

# **Econ 133 – Global Inequality and Growth**

## **The interplay between inequality and growth**

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## Roadmap

1. Is there an association between inequality and growth in the data?
2. Is there a causal relationship between inequality and growth?
  - Growth  $\rightarrow$  inequality?
  - Inequality  $\rightarrow$  growth?

# 1 Correlation between inequality and growth in the data

- Time series evidence: looking at growth and inequality within a country over time
- $\neq$  cross-country evidence: looking at growth and inequality in a sample of countries at a given period of time (e.g., today)
- In both cases, no simple, unidirectional relationship: complex theoretical interplay + diversity of national histories

## 1.1 Time series evidence

**In the very long-run:** negative relationship between inequality and growth from 1700 to today in Old World

- Aristocratic, pre-industrial societies of 18th century = high inequality, very low growth
- Democratic, industrial and post-industrial societies of second half of 20th century = relatively low inequality, high growth

**In the short / medium-run:** no systematic relationship between inequality and growth

- 19th century UK: rise of productivity growth initially accompanied by an *increase* in inequality: “Engels’ pause”. See Allen (2009)
- 20th century US: dramatic changes in inequality of pre-tax income, but relatively little changes in macro growth rates

### Top 10% pre-tax national income share in the United States

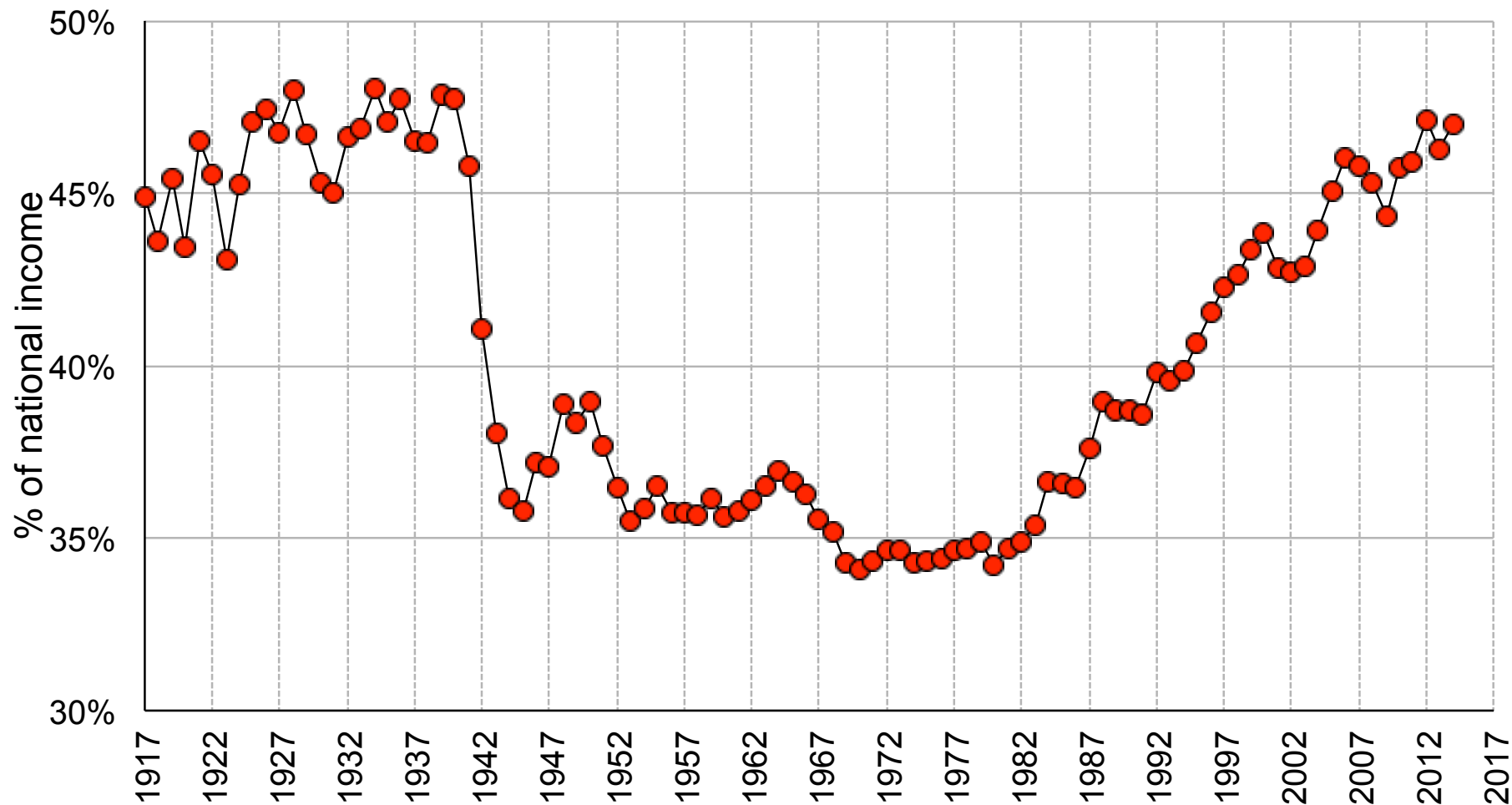


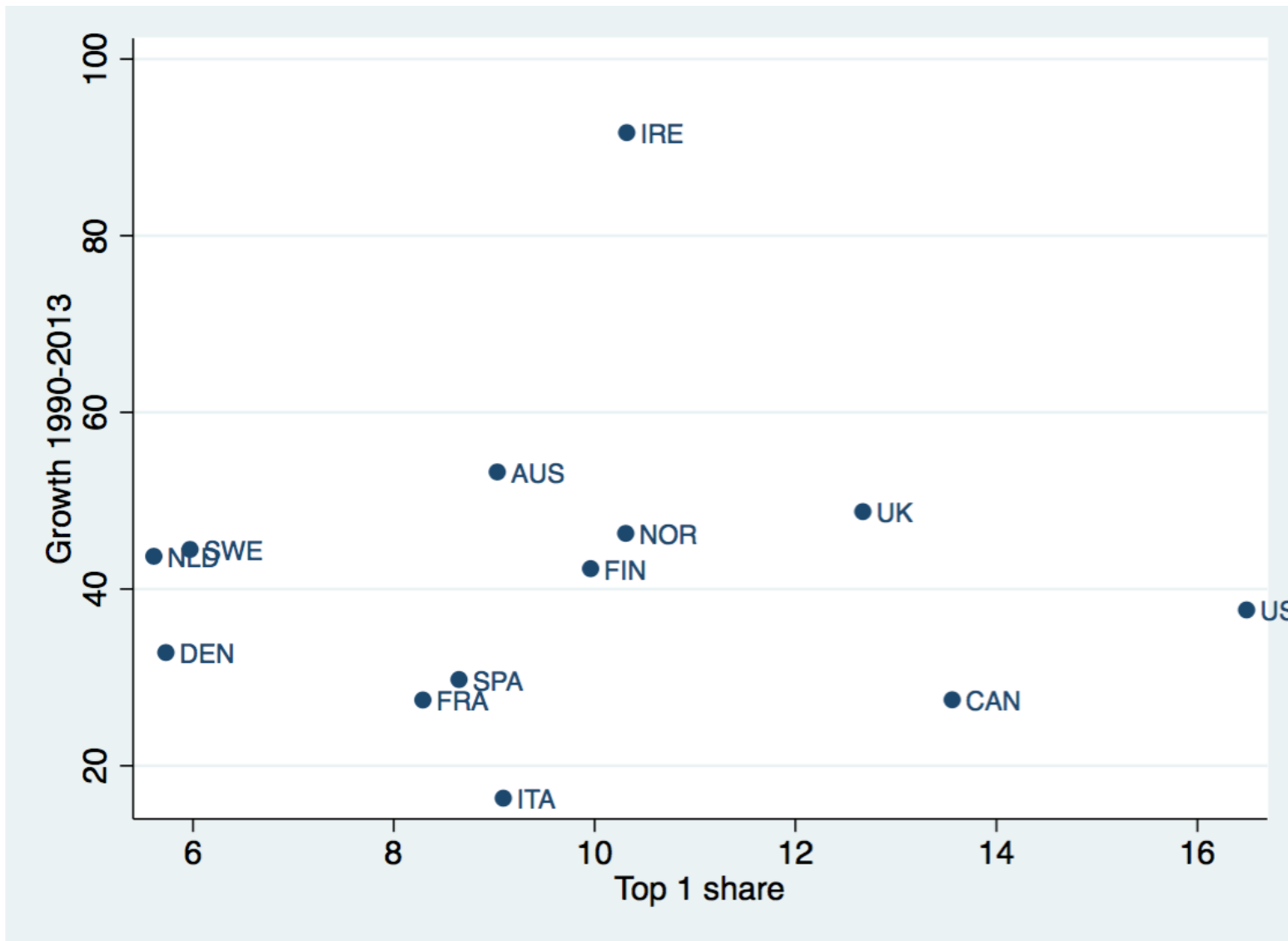
Table 2: The Growth of National Income in the United States since World War II

