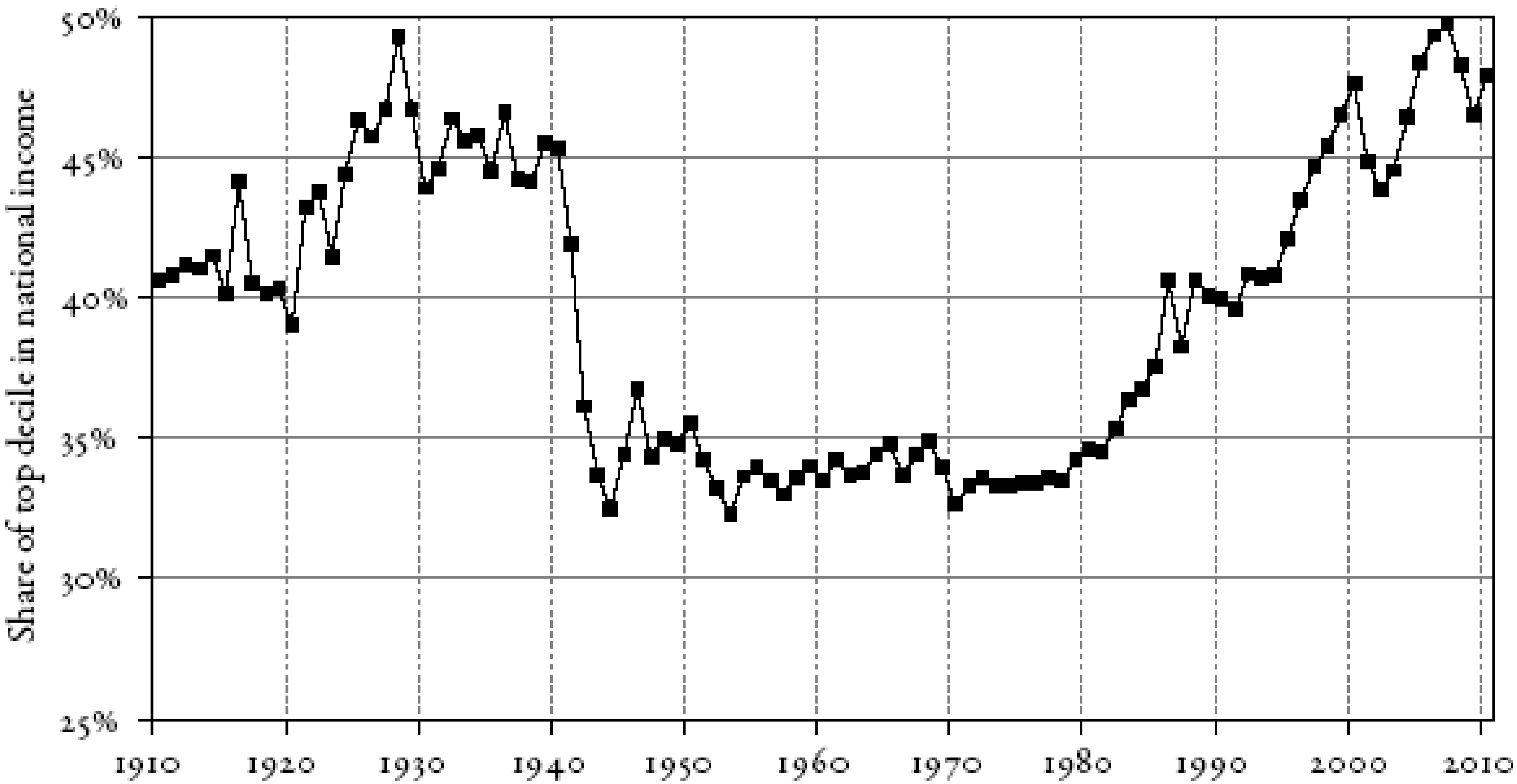
CAPITAL

in the Twenty-First Century

THOMAS PIKETTY

TRANSLATED BY ARTHUR GOLDHAMMER

CAPITAL IN THE TWENTY-FIRST CENTURY



SHARE OF [Top decile 10%] in TOTAL

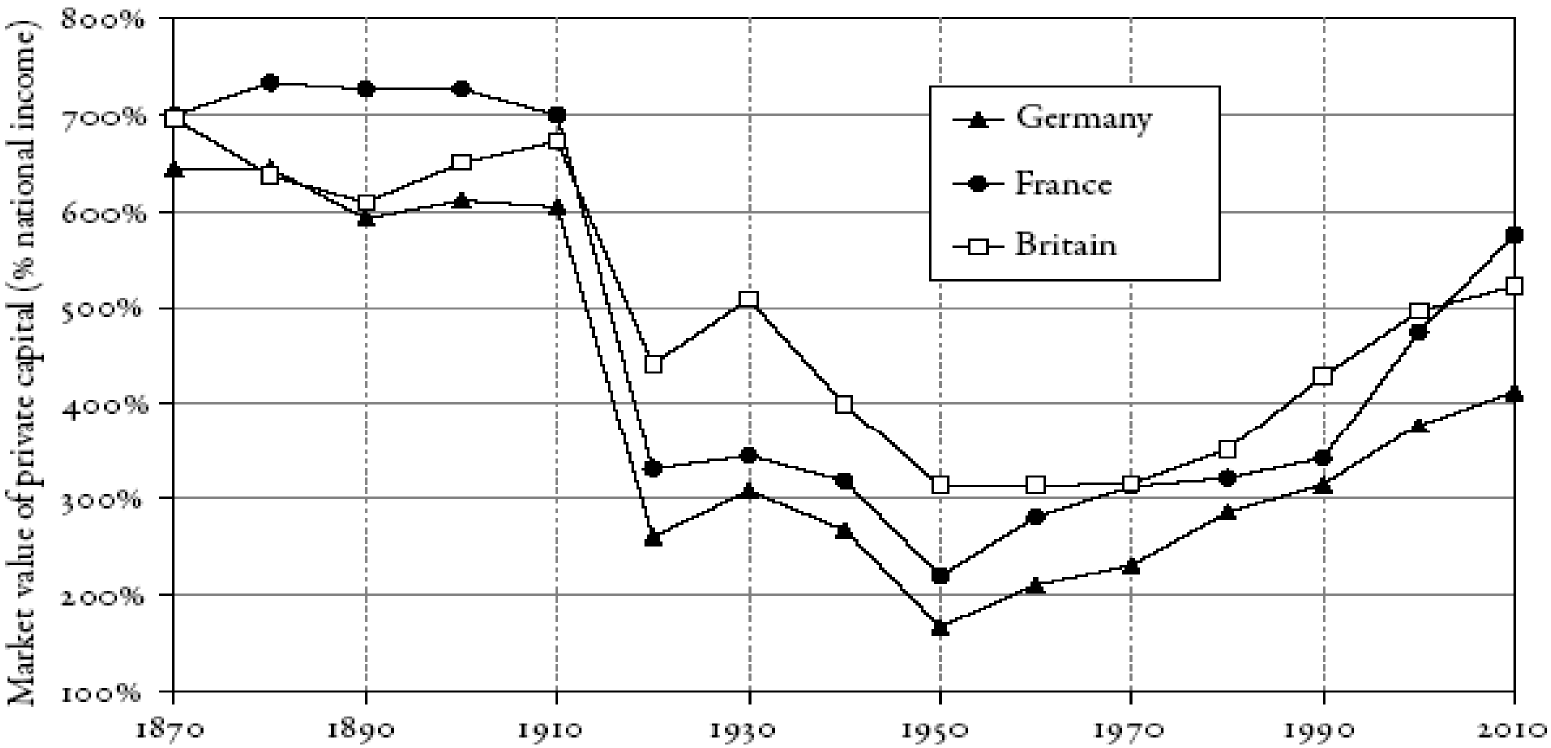


FIGURE I.2. The capital/income ratio in Europe, 1870–2010

