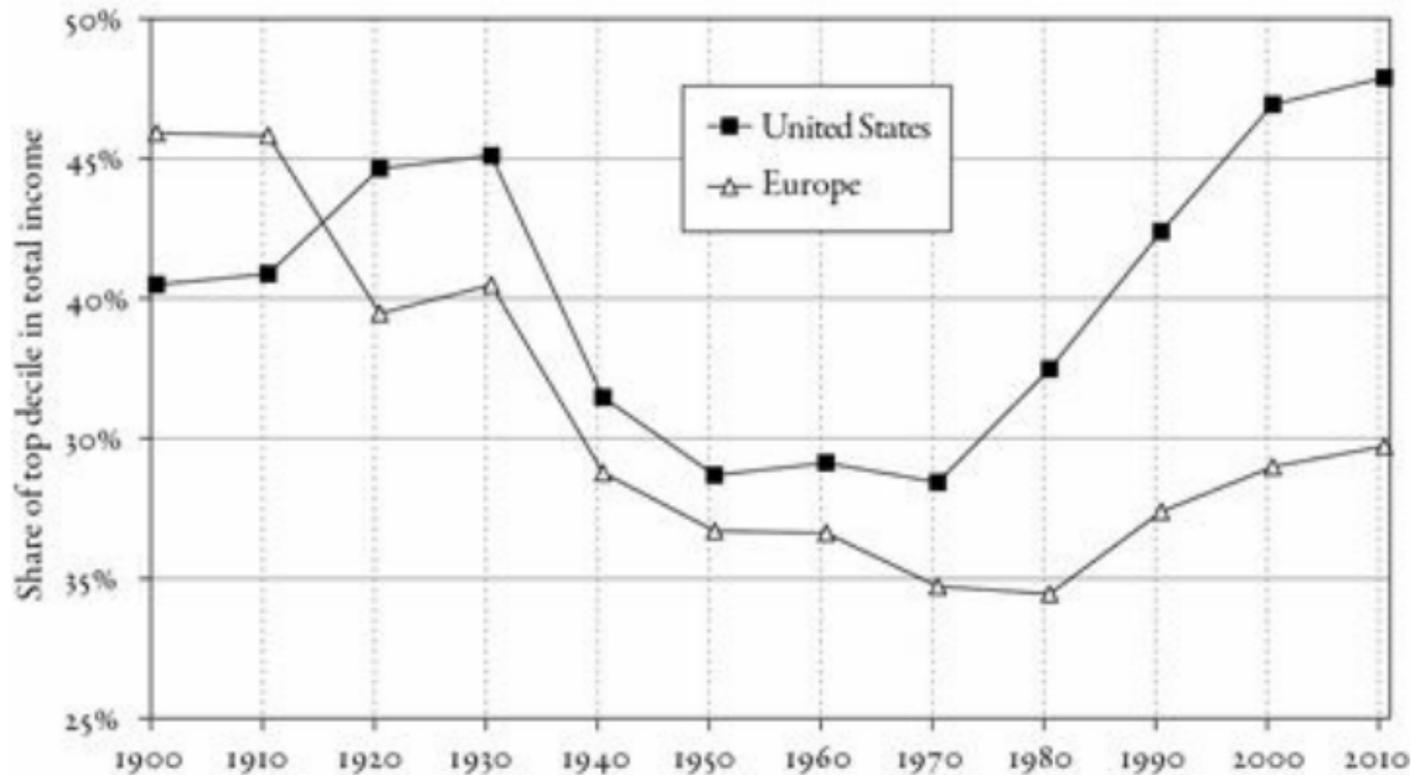


FIGURE 9.8. Income inequality in Europe versus the United States, 1900–2010

The top decile income share was higher in Europe than in the United States in 1900–1910; it is a lot higher in the United States in 2000–2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

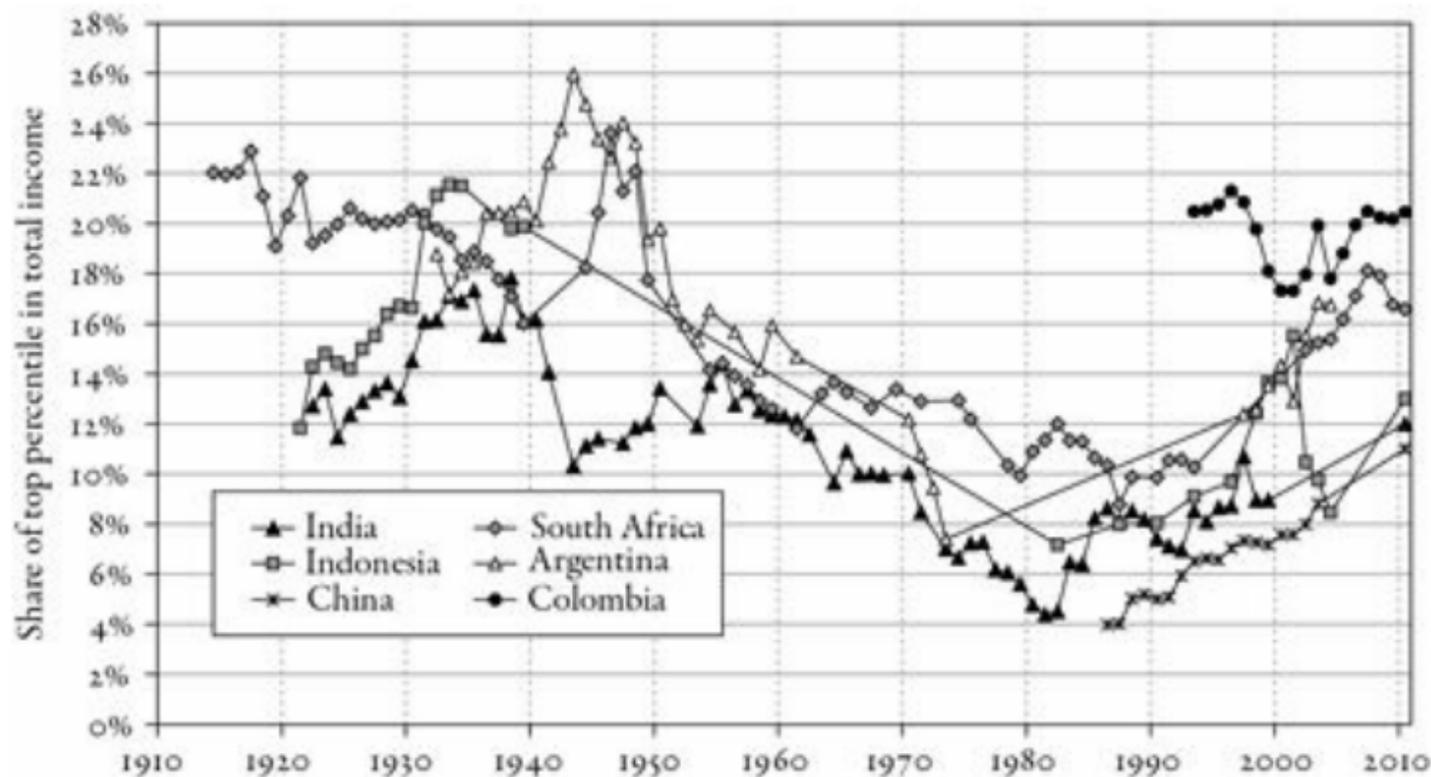


FIGURE 9.9. Income inequality in emerging countries, 1910–2010

Measured by the top percentile income share, income inequality rose in emerging countries since the 1980s, but ranks below the US level in 2000–2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

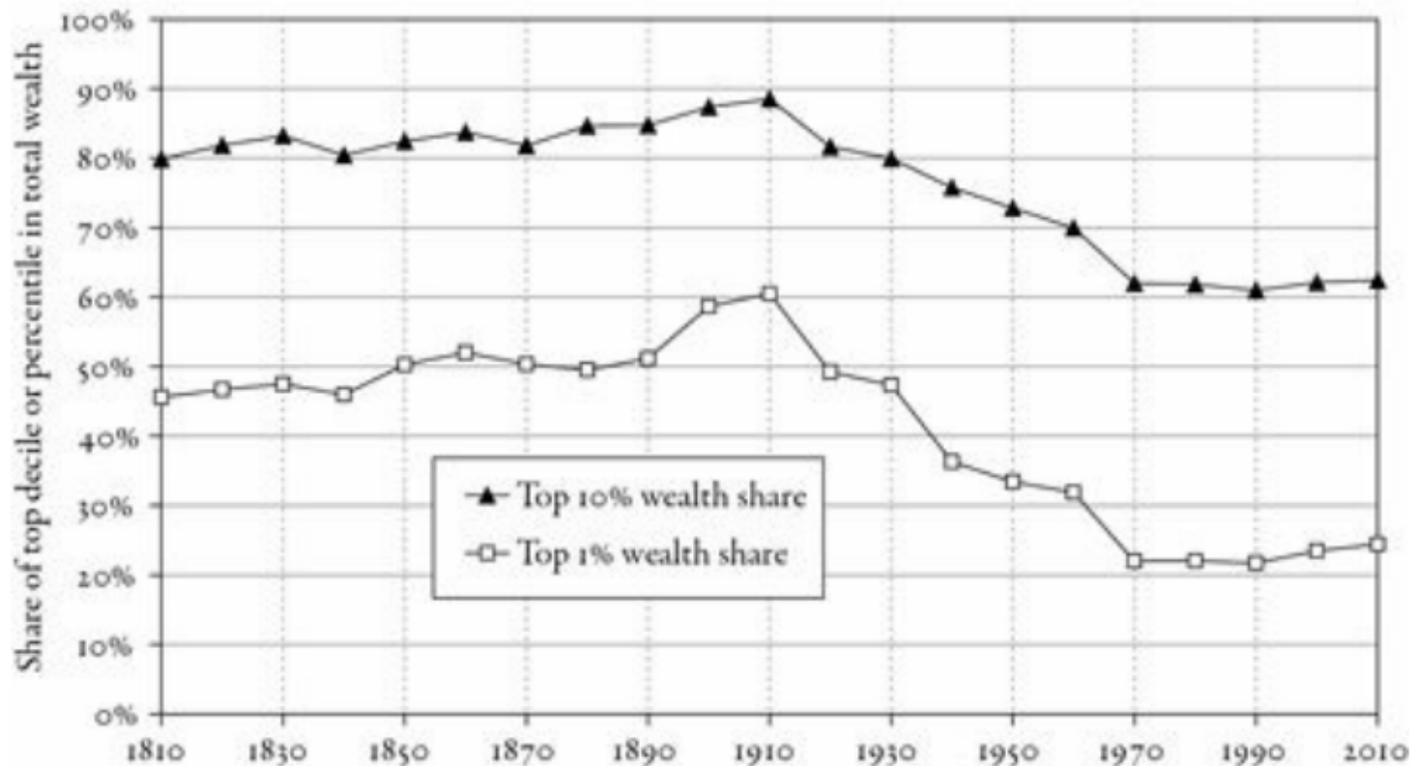


FIGURE 10.1. Wealth inequality in France, 1810–2010

The top decile (the top 10 percent highest wealth holders) owns 80–90 percent of total wealth in 1810–1910, and 60–65 percent today.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

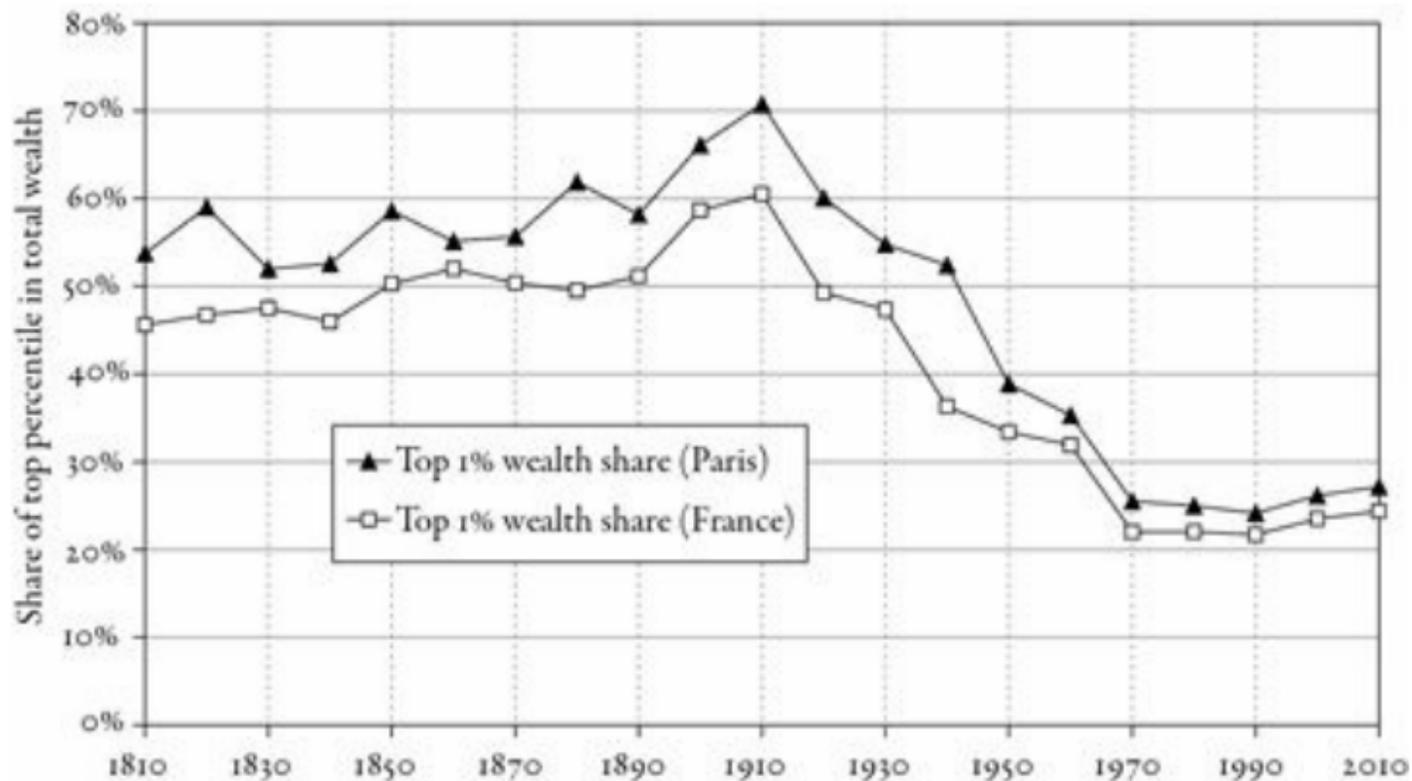


FIGURE 10.2. Wealth inequality in Paris versus France, 1810–2010

The top percentile (the top 1 percent wealth holders) owns 70 percent of aggregate wealth in Paris on the eve of World War I.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