<b>Income group</b>	<b>Pre-tax income growth</b>		<b>Post-tax income growth</b>	
	<b>1980-2014</b>	<b>1946-1980</b>	<b>1980-2014</b>	<b>1946-1980</b>
Full Population	61%	95%	61%	95%
Bottom 50%	1%	102%	21%	130%
Middle 40%	42%	105%	49%	98%
Top 10%	121%	79%	113%	69%
Top 1%	205%	47%	194%	58%
Top 0.1%	321%	54%	299%	104%
Top 0.01%	454%	75%	424%	201%
Top 0.001%	636%	57%	617%	163%

## 1.2 Cross-country evidence

- In the cross-section of developing countries today, more equal countries tend to grow more: Berg and Ostry (2011)
  
- However big limits:
  - Severe measurement problems
  
  - Says nothing about direction of causality (if any)
  
  - No such correlation for rich countries





Source: World Wealth and Income Database, and national accounts.

Note: growth is real GDP growth per worker.

## 2 Theories of the interplay between inequality and growth

### 2.1 Growth → inequality: the Kuznets curve

A bell-shaped relationship btw inequality and growth: Kuznets (1955)

- Start from economy with 2 sectors: agriculture (low productivity, low inequality) & nonagric. (high productivity, high inequality)
- Phase 1: Shift from agriculture to nonagricultural sectors increases both inequality & growth

- Phase 2: further growth within nonagricultural sector generates mobility → less wealth and permanent income inequality
  - Population growth → old families have a smaller and smaller share of income
  - Productivity growth → new industries displace old wealth

