

Inequality of income in Europe

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*The views expressed here are mine and do not necessarily
reflect those of the Bank of Italy or the Eurosystem*

European Dialogue 2015: Prosperity in Europe*

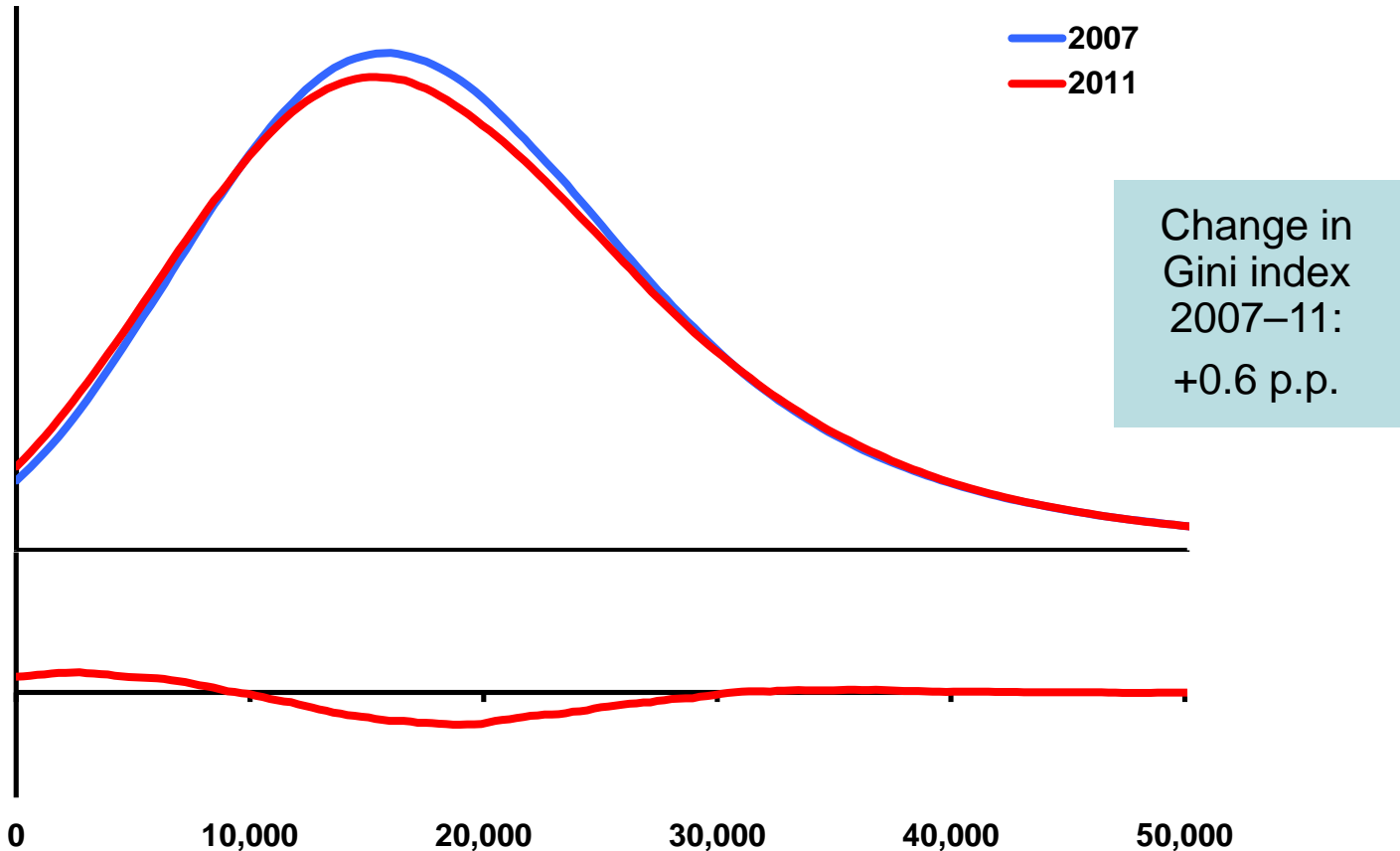
*only if we stop the growing inequality

16-17 April 2015, Brussels

Chapter 1: Europe

Income distribution in Euro Area

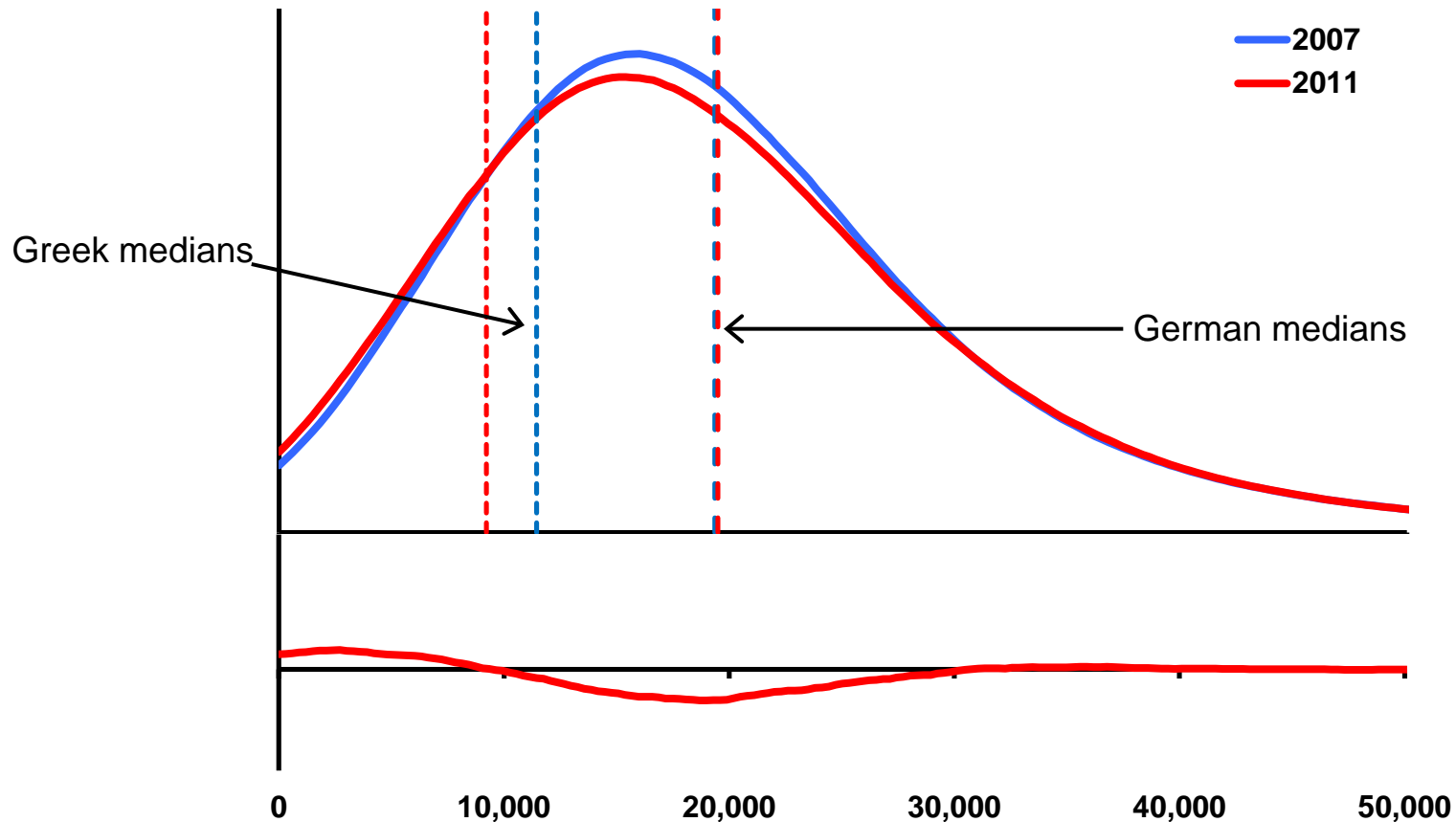
Kernel density distribution functions



Source: elaboration on EU-SILC data. Equivalent disposable income, modified OECD scale, divided by the implicit deflator of the household and NPISH final consumption expenditure for the Euro Area.