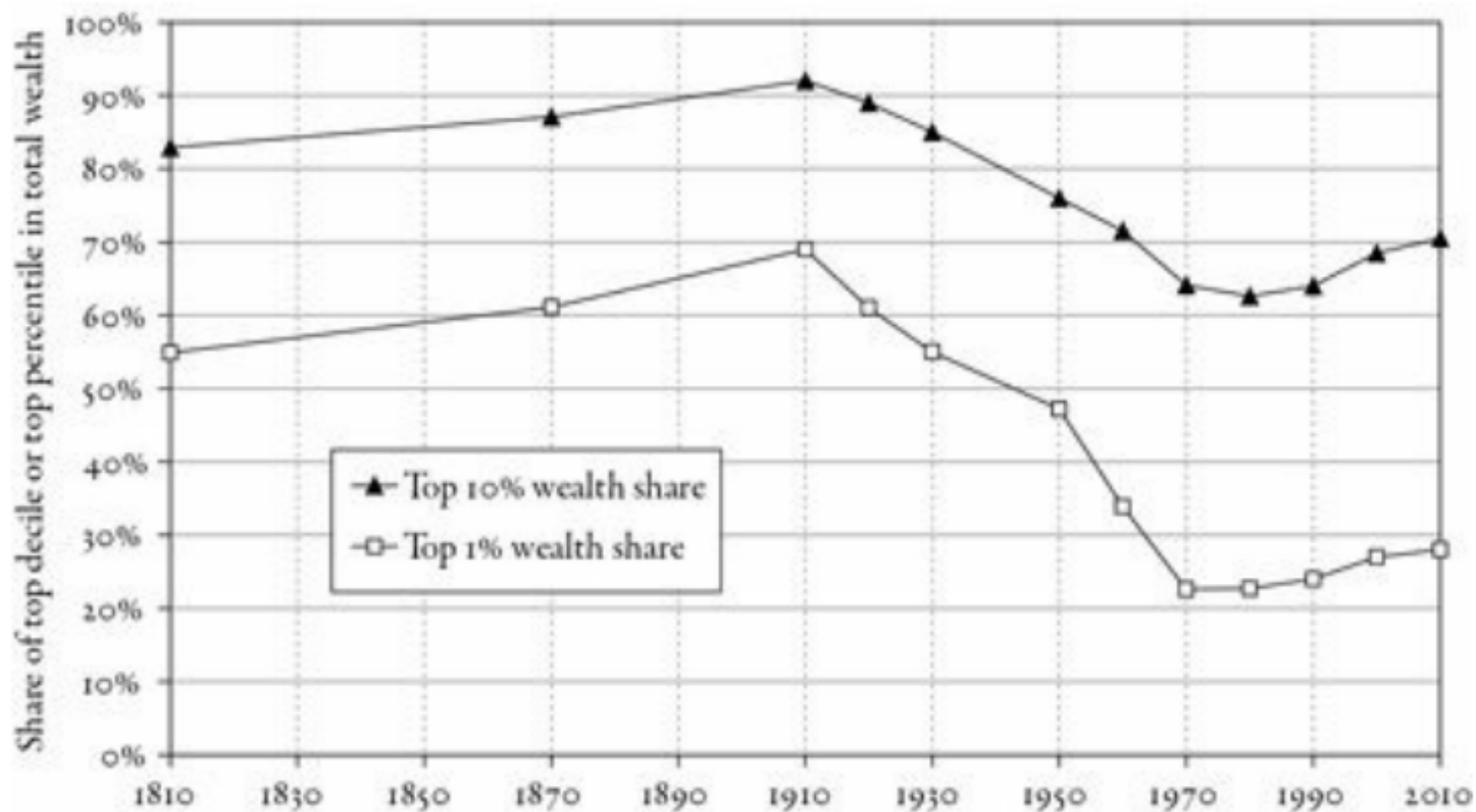


FIGURE 10.3. Wealth inequality in Britain, 1810–2010

The top decile owns 80–90 percent of total wealth in 1810–1910, and 70 percent today.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c)

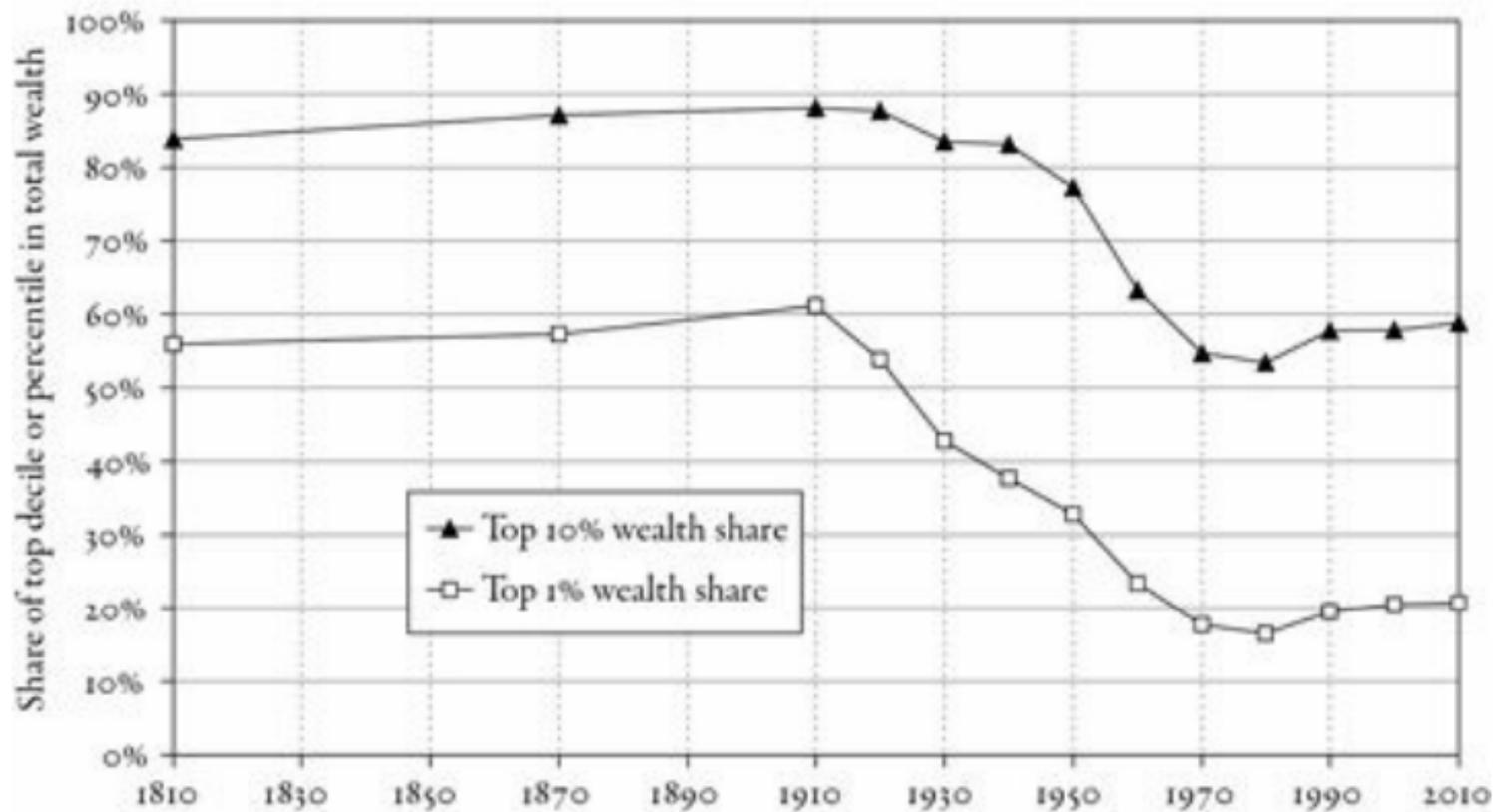


FIGURE 10.4. Wealth inequality in Sweden, 1810–2010

The top 10 percent holds 80–90 percent of total wealth in 1810–1910 and 55–60 percent today.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

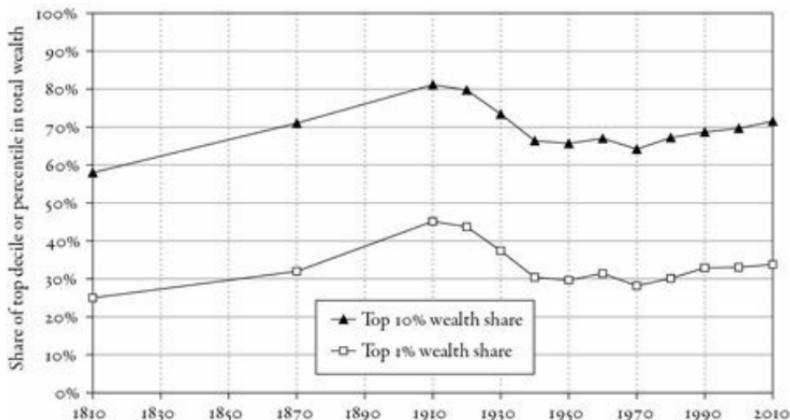


FIGURE 10.5. Wealth inequality in the United States, 1810–2010

The top 10 percent wealth holders own about 80 percent of total wealth in 1910 and 75 percent today.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

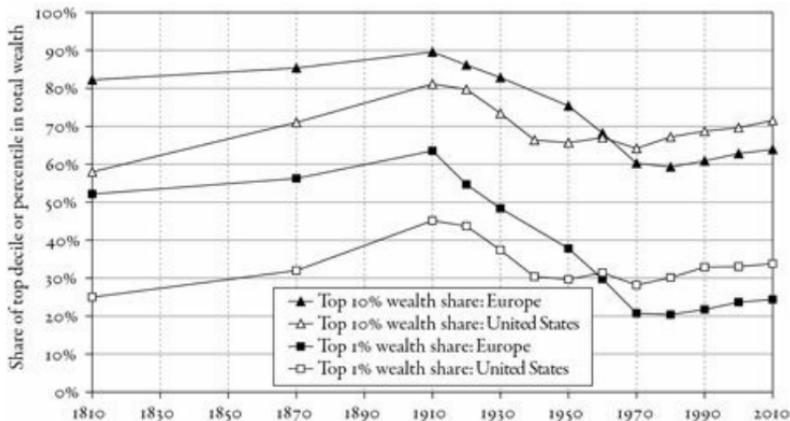


FIGURE 10.6. Wealth inequality in Europe versus the United States, 1810–2010

Until the mid-twentieth century, wealth inequality was higher in Europe than in the United States.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

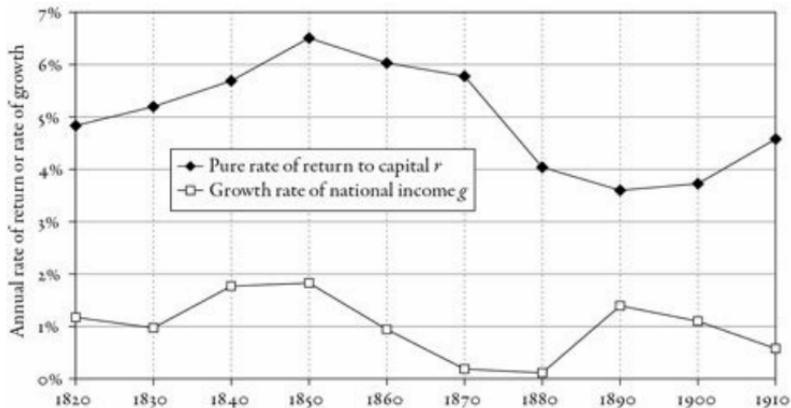


FIGURE 10.7. Return to capital and growth: France, 1820–1913

The rate of return on capital is a lot higher than the growth rate in France between 1820 and 1913.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

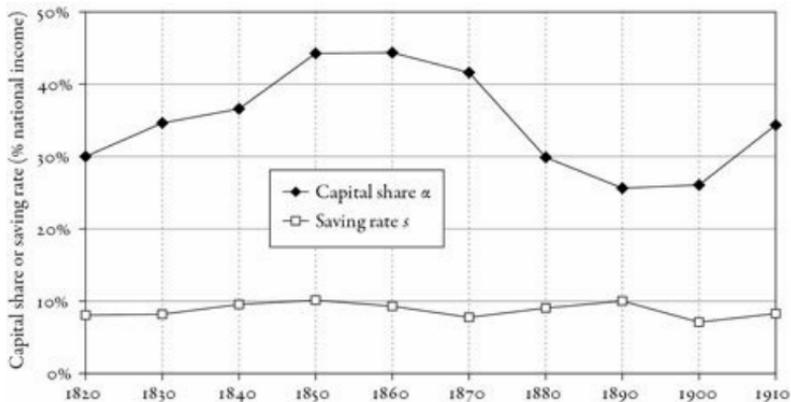


FIGURE 10.8. Capital share and saving rate: France, 1820–1913

The share of capital income in national income is much larger than the saving rate in France between 1820 and 1913.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