Limit of Kuznets' theory: not consistent with the data since 1980s

## 2.2 Inequality → growth

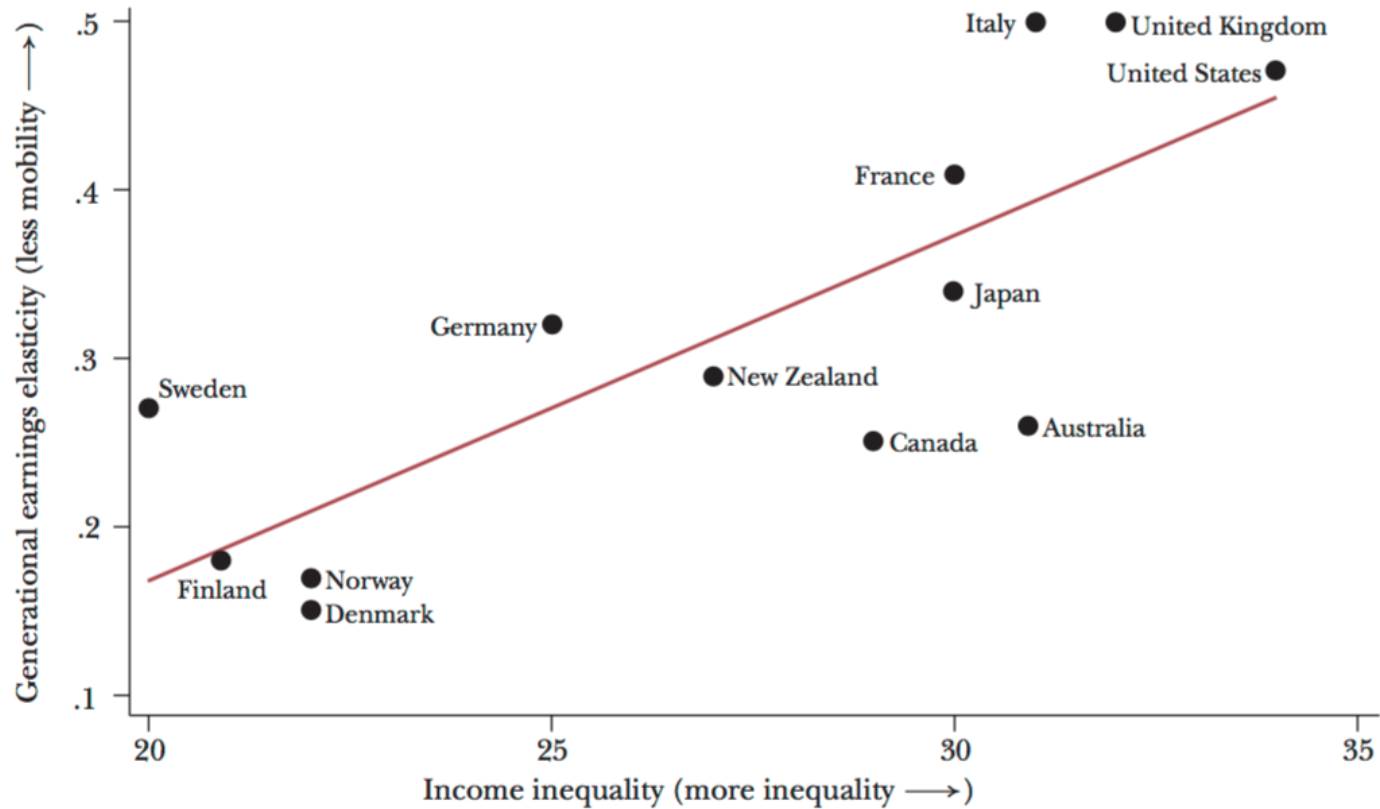
A bell-shaped relationship between growth and inequality

- A moderate level of inequality is good for growth: incentive effect
- But excessive inequality is bad for growth:
  - Political economy reasons: inequality → political instability
  - Resource constraints: inequality makes it hard for poor people to stay healthy, acquire skills, look after or educate their children

- Credit constraints: inequality makes it harder for poor people to innovate
- Keeping up with the Joneses': over-borrowing, financial distress
- Effect on institutions: political capture by the wealthy
- There is some suggestive evidence for these various channels (see following graphs)
- Limit: hard to establish rigorous causal link empirically (lack of natural experiment)