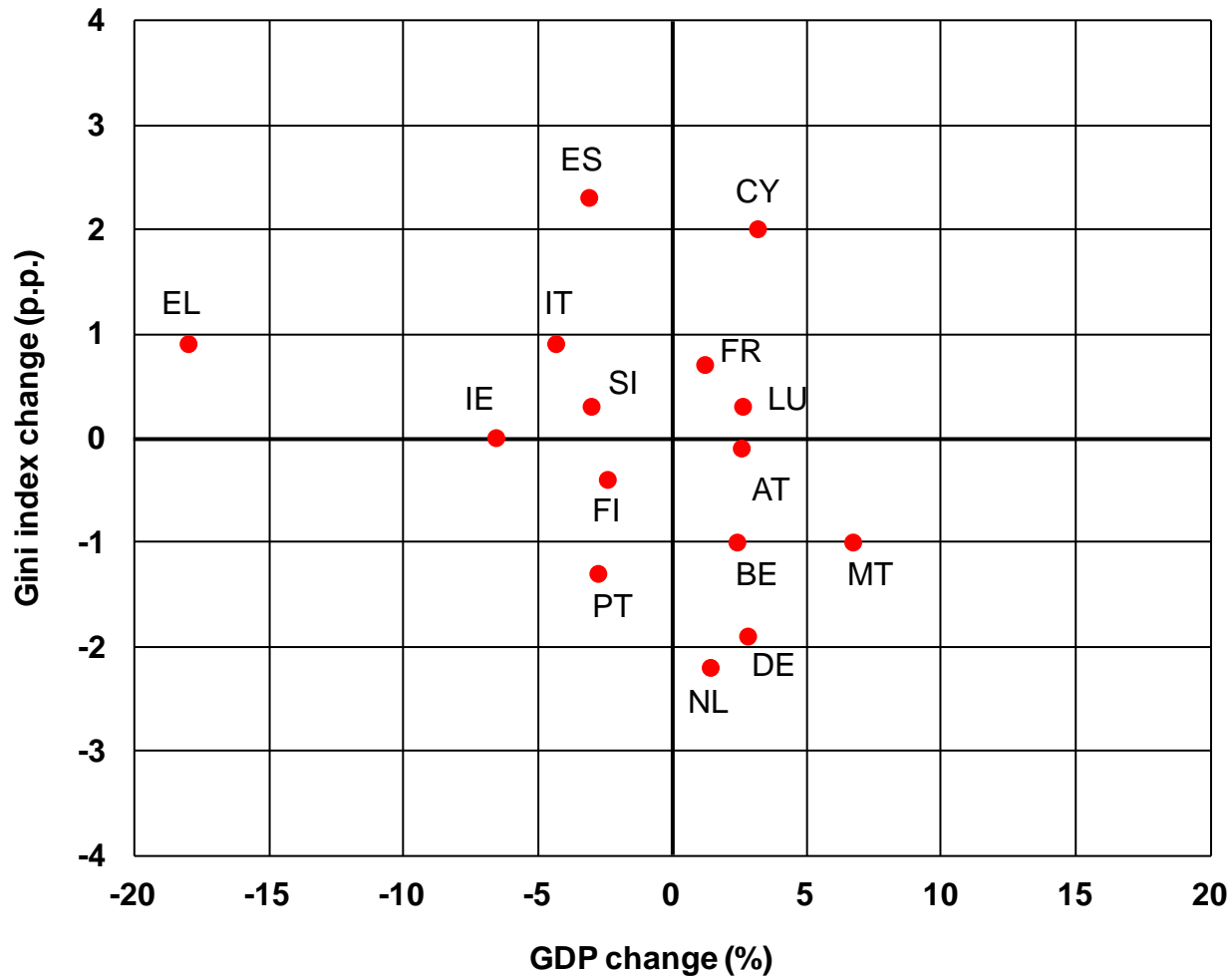
Income distribution in Euro Area

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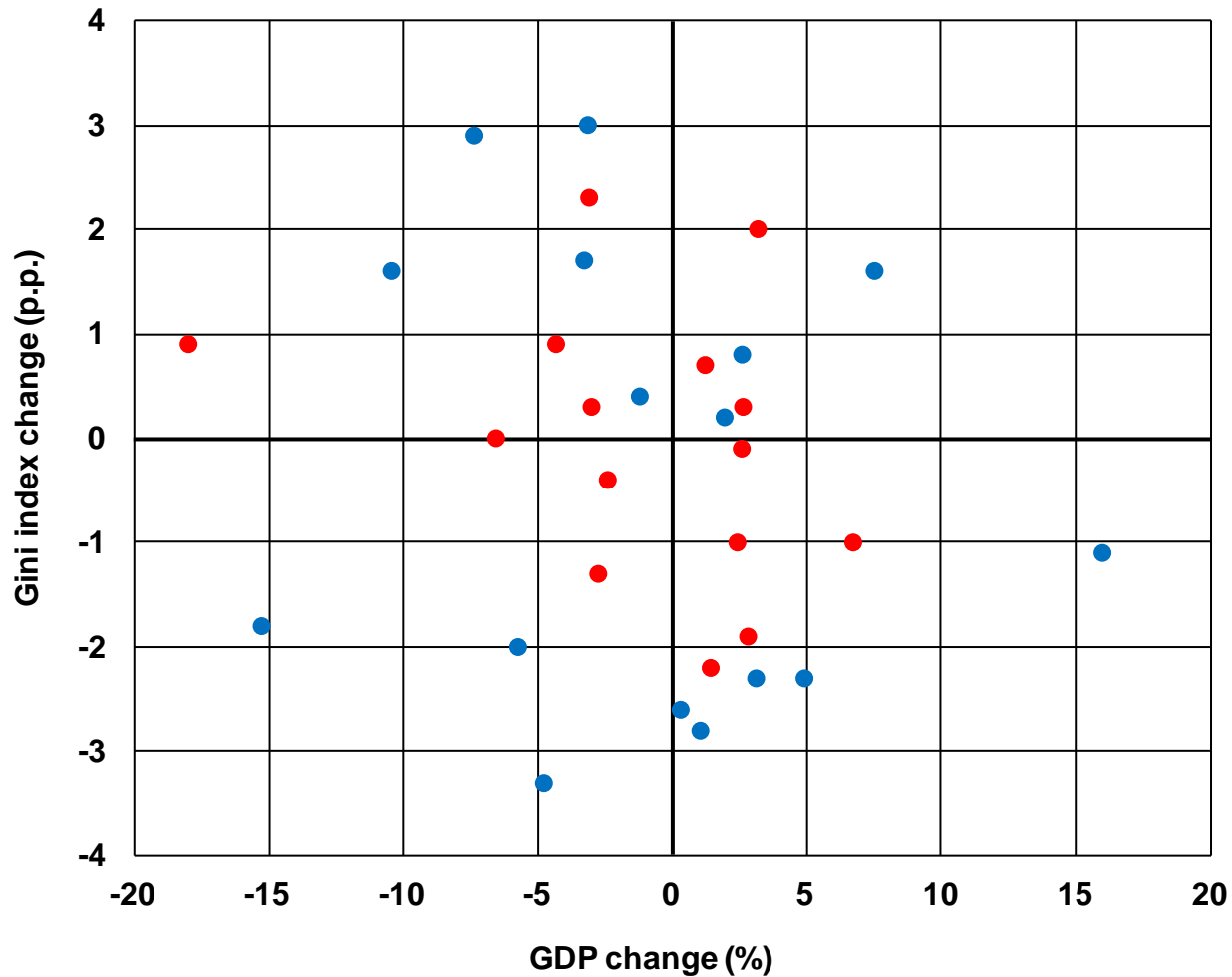
GDP and inequality change, 2007–11 Euro Area



Source: elaboration on Eurostat data.

GDP and inequality change, 2007–11

EU and non-EU



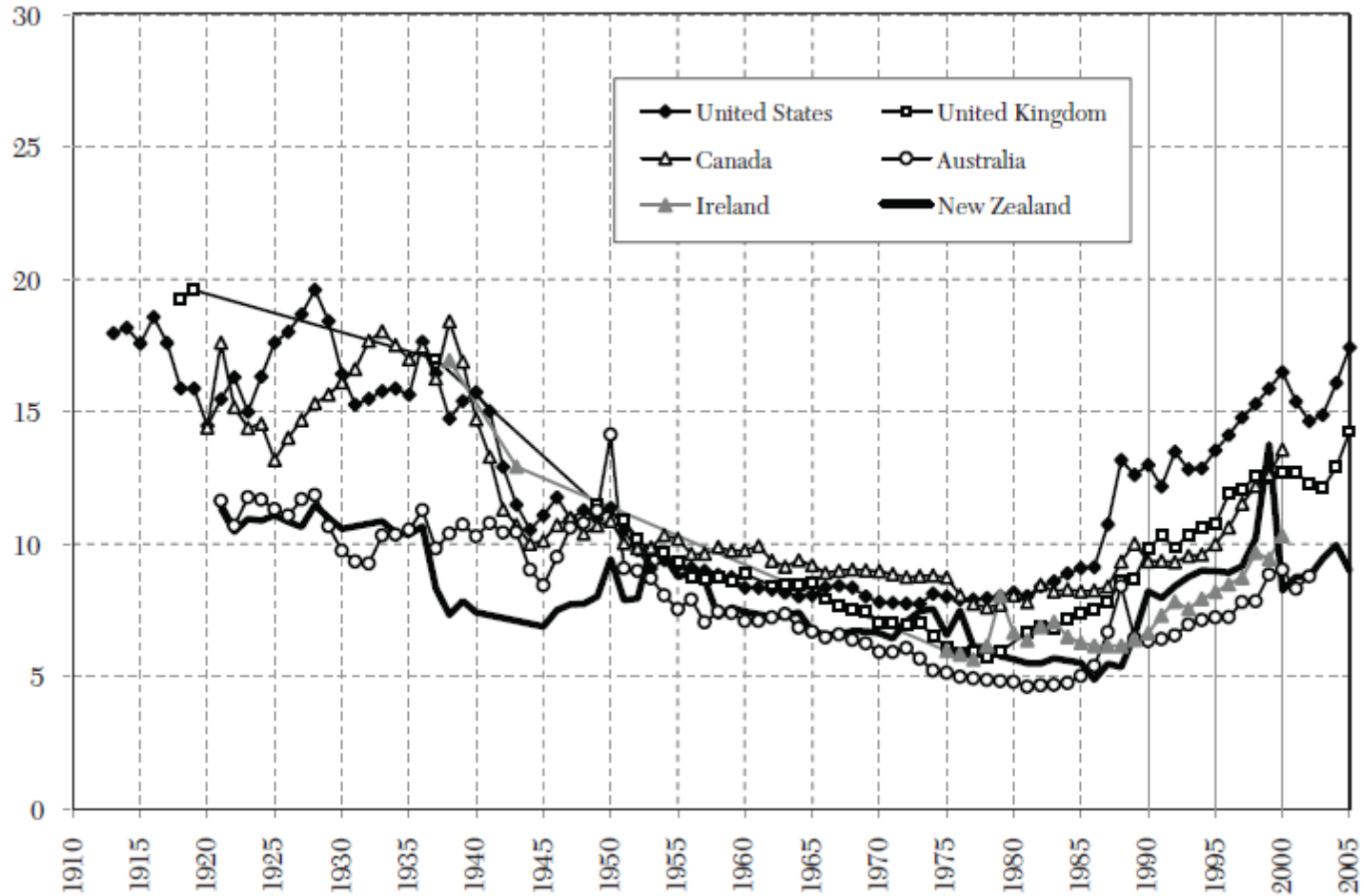
Source: elaboration on Eurostat data.

