Thomas Piketty's *Capital in the 21st Century*

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The plan of this talk

- A few words on inequality as a subject of study
- Piketty’s work: what is new
- How inequality is measured,
- Piketty’s model: Linking economic growth to income distribution
- Results, the long run view of history
- A few words on his policy prescriptions
- Why the controversy?

Some recent “radical” views on inequality

- Standard and Poors, (5 August, 2014) “How increasing inequality is dampening US economic growth and possible ways to change the tide.”
- Federal Reserve, (September, 2014) *Federal Reserve Bulletin*, V100n4.
- Morgan Stanley (12 September, 2014), “Inequality and consumption.”
- IMF (8 August, 2014), “Treating inequality with redistribution: Is the cure worse than the curse?” iMF Direct—The IMF blog.

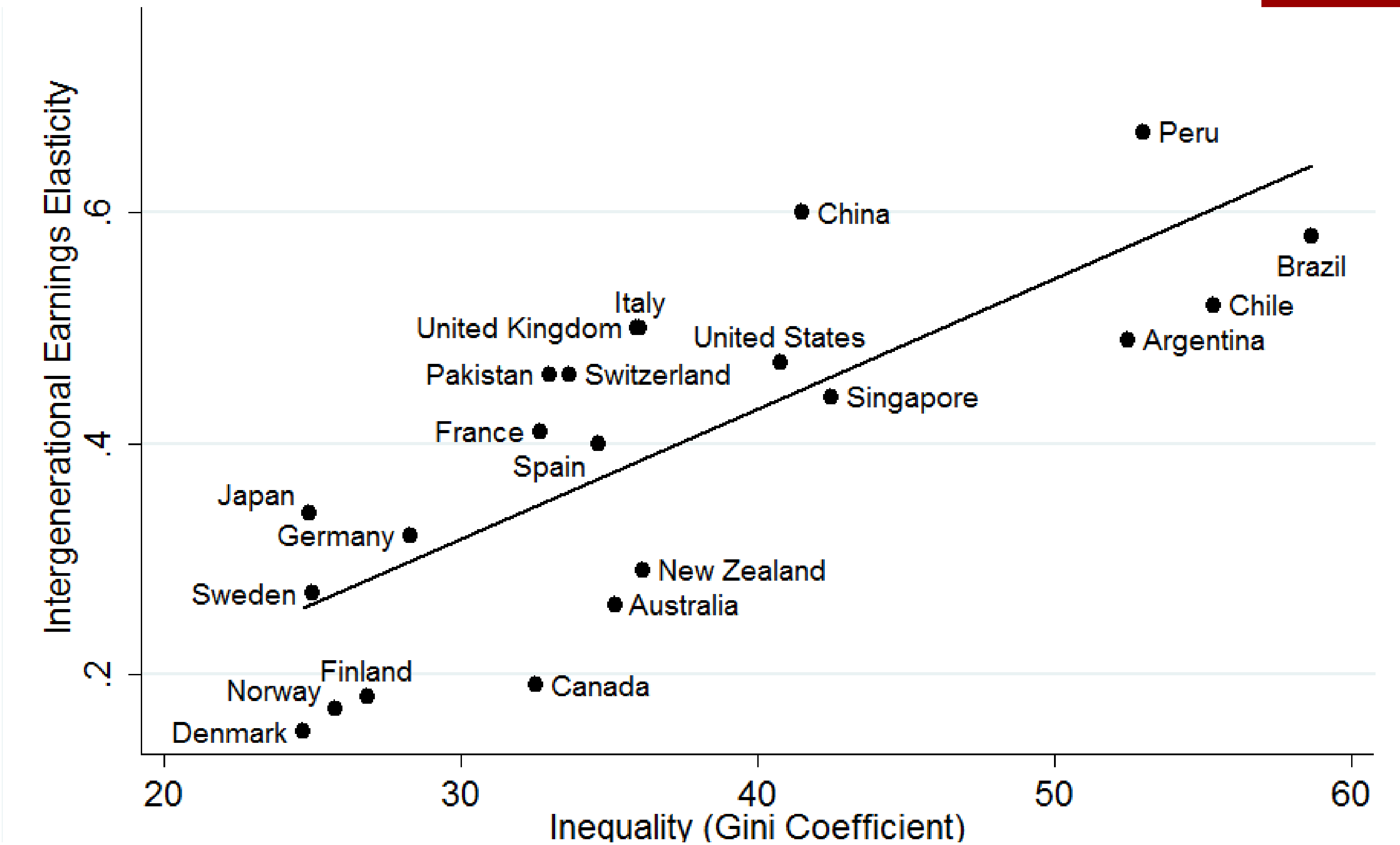
Inequality: contexts

- Within a country at a point in time: e.g., the top 1% in the US versus the bottom 50%.
- Across different countries at a point in time: e.g., W. Europe versus Sub-Saharan Africa.
- Across the globe, all countries together: e.g., the top 1% globally, versus the bottom 50%.
- Changes in each of the above, over time.

Inequality: general issues

- Not the same as poverty
- Inequality is not always a bad thing
  - Increases incentives
  - Just reward for effort and skill
- Inequality as a result of social exclusion is harmful
  - Exclusion based on race, ethnicity, religion, gender, class
  - Fewer opportunities, less access
- Inequality and democracy
  - Corrosive effects: undermines confidence in the system of government
  - Incentives to elect demagogues
- Inequality and growth: Slower growth
- Inequality and socio-economic mobility

Inequality and mobility: The Gatsby Curve



Inequality in Piketty's work

- Income inequality is his main/only focus
- Income is divided into capital income (income from wealth) and labor income. Both types of income are the major focus of his work.
- Long-run historical perspective, mostly W. Europe and the US.
- His work is in the tradition of 19th century political economists such as Malthus, Ricardo, and Marx, who analyzed the the existing economic system's production of income inequality.

Why Piketty’s work is widely praised

- Accesses a massive amount of archival data in new and original ways, including new sources of data
- Provides a broad historical view covering two centuries
- Connects economic growth theory to the theory of income distribution
- Separates capital (wealth) income inequality from labor income inequality and studies both of them.
- Relates his economic findings to literary works of the period
- Explains previous studies, such as Kuznets, in a modern light
- Resonates with our perceptions of changes in the economy

Literary sources

- Classical economists Malthus, Arthur Young, Ricardo, Marx
- Novelists Balzac and Austen and James
- But also Disney's *The Aristocats*
- And TV series *House*, *Bones*, *The West Wing*, *Desperate Housewives*, *Damages*
- To talk about classical views of wealth and inequality, the role of inheritance versus work, our modern dislike of *rentiers* who do nothing but gain wealth and our preference for meritocracy and the rewards of labor.

Inequality: measurements

- Comprehensive, synthetic measures:
  - Gini coefficient
  - Mix inequality due to wealth with inequality from labor: no way to differentiate them.
  - No way to differentiate within-group variation: top 10%, top 1%, bottom 50%, etc.

- Distribution tables
  - Percentiles, deciles, quintiles
  - A broader picture of the economic and social reality.
  - Capital income and labor income differentiated.

