#### The World Wealth & Income Database

(WID, <u>www.wid.world</u>)

**Thomas Piketty** 

LSE, October 28 2015

## The World Wealth & Income Database (WID): four components

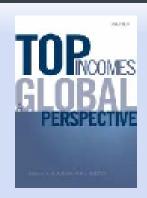
- 1. Top income shares
   (World Top Incomes Database, since january 2011)
- 2. Wealth-income ratios & structure of capital assets (WID, november 2015)
- 3. Top wealth shares
- 4. Full distribution of income and wealth by percentile, age and gender (Distributional national accounts)

(WID, 2016-2017)

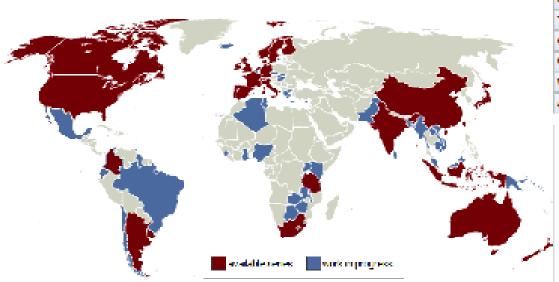
### 1. Top income shares

- Combines income tax data (top income numerator) and national accounts date (total income denominator) in order to compute long-run series on top income shares
- Follows and extends Kuznets 1953, who contructed top income shares for the US over 1913-1948 period
- World Top Incomes Database created in januery 2011; relatively large impact on global inequality debate
- We now cover many more countries: over 90 researchers covering nealy 70 countries (about 30 countries already in database, 40 others are under construction)

#### THE WORLD TOP INCOMES DATABASE







Home

Introduction

The Database

Graphics

Country Information

Work in Progress

Acknowledgments



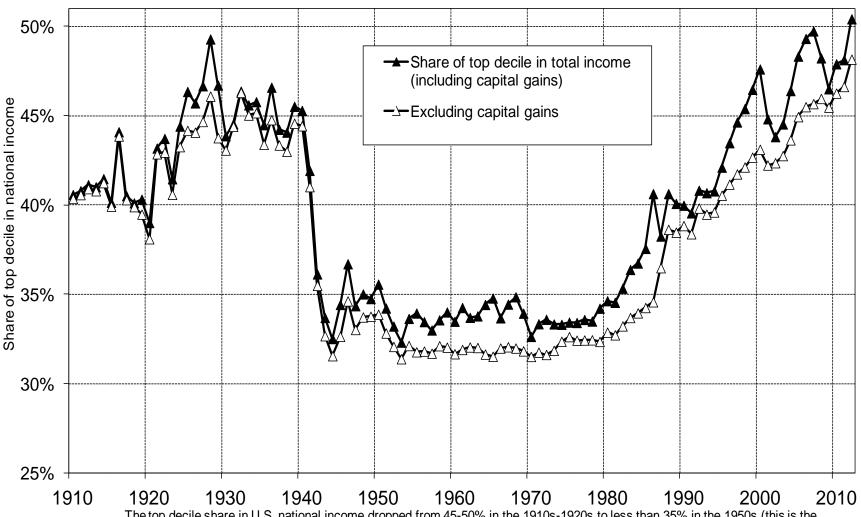


SYSTEMACHINGS OF REDSOMES





Figure I.1. Income inequality in the United States, 1910-2012



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

Figure 1. Income inequality: Europe and the U.S., 1900-2010 50% Share of top income decile in total pretax income (decennial averages) —

—

—

—

—

Top 10% income share: Europe 45% ■ Top 10% income share: U.S. 40% 35% 30% 25%

The share of total income accruing to top decile income holders was higher in Europe than in the U.S. around 1900-1910; it is a lot higher in the U.S. than in Europe around 2000-2010.

Sources and series: see piketty.pse.ens.fr/capital21c (fig.9,8)