Summary 1

- Time to take seriously the **European perspective** → EU as if it was a single country
 - Measurement problems need to be considered, but no more serious than for measurement at national level (see Brandolini, 2007)
- Not over-stress **impact of austerity** on inequality
 - patterns differ across countries → different mixture of measures (see Sutherland and co-authors Euromod-based estimates)
 - often across-the-board income reduction: of course, lower and middle classes suffered more
- To understand inequality (longer-run) patterns, we have to investigate **national experiences**

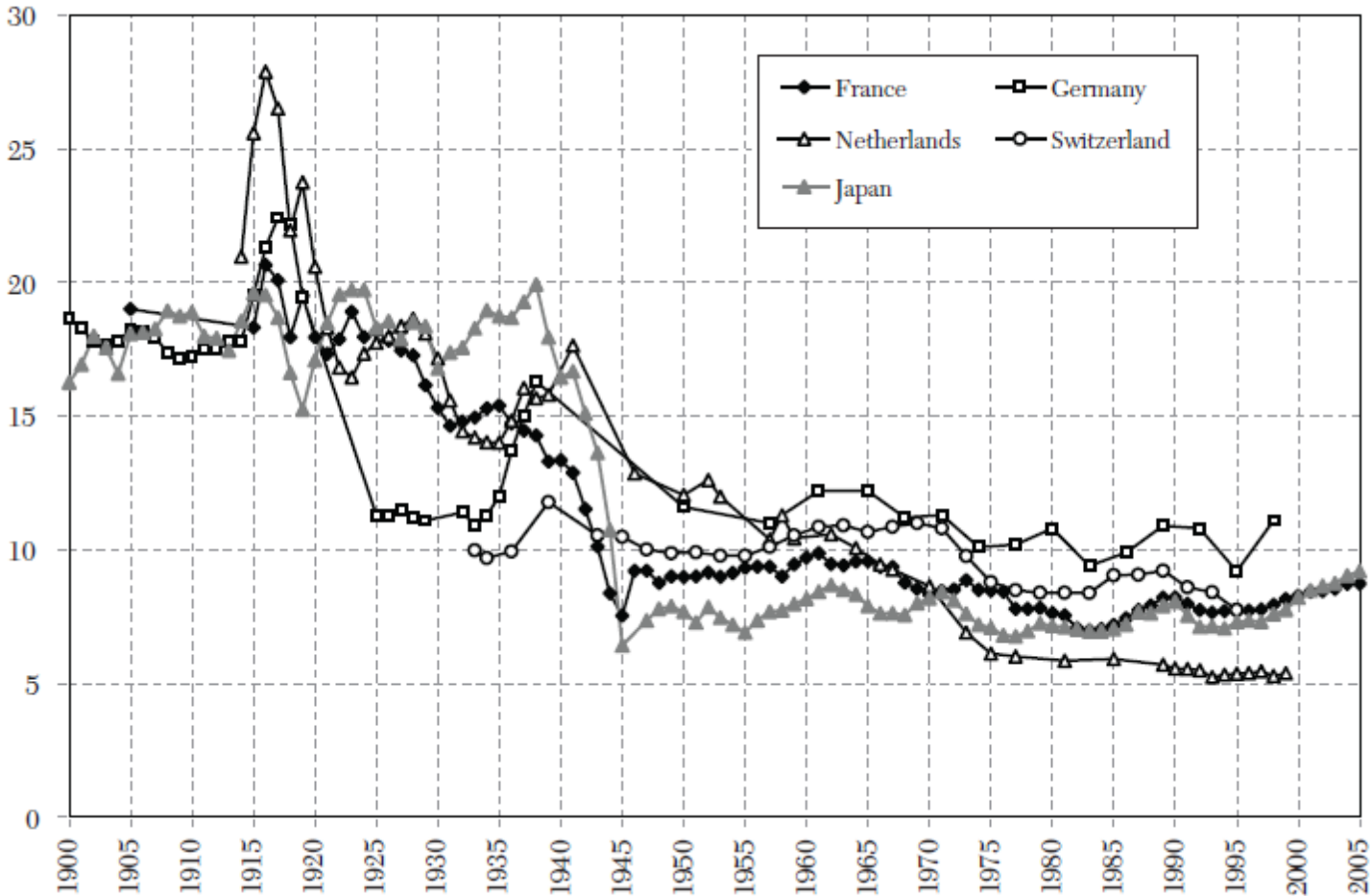
Chapter 2: National trends

Top 1% share (%): *U-shape* in English speaking countries



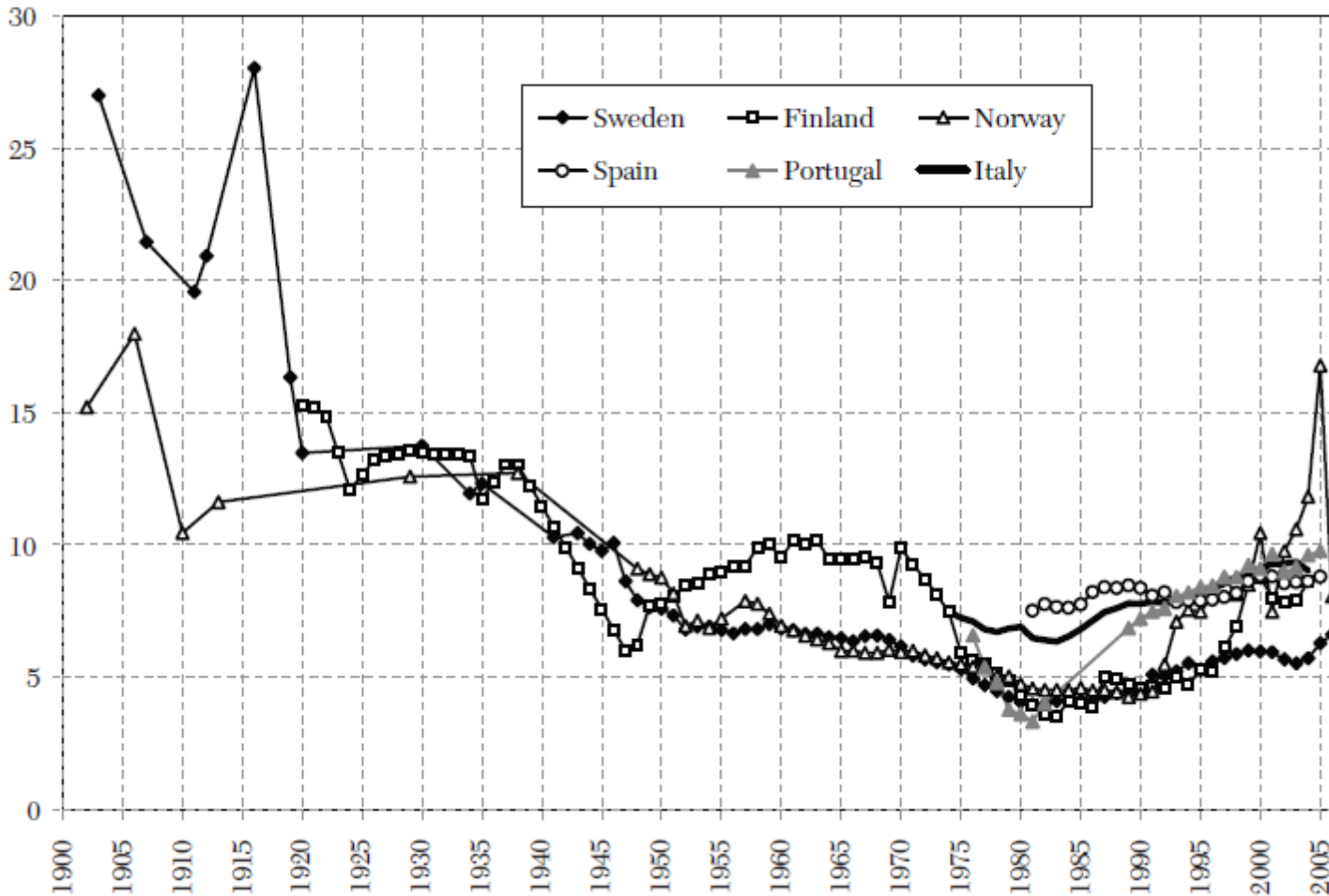
Source: Atkinson, Piketty and Saez, *Journal of Economic Literature* 2010.

Top 1% share (%): *L-shape* in Middle Europe and Japan



Source: Atkinson, Piketty and Saez, *Journal of Economic Literature* 2010.

Top 1% share (%): *U/L-shape* in Nordic and Southern Europe



Source: Atkinson, Piketty and Saez, *Journal of Economic Literature* 2010.

Gini coefficients but ...

... be aware of data definitions!

Indices consistent within countries but: *i*) breaks due to statistical discontinuities; *ii*) no cross-country consistency; *iii*) evidence may differ with other indices.

1. **Income definition:**

- Market: incomes from labour and capital
- Gross: market income plus public income transfers
- Disposable: gross income less taxes and contributions
- Imputed rents, capital gains/losses, in-kind benefits?