The Gini Coefficient

The Gini coefficient :
(Area A)/(Areas A+B)

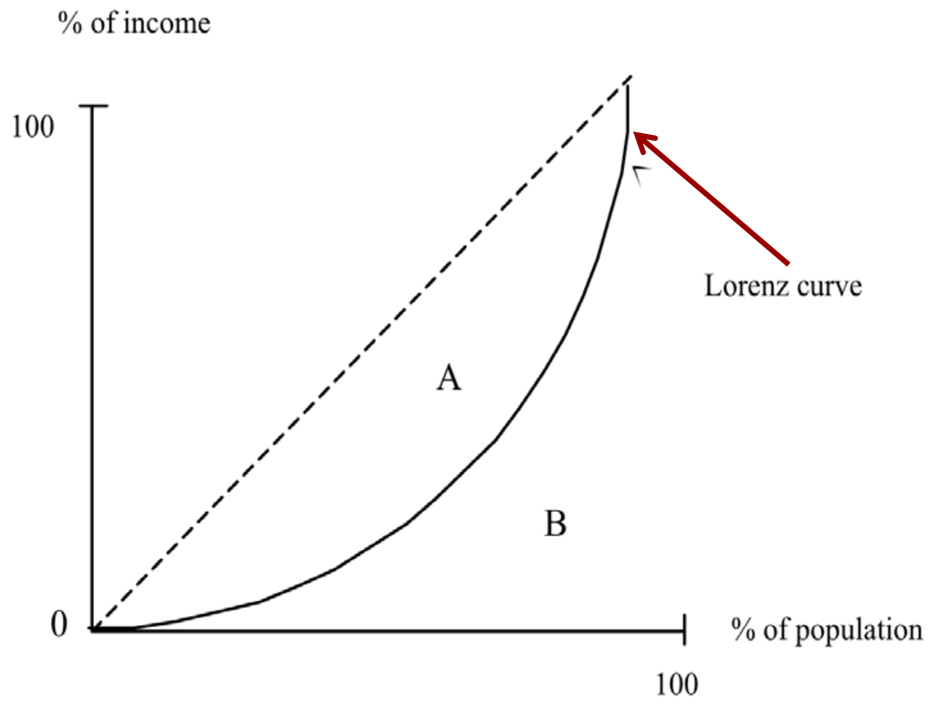


Figure 1: The Lorenz Curve

Distribution tables

- Distribution tables ranks income by percentile (centile), decile, quintiles.

- Piketty focuses on:
  - Top 1%
  - Top 10%
  - Next 40%--from the 50th percentile to the 90th. He calls this the "middle class."
  - The bottom 50%

Inequality measures, total income, US and Europe

- US around 2010:
  - Top 1% (“dominant class”): 20%
  - Top 10% (“upper class”): 50%
  - Next 40% (“middle class”): 30%
  - Bottom 50% (“lower class”): 20%
  - Gini: 0.49
- Europe around 2010:
  - Top 1%: 10%
  - Top 10%: 35%
  - Next 40%: 40%
  - Bottom 50%: 25%
  - Gini: 0.36

Labor income (not including capital income): some numbers for the US

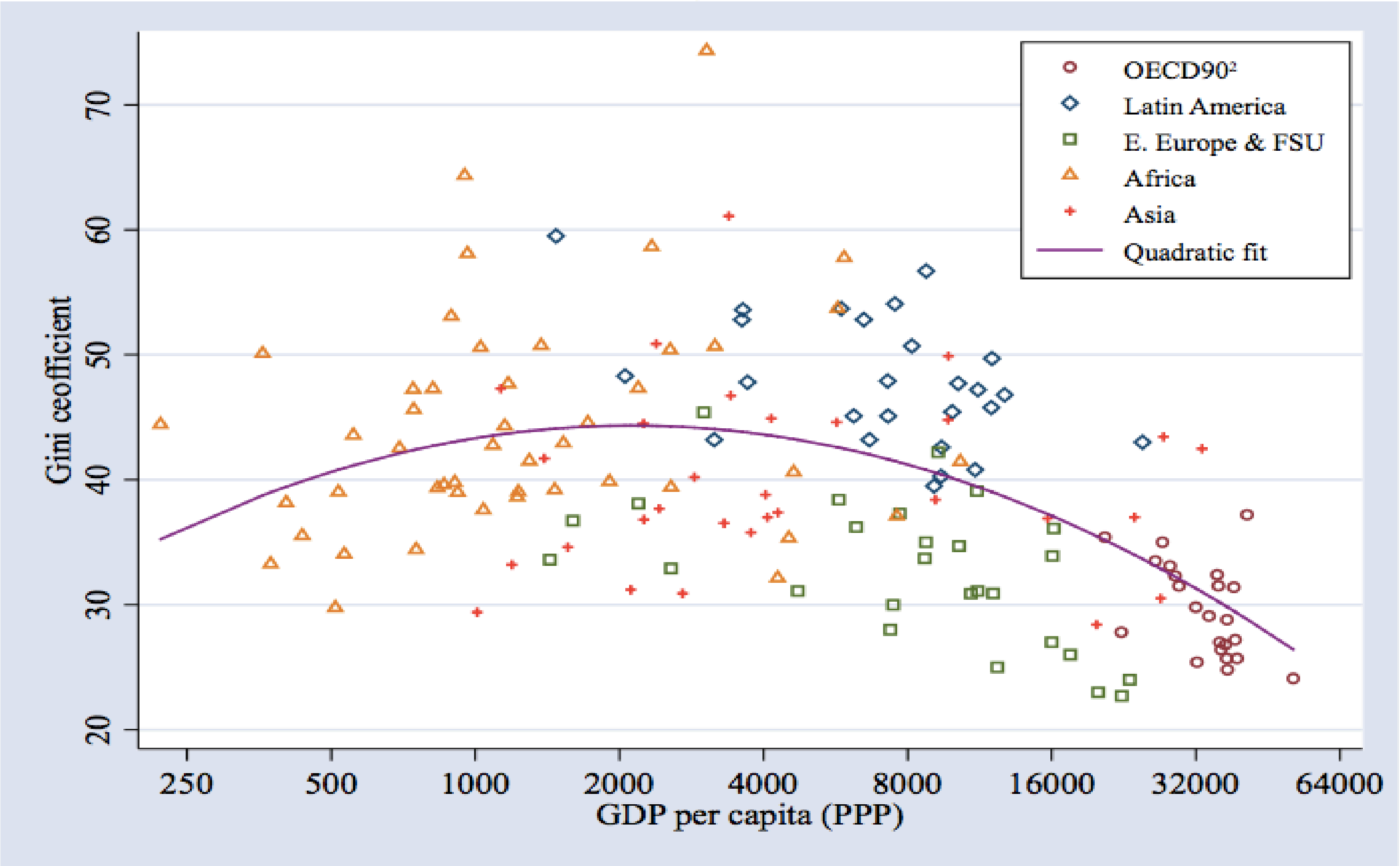
- Examples: US average wage (2010) is around 43,000 a year, or 3600 a month (full time, year around workers; a bit more for men, less for women)
- Top 10% = 35% share
  - → average is 3.5 times the national average ≈ 12,600 per month
- Top 1% = 12% share
  - → average is 12 times national average ≈ 43,000 a month
- Next 40% = 40% share
  - → average is equal to national average ≈ 3600 a month
- Bottom 50% = 25%
  - → average is ½ the national average ≈ 1800 a month.