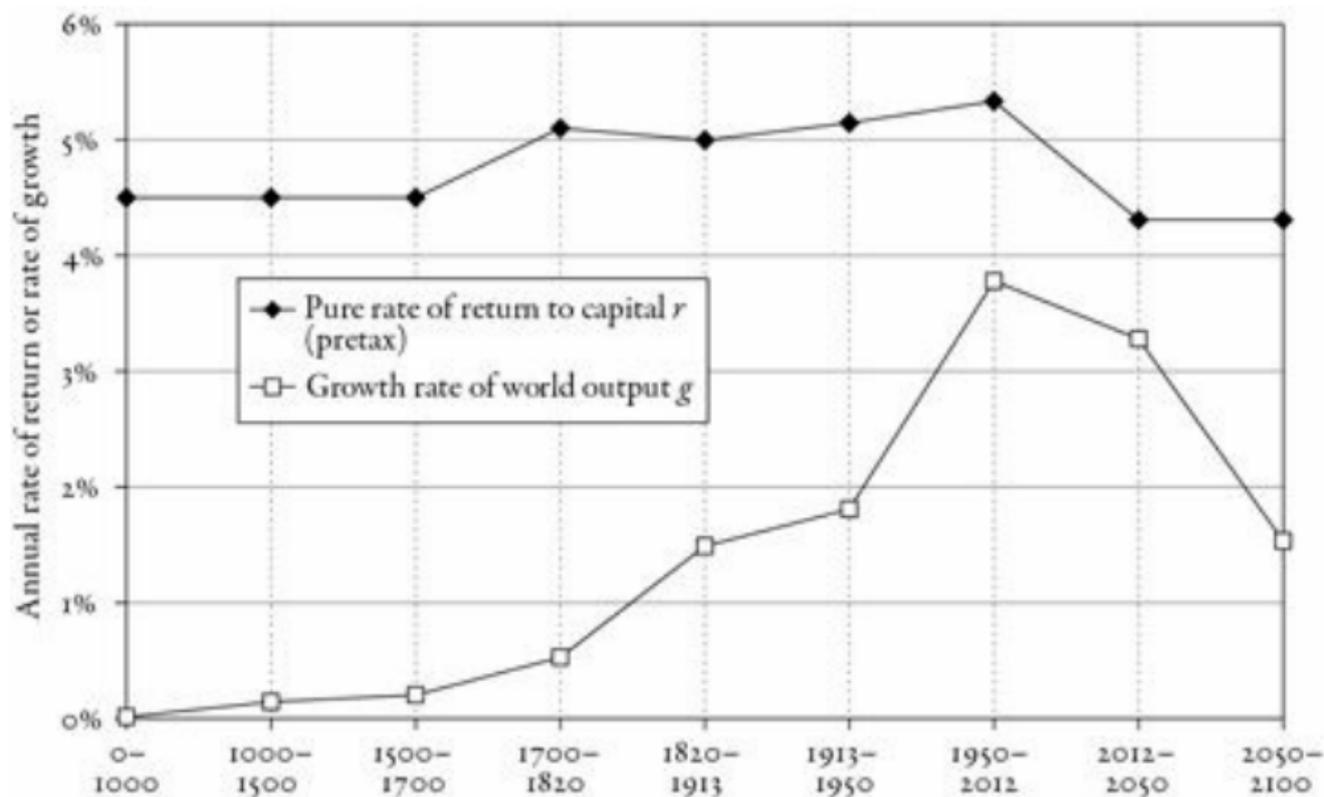


FIGURE 10.9. Rate of return versus growth rate at the world level, from Antiquity until 2100

The rate of return to capital (pretax) has always been higher than the world growth rate, but the gap was reduced during the twentieth century, and might widen again in the twenty-first century.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c)

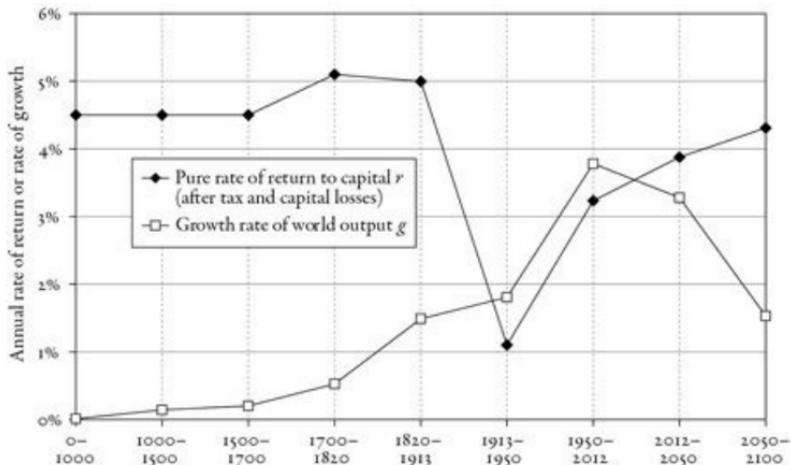


FIGURE 10.10. After tax rate of return versus growth rate at the world level, from Antiquity until 2100

The rate of return to capital (after tax and capital losses) fell below the growth rate during the twentieth century, and may again surpass it in the twenty-first century.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

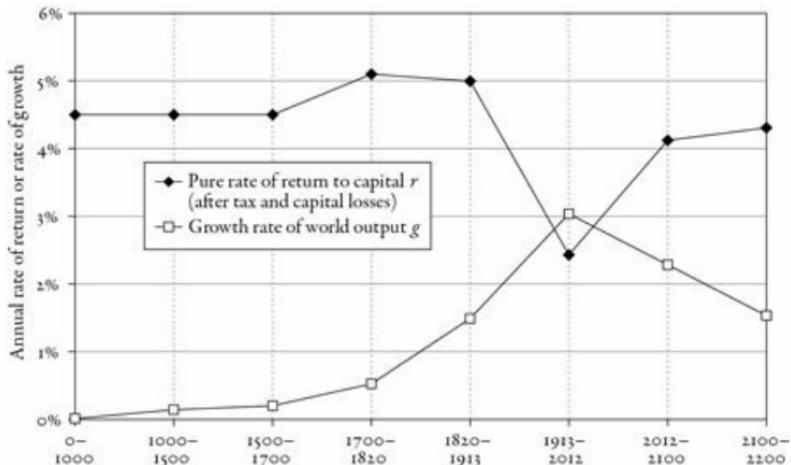


FIGURE 10.11. After tax rate of return versus growth rate at the world level, from Antiquity until 2200

The rate of return to capital (after tax and capital losses) fell below the growth rate during the twentieth century, and might again surpass it in the twenty-first century.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 10.1.  
*The composition of Parisian portfolios, 1872–1912*

Year	Real estate assets (buildings, houses, land)	Incl. real estate (Paris)	Incl. real estate (outside Paris)	Financial assets	Incl. equity	Incl. private bonds	Incl. public bonds	Incl. other financial assets (cash, deposits, etc.)	Furniture, jewels, etc.
Composition of total wealth (%)									
1872	42	29	13	56	15	19	13	9	2
1912	36	25	11	62	20	19	14	9	3
Composition of top 1% wealth holders' portfolios (%)									
1872	43	30	13	55	16	16	13	10	2
1912	32	22	10	65	24	19	14	8	2
Composition of next 9% (%)									
1872	42	27	15	56	14	22	13	7	2
1912	41	30	12	55	14	18	15	9	3
Composition of next 40% (%)									
1872	27	1	26	62	13	25	16	9	11
1912	31	7	24	58	12	14	14	18	10

*Note:* In 1912, real estate assets made up 36% of total wealth in Paris, financial assets made up 62%, and furniture, jewels, etc. 3%.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

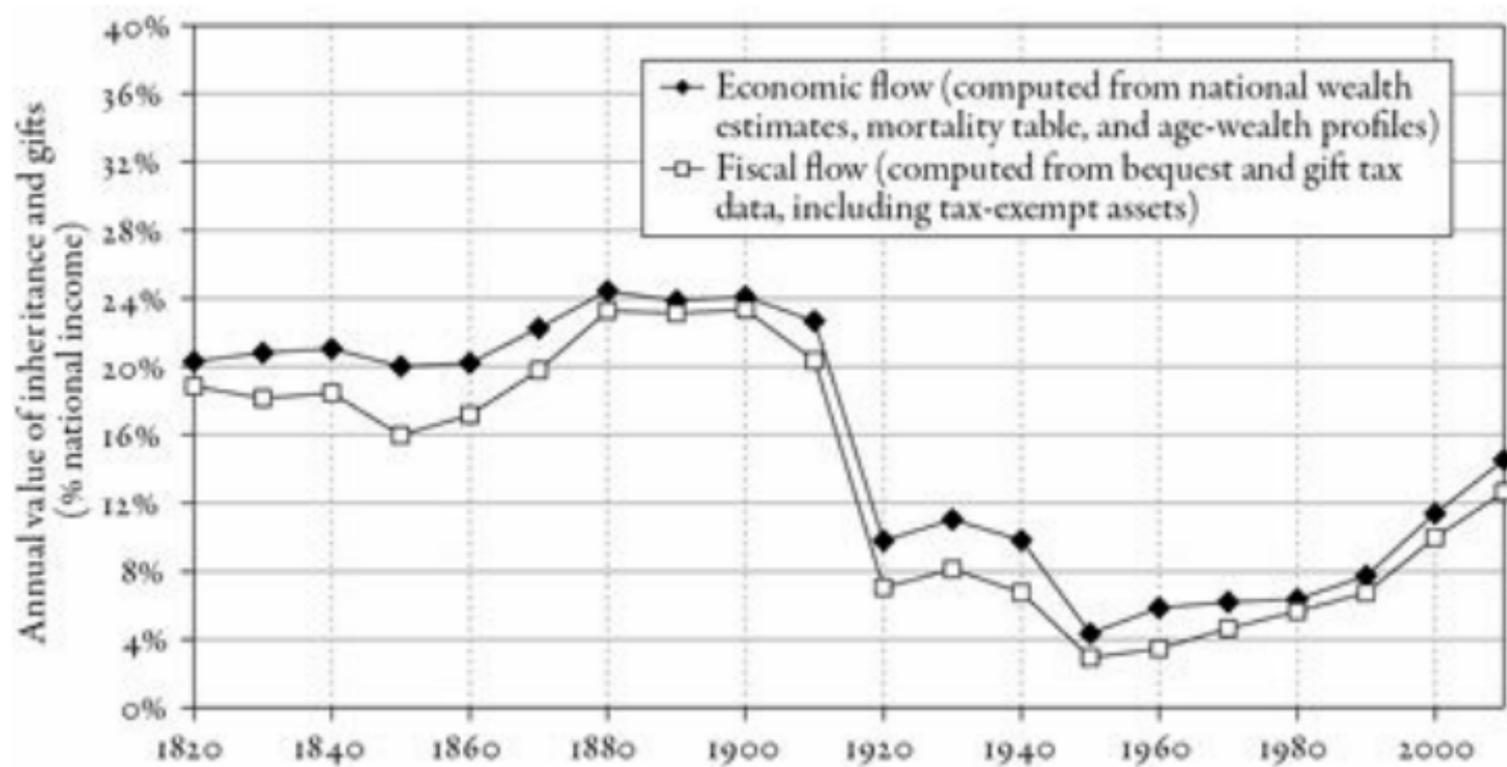


FIGURE 11.1. The annual inheritance flow as a fraction of national income, France, 1820–2010

The annual inheritance flow was about 20–25 percent of national income during the nineteenth century and until 1914; it then fell to less than 5 percent in the 1950s, and returned to about 15 percent in 2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

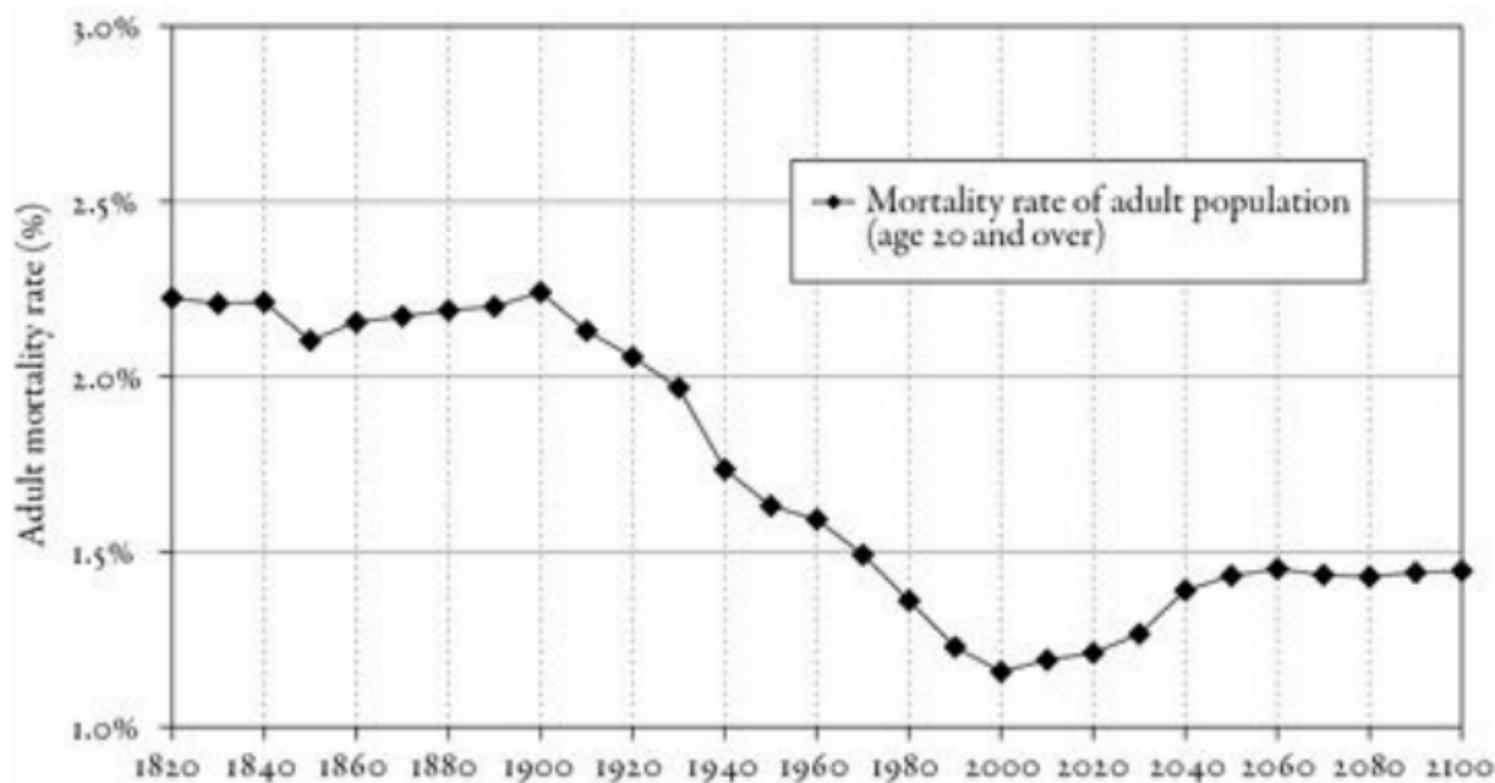


FIGURE 11.2. The mortality rate in France, 1820–2100

The mortality rate fell in France during the twentieth century (rise of life expectancy), and should increase somewhat during the twenty-first century (baby-boom effect).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