Aggregate private wealth was worth about six to seven years of national income in Europe in 1910, between two and three years in 1950, and between four and six years in 2010.

K/Y ratio

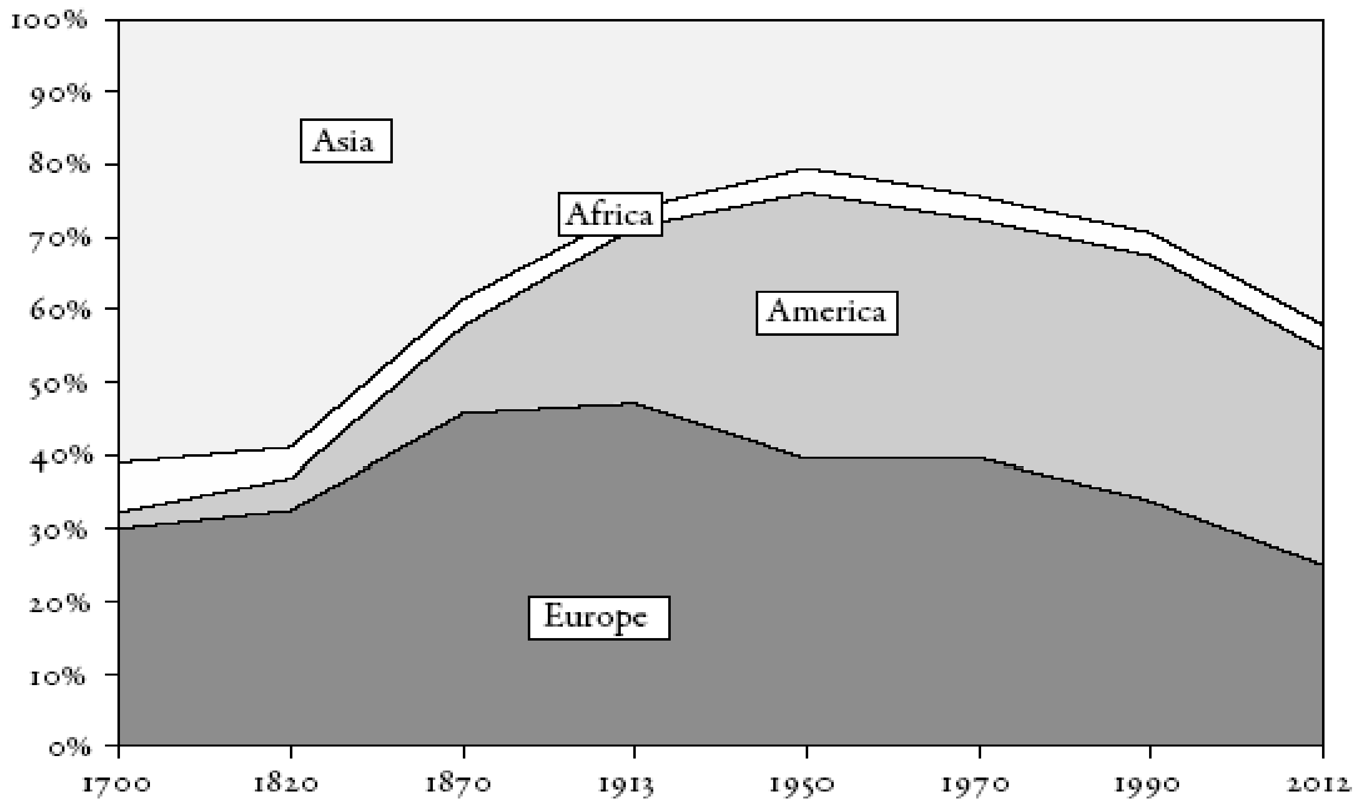


FIGURE 1.1. The distribution of world output, 1700–2012

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.