1960

1970

1980

1990

2000

2010

1950

1900

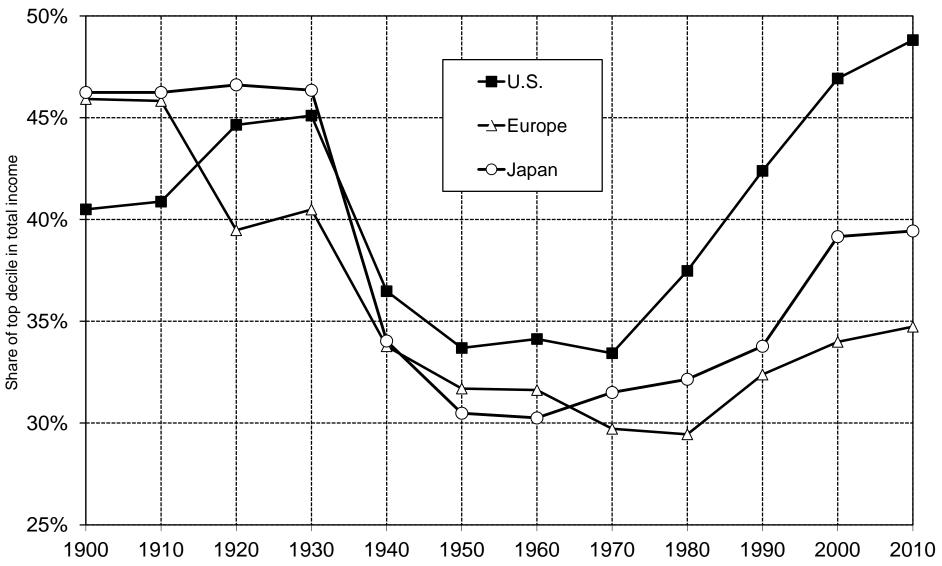
1910

1920

1930

1940

Top 10% Income Share: Europe, U.S. and Japan, 1900-2010



The top decile income share was higher in Europe than in the U.S. in 1900-1910; it is a lot higher in the U.S. in 2000-2010. Sources and series: see piketty.pse.ens.fr/capital21c.

 The rise in US inequality in recent decades is mostly due to rising inequality of labor income

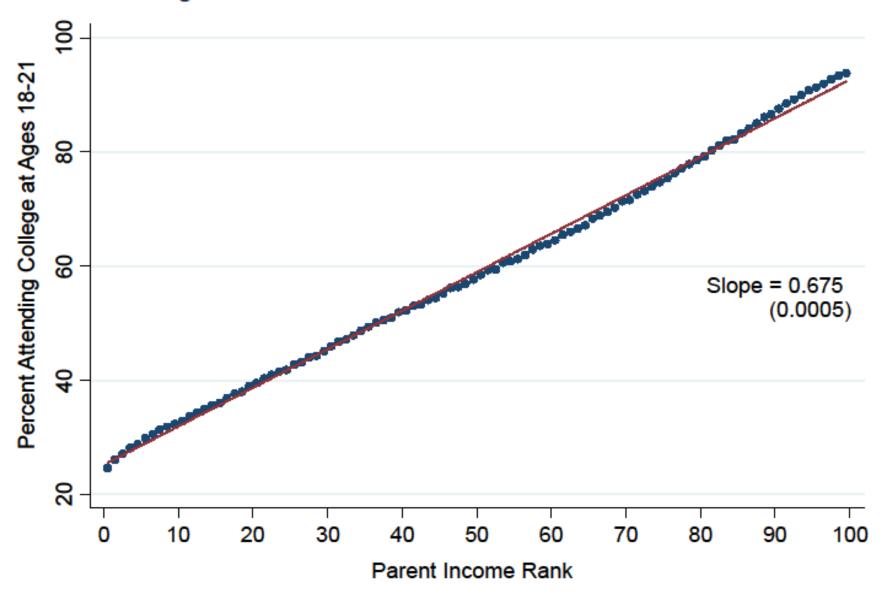
- It is due to a mixture of reasons: changing supply and demand for skills; race between education and technology; globalization; more unequal to access to skills in the US (rising tuitions, insufficient public investment); unprecedented rise of top managerial compensation in the US (changing incentives, cuts in top income tax rates); falling minimum wage in the US
  - → institutions and policies matter

\$12.0 10€ 9€ \$10.8 8€ \$9.6 7€ \$8.4 Hourly minimum wage 6€ \$7.2 5€ \$6.0 4€ \$4.8 3€ \$3.6 France (2013 euros, left hand scale) 2€ \$2.4 United States (2013 dollars, right hand scale) 1€ \$1.2 0€ \$0.0 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 Expressed in 2013 purchasing power, the hourly minimum wage rose from \$3.8 to \$7.3 between 1950 and

Figure 9.1. Minimum wage in France and the U.S., 1950-2013

2013 in the U.S., and from €2.1 to €9.4 in France. Sources and series: see piketty.pse.ens.fr/capital21c.