Figure 1

**The Great Gatsby Curve: More Inequality is Associated with Less Mobility across the Generations**

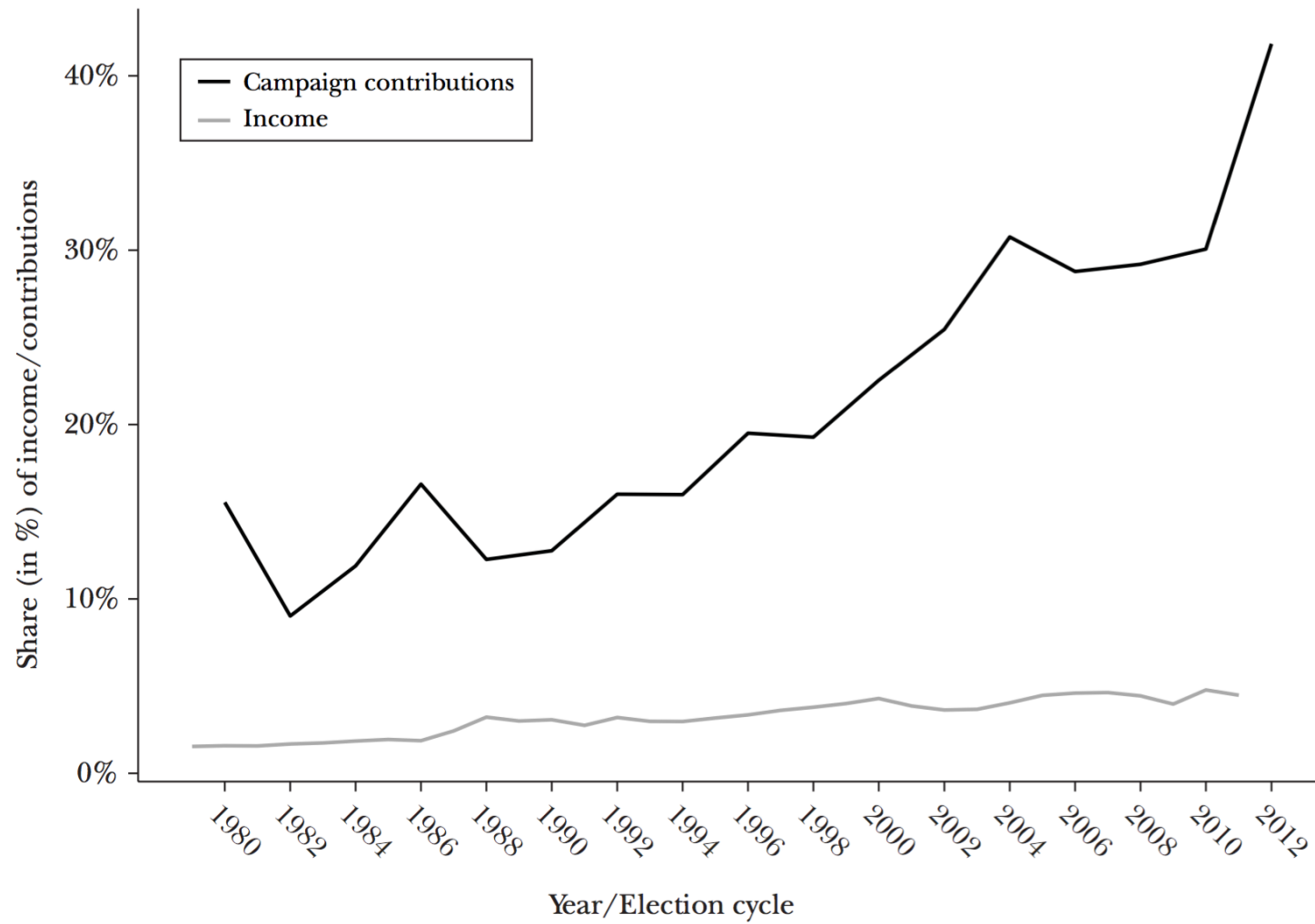


Source: Corak (2013). Note: inequality measured as the Gini coefficient for disposable income in 1985.

Intergenerational economic mobility is measured as the elasticity btw paternal earnings and son's adult earnings.

Figure 5

**Concentration of Income and Campaign Contributions in the Top 0.01 Percent of Households and Voting Age Population**



Source: Bonica et al. (2013)

## References

Allen, Robert C., “Engels’ pause: Technical change, capital accumulation, and inequality in the British industrial revolution”, *Explorations in Economic History*, 2009 (web)

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Kuznets, Simon *Economic Growth and Income Inequality*, *American Economic Review* 1955 (web)