Before Piketty

- Kuznets and the Kuznets curve
- The problems of Latin America and East Asia: Developing regions with opposite outcomes
- Rising US inequality: An aberration? A temporary variation away from long term trends?
- Limited information about the extremely wealthy (the 1%)

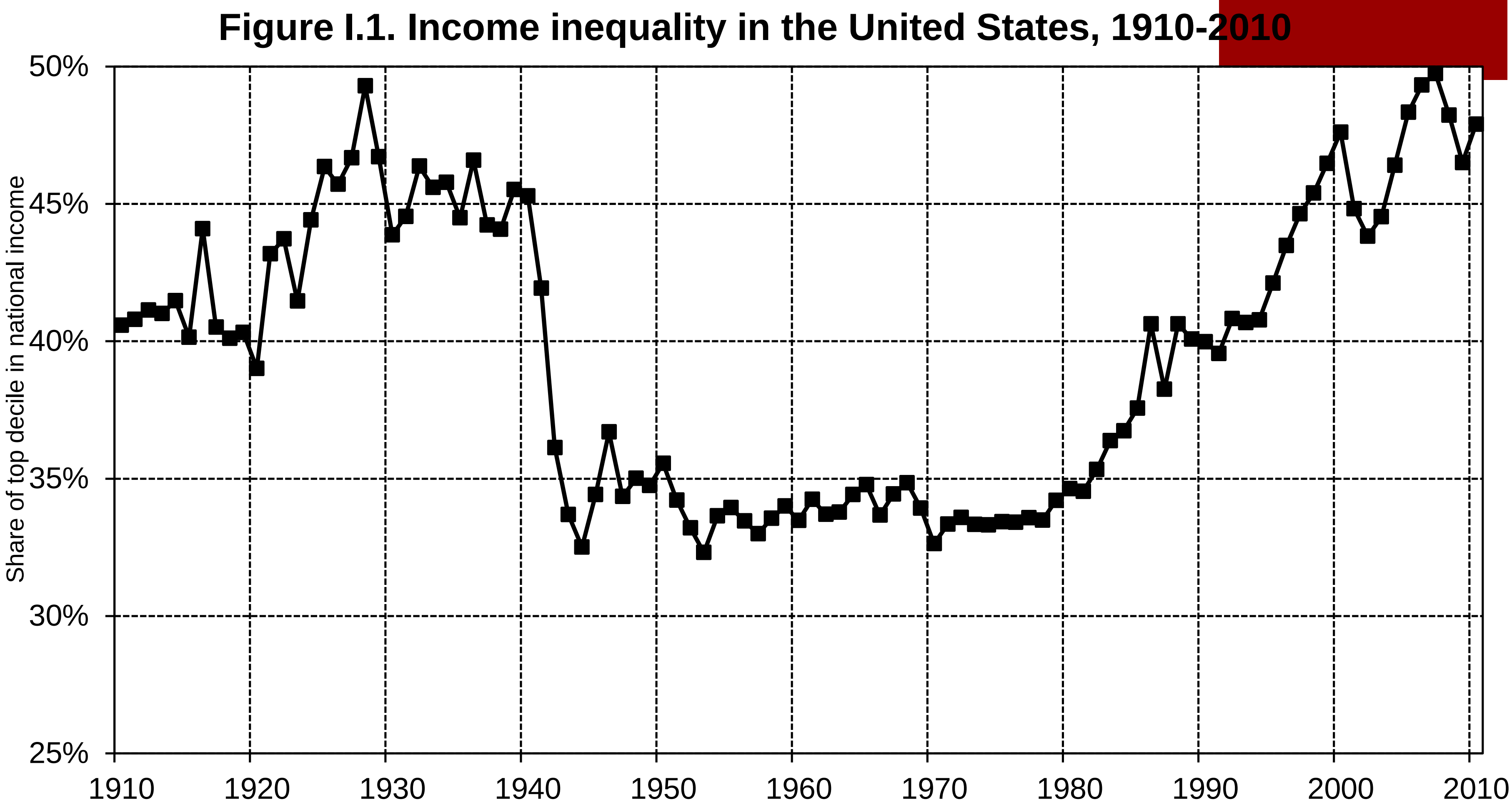
The Kuznets Curve

Figure 3: Inequality in a Cross Section of Countries with a Quadratic Fit



Dan Hirschman:
http://asociologist.com/2013/03/21/on-the-origins-of-the-kuznets-curve/

Income inequality in the US: Top 10%



The top decile share in U.S. national income dropped from 45-50% in the 1910s-1920s to less than 35% in the 1950s (this is the fall documented by Kuznets); it then rose from less than 35% in the 1970s to 45-50% in the 2000s-2010s. Sources and series: see piketty.pse.ens.fr/capital21c.

The fundamental roles of WWI and II and the Great Depression

- An enormous destruction of wealth
  - Physical destruction
  - Nationalization
  - Confiscation
  - High taxes on estates and incomes
- The period 1914-1945 is an aberration but economists and society viewed the outcomes of that period as “normal”
  - Less wealth and less inequality
  - Labor income was a more reliable path to wealth
  - Greater confidence in capitalism’s meritocratic tendencies

Overview

- p. 20: "What are the major conclusions to which these novel historical sources have led me? The first is that one should be wary of any economic determinism in regard to inequalities of wealth and income. The history of the distribution of wealth has always been deeply political, and it cannot be reduced to purely economic mechanisms."
- p. 21: "The second conclusion, which is the heart of the book, is that the dynamics of wealth distribution reveal powerful mechanism pushing alternately toward convergence and divergence. Furthermore, there is no natural, spontaneous process to prevent destabilizing inegalitarian forces from prevailing permanently."

Convergence and divergence

- Convergence forces:
  - Technological diffusion,
  - Human capital accumulation.
- Divergence forces:
  - Top earners quickly separate themselves by a wide margin;
    - The US (and UK) pattern is an “unprecedented explosion of very elevated incomes from labor, a veritable separation of top managers of large firms from the rest of the population.”
  - Weak economic growth and high returns on capital.
    - Growth of the wealth/income ratio due to higher returns on capital than growth rates, $r > g$.

