

**The global distribution
of income: past trends
and future prospects**

A B Atkinson, University of Oxford

S Anand and P Segal, “What do we know about global income inequality?”, Journal of Economic Literature 2008

“Controversy centres on whether inequality has increased or decreased in the recent past. The direction and magnitude of change have been highly charged questions with some authors arguing that globalization has benefited the rich disproportionately, while others argue that it has reduced world income inequalities” (Anand and Segal, page 57).

Reasons for disagreement:

- Different concerns**
- Data shortcomings**
- Different movements at different points in the distribution**

- 1. Conceptual issues: what are we concerned with?**
- 2. The international distribution of income: convergence following divergence?**
- 3. Within-country inequality over the twentieth century: a Great U-turn?**
- 4. The global distribution: combining between- and within-country inequality**
- 5. Underlying explanations**
- 6. Where are we headed?**

- 1. Conceptual issues: what are we concerned with?**
- 2. The international distribution of income: convergence following divergence?**
- 3. Within-country inequality over the twentieth century: a Great U-turn?**
- 4. The global distribution: combining between- and within- country inequality**
- 5. Underlying explanations**
- 6. Where are we headed?**

Distribution among whom?

**International
Distribution
(among countries)**

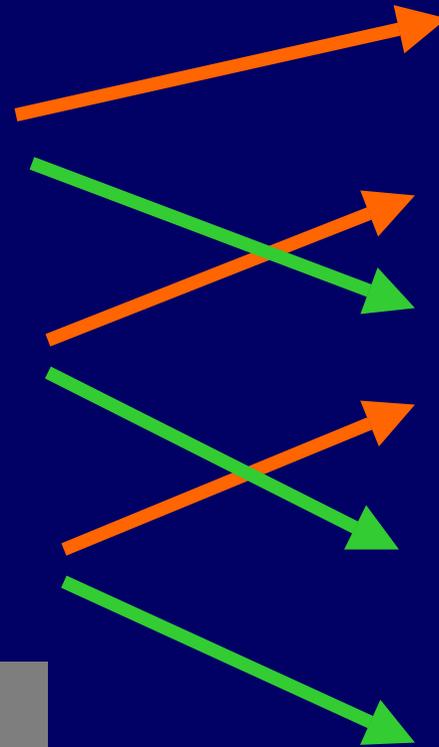
**World
Distribution
(among people)**

•Country A

•Country B

•Country C ...

GDP per head



W
O
R
L
D

C
I
T
I
Z
E
N
S

**Household
incomes**

Distribution of what?

STANDARD ANSWER = Potential living standards, measured by *annual disposable income among households* adjusted for household composition and for differences in purchasing power across countries and across time.

Inequality typically measured by standard inequality measures, such as Gini coefficient

Implies that international distribution is an intermediate step, not a final concern

Distribution of what?

ALTERNATIVE ANSWER = Economic power of countries measured by *total national income* measured at exchange rates (what can buy on world market)

Measured by concentration measures (such as share of top 12 countries)

Implies that international distribution is a final concern

1. Conceptual issues: what are we concerned with?
2. **The international distribution of income: convergence following divergence?**
3. Within-country inequality over the twentieth century: a Great U-turn?
4. The global distribution: combining between- and within- country inequality
5. Underlying explanations
6. Where are we headed?

DATA: How do we measure the international distribution of income?

Angus Maddison data set on gross domestic product per capita AD1-AD2006

BUT

- Official National accounts only started post 1945
- Need to compare across time (price indices)
- Need to compare across countries (purchasing power adjustments)