#### College Attendance Rates vs. Parent Income Rank in the U.S.



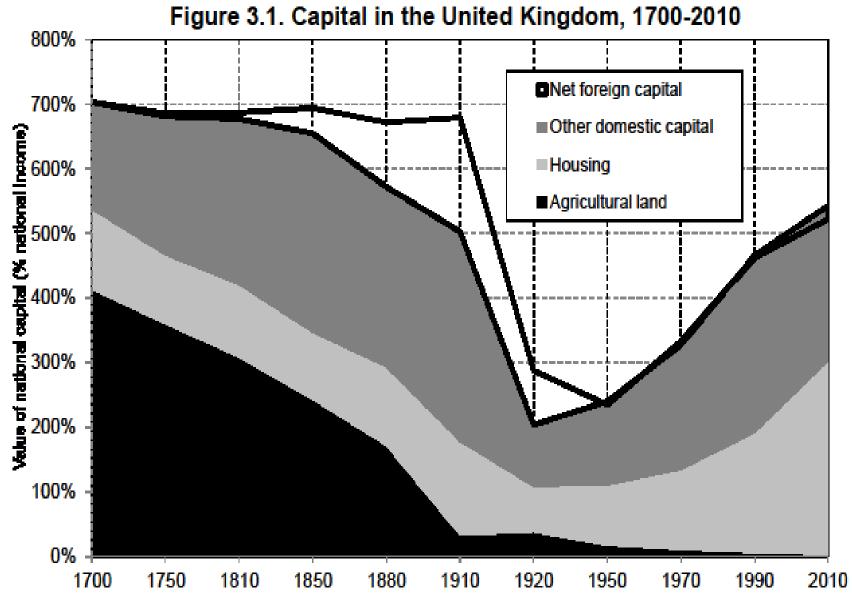
# 2. Wealth-income ratios & structure of capital assets

- Combines national wealth data (national balance sheets describing assets and liabilities owned by private individuals, governement, corporations, rest of the world) and national income data in order to compute series on wealth-income ratios & the structure of capital assets
- Follows and extends Goldsmith 1985, who first collected historical national balance sheets
- First version of WID to be released in november 2015 covering about 20 countries; extension of <u>Piketty-Zucman 2014 wealth-income database</u> (core database used in <u>Capital in the 21<sup>st</sup> century</u>, together with WTID)

800% 700% Germany Market value of private capital (% national income) France 600% -United Kingdom 500% 400% 300% 200% 100% 1870 1890 1910 1930 1950 1970 1990 2010

Figure I.2. The capital/income ratio in Europe, 1870-2010

Aggregate private wealth was worth about 6-7 years of national income in Europe in 1910, between 2 and 3 years in 1950, and between 4 and 6 years in 2010. Sources and series: see piketty.pse.ens.fr/capital21c.



National capital is worth about 7 years of national income in the United Kingdom in 1700 (including 4 in agricultural land). Sources and series: see piketty.pse.ens.#r/capital21c.