First fundamental law of capitalism

$$\alpha = r\beta$$

Which says:

Capital's share of income =

(the return on capital) x

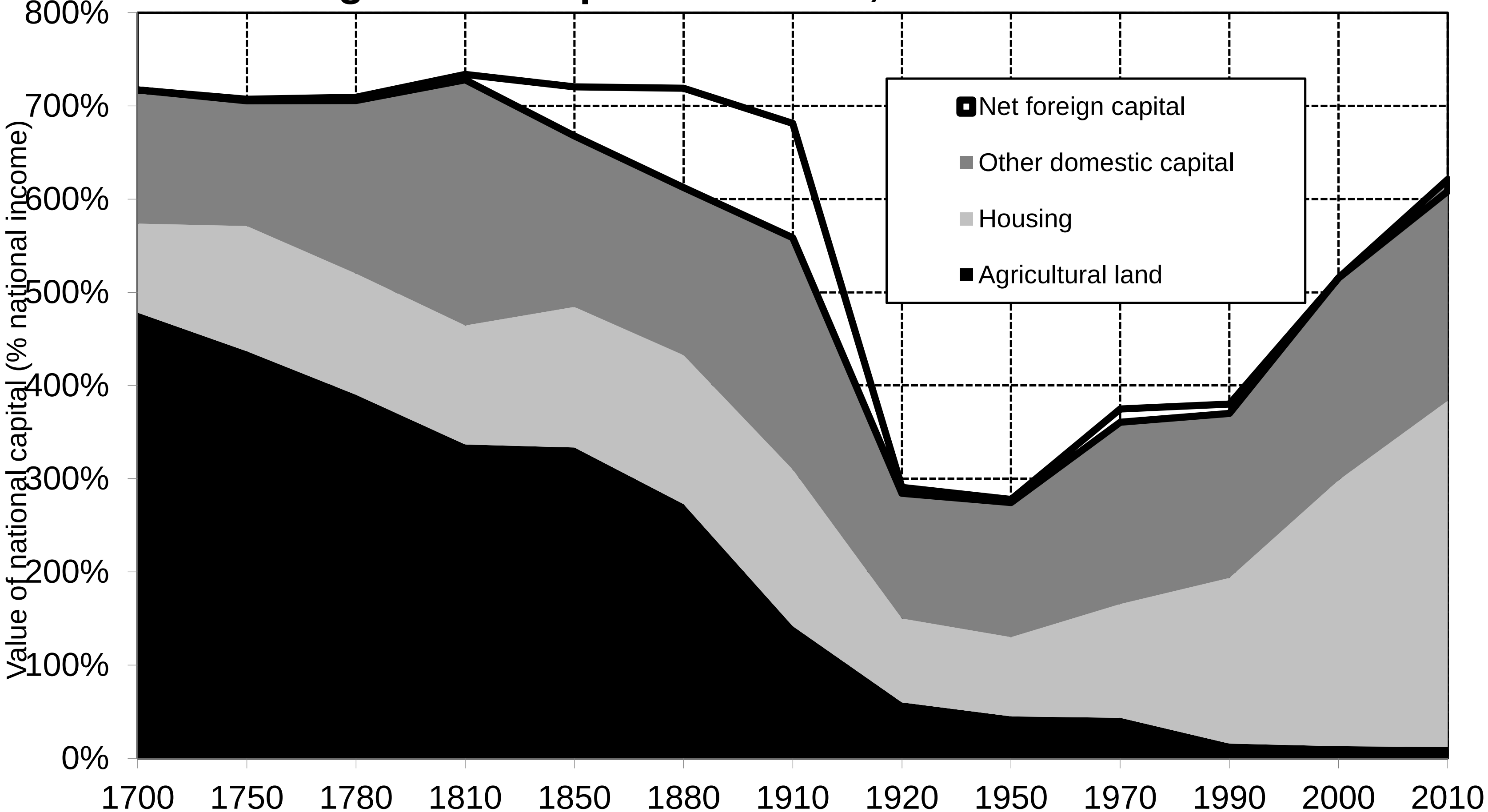
(the ratio of capital to income)

Piketty calls this a law, but it is an accounting identity

What is capital?

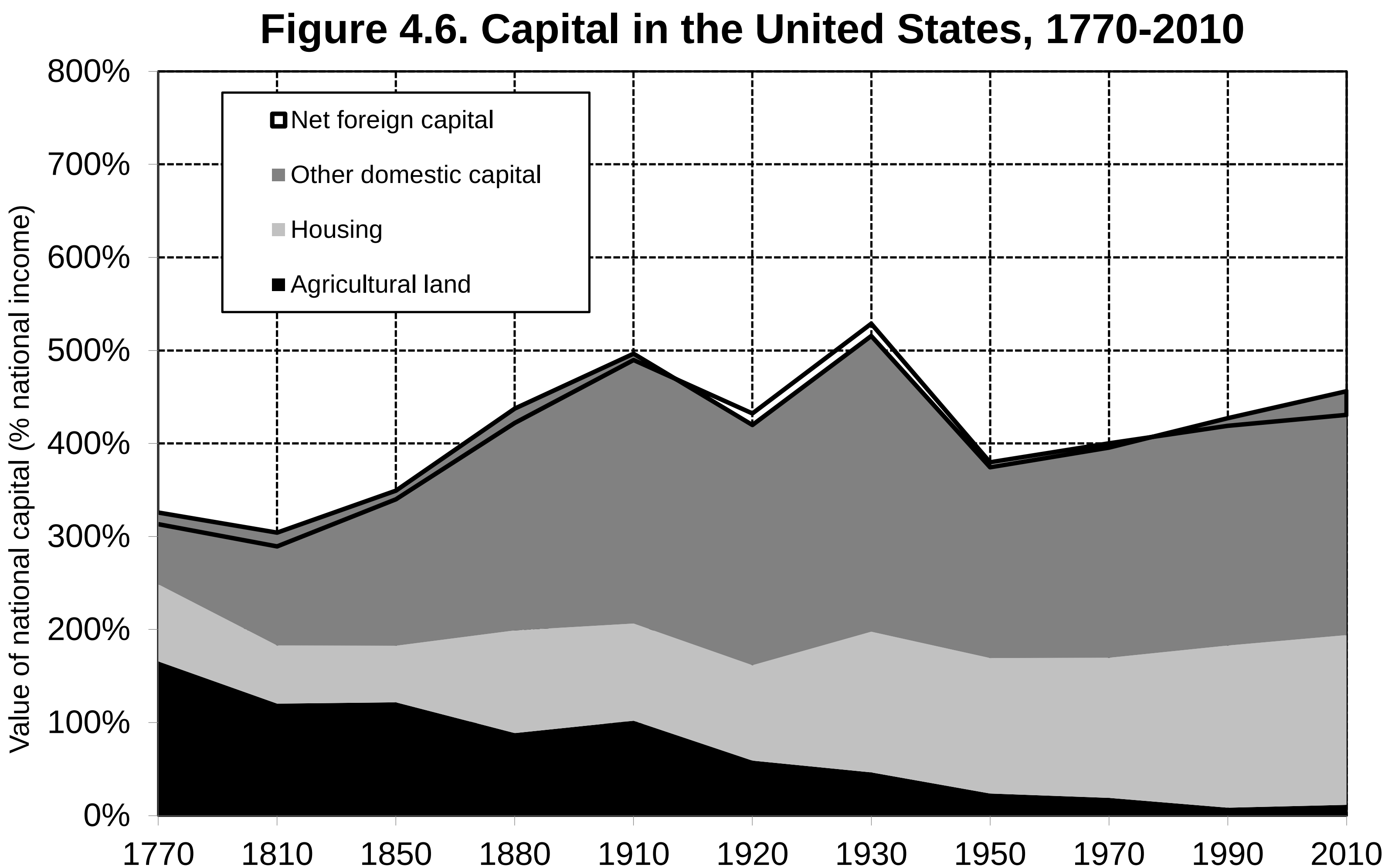
- "…the sum total of nonhuman assets that can be owned and exchanged on some market." Page 46.

Figure 3.2. Capital in France, 1700-2010



National capital is worth almost 7 years of national income in France in 1910 (including 1 invested abroad). Sources and series: see piketty.pse.ens.fr/capital21c.