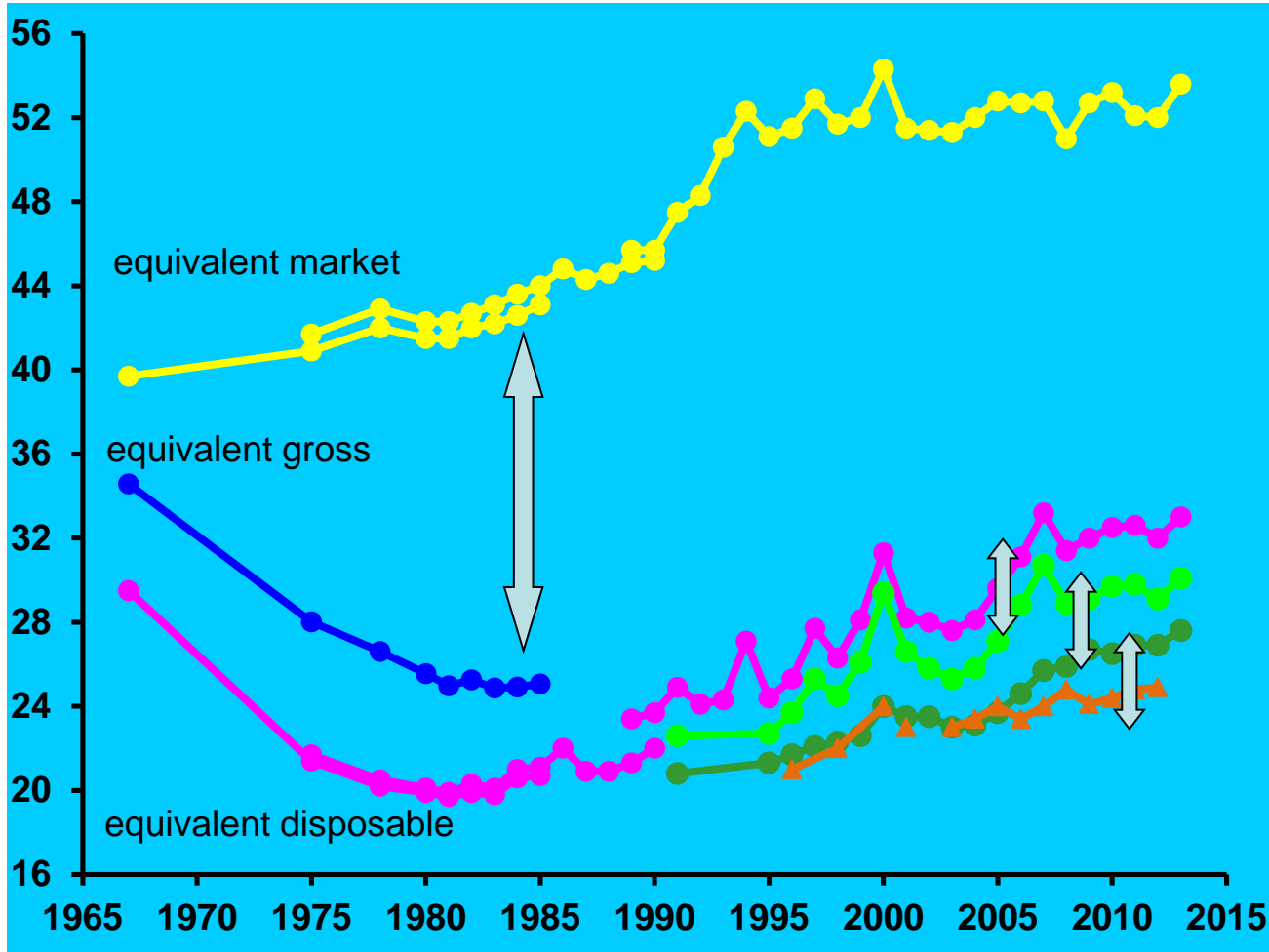
2. **Reference unit**: household, inner family, tax unit, person, ...

3. **Welfare weighting**: households, persons, equivalent persons

4. **Equivalence scale**: adjustment for size and composition of reference unit (economies of scale, needs)

Sweden

Gini coefficient (%)