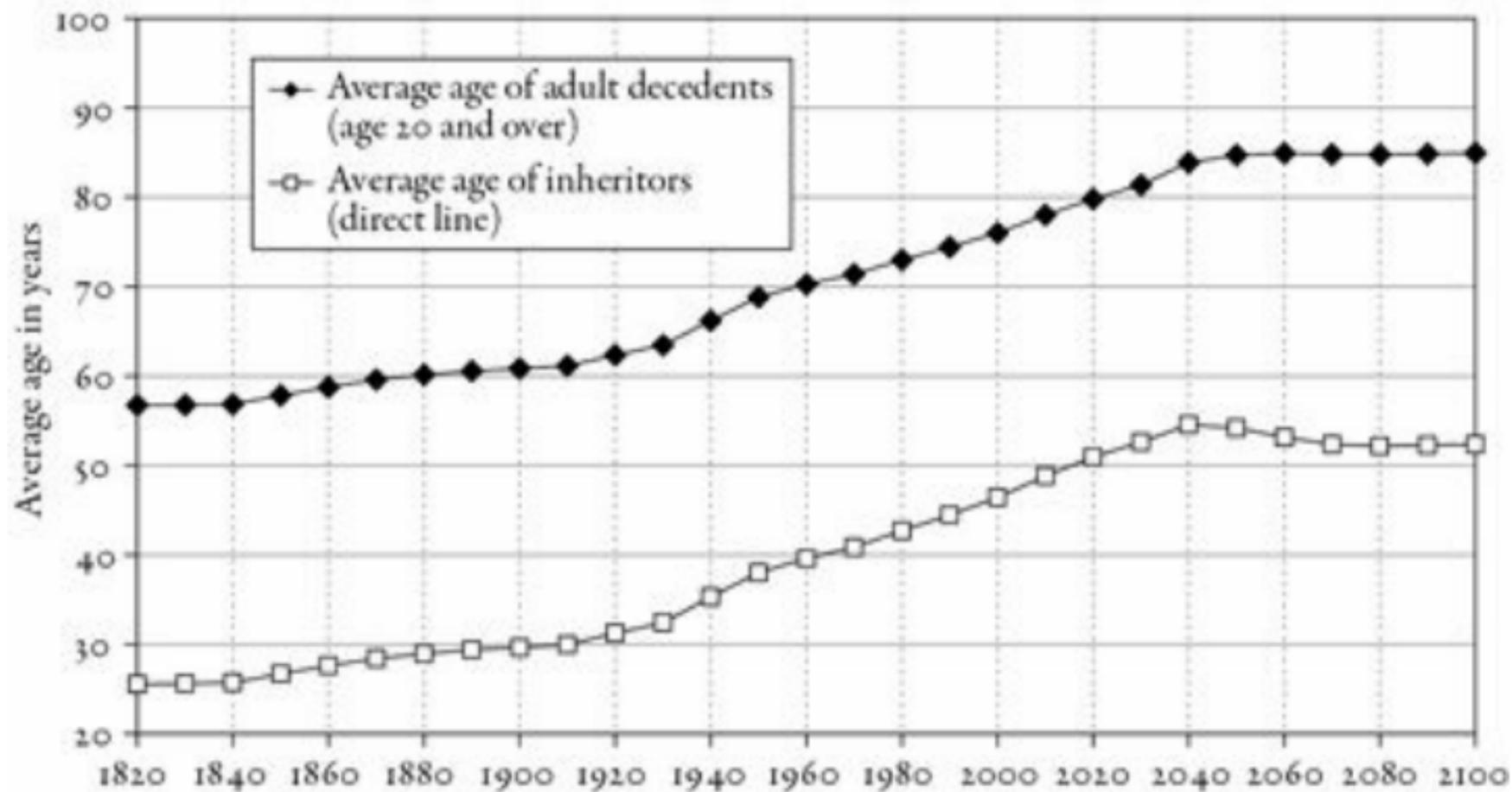


FIGURE 11.3. Average age of decedents and inheritors: France, 1820–2100

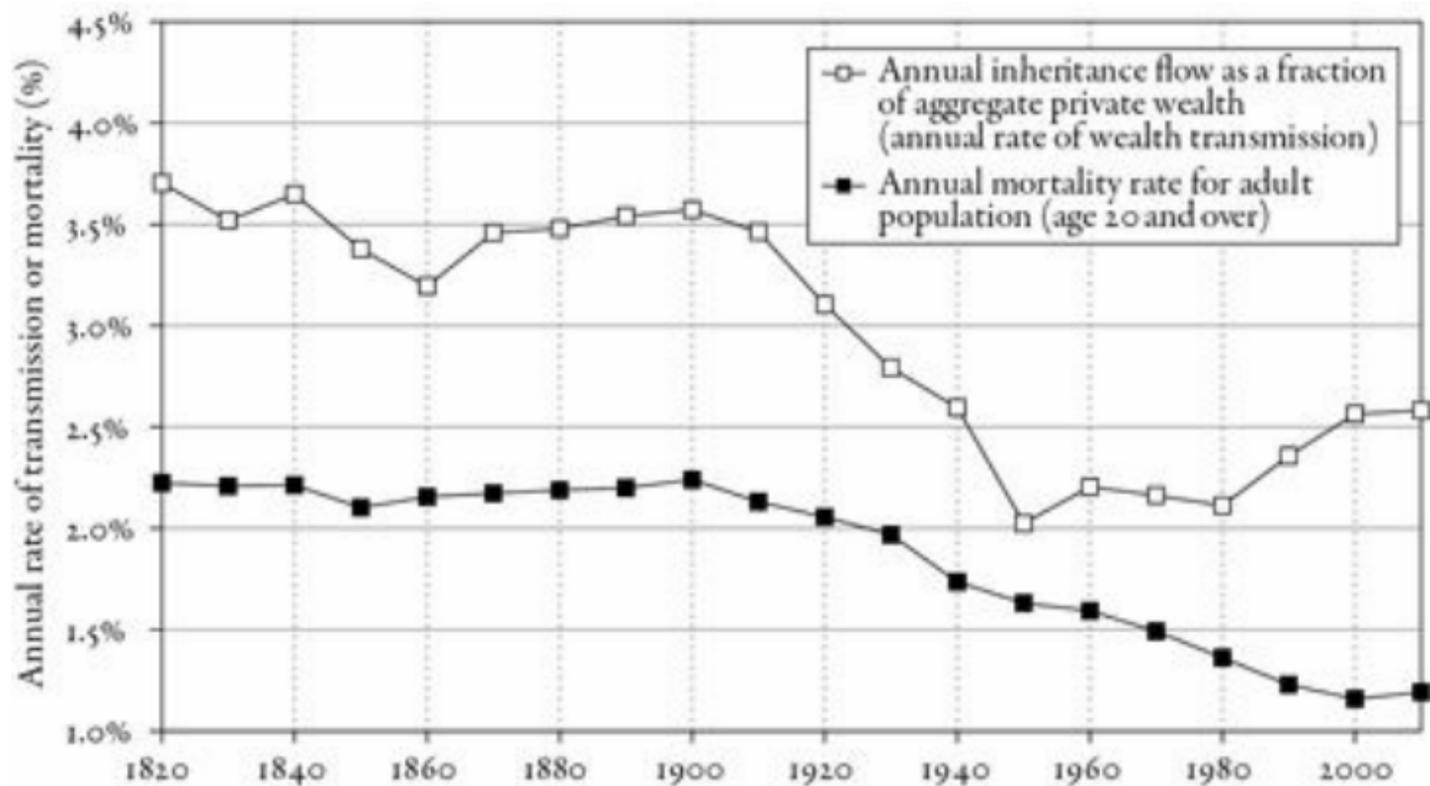


FIGURE 11.4. Inheritance flow versus mortality rate: France, 1820–2010

The annual flow of inheritance (bequests and gifts) is equal to about 2.5 percent of aggregate wealth in 2000–2010 versus 1.2 percent for the mortality rate.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

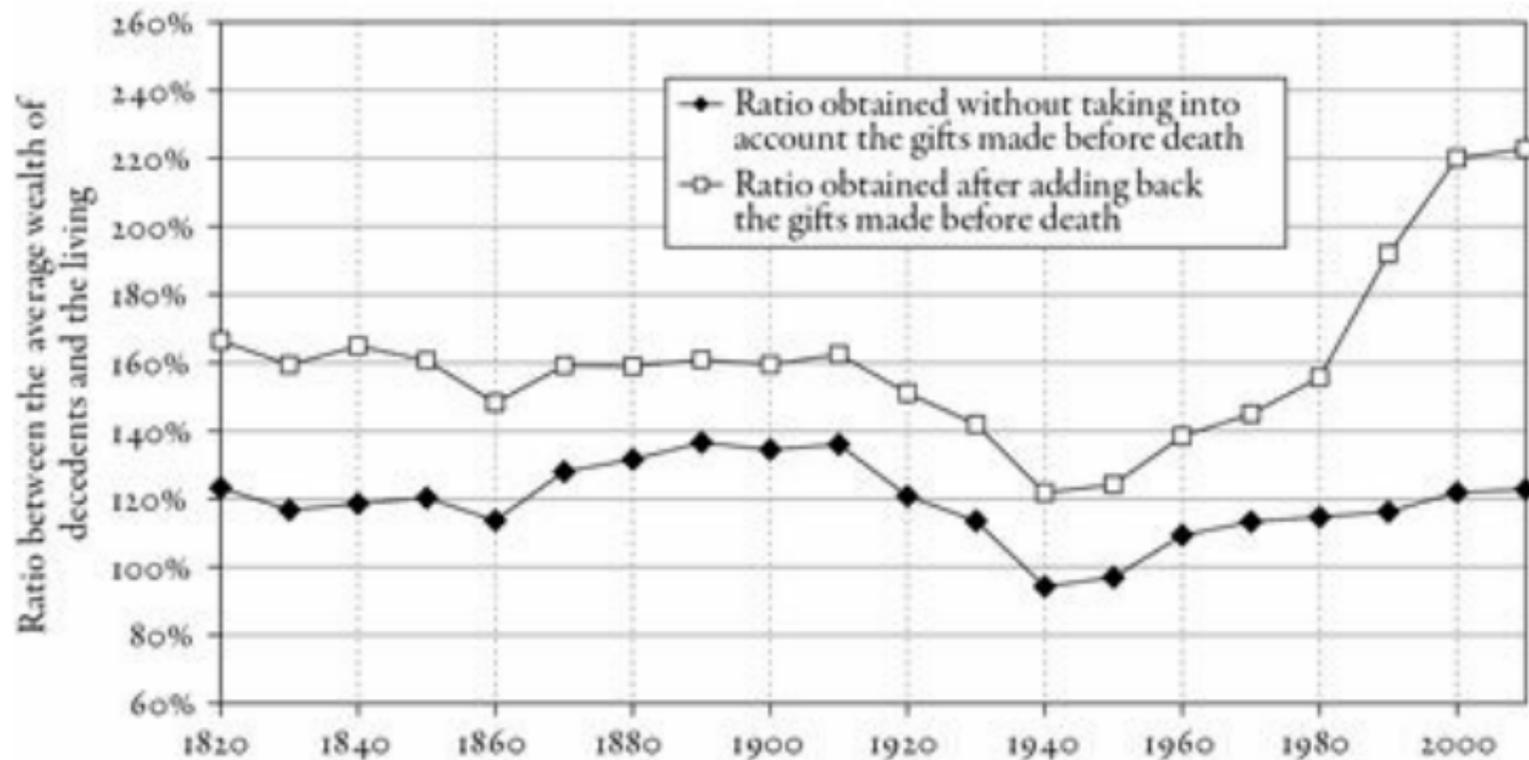


FIGURE 11.5. The ratio between average wealth at death and average wealth of the living: France, 1820–2010

In 2000–2010, the average wealth at death is 20 percent higher than that of the living if one omits the gifts that were made before death, but more than twice as large if one re-integrates gifts.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 11.1.

*The age-wealth profile in France, 1820–2010: Average wealth of each age group  
(% of average wealth of 50- to 59-year-olds)*

Year	20–29 years	30–39 years	40–49 years	50–59 years	60–69 years	70–79 years	80 years and over
1820	29	37	47	100	134	148	153
1850	28	37	52	100	128	144	142
1880	30	39	61	100	148	166	220
1902	26	57	65	100	172	176	238
1912	23	54	72	100	158	178	257
1931	22	59	77	100	123	137	143
1947	23	52	77	100	99	76	62
1960	28	52	74	100	110	101	87
1984	19	55	83	100	118	113	105
2000	19	46	66	100	122	121	118
2010	25	42	74	100	111	106	134

*Note:* In 1820, the average wealth of individuals aged 60–69 was 34% higher than that of 50- to 59-year-olds, and the average wealth of those aged 80 and over was 53% higher than that of 50- to 59-year-olds.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c), table 2.