Capital in the US



National capital is worth 3 years of national income in the United States in 1770 (incl. 1.5 years in agricultural land). Sources and series: see piketty.pse.ens.fr/capital21c.

Why r > g matters

- All else equal, r determines the rate of growth of capital, while g determines the rate of growth of the economy, or income.
- If $r > g$, then β rises; given that capital's share of income, α, is equal to $r\beta$, capital's share of income rises as well.
- Since capital is everywhere and at all times less equally distributed than labor income, inequality increases.
- What would cause capital to grow more slowly than the economy?
  - High rate of economic growth
  - People with capital income spend it all (do not accumulate)

Must r > g?

"Are there deep reasons why the return on capital should be systematically higher than the rate of growth? To be clear, I take this to be a historical fact, not a logical necessity." p. 353

"To recap: the inequality r > g is a contingent historical proposition, which is true in some periods and political contexts and not in others." p 358

How might r < g?

- Period 1913-1950: Destruction, low savings, loss of foreign wealth, nationalizations, rise of stakeholder capitalism (new ownership forms and regulations).
- Falling returns on capital (r↓)
  - As capital accumulates, diminishing returns sets in
  - This is one of the main criticisms of Piketty by mainstream economists. Piketty's response is clear: There is a very long ways to go, we can continue to have high returns by investing abroad—just as Europeans did in the 19th century.
- High growth (g↑)
  - But this depends on continued high demographic growth (unlikely) and continued high productivity growth
- Policy choices: tax wealth and extreme incomes (see also 1913-1950, stakeholder capitalism).

Growth in the long run

Growth of output =

population growth + growth of output per person

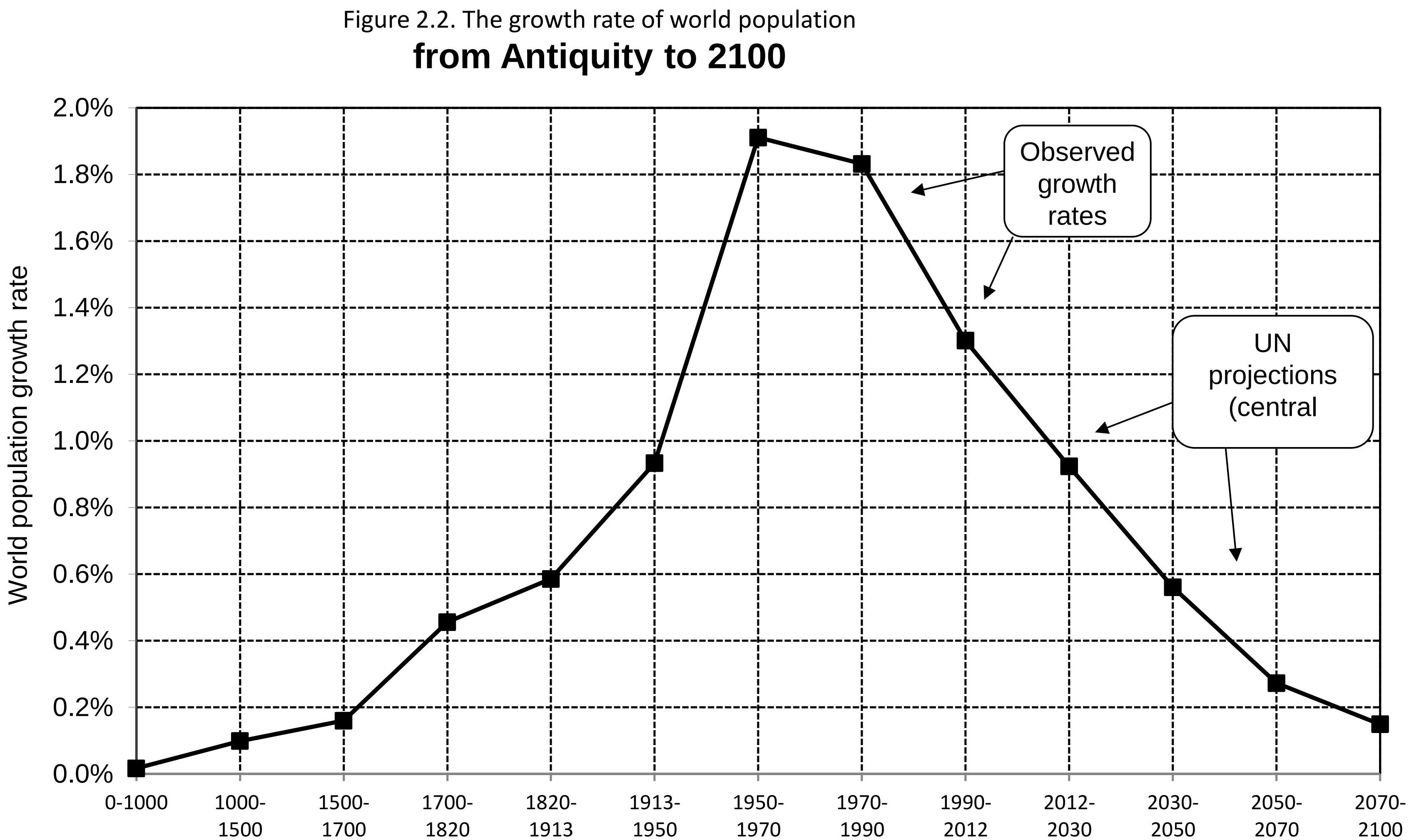
- Population grew 0.8% per year 1700-2010, from 600 million to 7 billion (>10x); at that rate, in 2300 we will be over 70 billion.
- Economic growth will be slower, in part, because population growth will be slower.

World growth since the Industrial Revolution

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

Piketty, Table 2.1

The growth of world population



The growth rate of world population was above 1% per year from 1950 to 2012 and should return toward 0% by the end of the 21st century. Sources and series: see piketty.pse.ens.fr/capital21c.