Market vs.
gross →
transfers

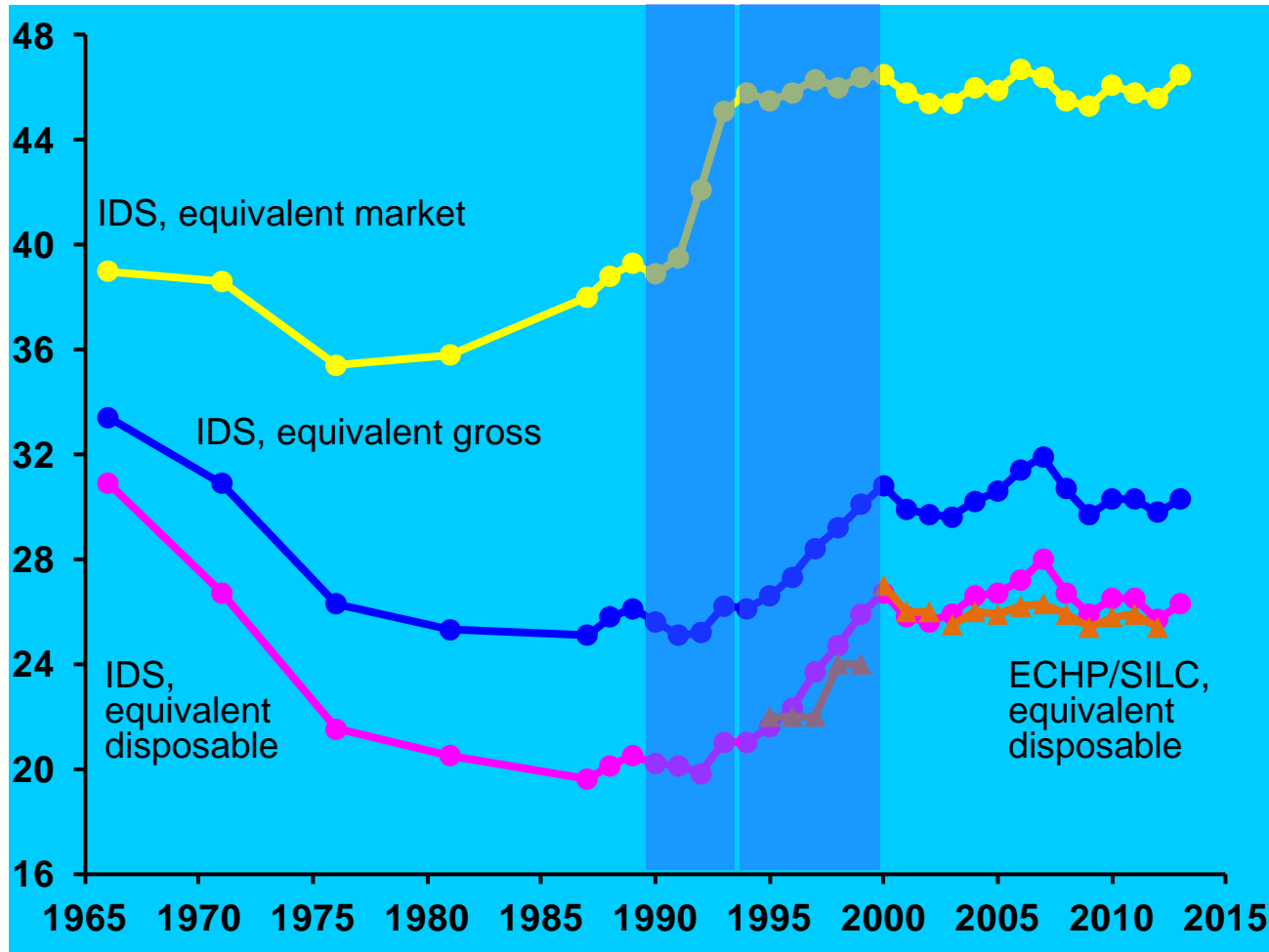
Family vs.
households

Impact of
capital
gains

Different
sources
IDS vs.
ECHP/SILC

Finland

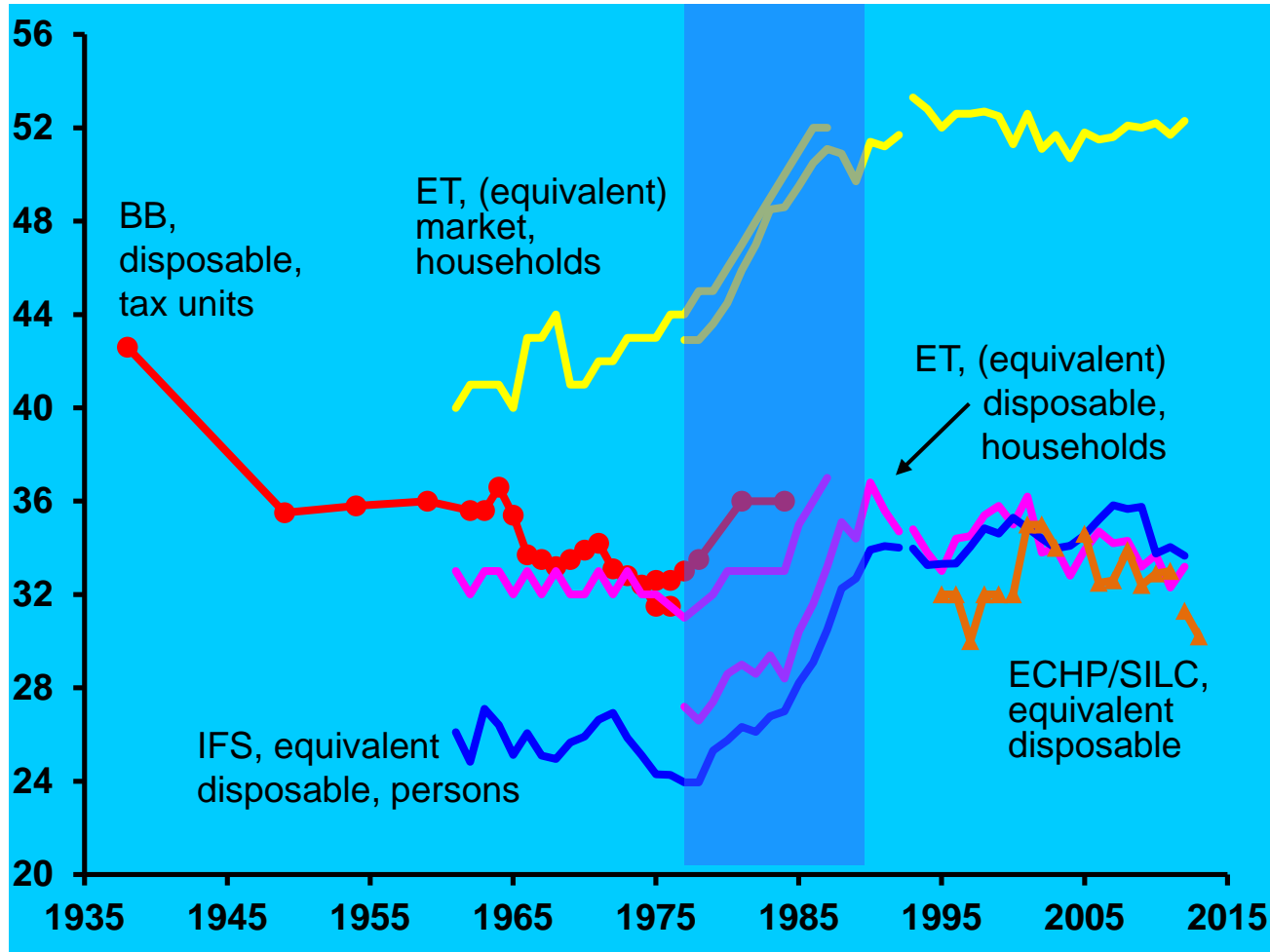
Gini coefficient (%)



Role of transfers in mitigating effects of recession in early 1990s
→ unemployment rate from 3% in 1990 to 17% in 1994
Second half of 1990s?

United Kingdom

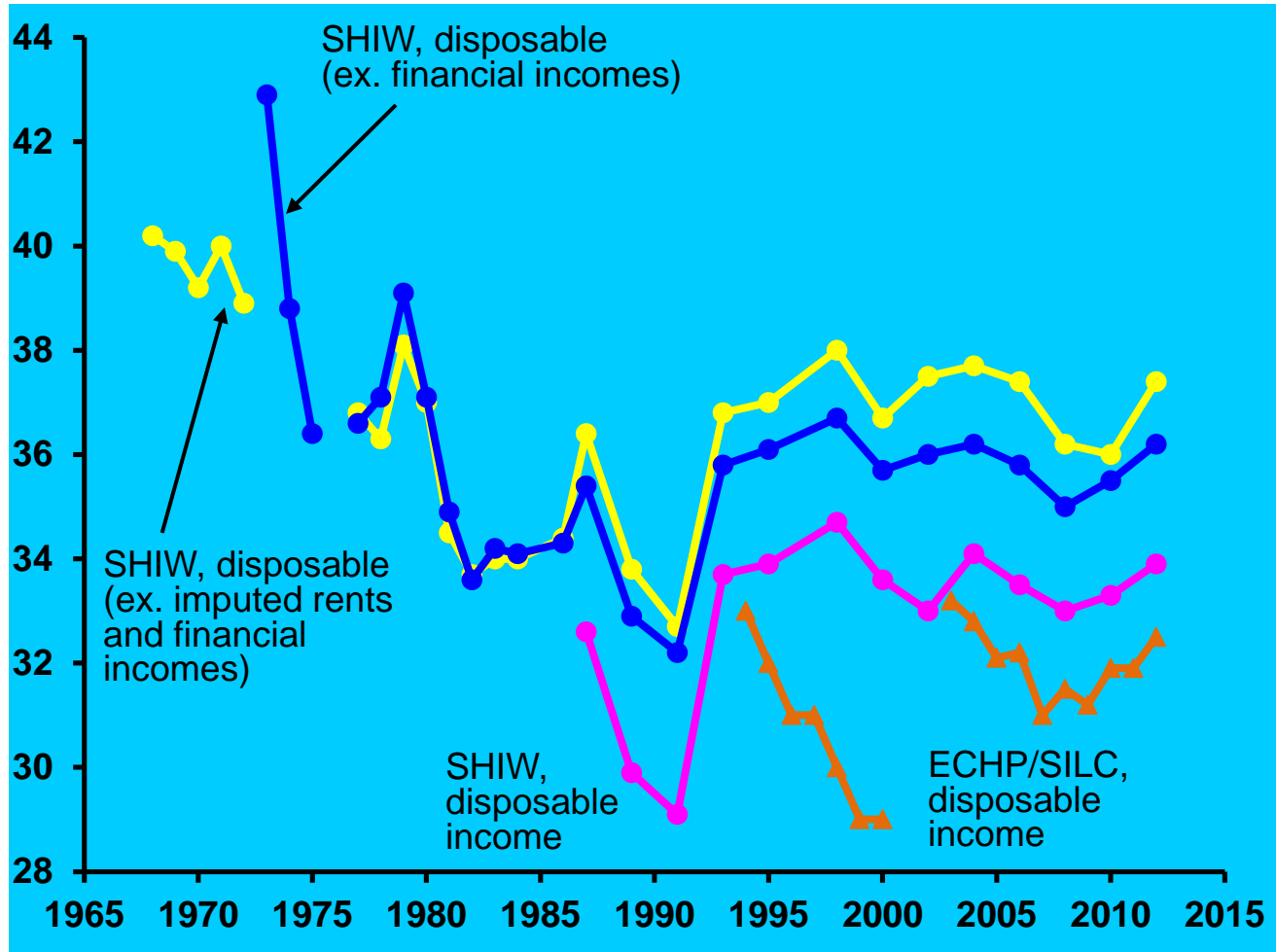
Gini coefficient (%)



1977-1990: $\Delta\text{GINI}(\text{market}) = \Delta\text{GINI}(\text{disposable}) = 9 \text{ p.p.}$

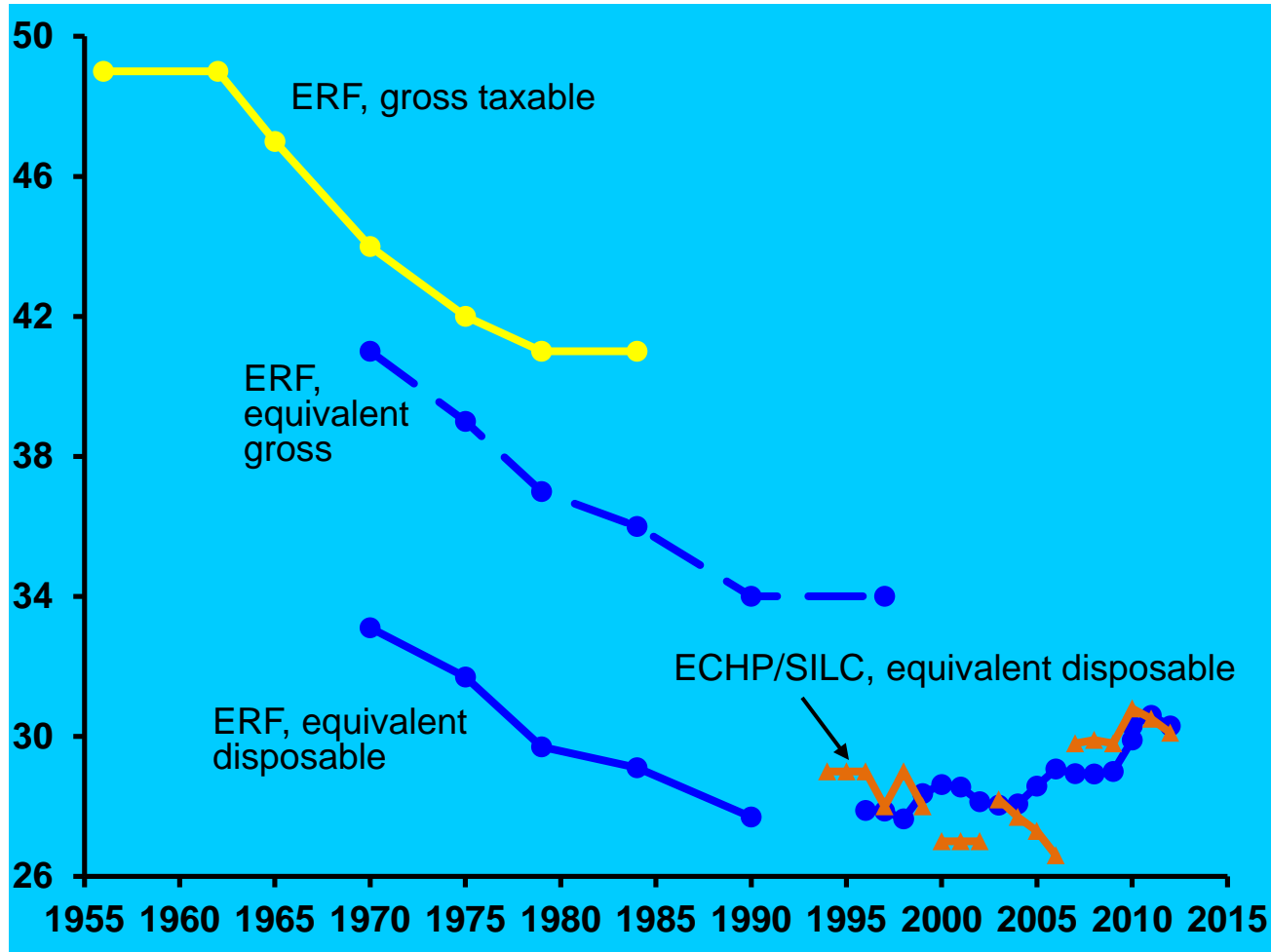
Italy

Gini coefficient (%)