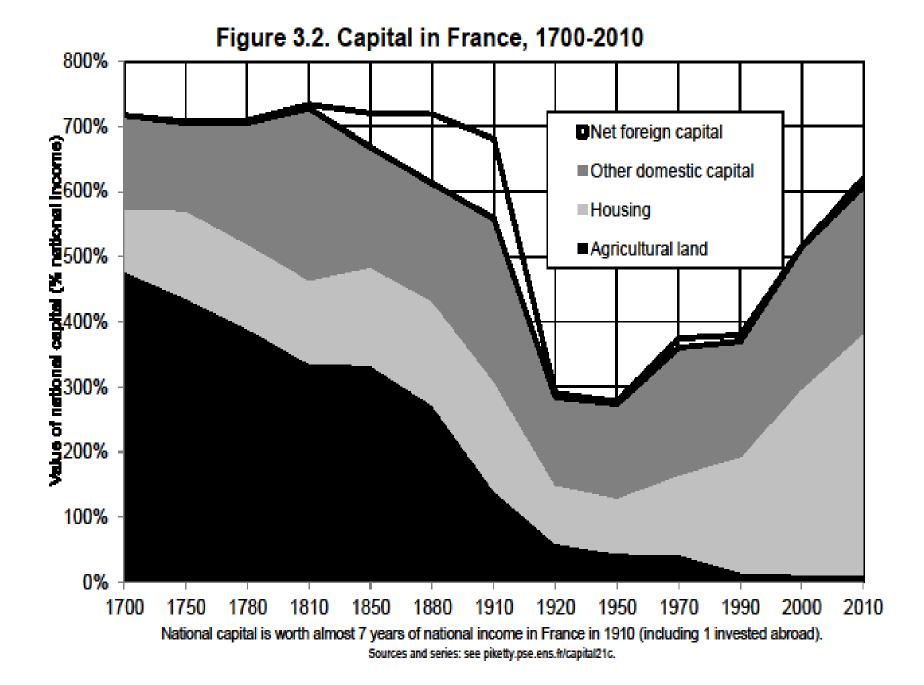
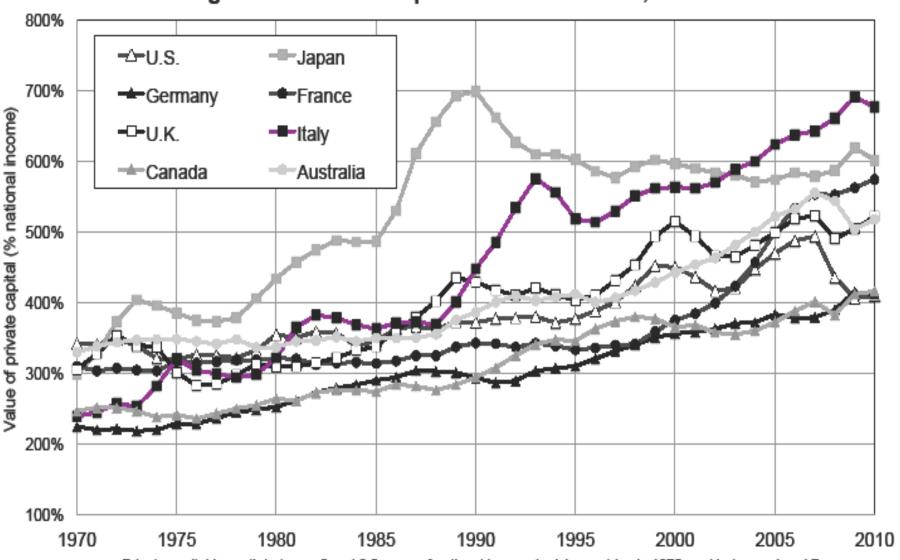
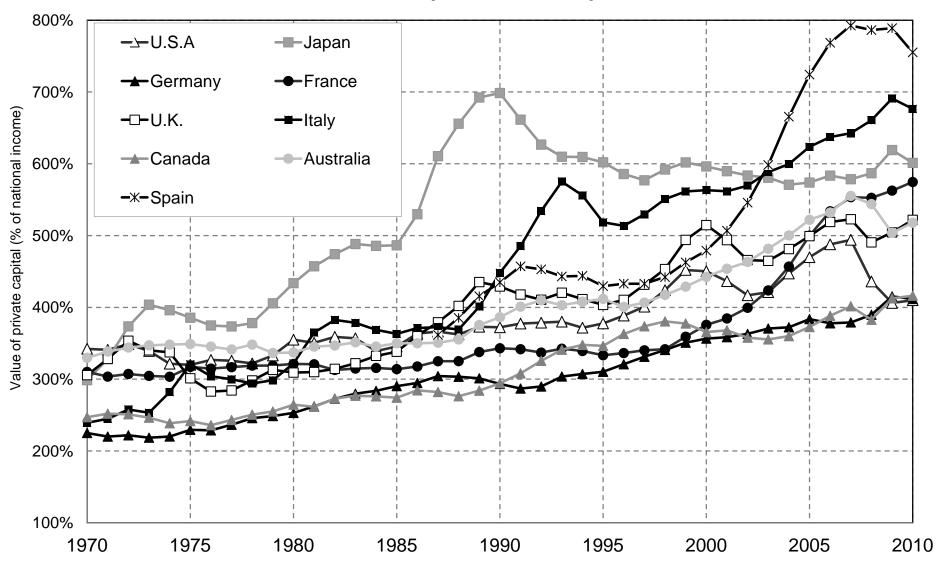


Figure 5.3. Private capital in rich countries, 1970-2010



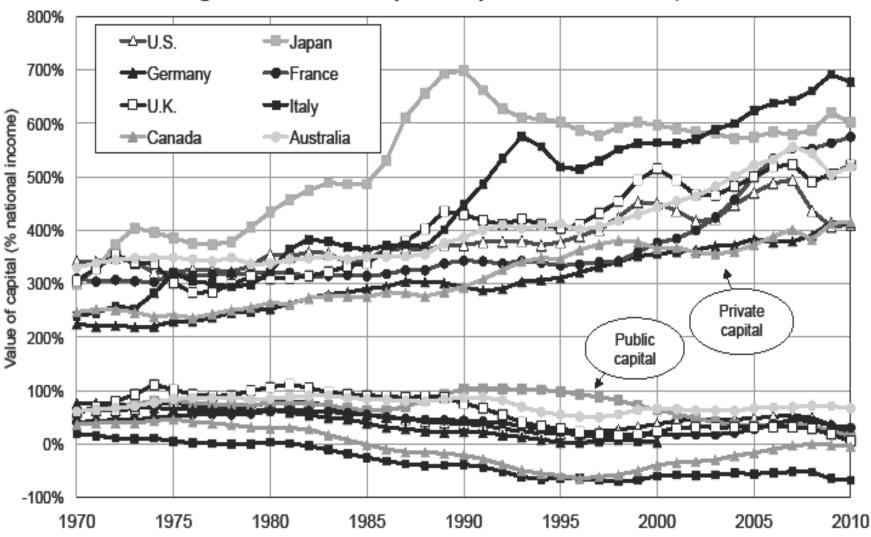
Private capital is worth between 2 and 3.5 years of national income in rich countries in 1970, and between 4 and 7 years of national income in 2010. Sources and series: see piketty.pse.ens.fr/capital21c.