World shares %

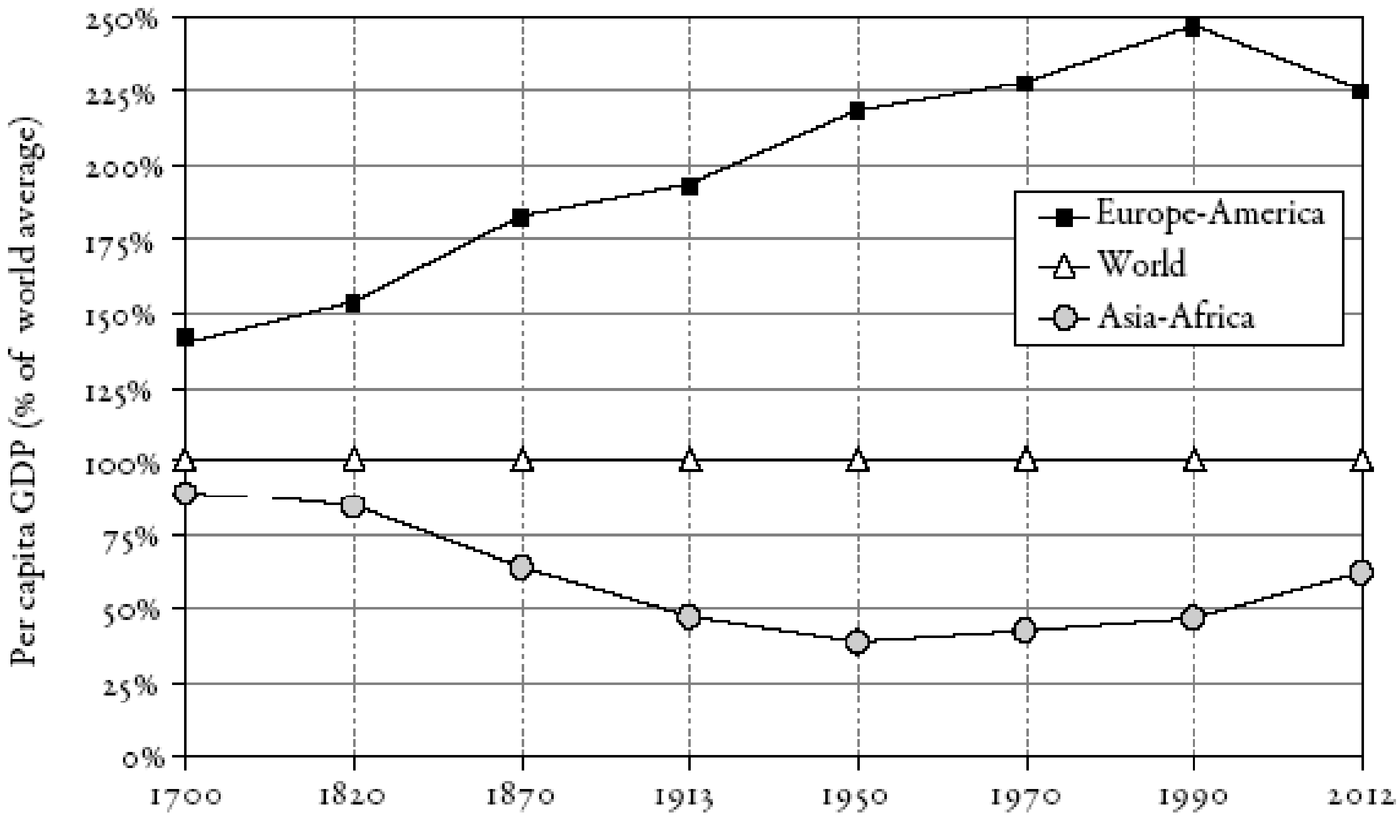


FIGURE 1.3. Global inequality, 1700–2012: divergence then convergence?

Convergence/Divergence ?