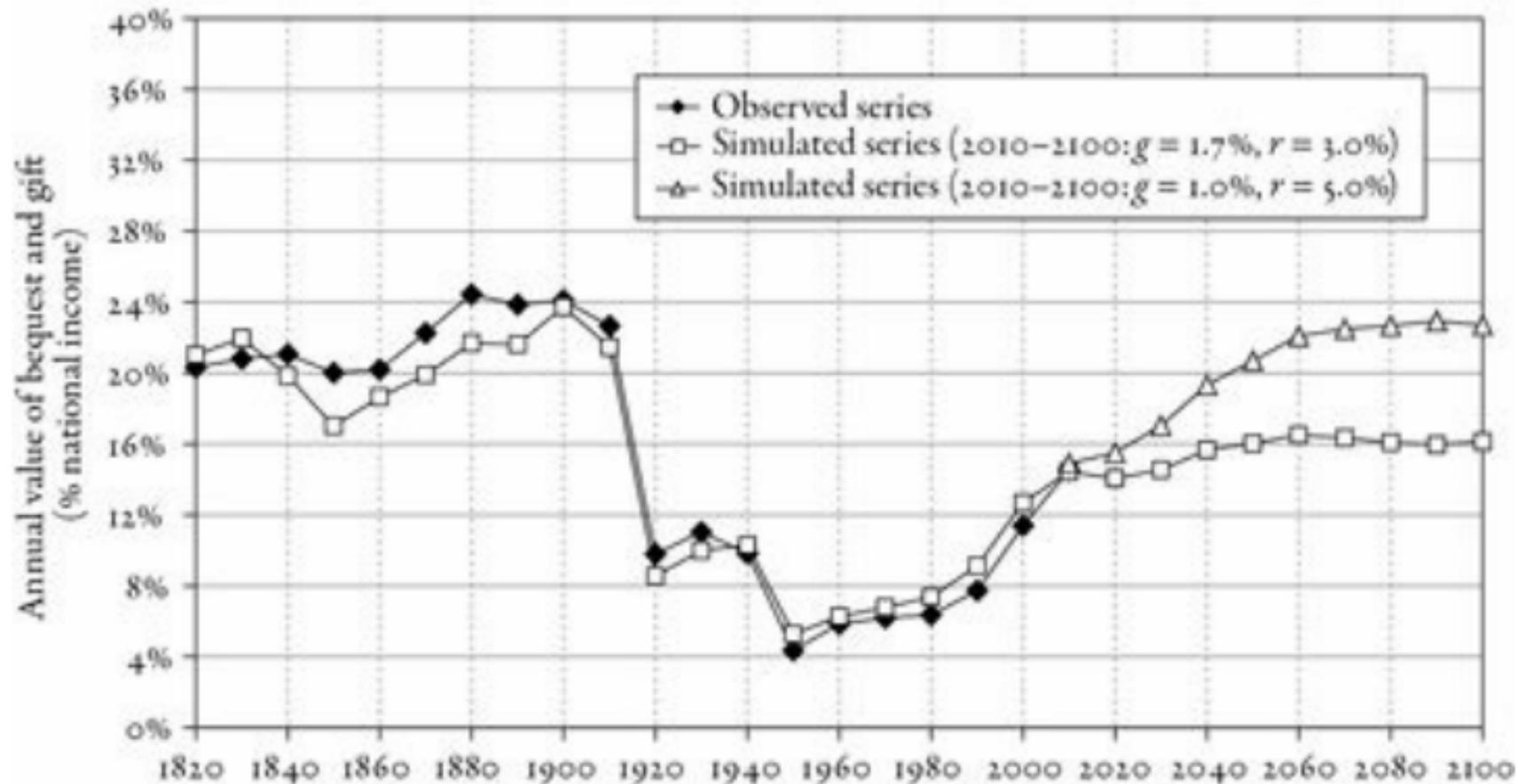


FIGURE 11.6. Observed and simulated inheritance flow: France, 1820–2100

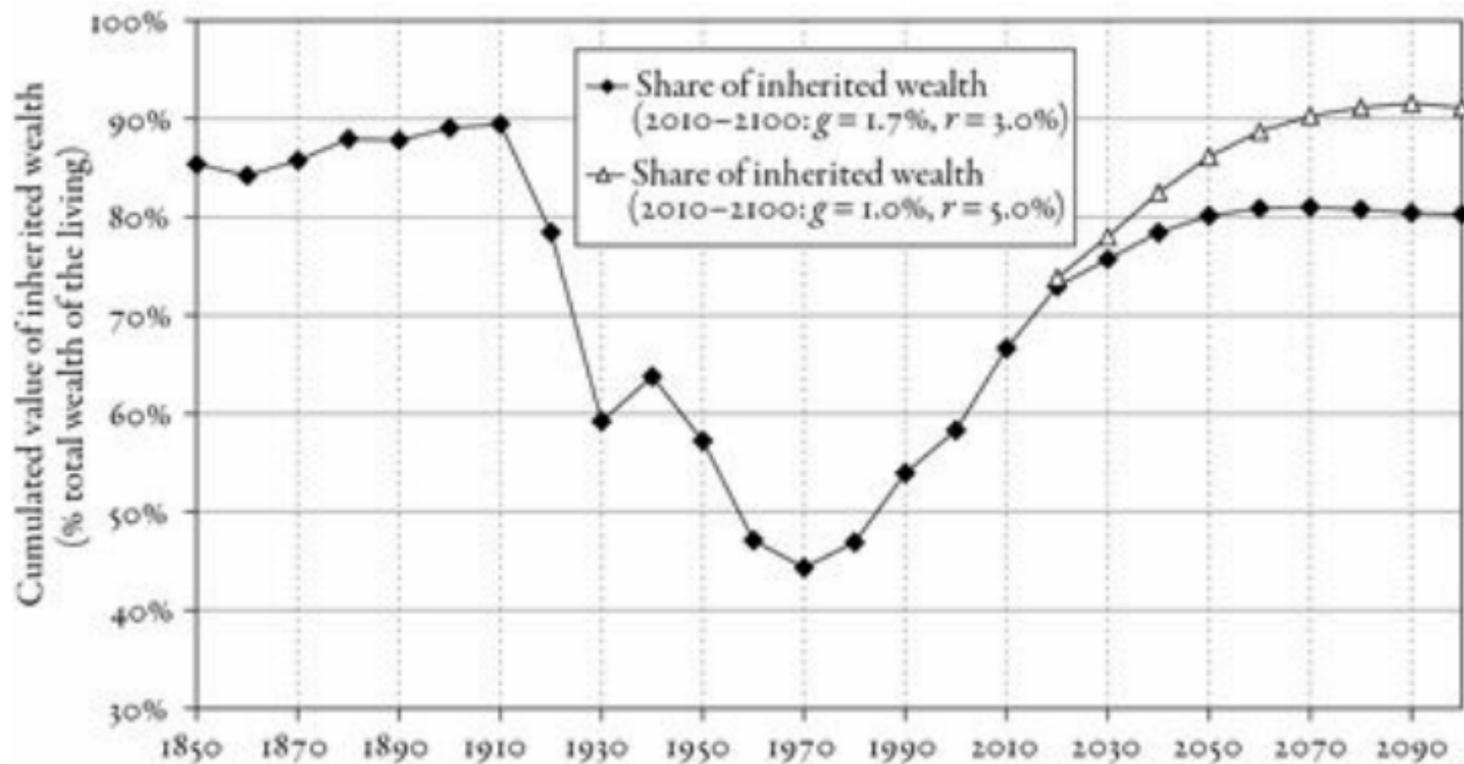


FIGURE 11.7. The share of inherited wealth in total wealth: France, 1850–2100

Inherited wealth represents 80–90 percent of total wealth in France in the nineteenth century; this share fell to 40–50 percent during the twentieth century, and might return to 80–90 percent during the twenty-first century.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

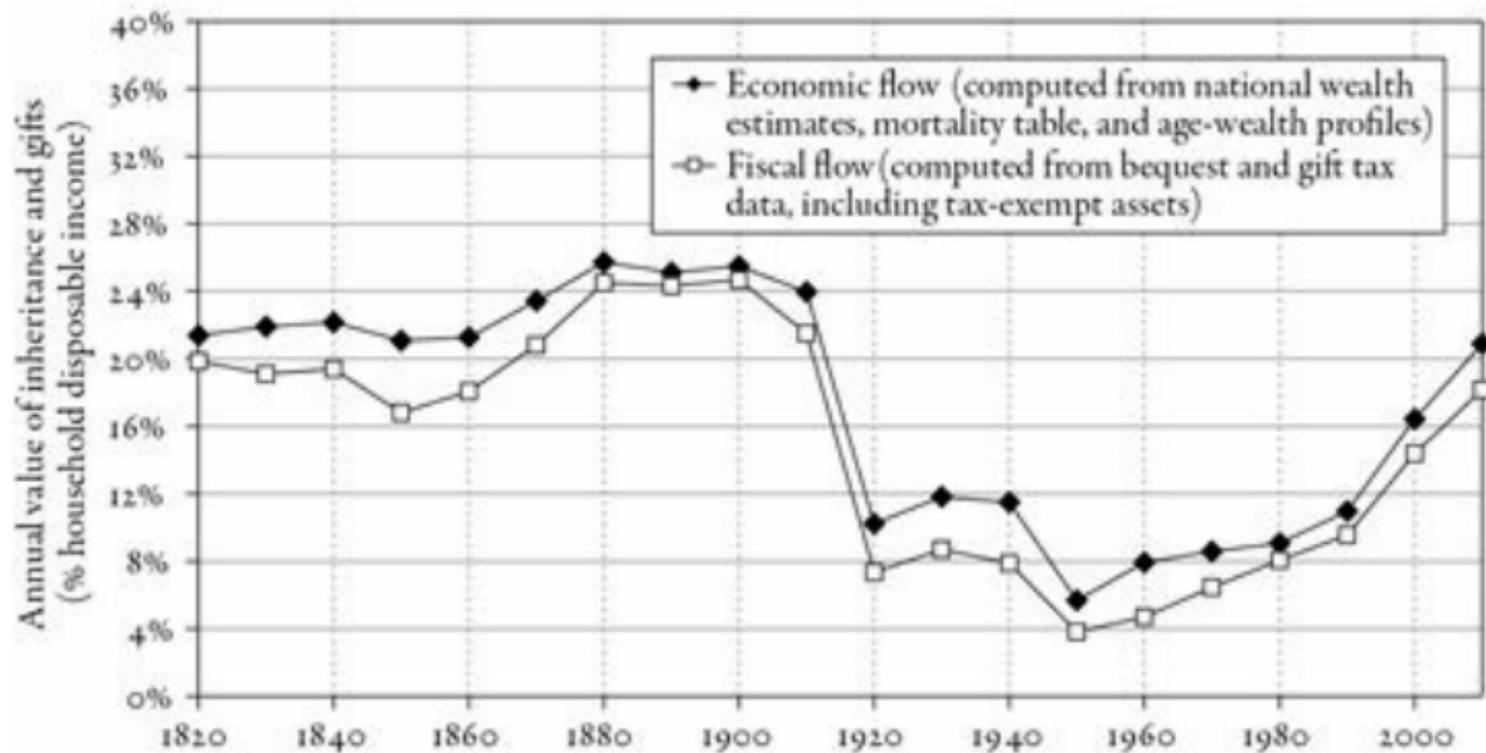


FIGURE 11.8. The annual inheritance flow as a fraction of household disposable income: France, 1820–2010

Expressed as a fraction of household disposable income (rather than national income), the annual inheritance flow is about 20 percent in 2010, in other words, close to its nineteenth-century level.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

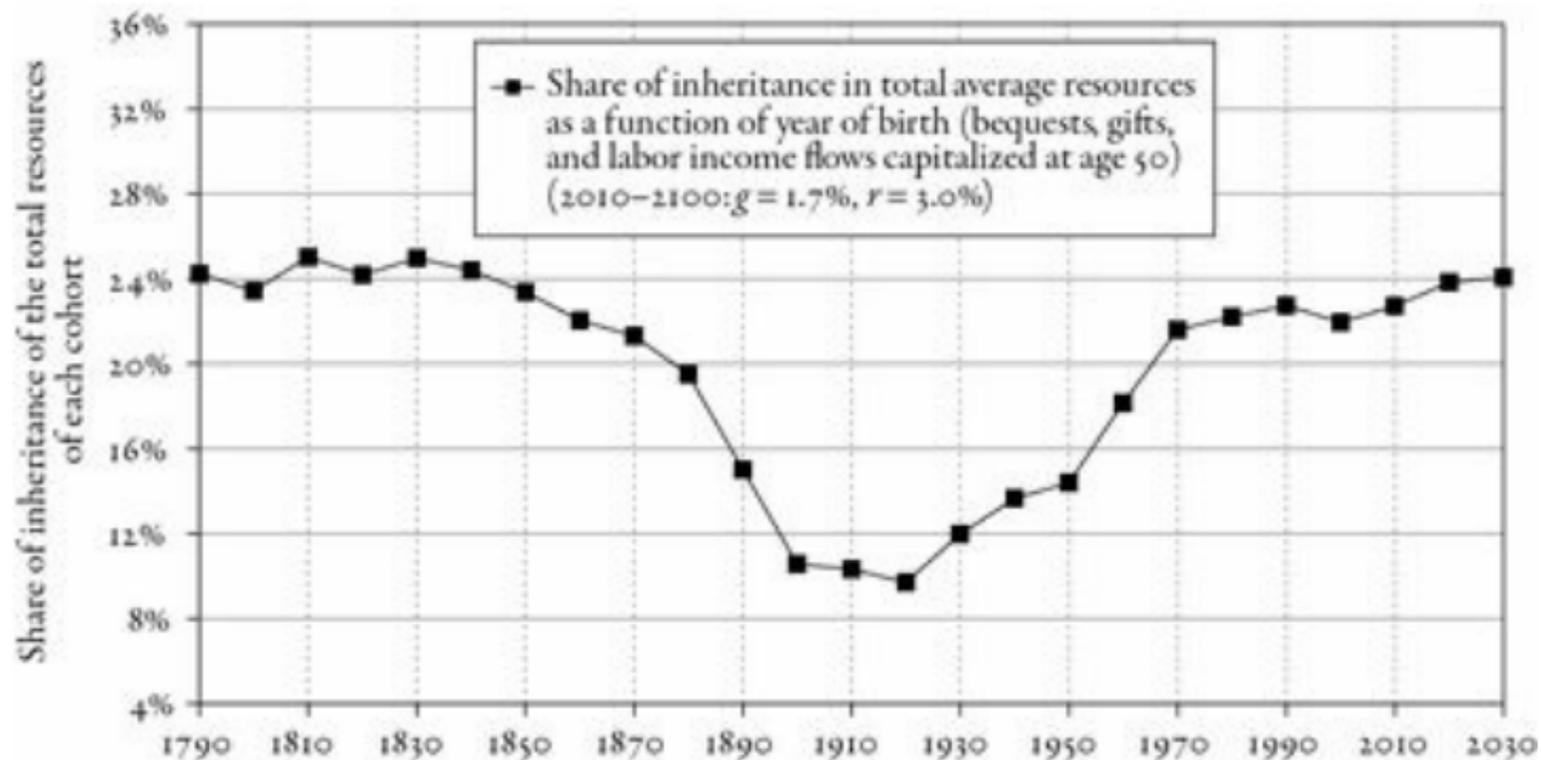


FIGURE 11.9. The share of inheritance in the total resources (inheritance and work) of cohorts born in 1790–2030. Inheritance made about 25 percent of the resources of nineteenth-century cohorts, down to less than 10 percent for cohorts born in 1910–1920 (who should have inherited in 1950–1960).