Figure S5.2. Private capital in rich countries: from the Japanese to the Spanish bubble



Private capital almost reached 8 years of national income in Spain at the end of the 2000s (ie. one more year than Japan in 1990). Sources and series: see piketty.pse.ens.fr/capital21c.

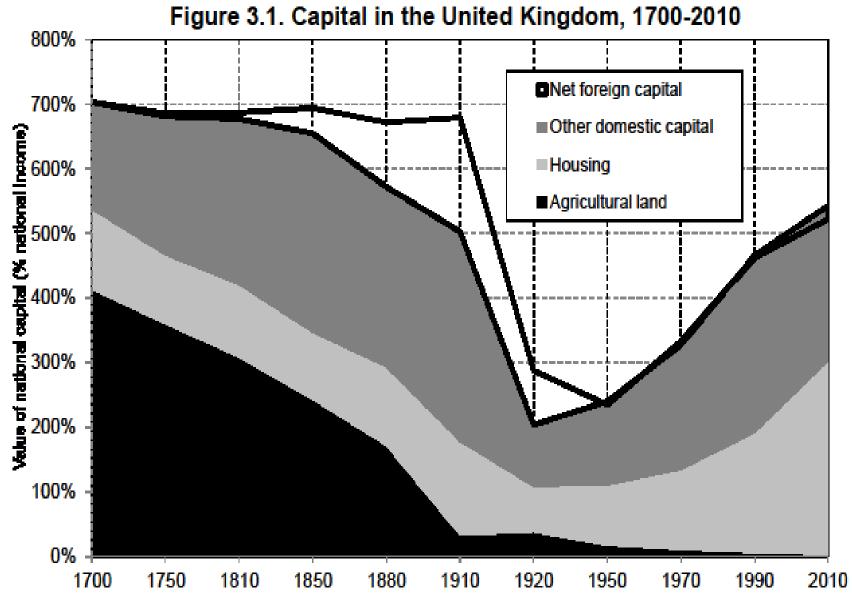
Figure 5.5. Private and public capital in rich countries, 1970-2010



In Italy, private capital rose from 240% to 680% of national income between 1970 and 2010, while public capital dropped from 20% to -70%. Sources and series: see piketty.pse.ens.fr/capital21c.