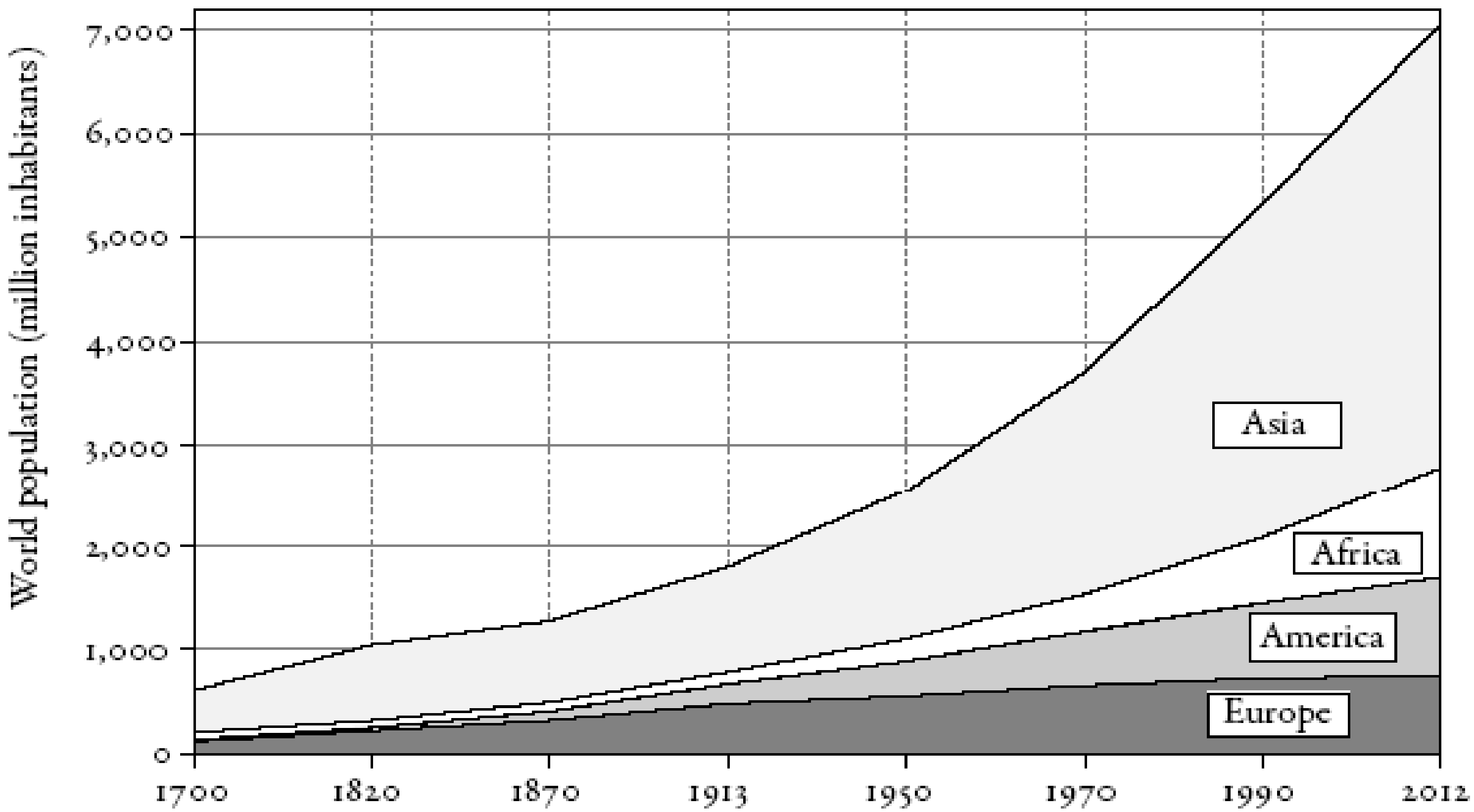


FIGURE 2.1. The growth of world population, 1700–2012

Population bomb?