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

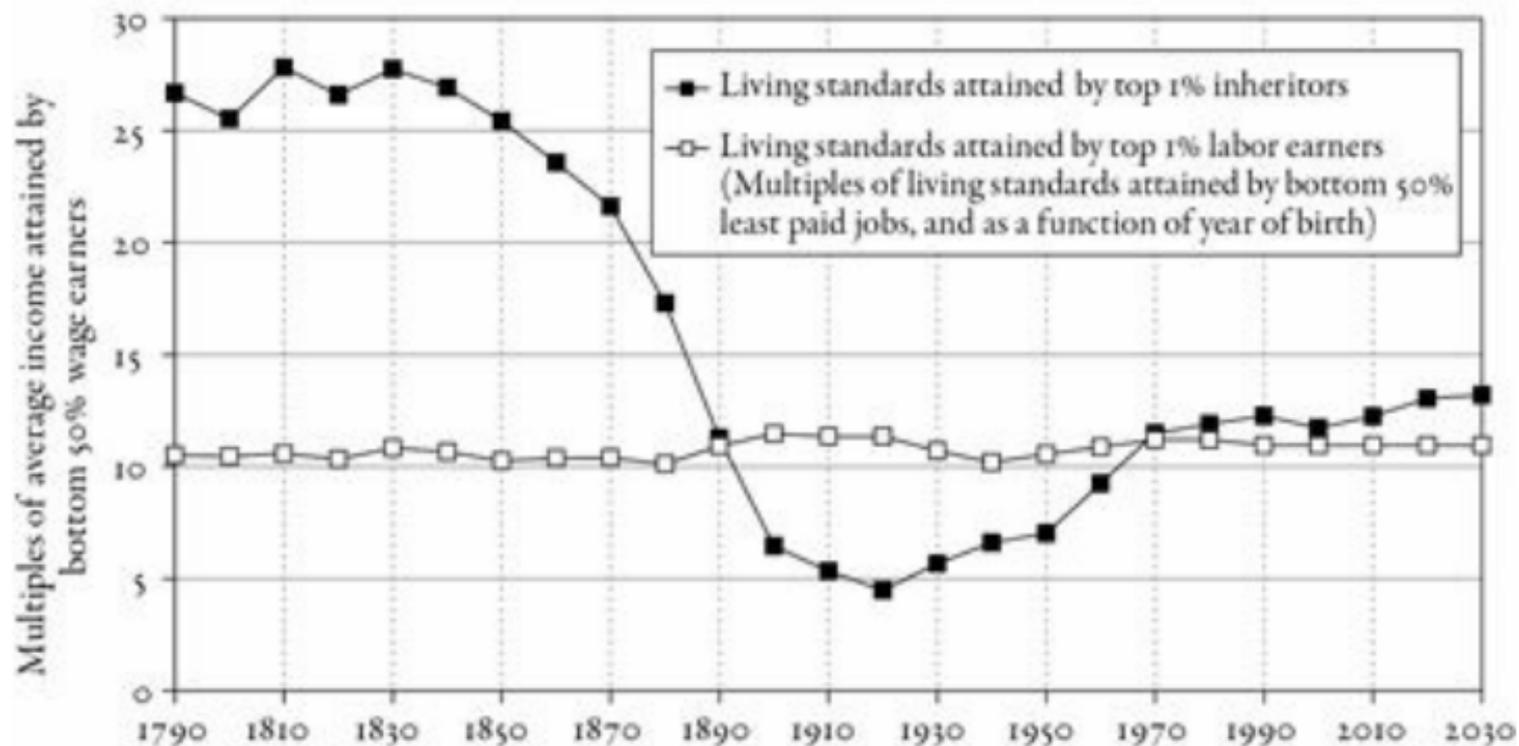


FIGURE 11.10. The dilemma of Rastignac for cohorts born in 1790–2030

In the nineteenth century, the living standards that could be attained by the top 1 percent inheritors were a lot higher than those that could be attained by the top 1 percent labor earners.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

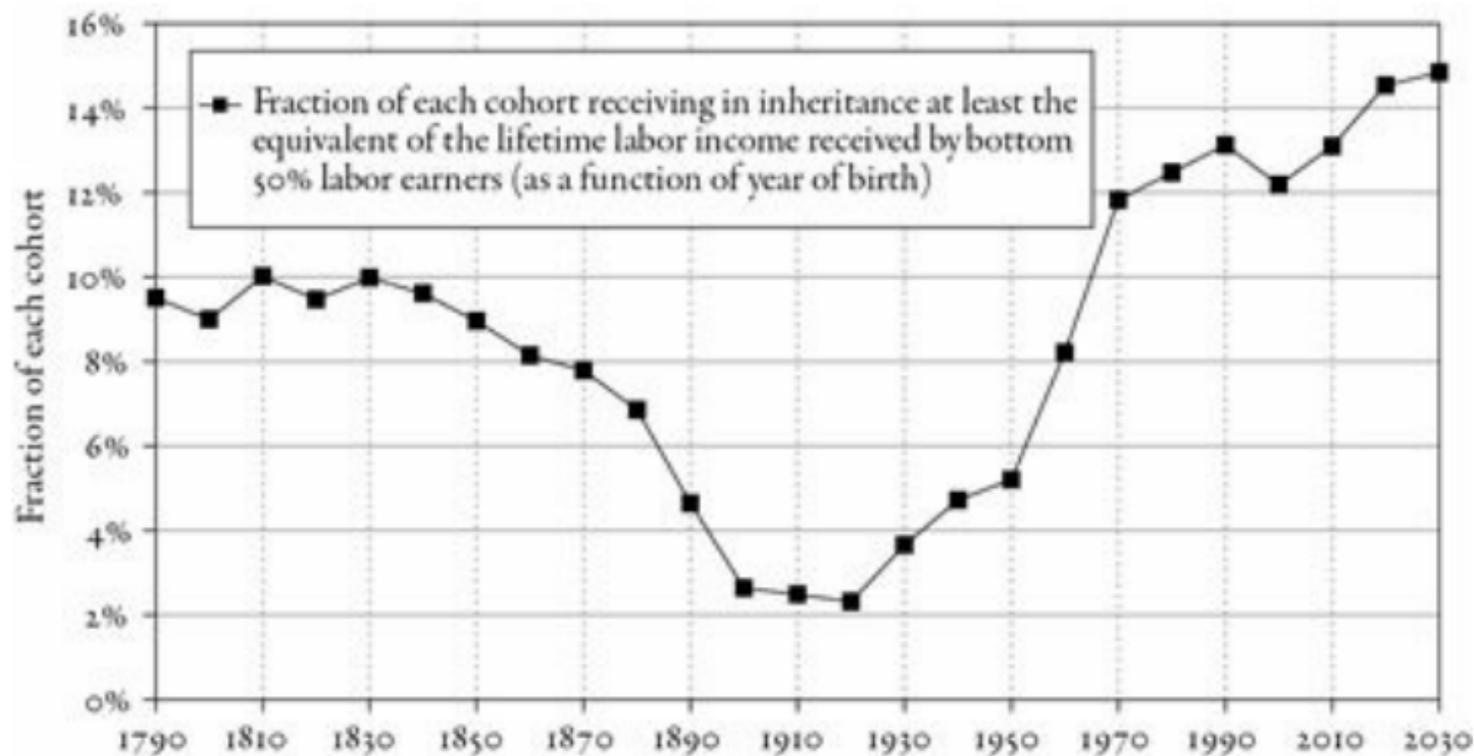


FIGURE 11.11. Which fraction of a cohort receives in inheritance the equivalent of a lifetime labor income?

Within the cohorts born around 1970–1980, 12–14 percent of individuals receive in inheritance the equivalent of the lifetime labor income received by the bottom 50 percent less well paid workers.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

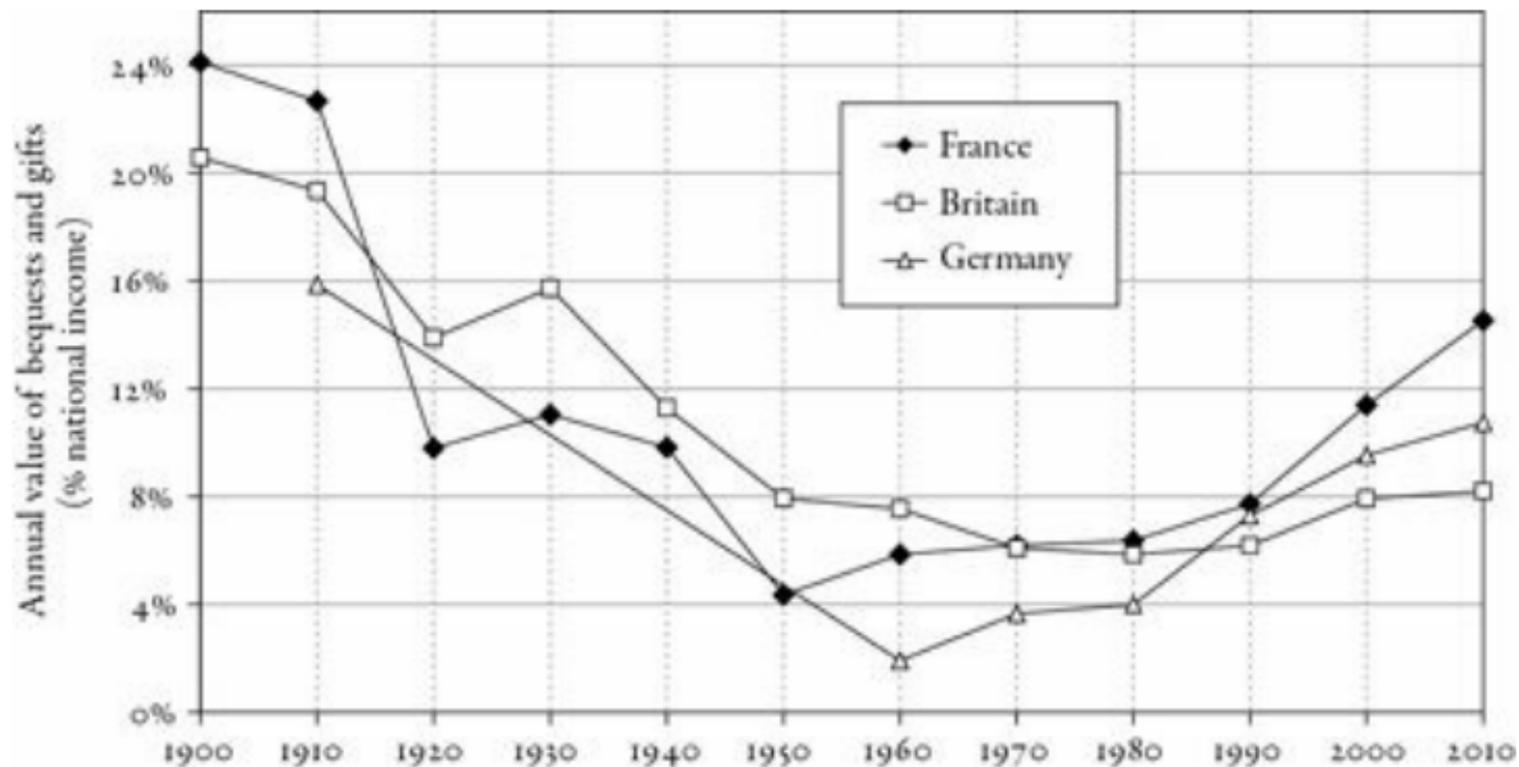


FIGURE 11.12. The inheritance flow in Europe, 1900–2010

The inheritance flow follows a U-shape in curve in France as well as in the United Kingdom and Germany. It is possible that gifts are underestimated in the United Kingdom at the end of the period.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

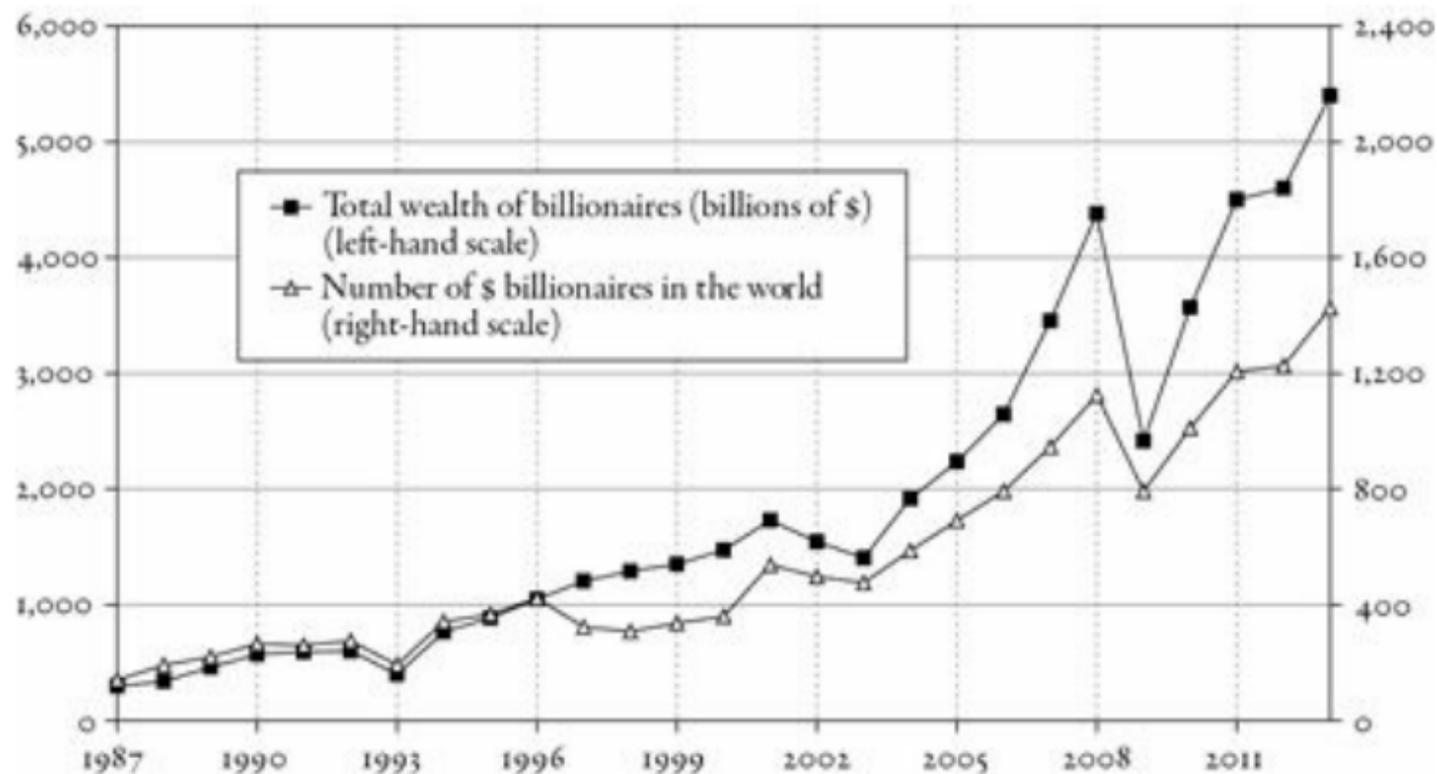


FIGURE 12.1. The world's billionaires according to *Forbes*, 1987–2013

Between 1987 and 2013, the number of \$ billionaires rose according to *Forbes* from 140 to 1,400, and their total wealth rose from 300 to 5,400 billion dollars.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