Between-country differences: GDP per capita (PPP adjusted) in India and UK

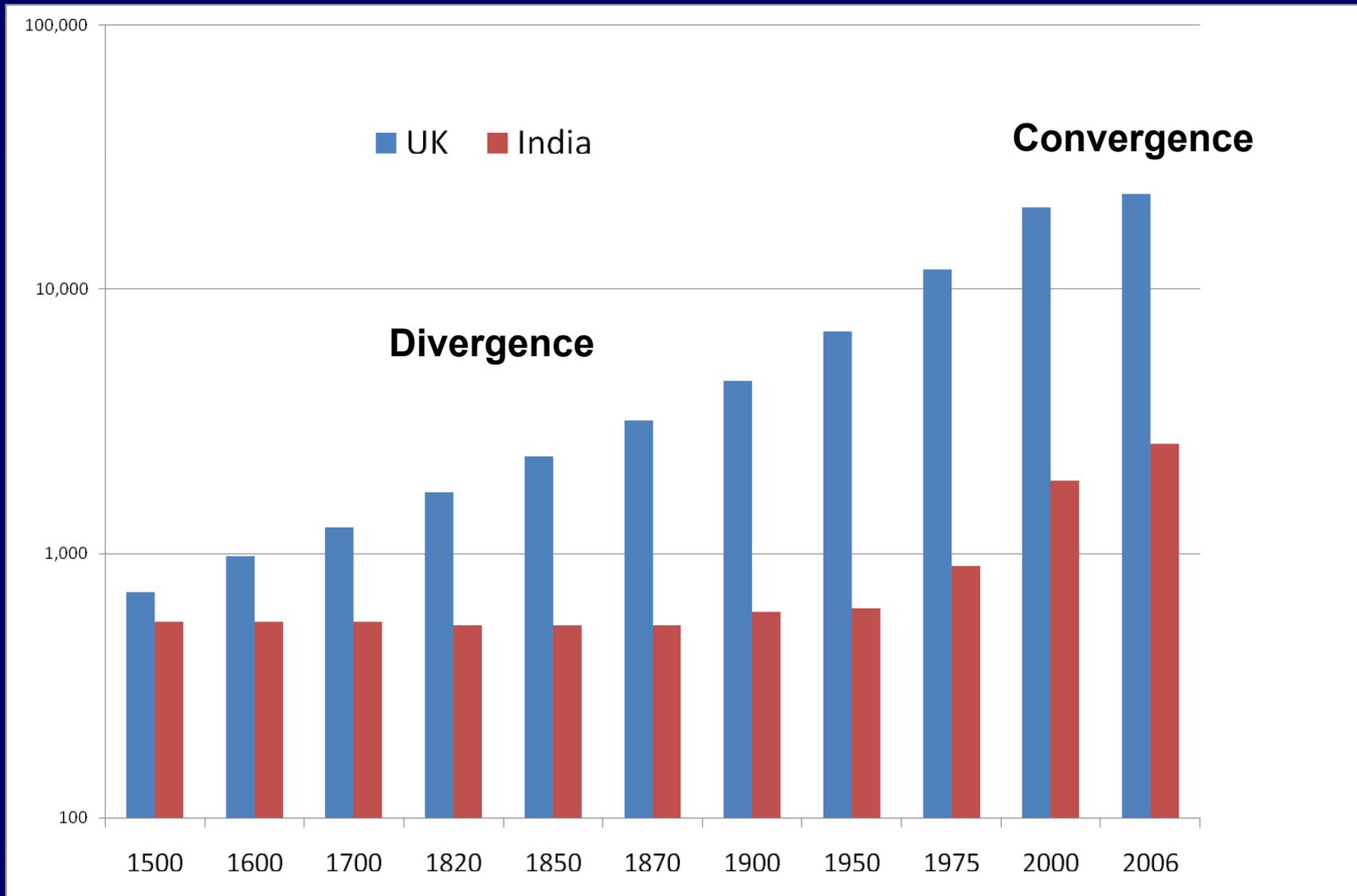
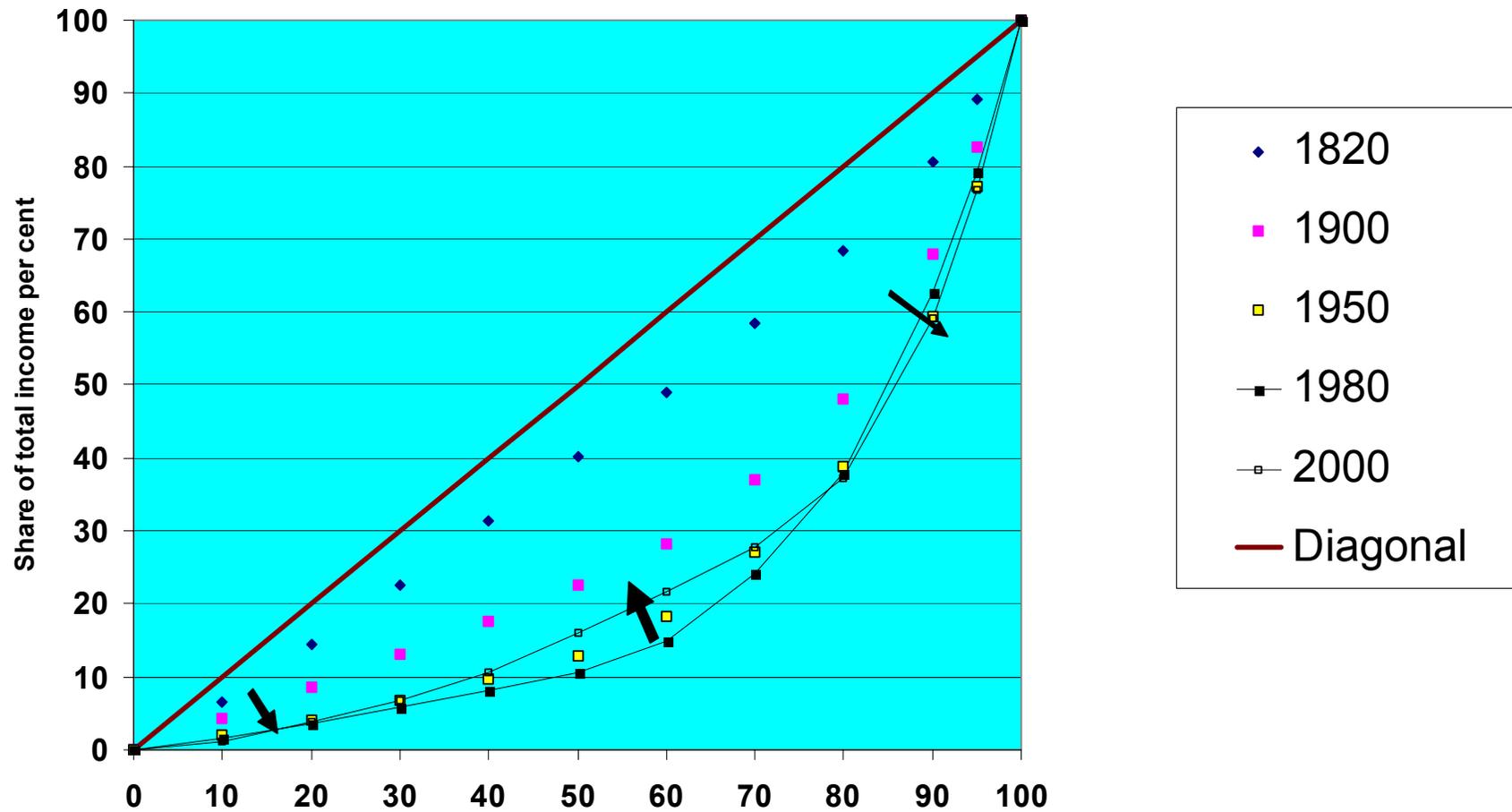


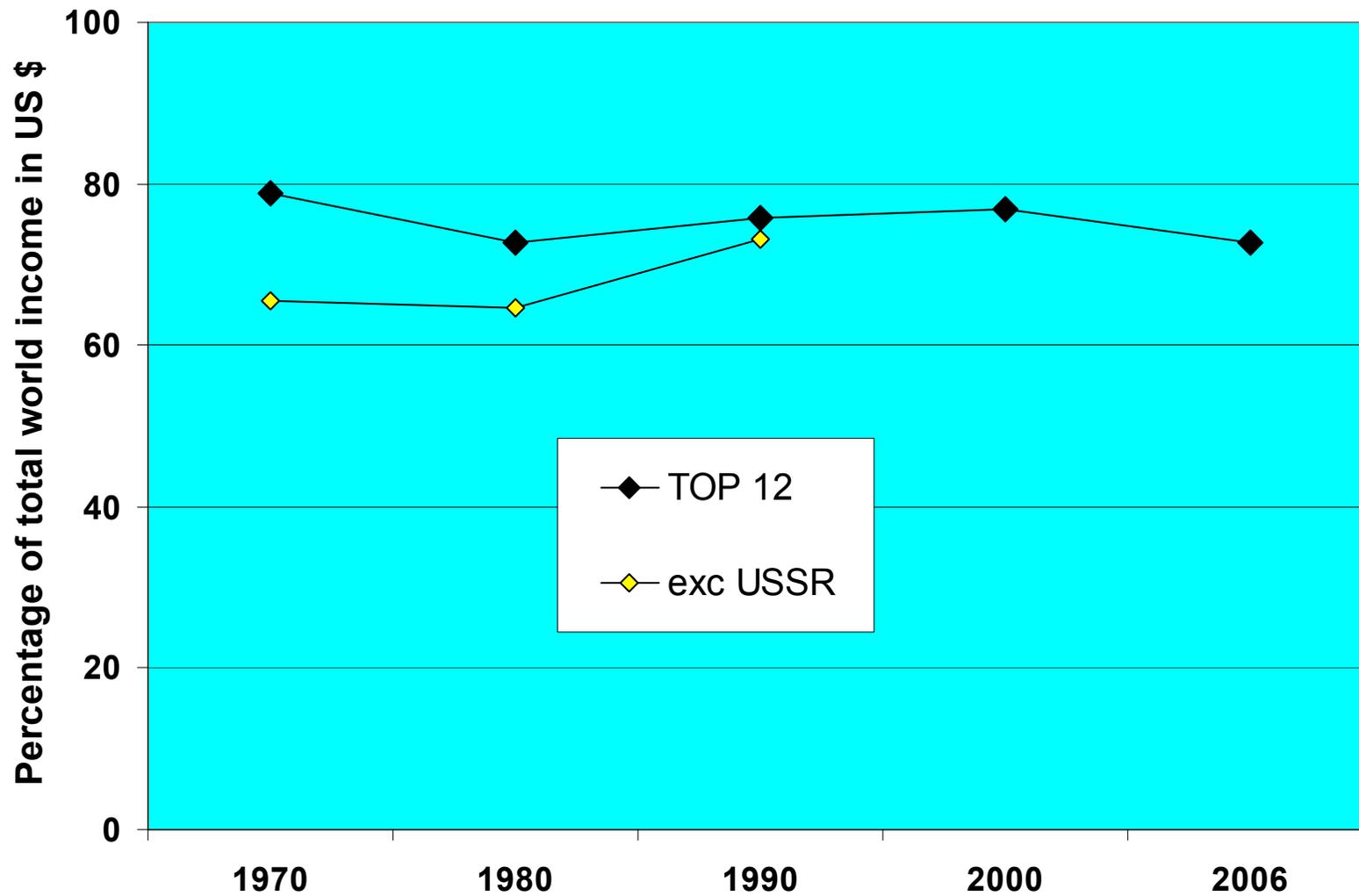
Figure 2 International Lorenz curves 1820-2000