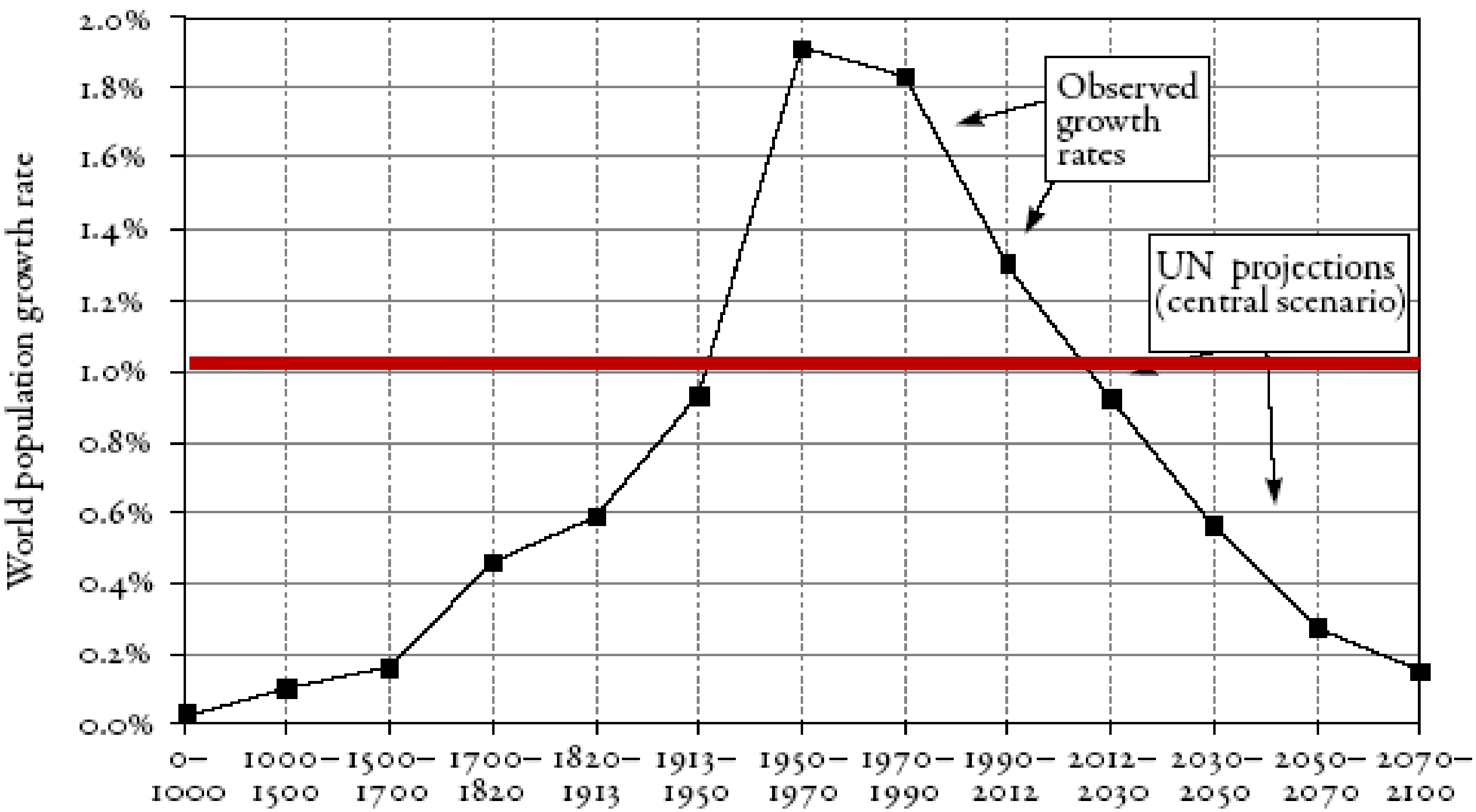


FIGURE 2.2. The growth rate of world population from Antiquity to 2100

Is the bomb under control ?