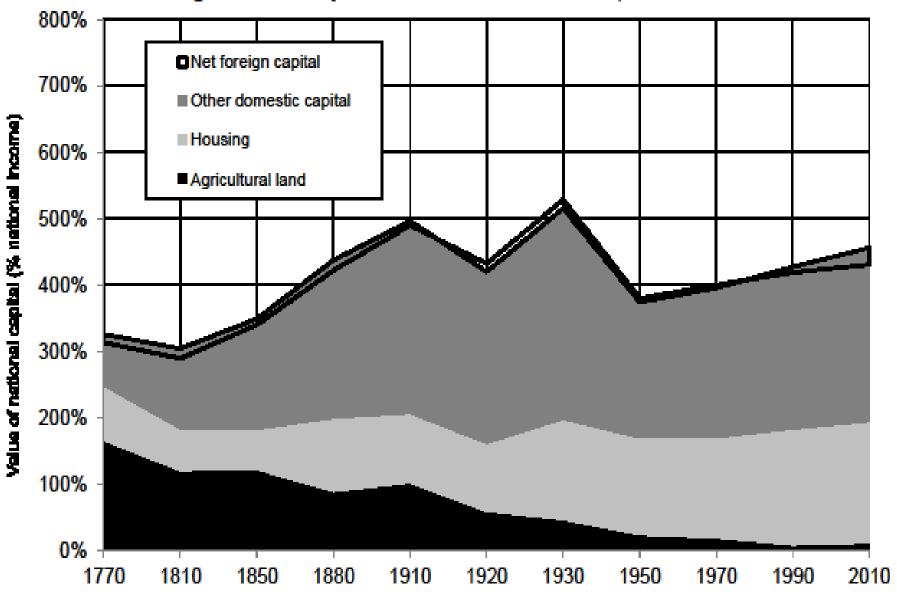
## Capital & inequality in America

- Inequality in America = a different structure as in Europe:
   more egalitarian in some ways, more inegalitarian in others
- The New World in the 19<sup>th</sup> century: **the land of opportunity** (capital accumulated in the past matters less than in Europe; perpetual pop. growth as a way to reduce the level of inherited wealth and wealth concentration)... **and also the land of slavery: extreme form of property relation**
- Northern US were in many ways more egalitarian than Old Europe; but Southern US were more inegalitarian
- We still have the same ambiguous relationship of America with inequality today: in some ways more merit-based; in other ways more violent (« meritocratic extremism »)

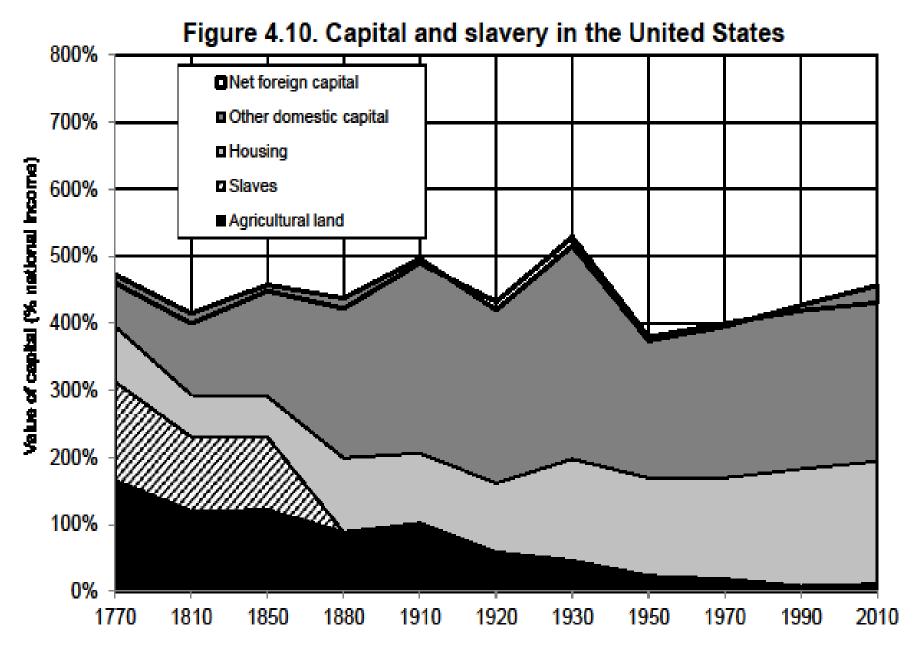


National capital is worth about 7 years of national income in the United Kingdom in 1700 (including 4 in agricultural land). Sources and series: see piketty.pse.ens.#r/capital21c.

Figure 4.6. Capital in the United States, 1770-2010



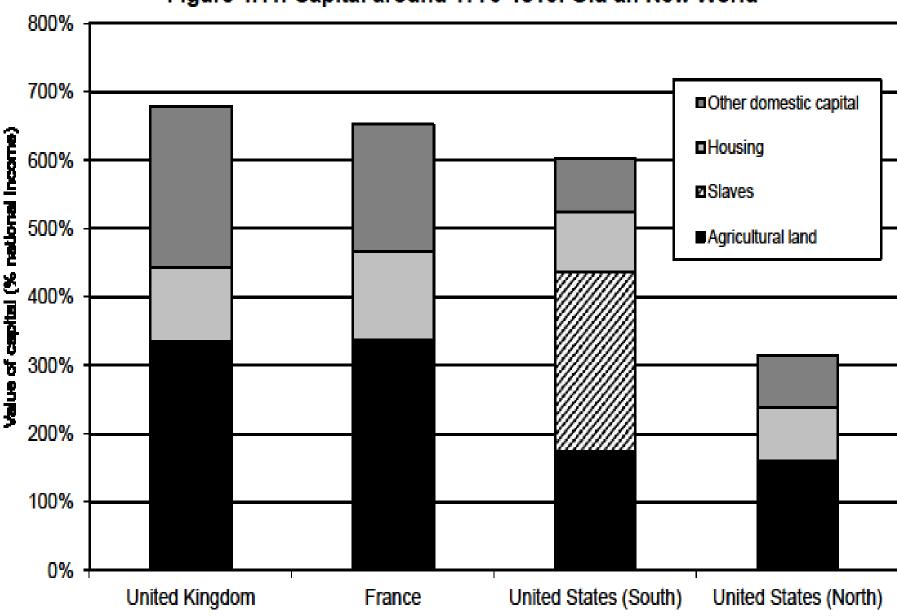
National capital is worth 3 years of national income in the United States in 1770 (incl. 1,5 years in agricultural land). Sources and series: see piketty.pse.ens.fr/capital21c.