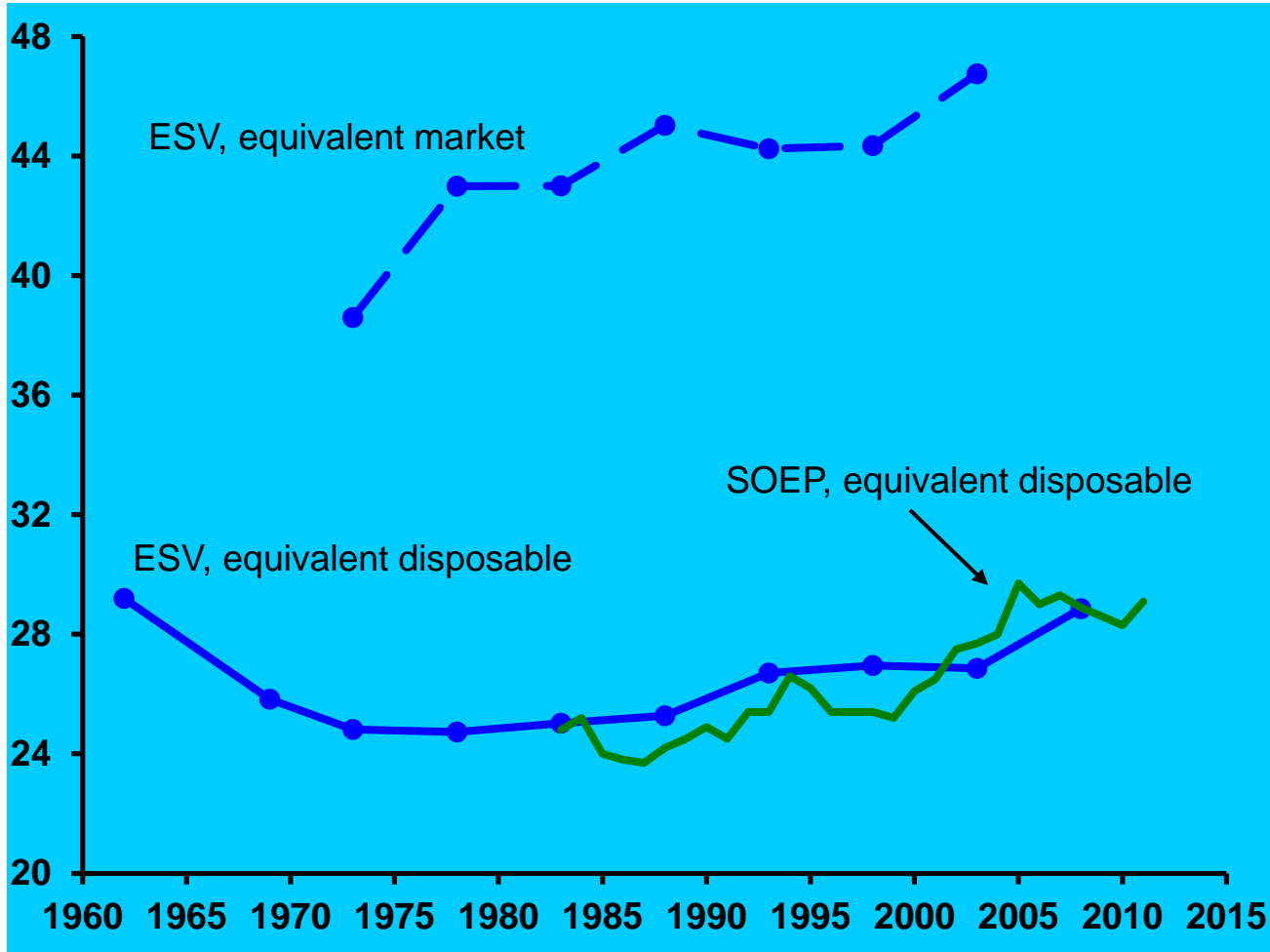
France

Gini coefficient (%)



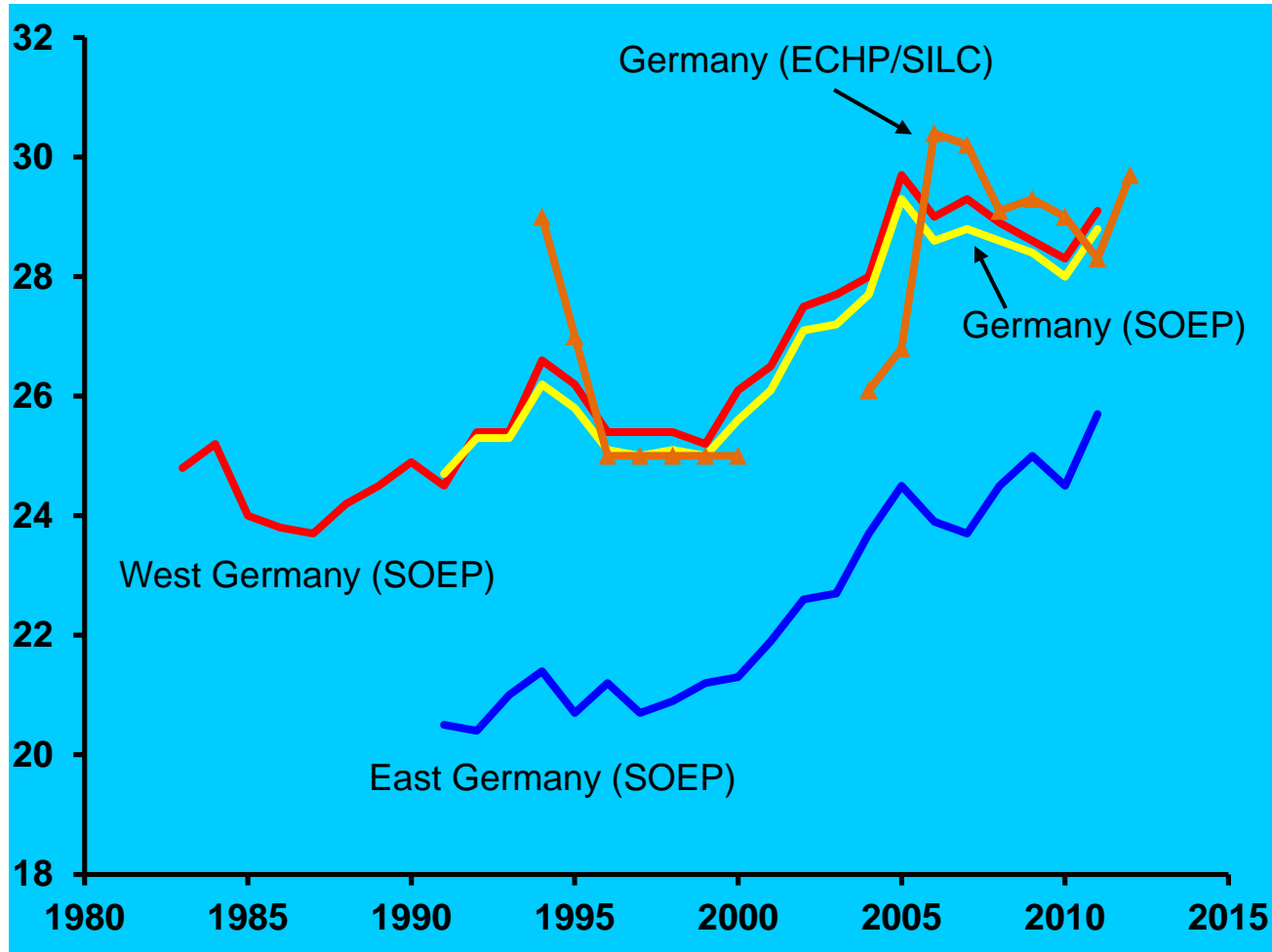
West Germany

Gini coefficient (%)



Germany

Gini coefficient (%)



Summary 2

- National experiences vary: no overarching common story
- Yet, some broad patterns:
 - increase of market income inequality somewhat more general → common **‘demographic/market forces’**?
 - general tendency of disposable income inequality to rise from lowest levels
 - reached between 1970s and 1990s, depending on countries → **different timing** → role of **institutions** and **policy** (including **public redistribution**, but not only)

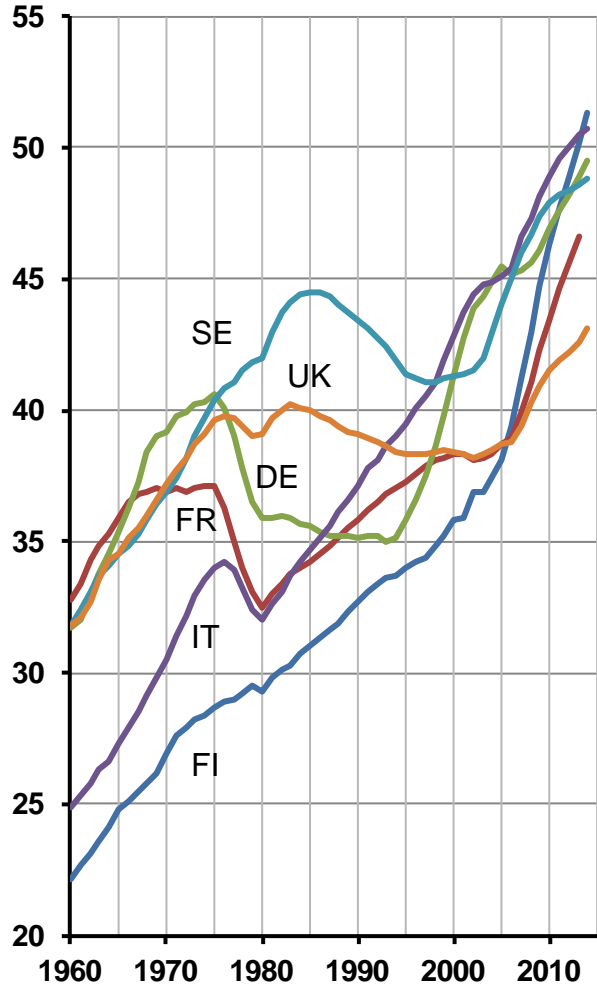
“... it is misleading to talk of ‘trends’ when describing the postwar evolution of the income distribution. ... It may be better for a number of countries to think in terms of ‘episodes’ when inequality fell or increased.”