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

Per capita growth rate

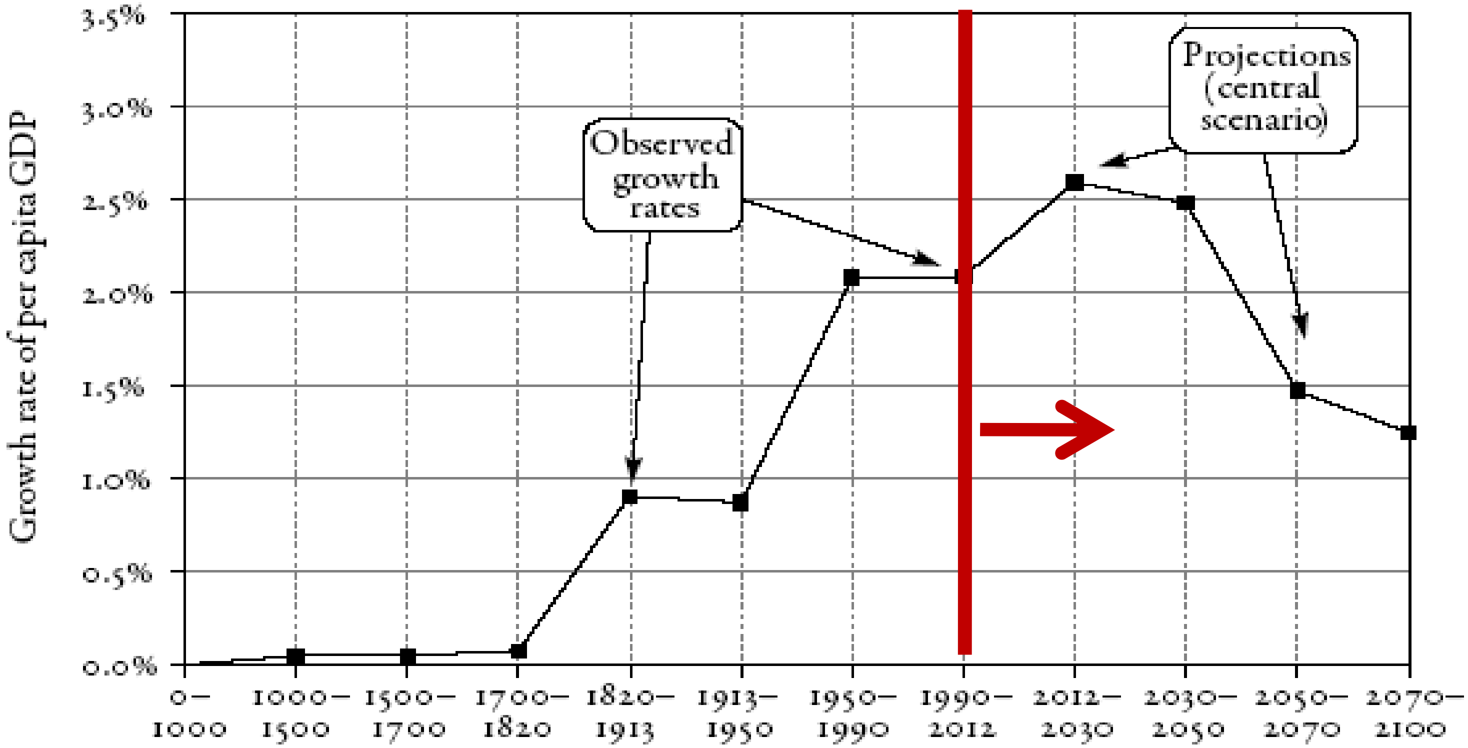


FIGURE 2.4. The growth rate of world per capita output from Antiquity to 2100

Per capita growth rate

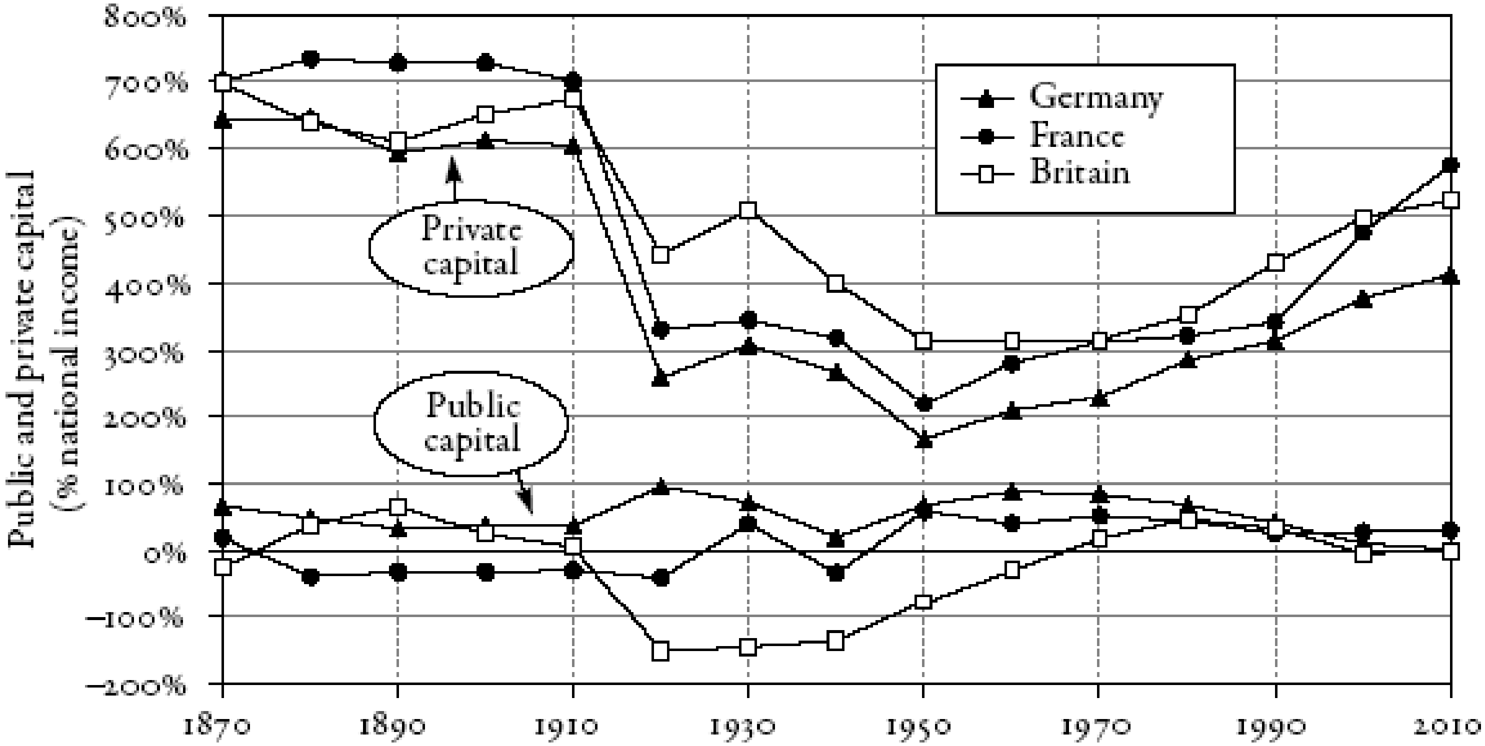


FIGURE 4.4. Private and public capital in Europe, 1870–2010

Public vs. Private Capital

FINANCIAL TIMES

By Chris Giles in London May 23, 2014

Piketty findings undercut by errors

«Some numbers appear simply to be constructed out of thin air»

On a tour of the US last month, Prof Piketty met Jack Lew, US Treasury secretary, gave a presentation to the White House Council of Economic Advisers and lectured at the International Monetary Fund and the UN

Professor Paul Krugman said it was safe to say the book "will be the most important economics book of the year – and maybe of the decade".

Q.: Apart from shocks, what forces determine the long-run level of wealth concentration?

- A.: In any dynamic, multiplicative wealth accumulation model with random individual shocks (tastes, demographic, returns, wages,..),

the steady-state level of wealth concentration

is an increasing function of **r – g**

(with r = net-of-tax rate of return and g = growth rate)

With growth slowdown and rising tax competition to attract capital,

r - g might well rise in the 21c → back to 19c levels http://www.youtube.com/watch?v=kBl5V-pQOAw