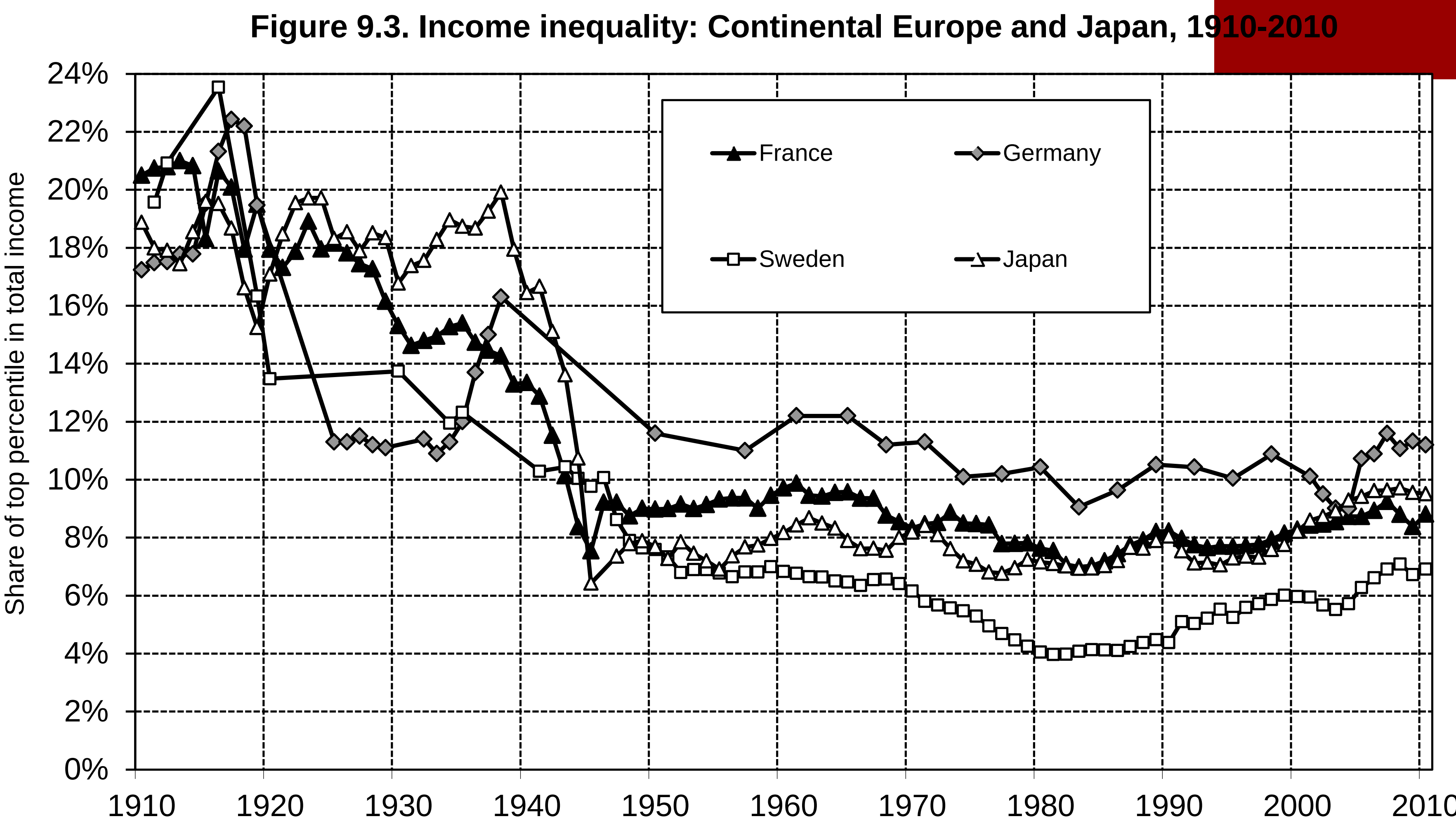
Slow population growth, slow economic growth: Consequences

- When population growth is slow,
  - Economic growth is less
  - Labor is less important, inheritance is more important
  - Capital dominates
- When economic growth is slow
  - A more just social order is more difficult to attain: "Economic growth is quite simply incapable of satisfying this democratic and meritocratic hope, which must create specific institutions for the purpose and not rely solely on market forces or technological progress" p 96
  - Capital income becomes relatively more important

Patterns of inequality

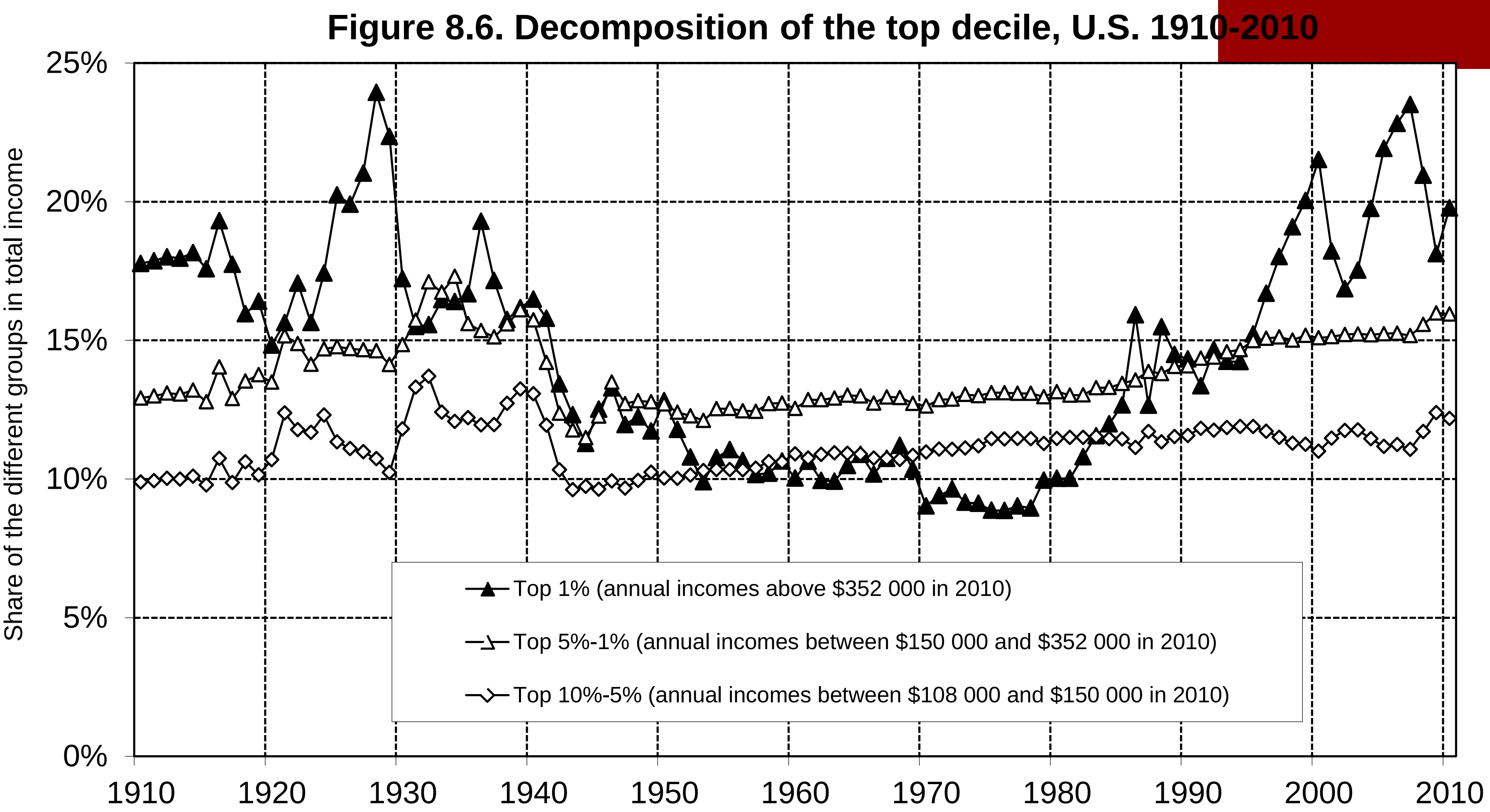
- Piketty separates labor income inequality and capital income inequality
- He spends several chapters showing how the composition of capital has changed over time: from mostly agricultural land and government bonds to a variety of financial assets and real estate.
- Capital owned overseas has diminished significantly since the late 19th century.
- Different regions have different patterns, although some fundamentals are similar.