World population in increasing order of GDP per head of country

Geo-political concerns

Top 12 countries concentration ratio



INTERNATIONAL DISTRIBUTION: Summary

- Long period of divergence following Industrial Revolution - up to mid-century.
- Large countries now becoming middle income.
- BUT leaving poorest countries behind.
- Rich countries as a whole still pulling away.
- Geo-political concentration among countries not falling appreciably.

1. Conceptual issues: what are we concerned with?
2. The international distribution of income: convergence following divergence?
- 3. Within-country inequality over the twentieth century: a Great U-turn?**
4. The global distribution: combining between- and within- country inequality
5. Underlying explanations
6. Where are we headed?

DATA: How measure the within-country distribution of income?

Household surveys and/or administrative records

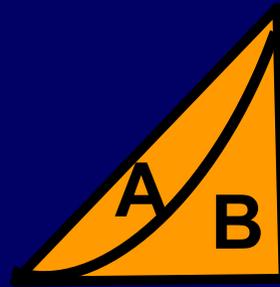
BUT

- Surveys relatively recent innovation, and suffer from non-response;
- Administrative data reflect administrative purpose;
- Sources differ across time and across countries.

Look at two aspects of the distribution:

- Overall inequality, measured by Gini coefficient:

A divided by (A+B)



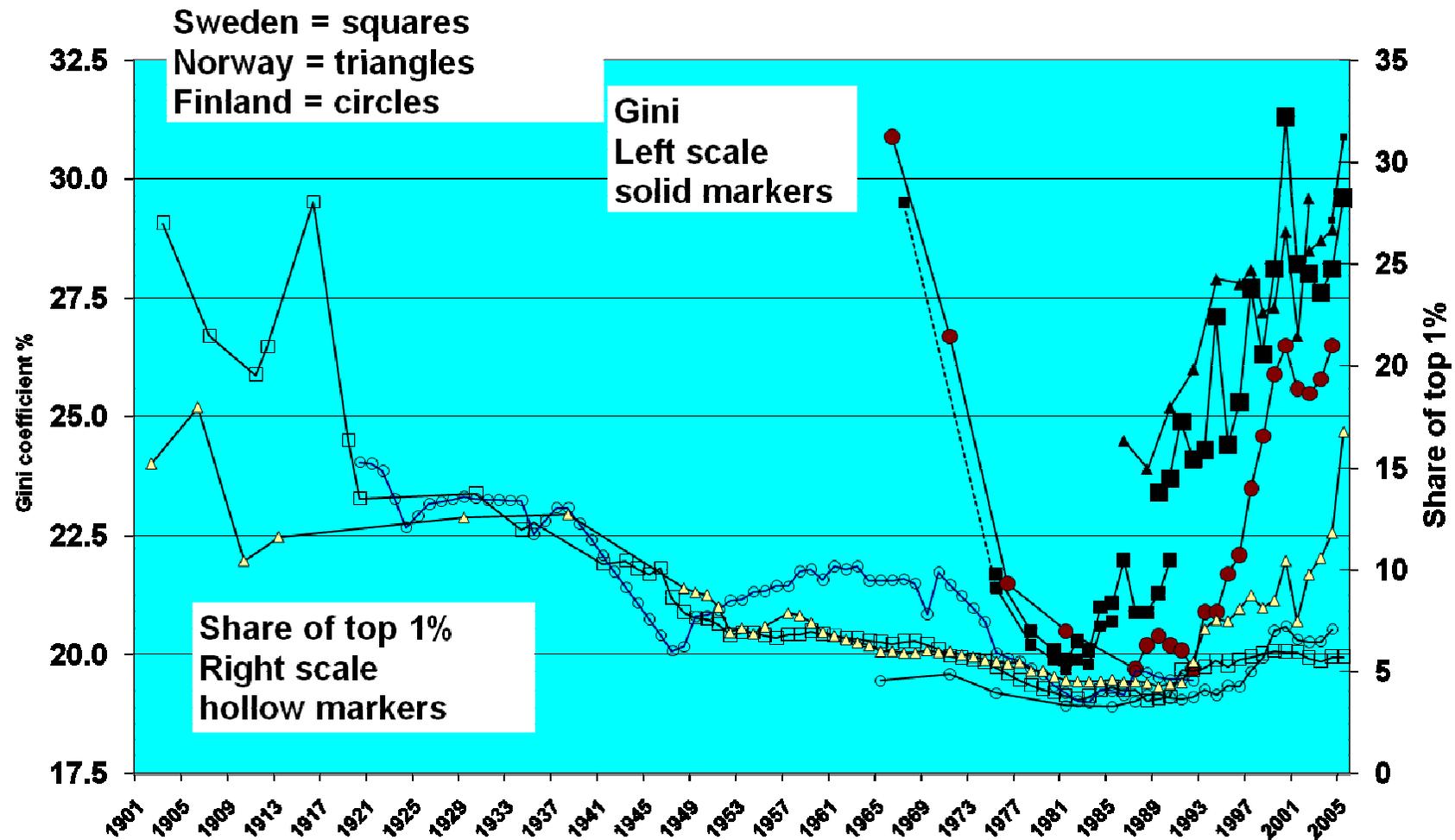
Lorenz curve

Gini of 25 per cent means that if take 2 people at random, then on average difference between their incomes is 50 per cent of the average income.