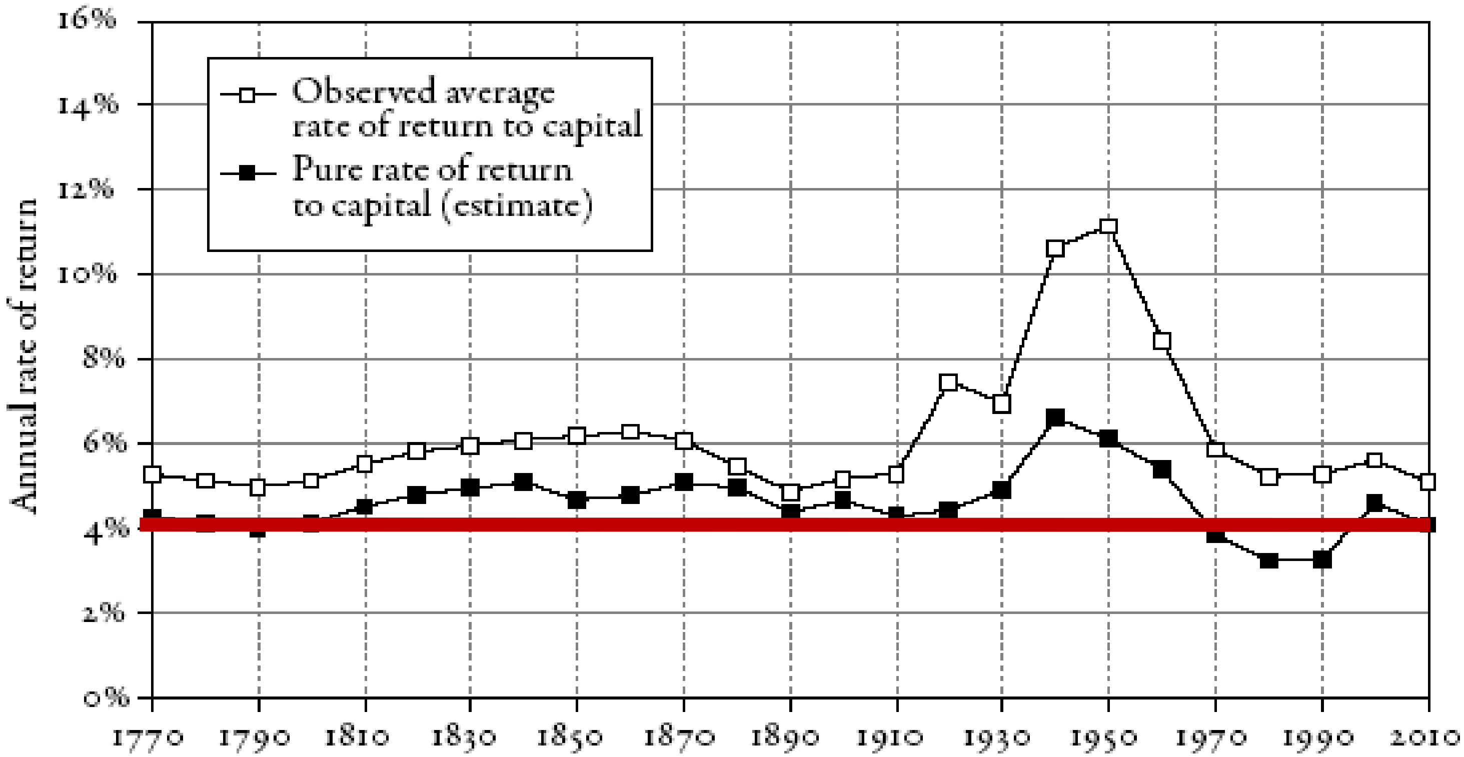
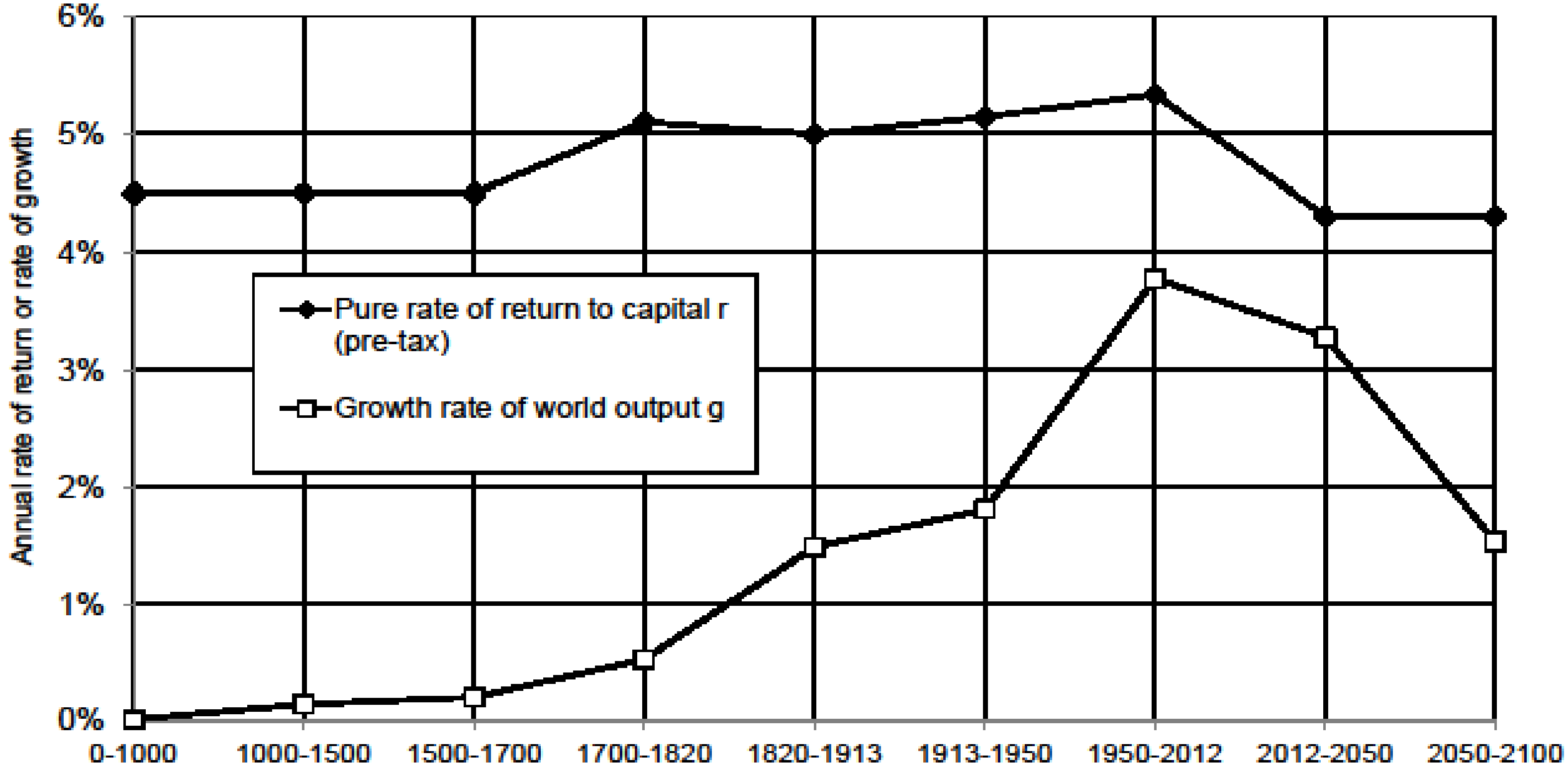