The market value of slaves was about 1,5 years of U.S. national income around 1770 (as mush as land).

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

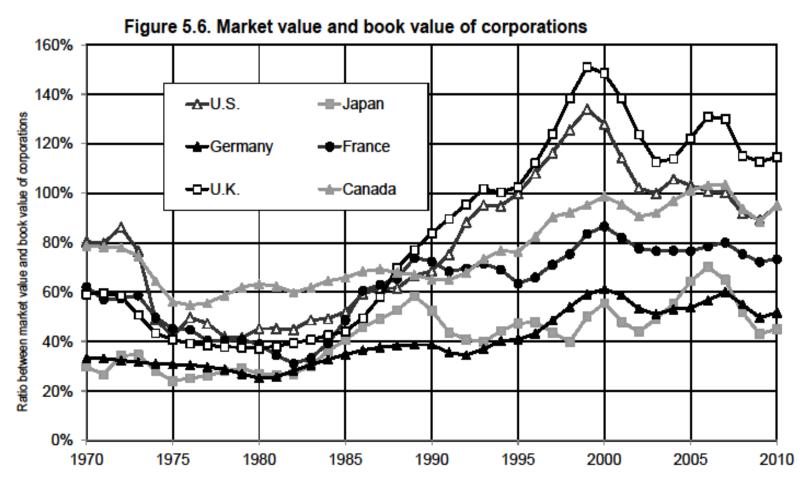
Figure 4.11. Capital around 1770-1810: Old an New World



The combined value of agricultural land and slaves in Southern United States surpassed 4 years of national income around 1770-1810. Sources and series: see piketty.pse.ens.fr/capital21c.

## **Capital & inequality in Germany**

- Lower market values of capital assets in Germany: lower real estate prices, and lower stock market cap of corporations
- Stakeholder capitalism: shareholders have to share power with worker representatives, regional govt, etc., so that the market value is much less than book value of corporation
- This can be an efficient way to involve workers in firm strategy
- 50% of board members are worker representatives in Germany; 30% in Sweden; 10% in France (since 2014)
- This clearly illustrates that market and social values of capital can differ; property relations are socially, legally and historically determined



Tobin's Q (i.e. the ratio between market vaue and book value of corporations) has risen in rich countries since the 1970s-1980s. Sources and series: see piketty.pse.ens.fr/capital21c.

## 3. Top wealth shares

- Combines income tax data (income capitalization method), inheritance tax data (mortality multiplier method), and other available data sources on wealth (including billionaire rankings and household wealth surveys)
- Follows and extends Atkinson-Harrison 1978, who combine all these sources to study UK top income shares 1920-1975
- Continuation of Saez-Zucman 2014 US
- Lack of transparency about wealth measurement. Need to reconcile all the different data sources in a transparent way.

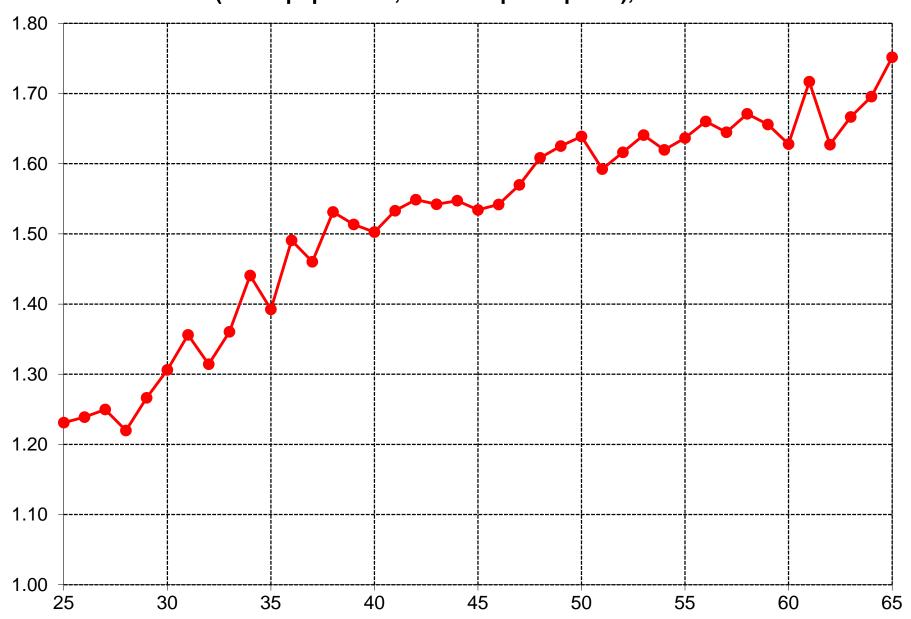
Table 12.1. The growth rate of top global wealth, 1987-2013	
Average real growth rate per year (after deduction of inflation)	1987-2013
The top 1/(100 million) highest wealth holders (about 30 adults out of 3 billions in 1980s, and 45 adults out of 4,5 billions in 2010s)	6,8%
The top 1/(20 million) highest wealth holders (about 150 adults out of 3 billions in 1980s, and 225 adults out of 4,5 billions in 2010s)	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%