- Share of top 1 per cent in total income.

Data are patchwork

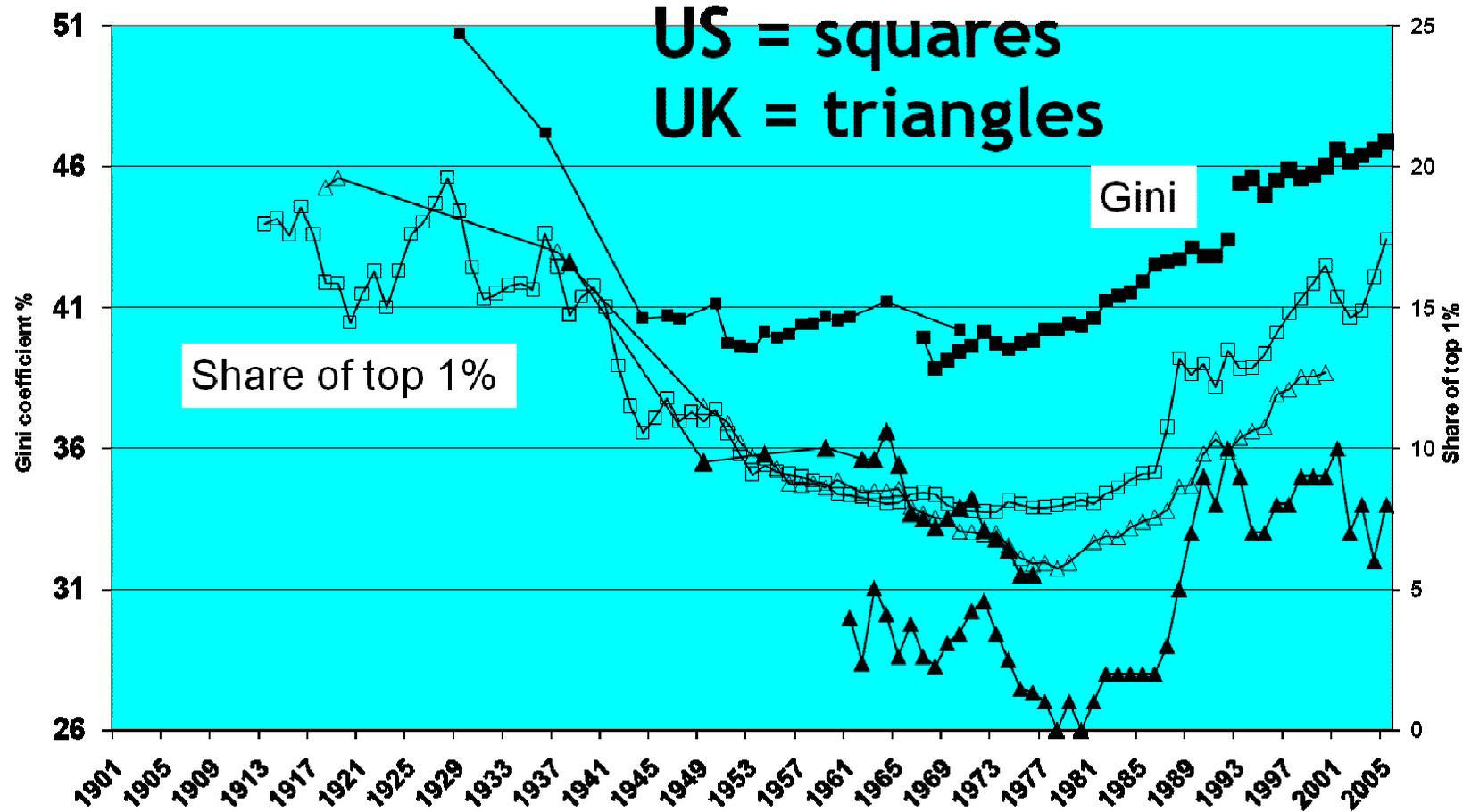
Within-country inequality: Three Nordic countries