Income inequality, Europe and Japan: The top percentile



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.

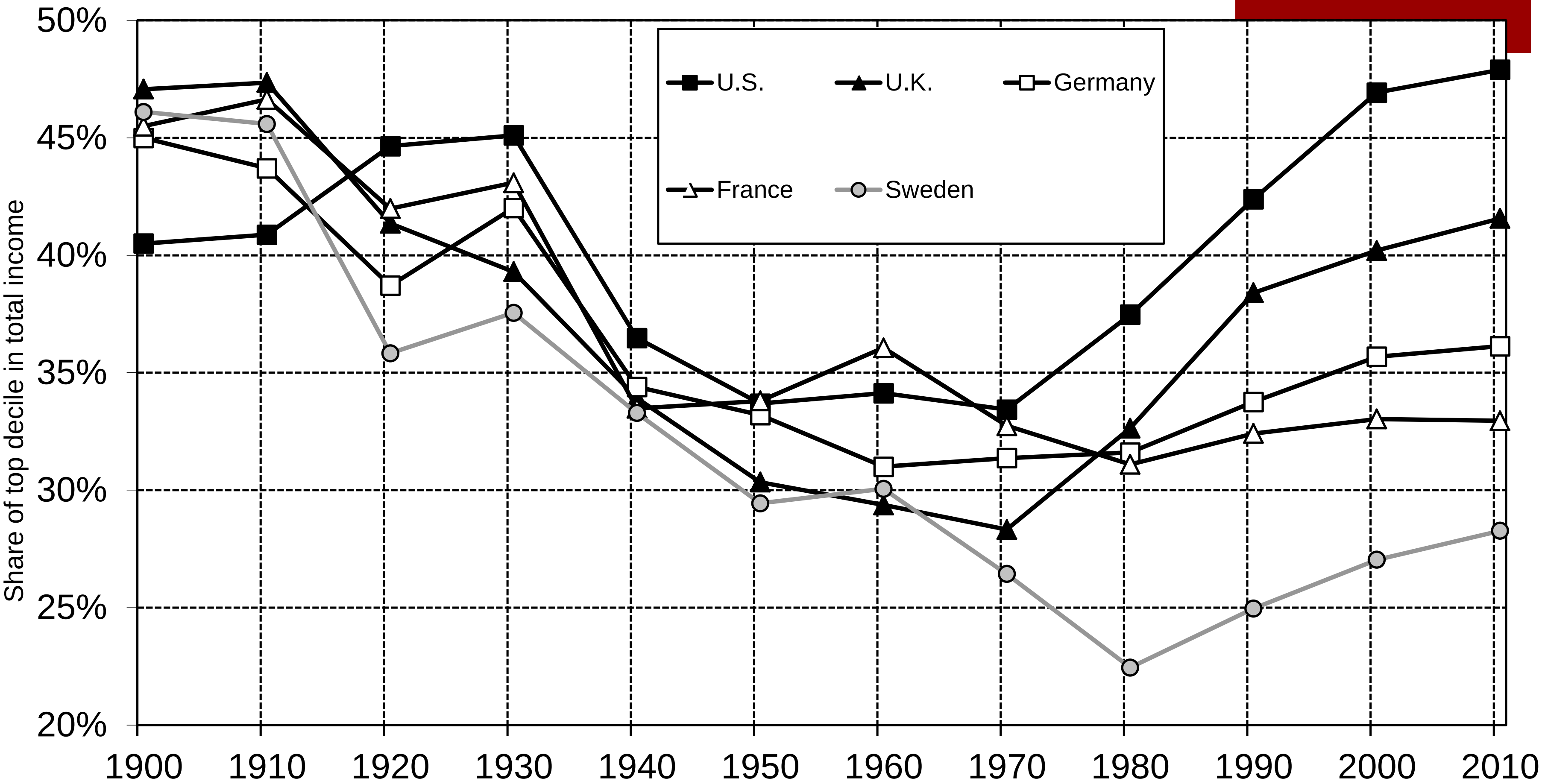
Decomposition of top decile, US



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.

Top decile, Europe and the US

Figure 9.7. The top decile income share: Europe and the U.S., 1900-2010



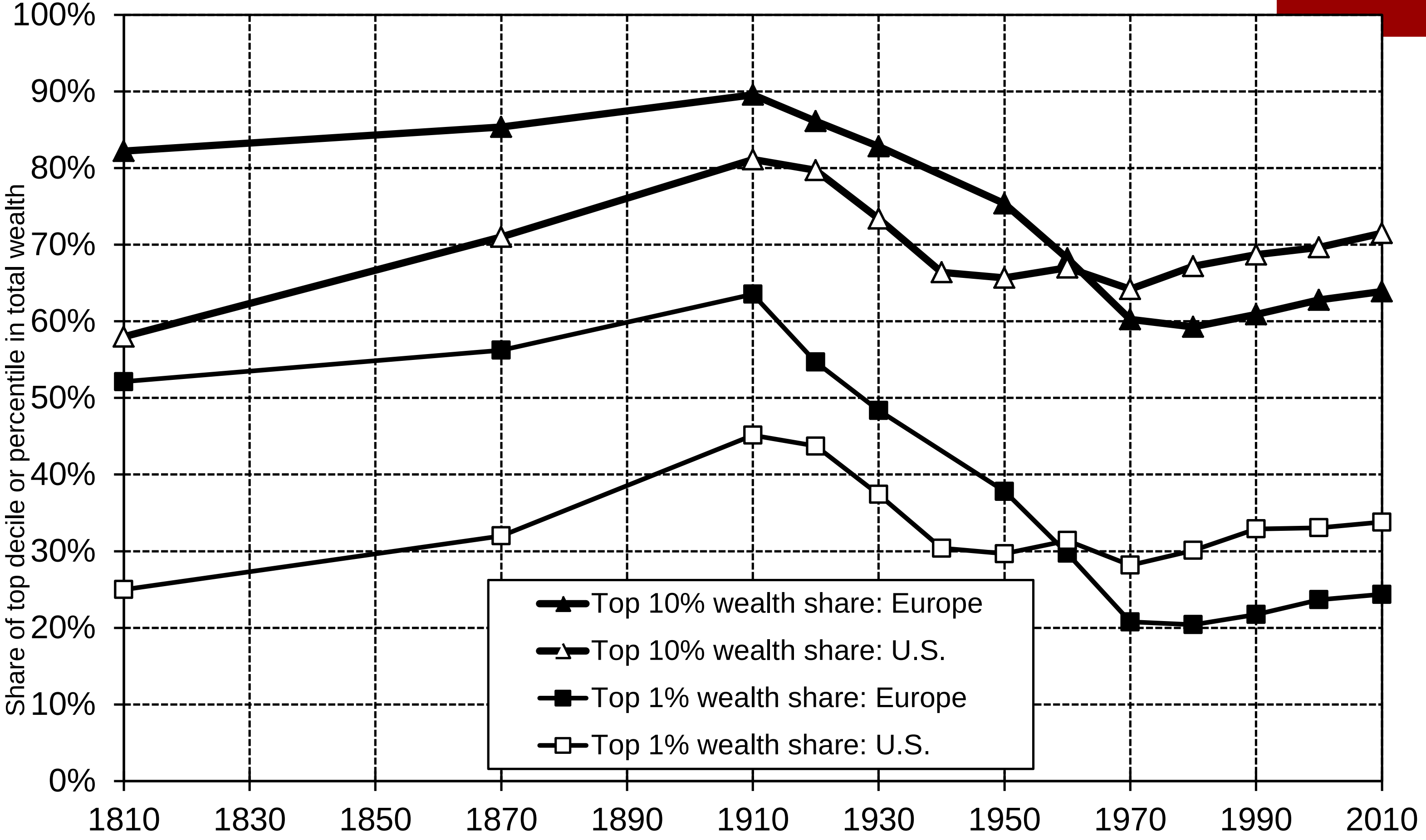
In the 1950s-1970s, the top decile income share was about 30-35% of total income in Europe as in the U.S.
Sources and series: see piketty.pse.ens.fr/capital21c.