Atkinson, *Economic Journal* 1997

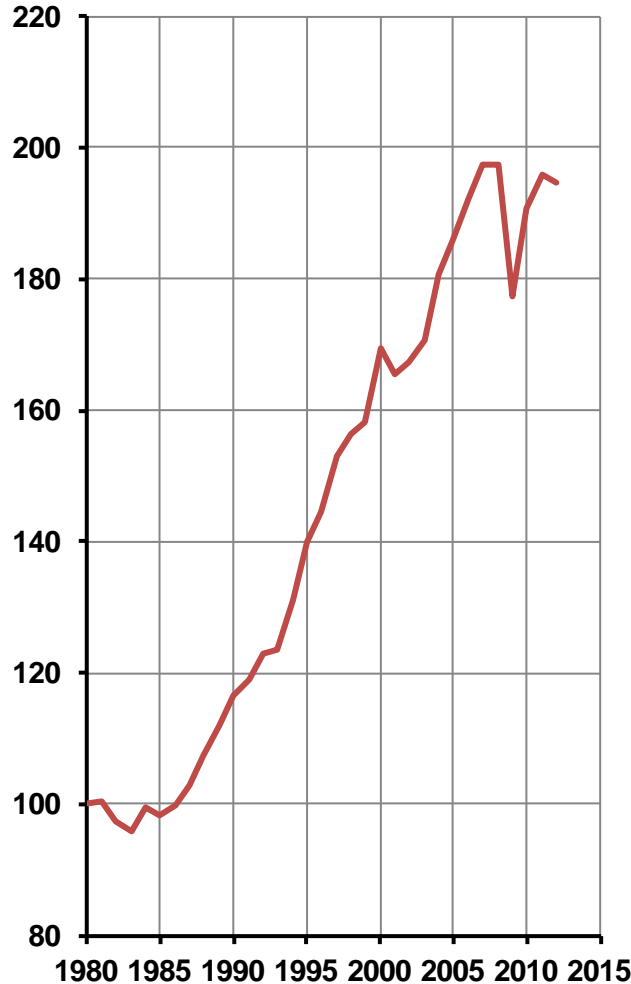
Chapter 3: Determinants

Demographic & market forces

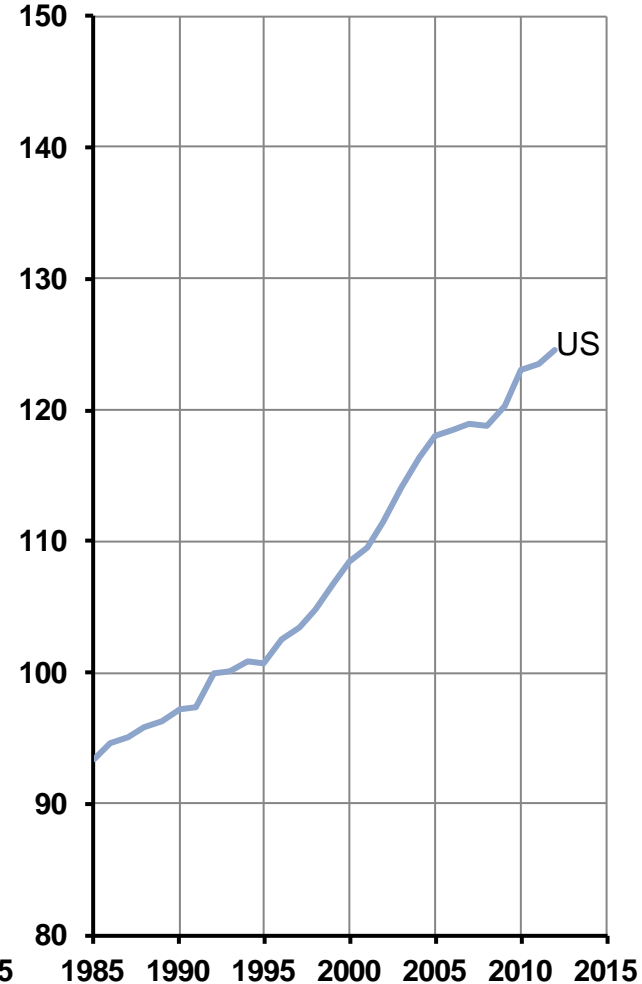
Population 60+ to population 20-59 (%)



World trade/GDP ratio (index: 1980=100)



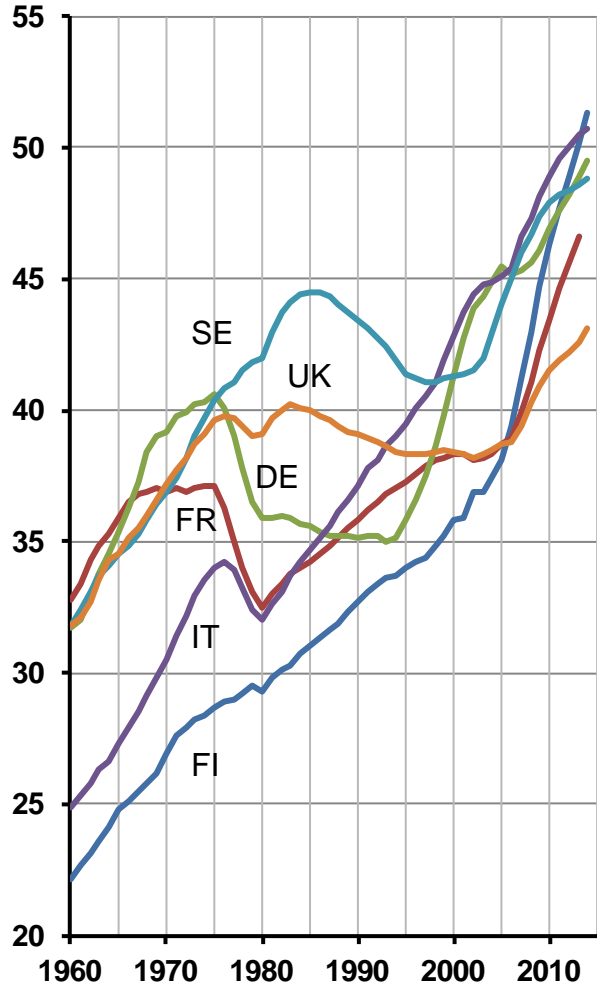
Multifactor productivity (index: 1992=100)



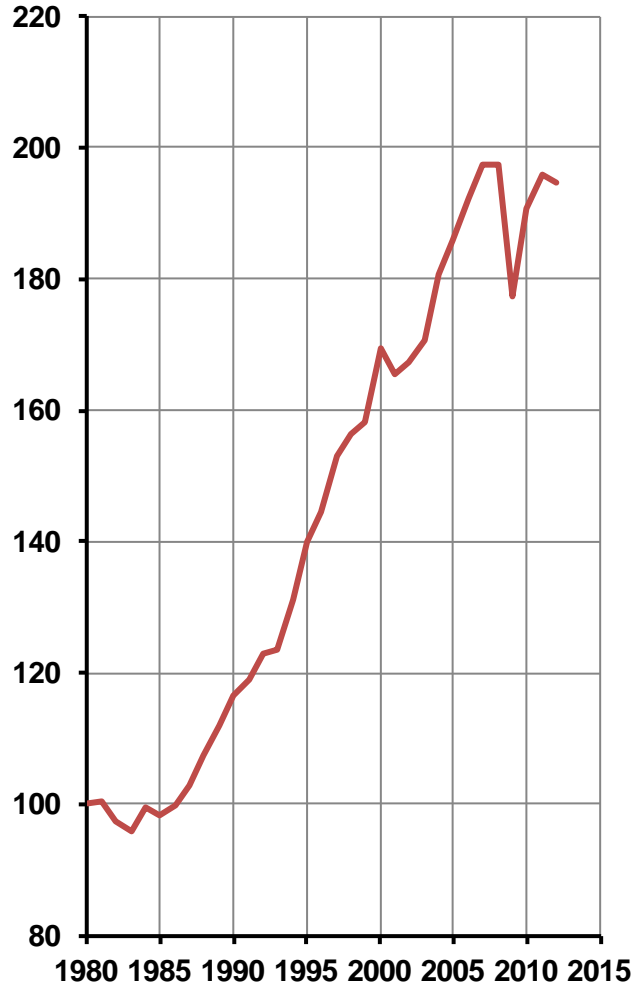
Source: elaboration on Eurostat and IMF data.