Financial crises

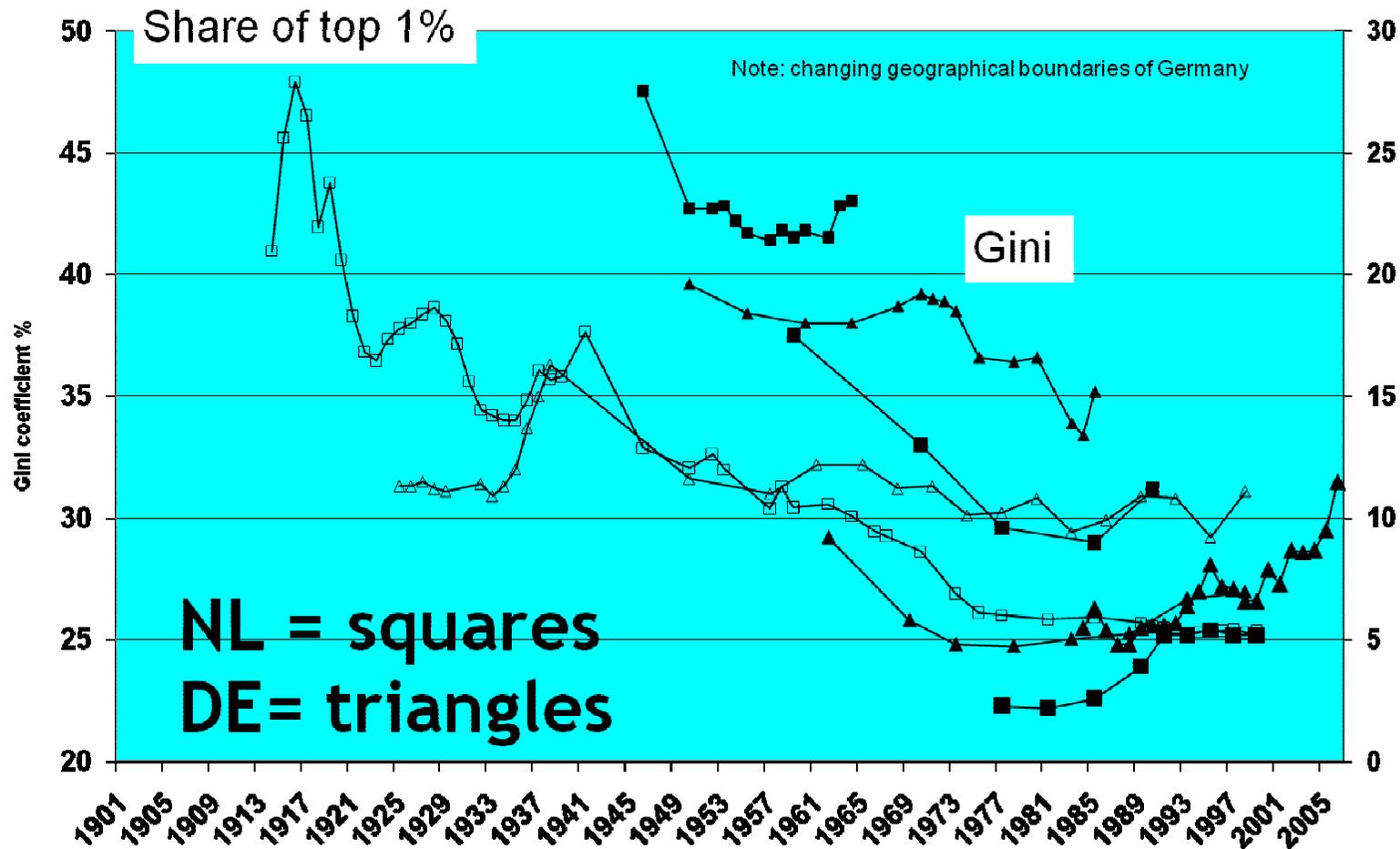


Figure 4 Income inequality in UK and US 1908-2005



Is US U and UK U ?

Figure 5 Germany and Netherlands 1901-2006



Germany Gini ↑ 4-5 percentage points 1999-2007

WITHIN-COUNTRY INCOME INEQUALITY (OECD COUNTRIES)

- Long period of substantial decline in inequality, both overall Gini and top income shares.
- Rise in last 30 years in both overall inequality and top shares in Anglo-Saxon countries.
- Later rise in both overall inequality and top shares in Nordic countries and in overall inequality in Germany.
- Upward movement less evident in Netherlands (and France and Italy).

CONCLUDE: Evidence for U, but not to same extent, nor at same time, and need to distinguish U from \bar{U} .

1. Conceptual issues: what are we concerned with?
2. The international distribution of income: convergence following divergence?
3. Within-country inequality over the twentieth century: a Great U-turn?

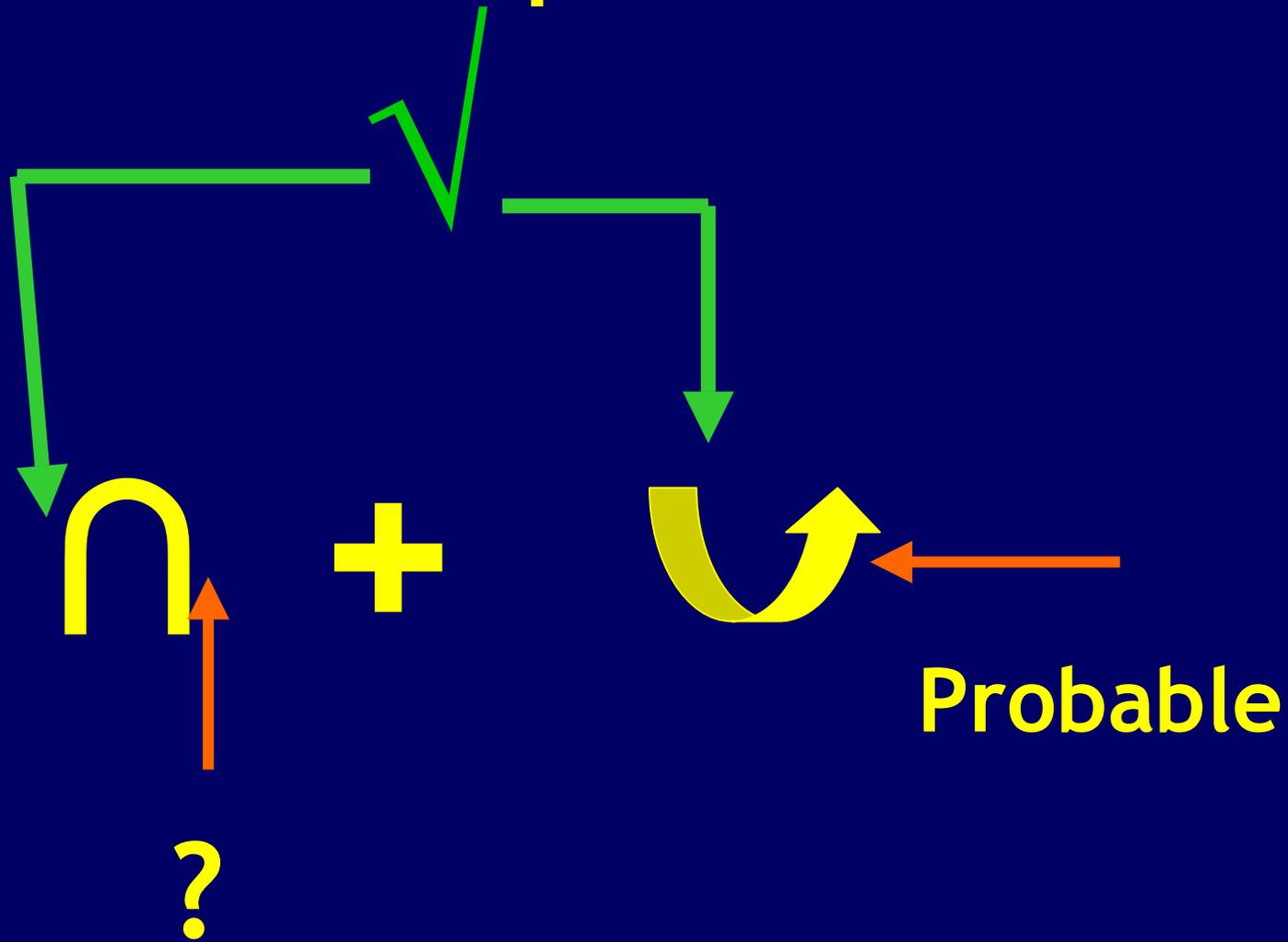
4. The global distribution: combining between- and within- country inequality

5. Underlying explanations
6. Where are we headed?

Approached issue by considering separately international distribution and within-country distribution. Need to combine, but not straightforward.

- Need comparable distributional data across countries (no fixed effect)**
- Need to go from GDP per capita to average household disposable income. Differences include:**
 - income paid abroad (Ireland)**
 - government sector and imputed benefits from government spending (India)**
 - retained profits of corporations**
 - income of pension funds**
 - imputed rent of owner-occupied housing**

Conclusions on separate elements



1. **Conceptual issues: what are we concerned with?**
2. **The international distribution of income: convergence following divergence?**
3. **Within-country inequality over the twentieth century: a Great U-turn?**
4. **The global distribution: combining between- and within- country inequality**

5. Underlying explanations

6. **Where are we headed?**

Explanations?