Between 1987 and 2013, the highest global wealth fractiles have grown at 6%-7% per year, vs. 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). Sources: see piketty.pse.ens.fn/capital21c.

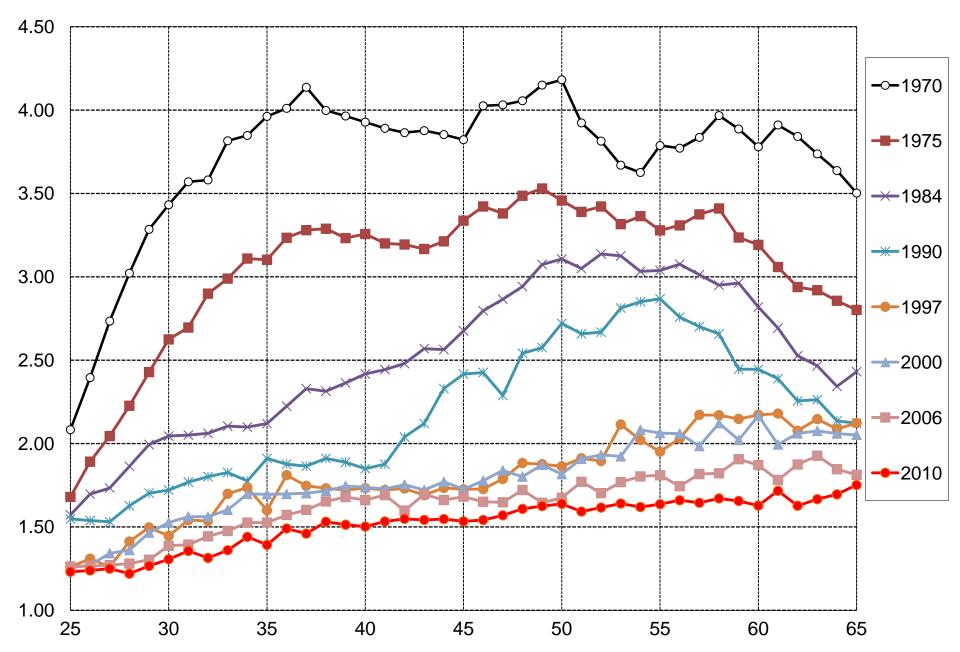
# 4. Full distribution of income and wealth by percentile, age and gender

- The final objective of WID is to combine all previous data sources in order to produce series on full distribution (from bottom to top percentiles) of income and wealth, broken down by age and gender, consistent with national income and wealth accounts: « Distributional national accounts »
- WID project developed under joint supervision of F.
   Alvaredo (PSE), T. Atkinson (Oxford & LSE), T. Piketty (PSE & LSE), E. Saez (Berkeley), G. Zucman (Berkeley), co-financed by PSE, ERC, Ford Foundation, INET, CEG, etc.

#### Gender gap: ratio average labor income men/women labor by age (entire population, incl. non participants), France 2010



#### Gender gap: ratio average labor income men/women labor by age (entire population, incl. non participants), France 1970-2010



#### **Conclusions**

- Aim of WID is to provide convenient & transparent access to the most extensive available series on the historical evolution of income wealth and distribution
- Please join if you want to contribute!
- One thing is to construct inequality series; another is to account for them; in order to do this, one needs to collect additional information about economic, social, educational institutions and policies, about beliefs sytems and representations of policies, and about the bargaining power of the different political, social and economic actors