Demographic & market forces

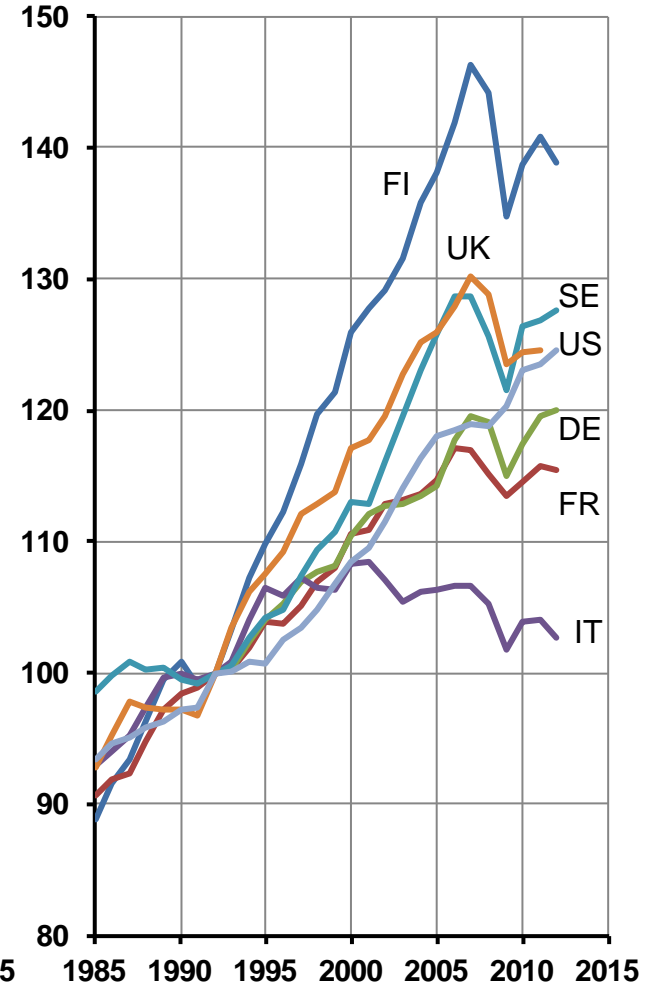
Population 60+ to population 20-59 (%)



World trade/GDP ratio (index: 1980=100)



Multifactor productivity (index: 1992=100)



Source: elaboration on Eurostat and IMF data.

Technological forces

- **Skill biased technological change**: shift away from unskilled work, but requires insufficient supply of college workers
- **Job polarisation**: computers substitute routine tasks and intermediate jobs (see Autor, Katz and Kearney 2006; Goos and Manning 2007; Goos, Manning and Salomons 2009)
- But:
 - **Institutional changes**: decline in real minimum wages, fall in unionisation rate (DiNardo, Fortin and Lemieux 1996)
 - **Technology adoption** varies across countries: careful to extend US story to other countries
 - **Diverse effects** on wage & disposable income distribution
Checchi and García-Peñalosa 2008: union density reduces wage inequality, but increases disposable income inequality (employment effect prevails)
 - **Public redistribution** may offset market forces

Difficult to disentangle interactions

Hyper-stylised income distribution (Atkinson and Brandolini 2006)

- skilled/unskilled employed
- insured/uninsured unemployed

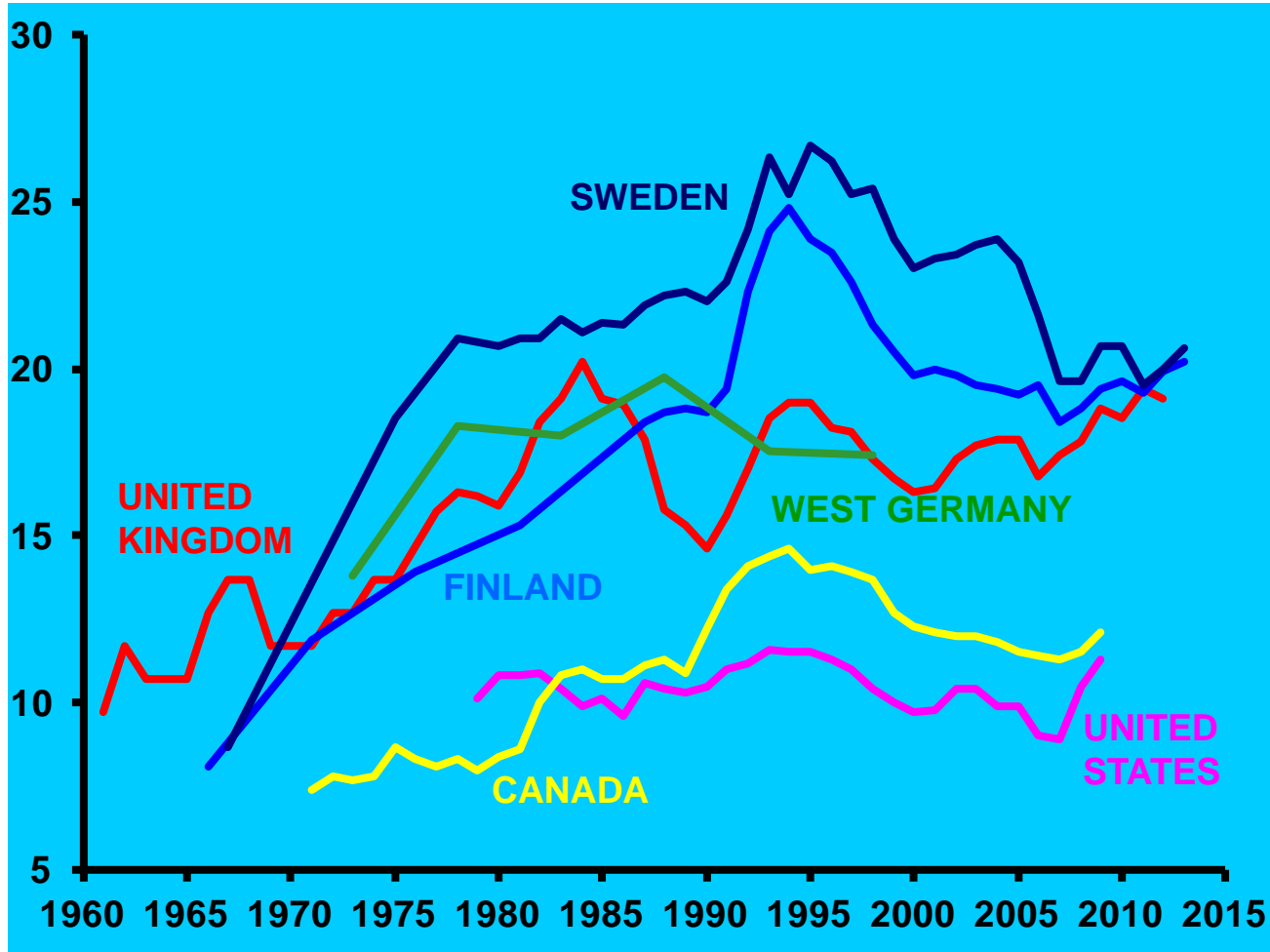
$$\text{Gini (disposable income)} = \frac{\varphi(1-\varphi)s + u(1-u) + bcu(1-2u+cu)}{(1-\varphi)s + (1-u) + bcu}$$

φ = share of unskilled
 s = skill premium
 u = unemployment rate

b = ratio of benefit to unskilled wage
 c = share of insured unemployed

Trends in redistribution by tax and transfers

Gini(market income) – Gini(disposable income) (%)



Summary 3

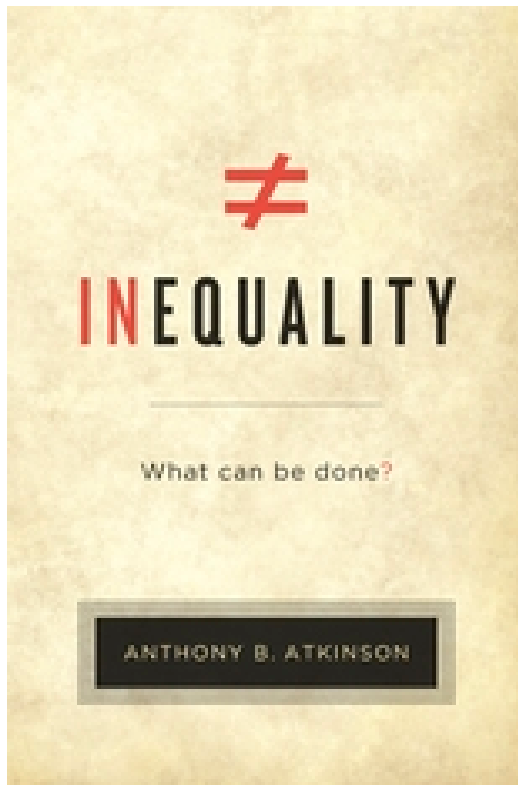
- **No single cause** (e.g. de-industrialization, skill-biased technological progress, or globalization) can give a whole account of changes in income distributions
- Income distribution is the result of **multiple factors** which sometimes balance out, sometimes reinforce each other
- There is a **role for policy** to counteract 'exogenous' demographic and market forces

Note: Are technological change and globalisation entirely exogenous? They may be partly businesses' choices that have led to a weakening of the labour bargaining position (see Acemoglu, Aghion and Violante 2001)

Chapter 4: Policies?

A portfolio of policies

- Multiple factors imply that no single policy is going to work
- International dimension of policies
- Not only redistribution, but how?



Tony Atkinson's *Inequality – What can be done?*

15 proposals

Proposal 1: The direction of technological change should be an explicit concern of policy-makers, encouraging innovation in a form that increases the employability of workers, emphasizing the human dimension of service provision

→ *EU2020 targets*

Conclusions:
Why do we care?

Thank you for your attention!