Why no Kuznets inverse-U for within-country inequality?
Model of structural change: workers paid more in advanced sector



Early industrialisers

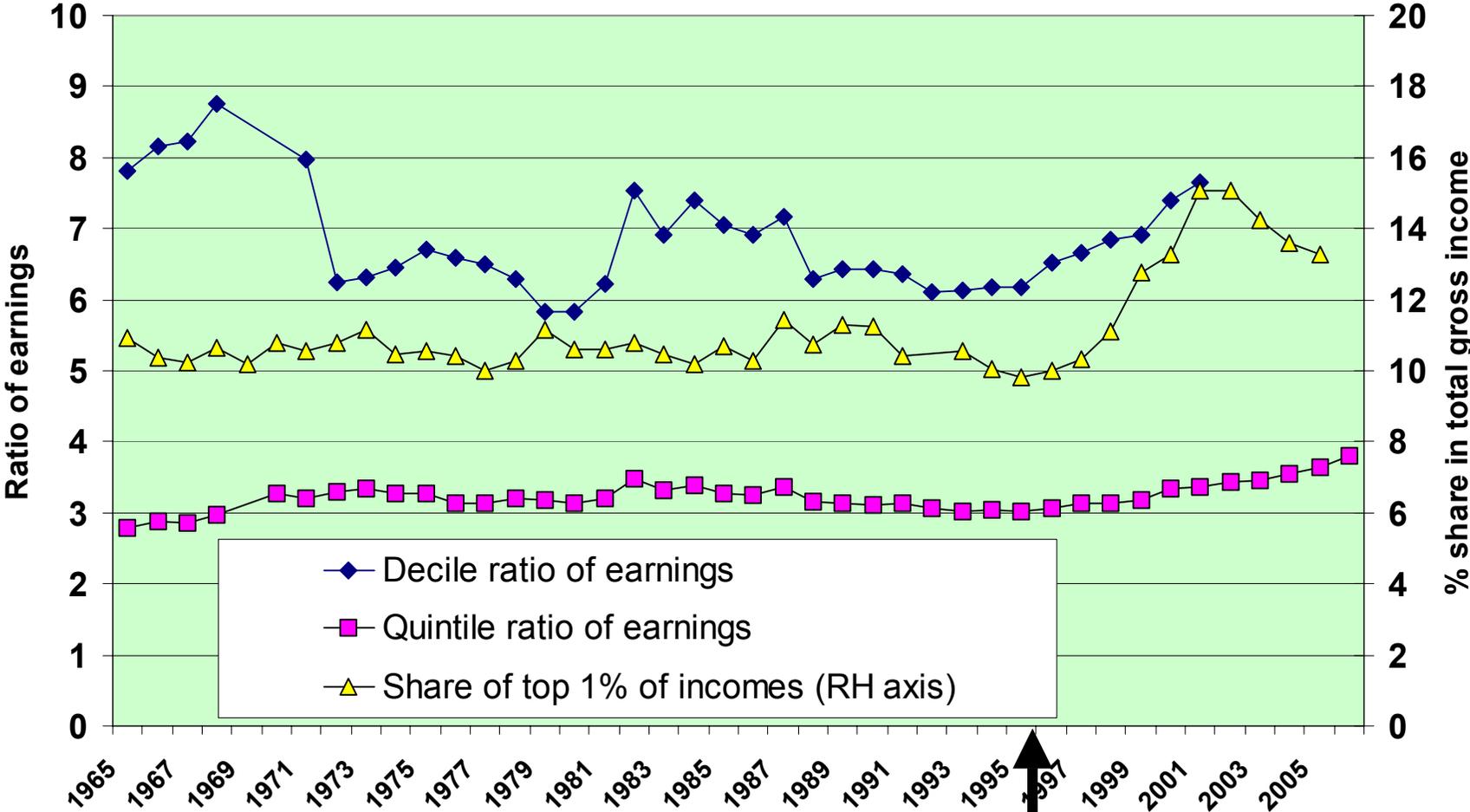


Later industrialisers

Second part to Kuznets = concentration of capital and factors counteracting.