Wealth distribution

- Capital income is less equally distributed than labor income—always, everywhere.
- Income inequality fell after 1910 due to a decline in inequality of capital income.
- Wage inequality was relatively constant until the recent (1980+) rise of super managers
- Bottom 50% of wealth holders own nothing (<5%) in all times and places.
- Top 10% own a majority (often >60%)

Inequality of wealth, Europe and US

Figure 10.6. Wealth inequality: Europe and the U.S., 1810-2010



Until the mid 20th century, wealth inequality was higher in Europe than in the United States.
Sources and series: see piketty.pse.ens.fr/capital21c.

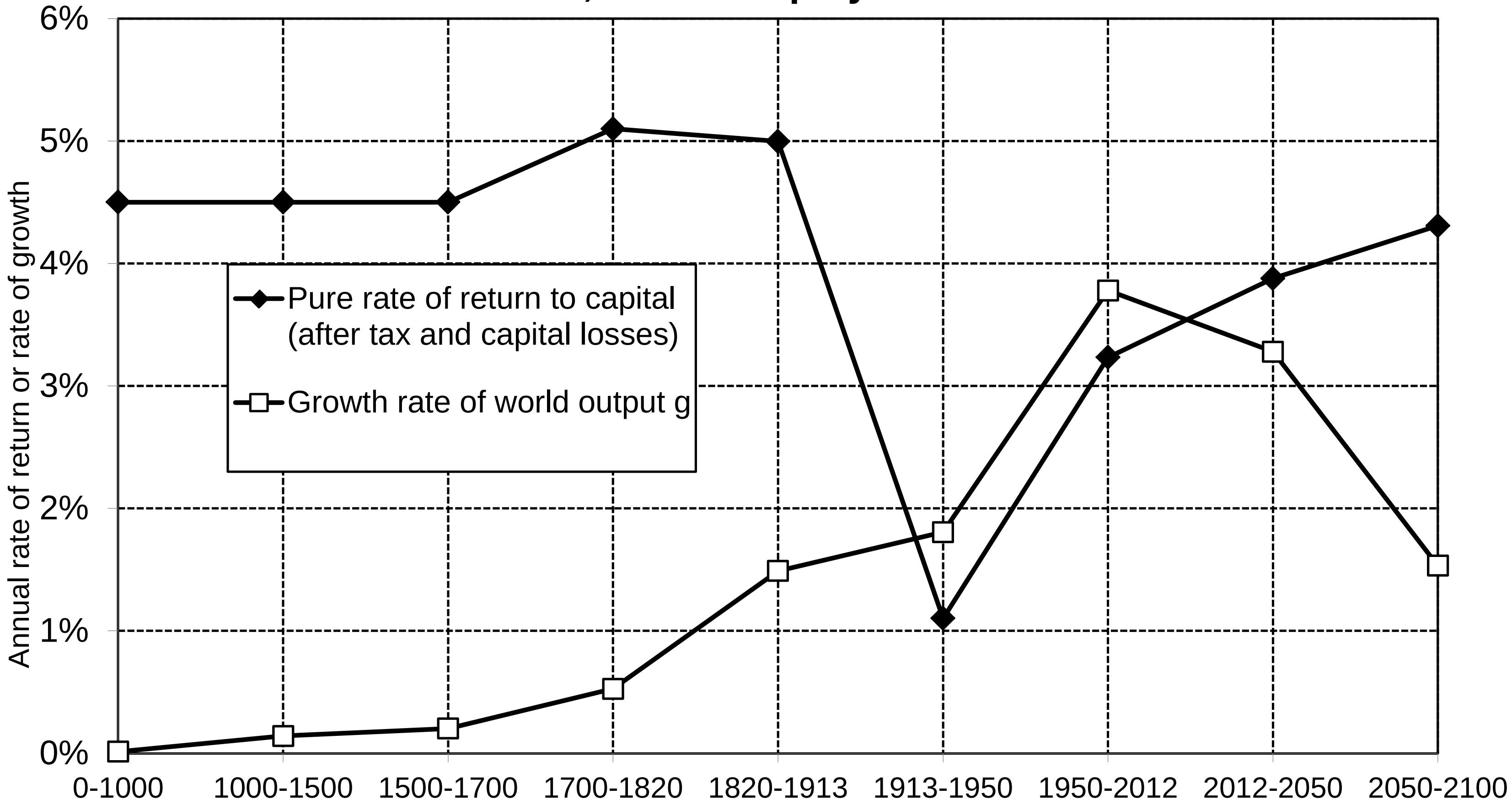
Why was capital so concentrated before WW I?

“The primary reason for the hyperconcentration of wealth in traditional agrarian societies and to a large extent in all societies prior to World War I (with the exception of the pioneer societies of the New World, which are for obvious reasons very special and not representative of the rest of the world or the long run) is that these were low-growth societies in which the rate of return on capital was markedly and durably higher than the rate of growth.”

P. 351

The unique 20th century: r < g

Figure 10.10. After tax rate of return vs. 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 20th century, and may again surpass it in the 21st century. Sources and series : see piketty.pse.ens.fr/capital21c

Policy

- Piketty recommends a policy of a global tax on wealth
- He knows this is controversial and will be rejected by most if not all countries, but he is interested in changing the conversation.
- Existing tax agreements and increased openness in bank reporting will facilitate this.
- Some countries that traditionally protected their bank clients from outside scrutiny are changing, e.g., Switzerland.

The arguments against Piketty

- From the Left:
  - He measures capital incorrectly (this is an arcane debate from the 1960s that Piketty acknowledges and dismisses)
- From mainstream economists
  - He does not allow for diminishing marginal returns to capital as accumulation grows (r will fall)
  - His work is primarily based on Western Europe and the US
  - The 19^{th} century was another world, today is different
  - A global wealth tax is impractical
- From the Right
  - His data are flawed
  - He is proposing a system that will severely hurt economic growth
  - His analysis is the "politics of envy;" we should focus on growth.

What Piketty's work means, in a broader sense

- Piketty's work attempts to change our views of recent economic history and of economic policy
- It comes in the aftermath of a systemic financial crisis that was in part the result of unregulated markets, after several decades of increasing inequality in the US and elsewhere, and after more than a decade of mediocre growth, at best.
- It calls into question the entire agenda of Reagan, Greenspan, Thatcher, and other proponents of extreme laissez faire.
- It is an extended argument for social democracy.