FIGURE 6.3. The pure rate of return on capital in Britain, 1770–2010

Rate of Return on Capital

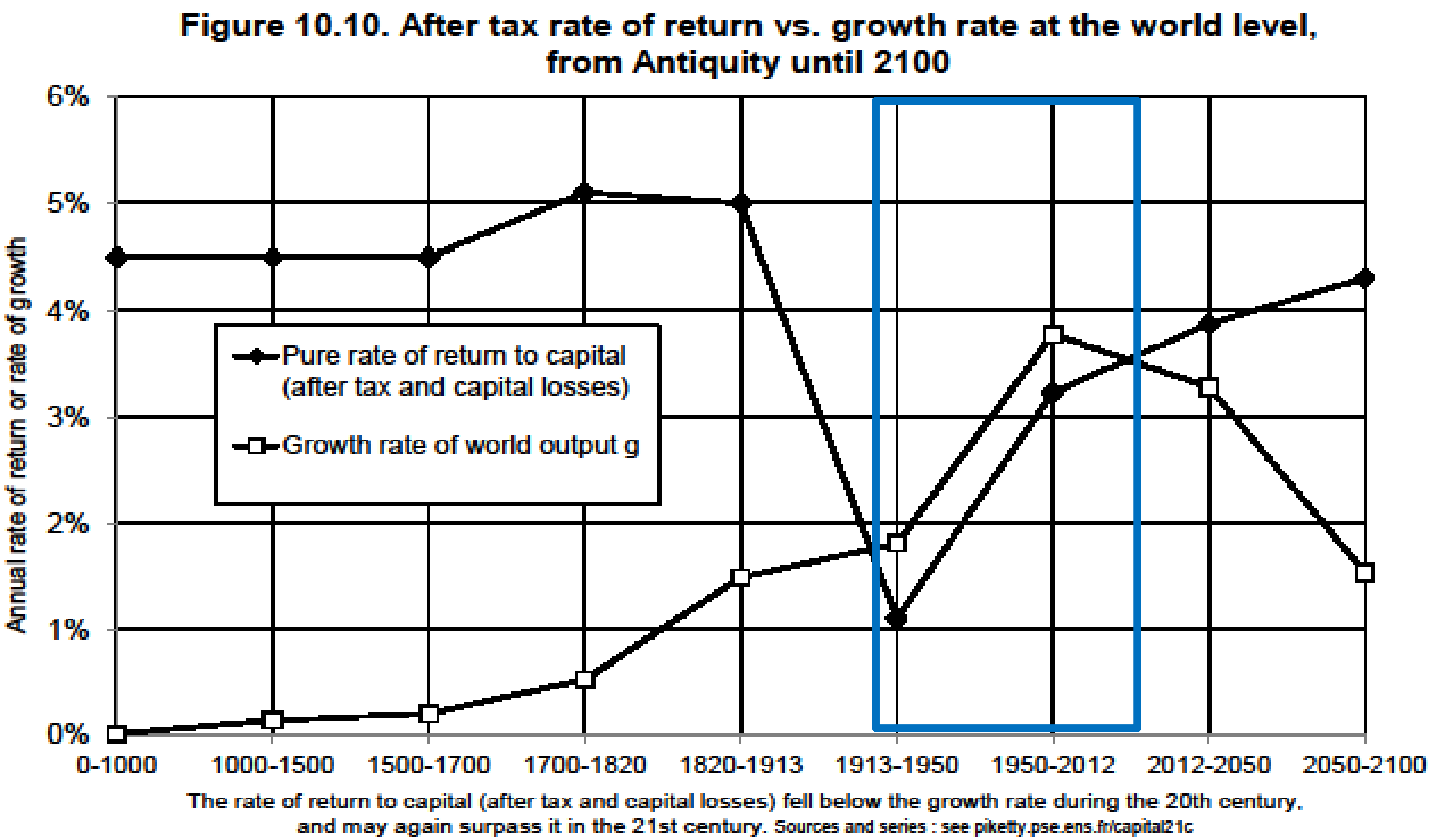
Figure 10.9. Rate of return vs. growth rate at the world level, from Antiquity until 2100



The rate of return to capital (pre-tax) has always been higher than the world growth rate, but the gap was reduced during the 20th century, and might widen again in the 21st century.

Sources and series: see piketty.pse.ens.fr/capital21c

The [r-g] factor



The after tax [$(1-\vartheta)$ r - g] factor

The importance of [*r*] and [r-g]

1. The K/Y ratio
   ➔ *Growth, Inequality*

2. The Debt/GDP ratio
   ➔ *Debt crises*

3. The Benefit/Cost ratio
   ➔ *International Aid, Projects*