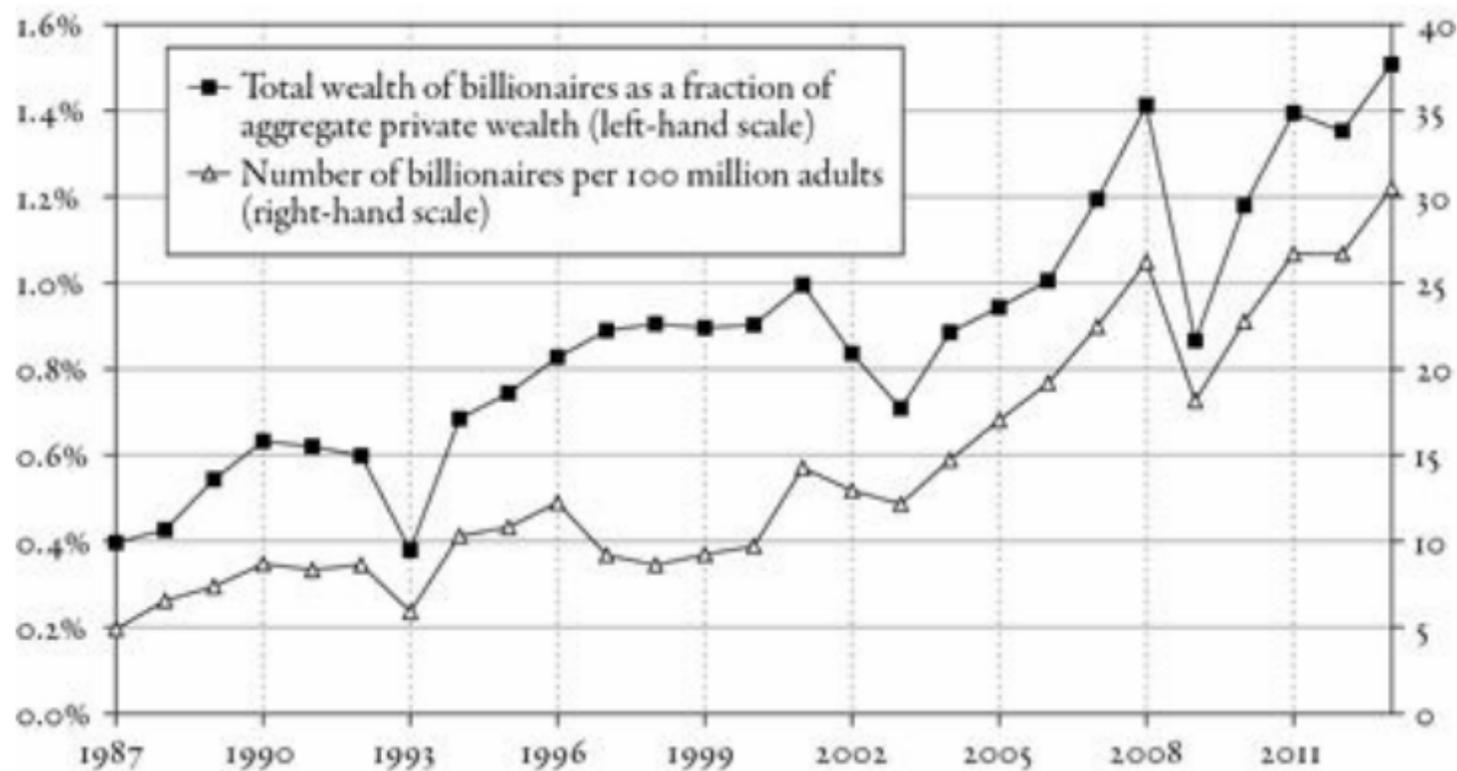


FIGURE 12.2. Billionaires as a fraction of global population and wealth, 1987–2013

Between 1987 and 2013, the number of billionaires per 100 million adults rose from five to thirty, and their share in aggregate private wealth rose from 0.4 percent to 1.5 percent.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 12.1.

*The growth rate of top global wealth, 1987–2013*

	Average real growth rate per year (after deduction of inflation) (%)
The top 1/(100 million) highest wealth holders <sup>a</sup>	6.8
The top 1/(20 million) highest wealth holders <sup>b</sup>	6.4
Average world wealth per adult	2.1
Average world income per adult	1.4
World adult population	1.9
World GDP	3.3

*Note:* Between 1987 and 2013, the highest global wealth fractiles have grown at 6%–7% per year versus 2.1% for average world wealth and 1.4% for average world income. All growth rates are net of inflation (2.3% per year between 1987 and 2013).

*a.* About 30 adults out of 3 billion in the 1980s, and 45 adults out of 4.5 billion in 2010.

*b.* About 150 adults out of 3 billion in the 1980s, and 225 adults out of 4.5 billion in the 2010s.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c)

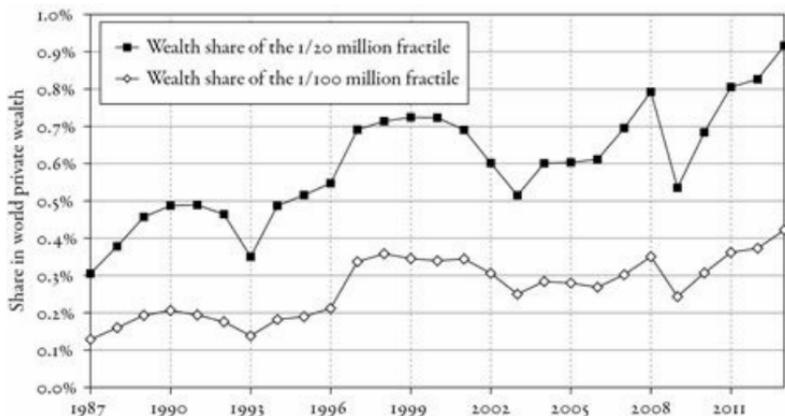


FIGURE 12.3. The share of top wealth fractiles in world wealth, 1987–2013

Between 1987 and 2013, the share of the top 1/20 million fractile rose from 0.3 percent to 0.9 percent of world wealth, and the share of the top 1/100 million fractile rose from 0.1 percent to 0.4 percent.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

TABLE 12.2.

*The return on the capital endowments of US universities, 1980–2010*

	Average real annual rate of return (after deduction of inflation and all administrative costs and financial fees) (%)
All universities (850)	8.2
Harvard, Yale, and Princeton	10.2
Endowments higher than \$1 billion (60)	8.8
Endowments between \$500 million and 1 billion (66)	7.8
Endowments between \$100 and \$500 million (226)	7.1
Endowments less than \$100 million (498)	6.2

*Note:* Between 1980 and 2010, US universities earned an average real return of 8.2% on their capital endowments, and all the more so for higher endowments. All returns reported here are net of inflation (2.4% per year between 1980 and 2010) and of all administrative costs and financial fees.

*Sources:* See [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

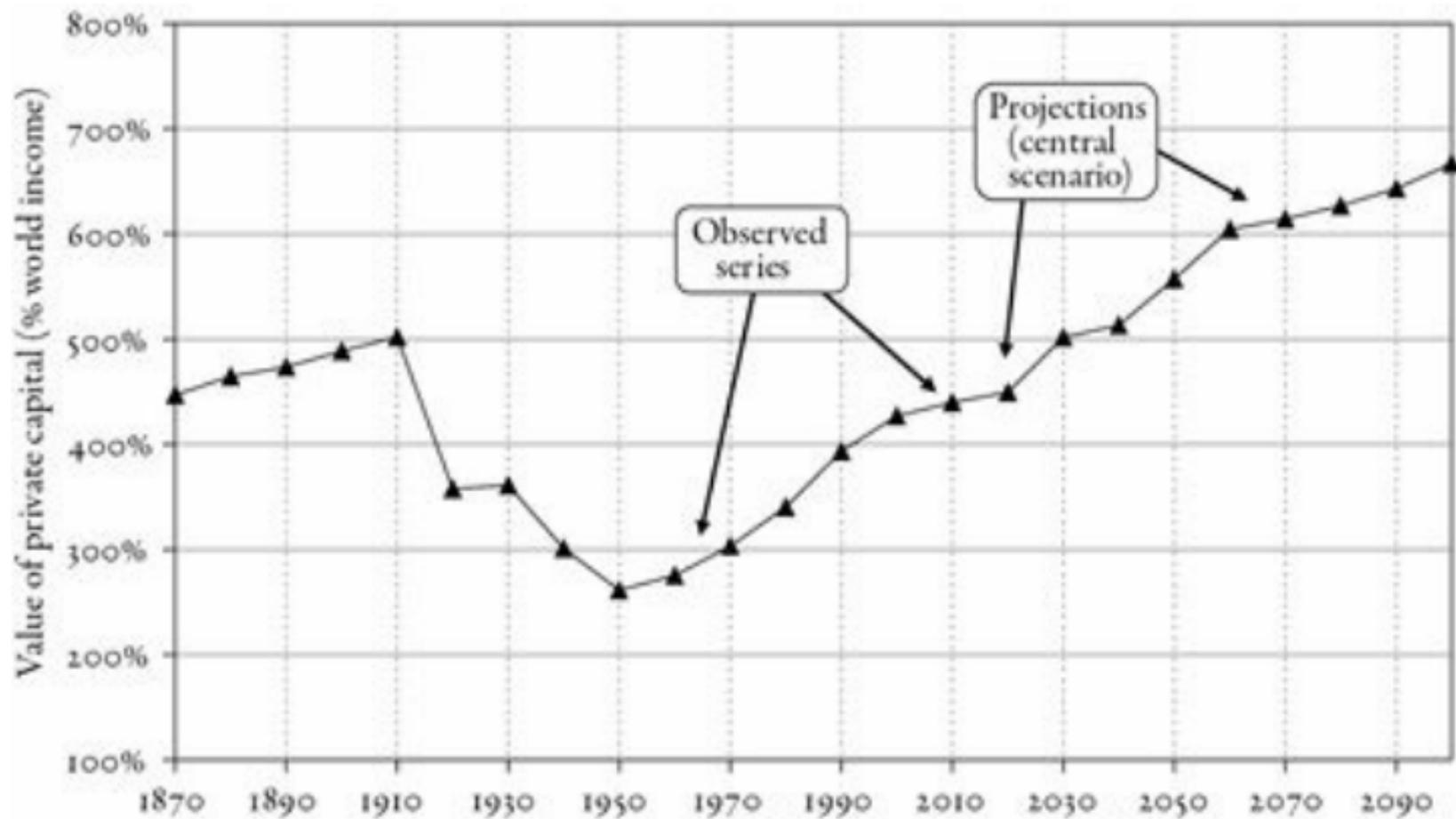


FIGURE 12.4. The world capital/income ratio, 1870–2100

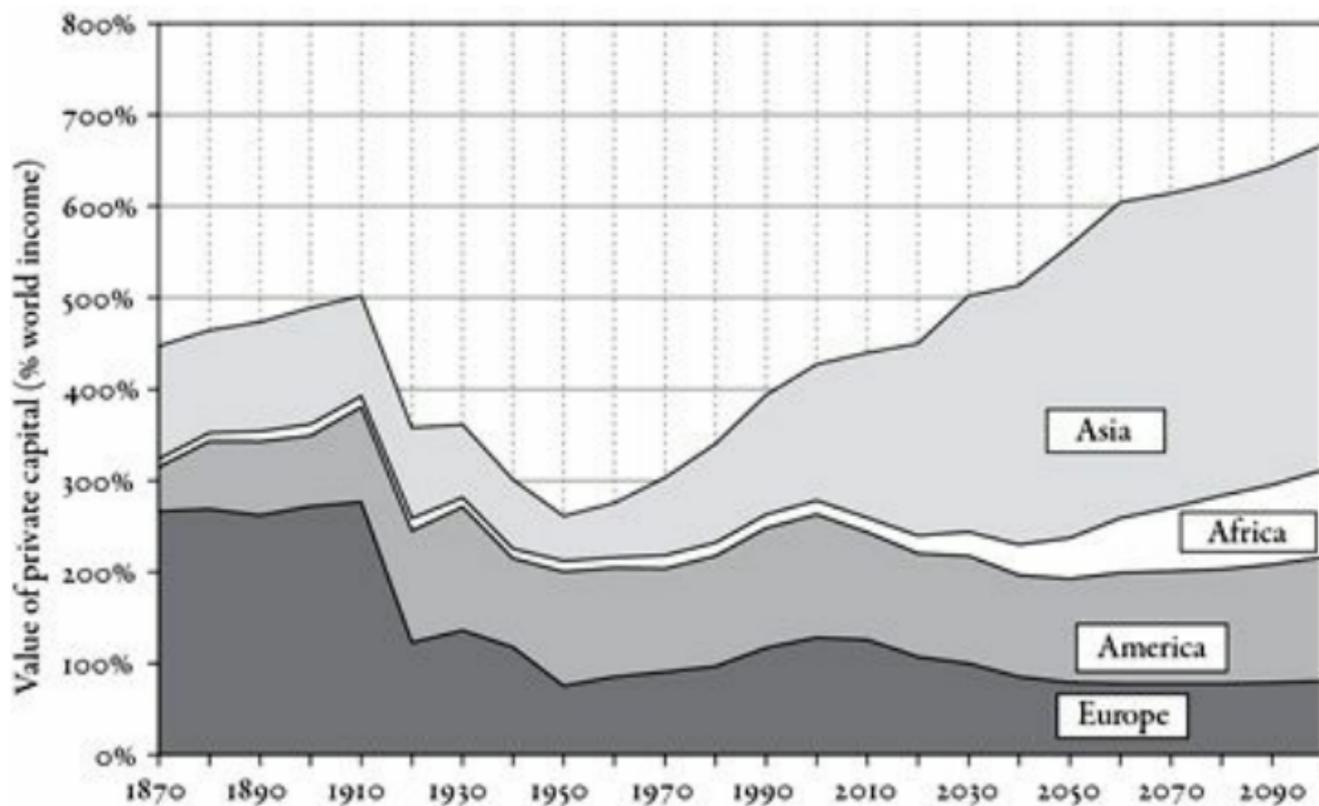


FIGURE 12.5. The distribution of world capital, 1870–2100

According to the central scenario, Asian countries should own about half of world capital by the end of the twenty-first century.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