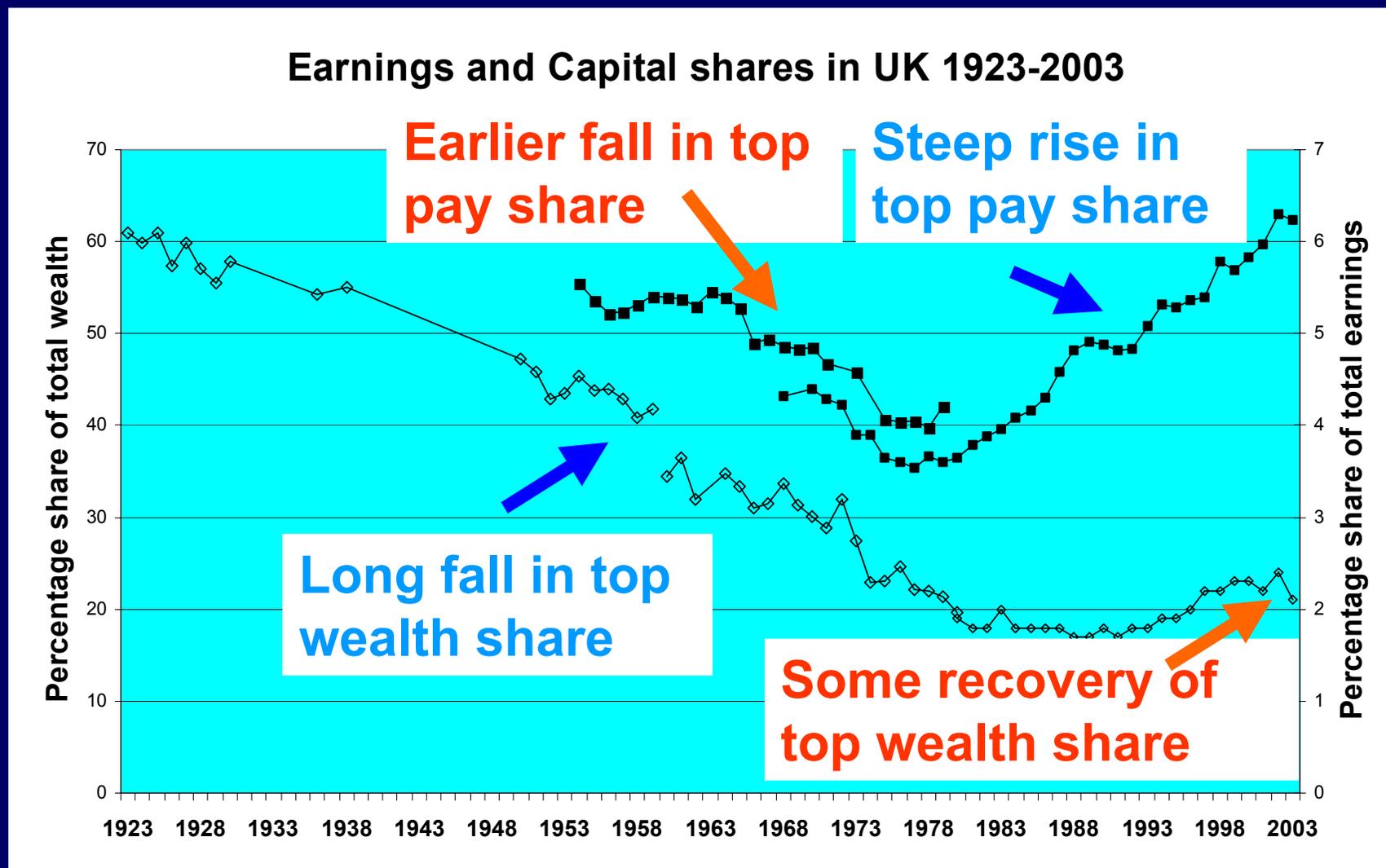
Moving outside the OECD

SINGAPORE Earnings distribution and Top incomes 1965-2006



Financial crisis

Earnings and capital income: UK Case Study

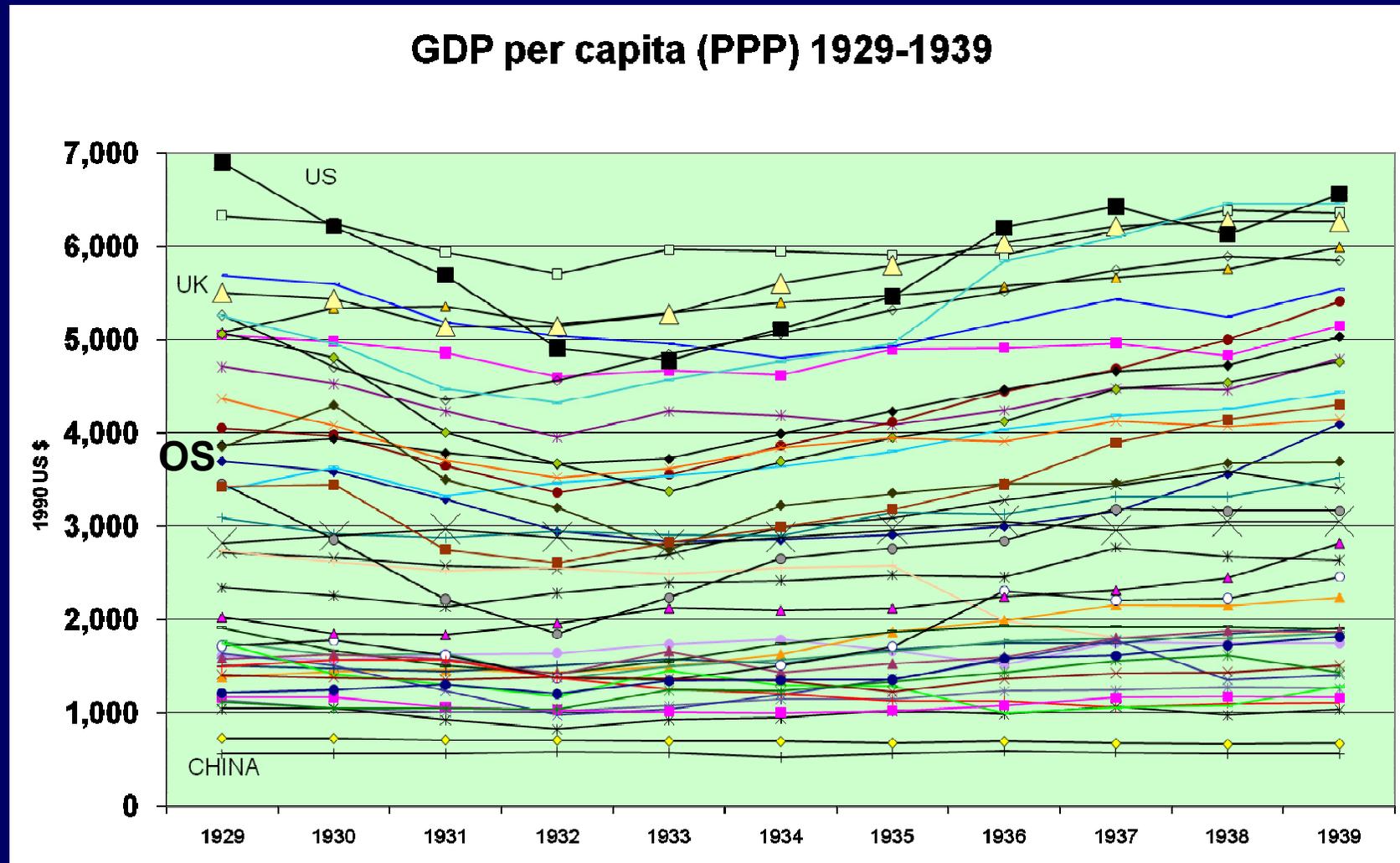


Negative shocks to capital but also progressive income and capital taxation.

1. Conceptual issues: what are we concerned with?
2. The international distribution of income: convergence following divergence?
3. Within-country inequality over the twentieth century: a Great U-turn?
4. The global distribution: combining between- and within- country inequality
5. Underlying explanations