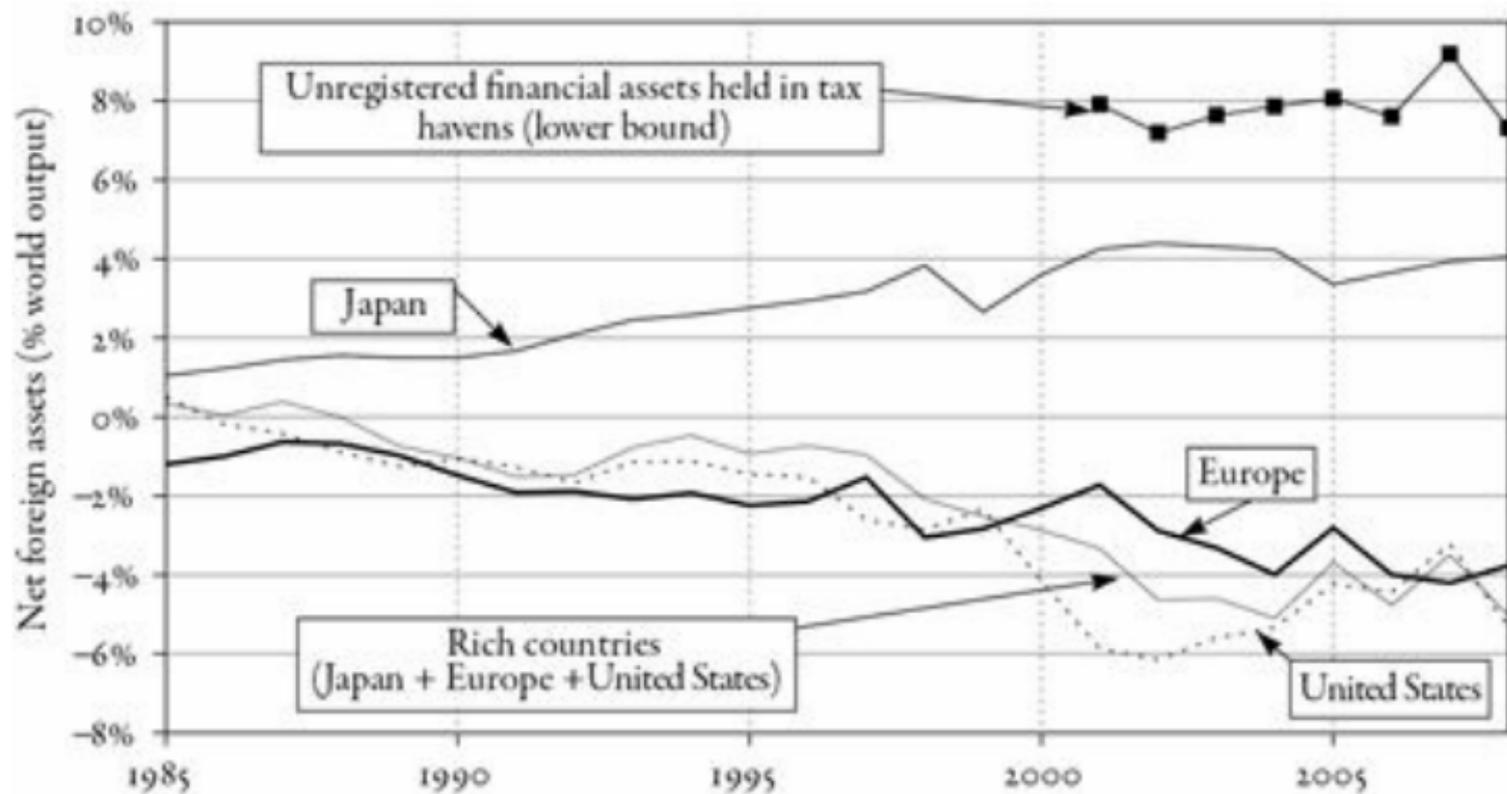


FIGURE 12.6. The net foreign asset position of rich countries

Unregistered financial assets held in tax havens are higher than the official net foreign debt of rich countries.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

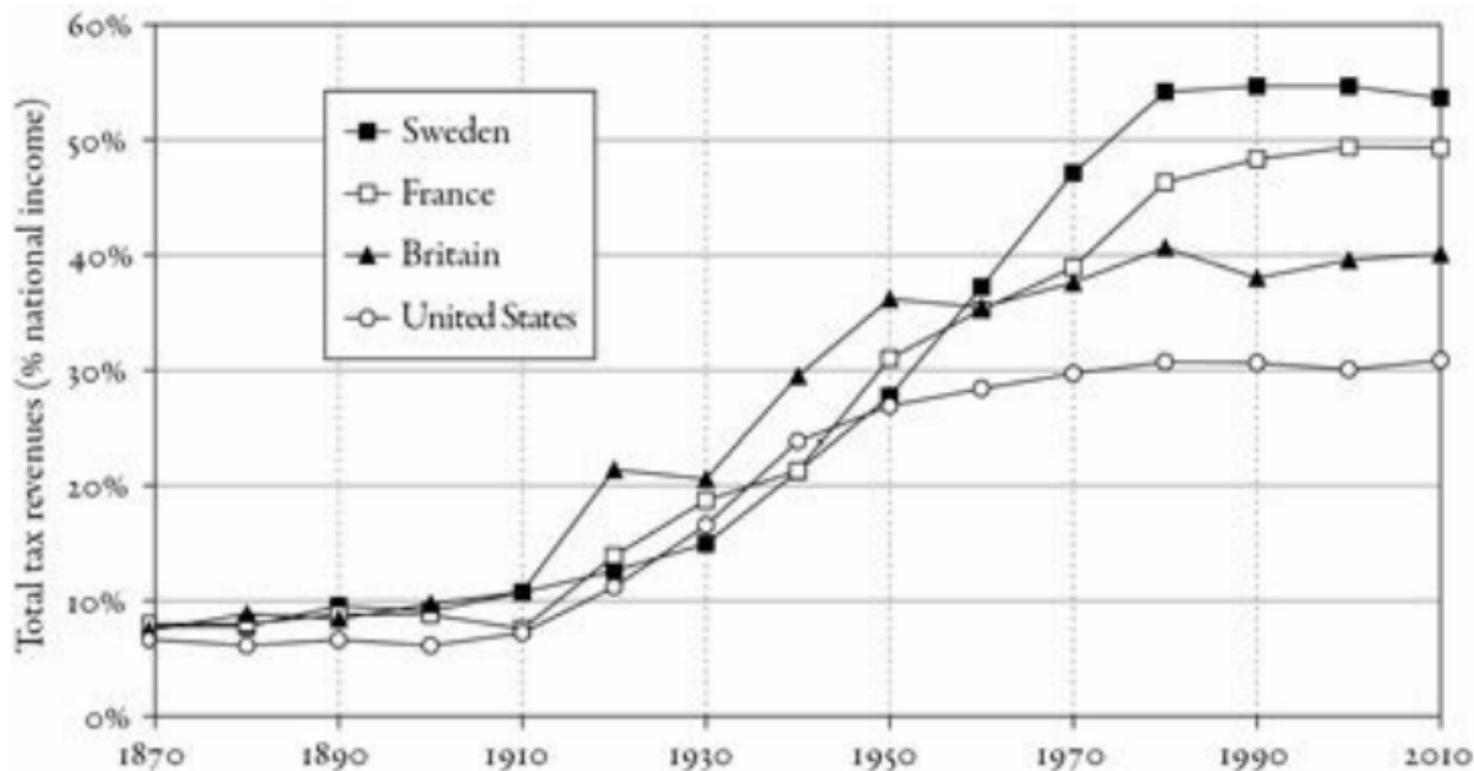


FIGURE 13.1. Tax revenues in rich countries, 1870–2010

Total tax revenues were less than 10 percent of national income in rich countries until 1900–1910; they represent between 30 percent and 55 percent of national income in 2000–2010.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

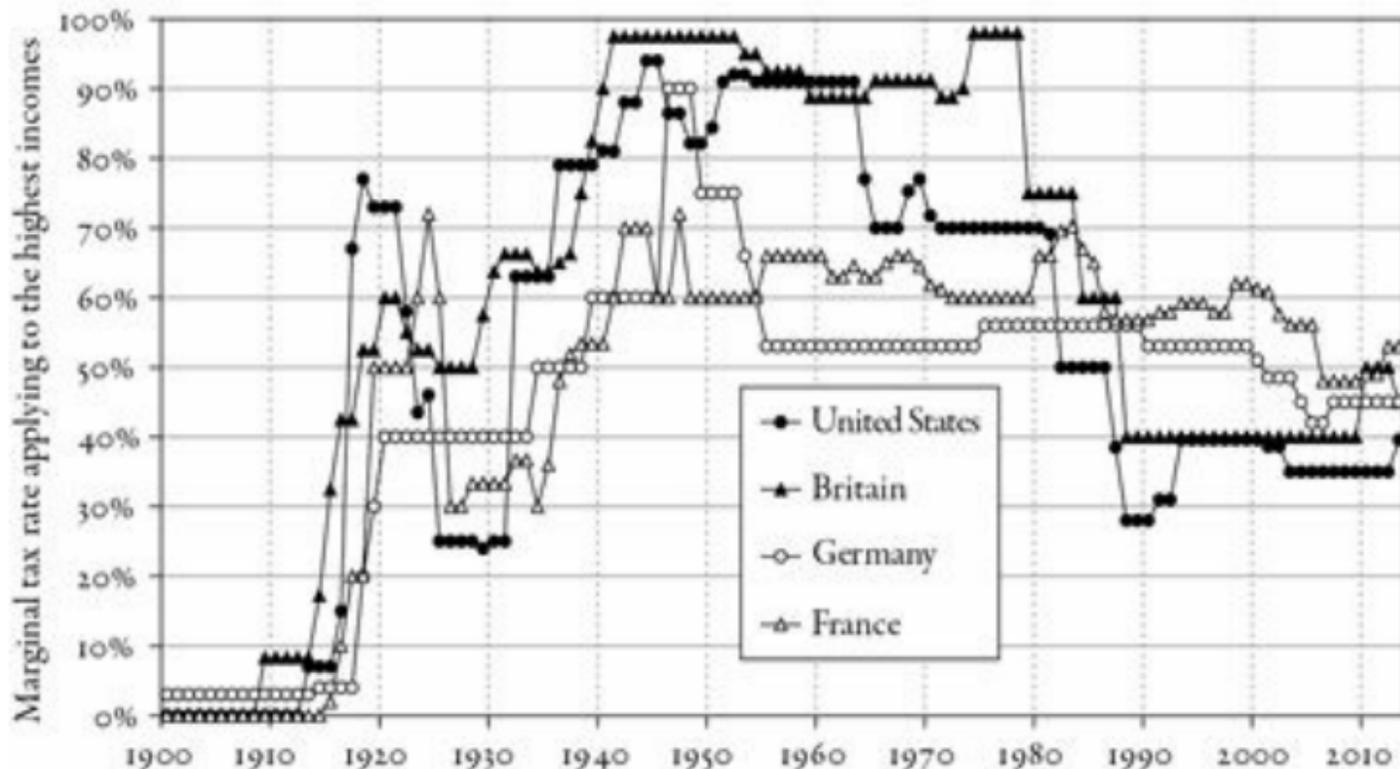


FIGURE 14.1. Top income tax rates, 1900–2013

The top marginal tax rate of the income tax (applying to the highest incomes) in the United States dropped from 70 percent in 1980 to 28 percent in 1988.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).

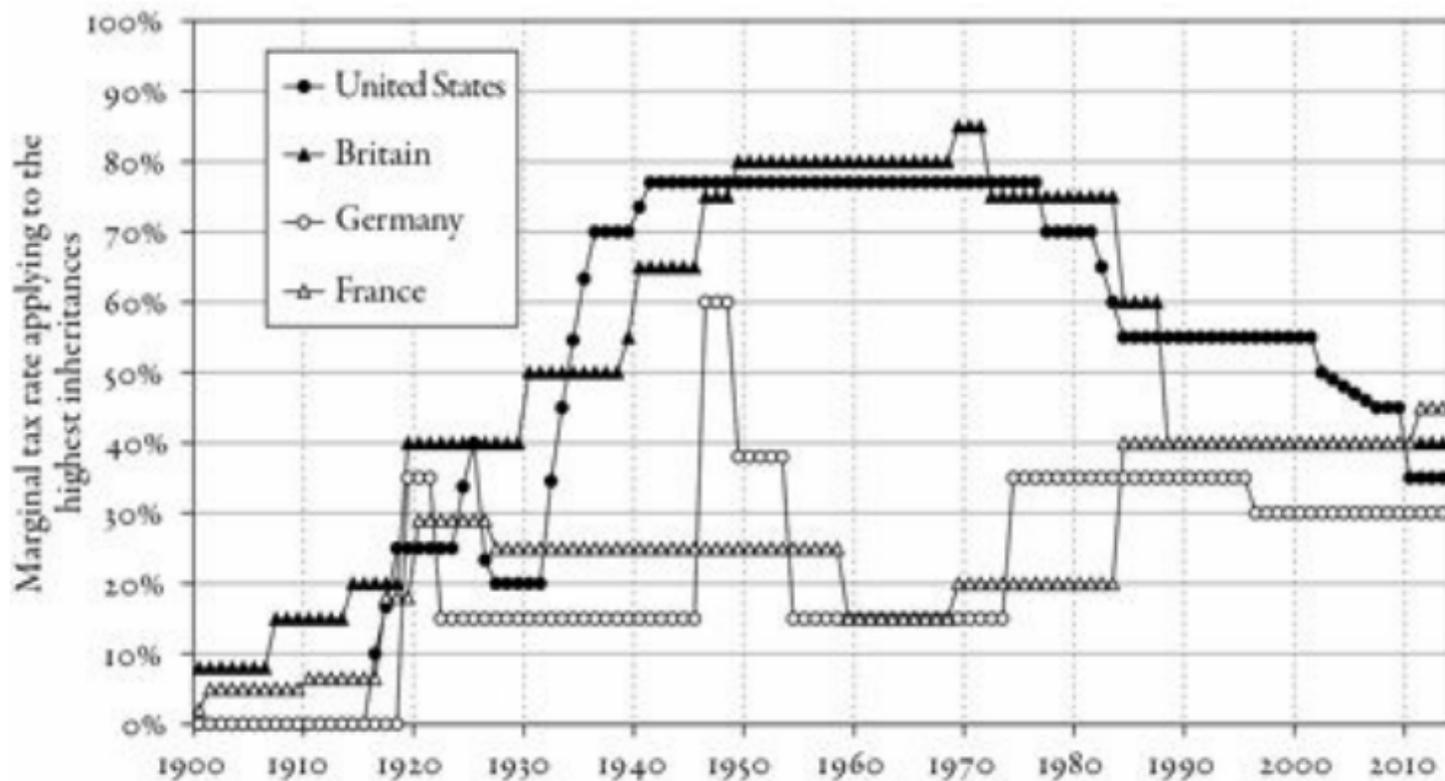


FIGURE 14.2. Top inheritance tax rates, 1900–2013

The top marginal tax rate of the inheritance tax (applying to the highest inheritances) in the United States dropped from 70 percent in 1980 to 35 percent in 2013.

Sources and series: see [piketty.pse.ens.fr/capital21c](http://piketty.pse.ens.fr/capital21c).