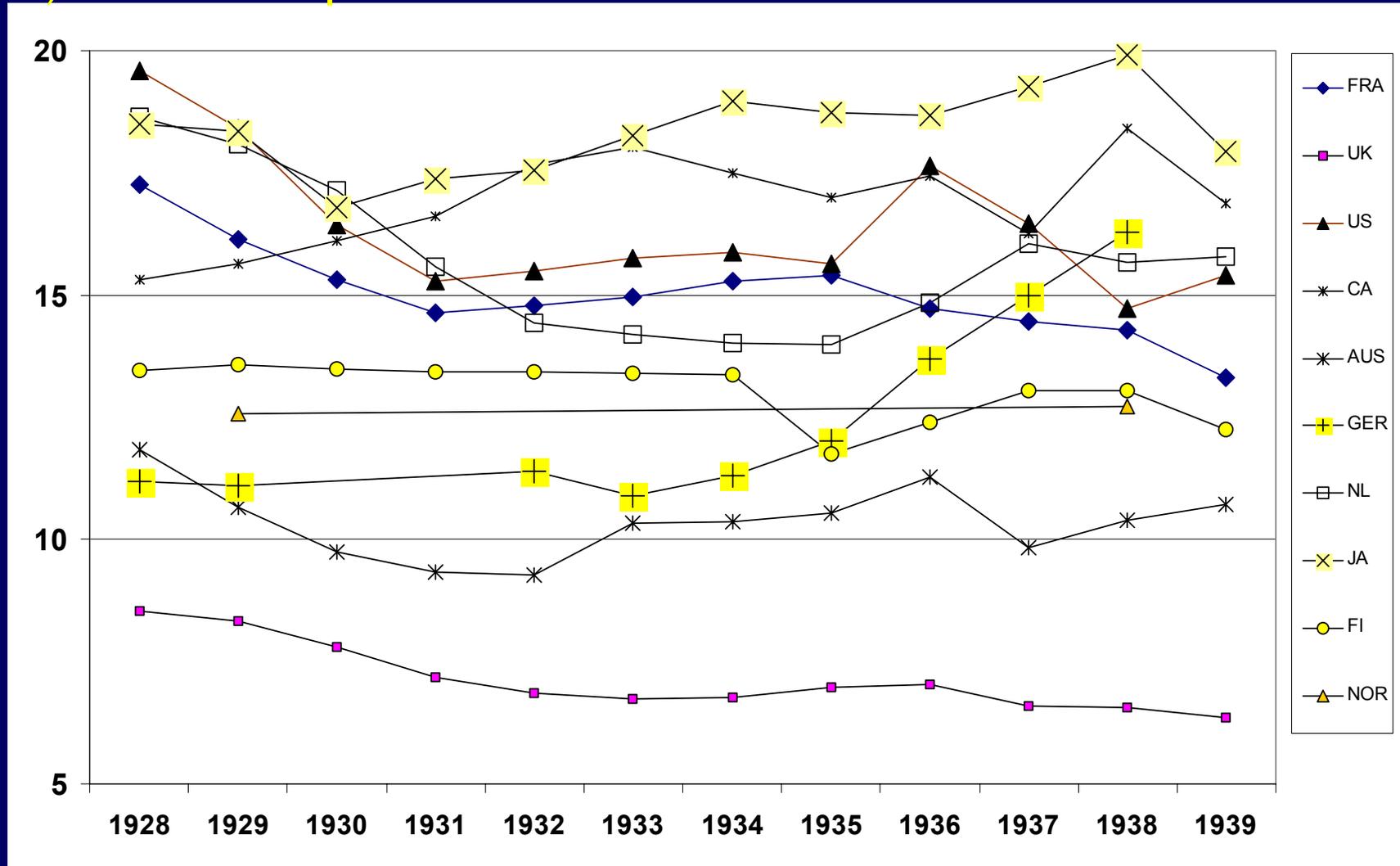
6. Where are we headed?

What can we learn from the past? Between-country distribution

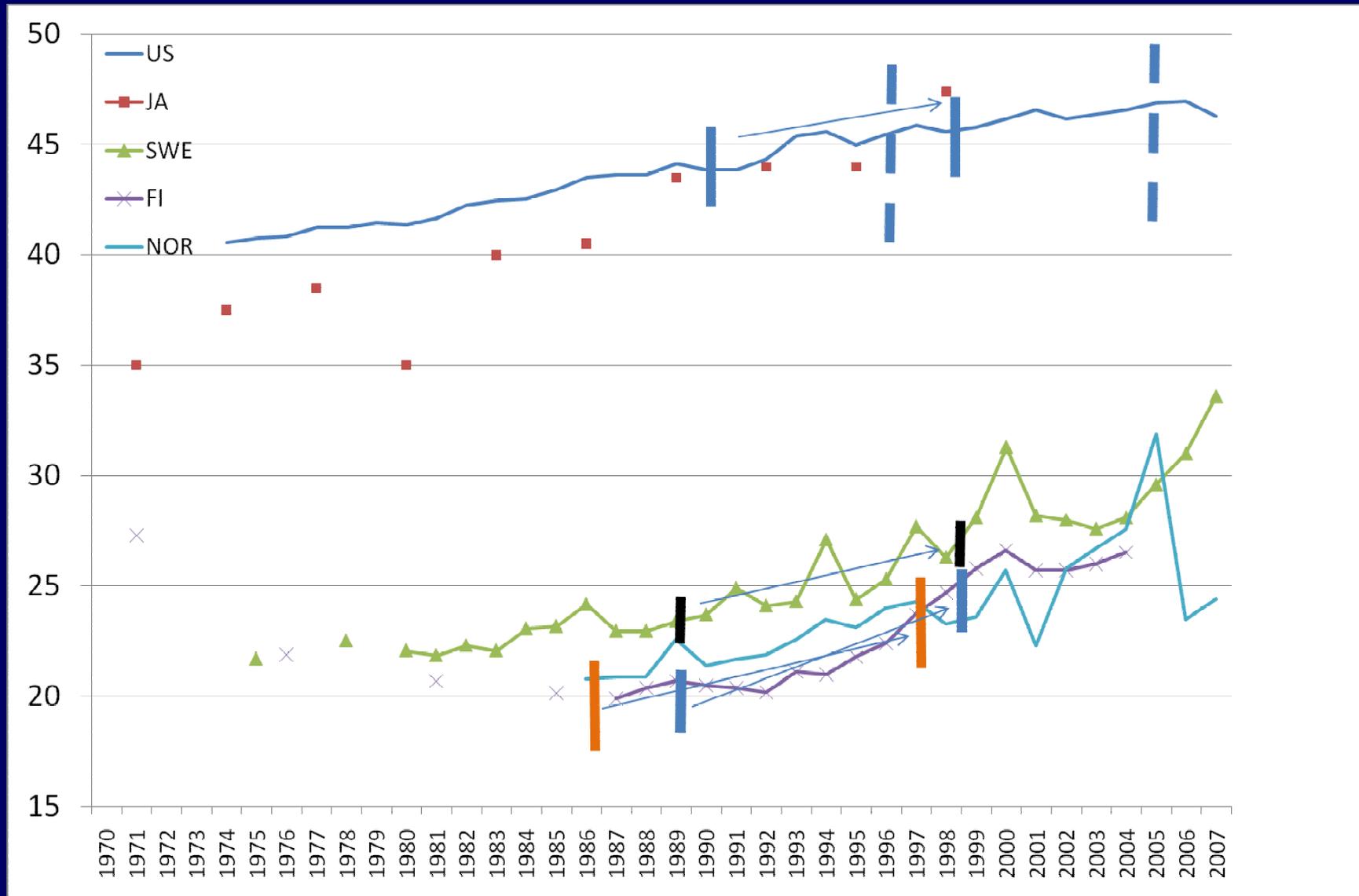


Source: Maddison data for 42 countries

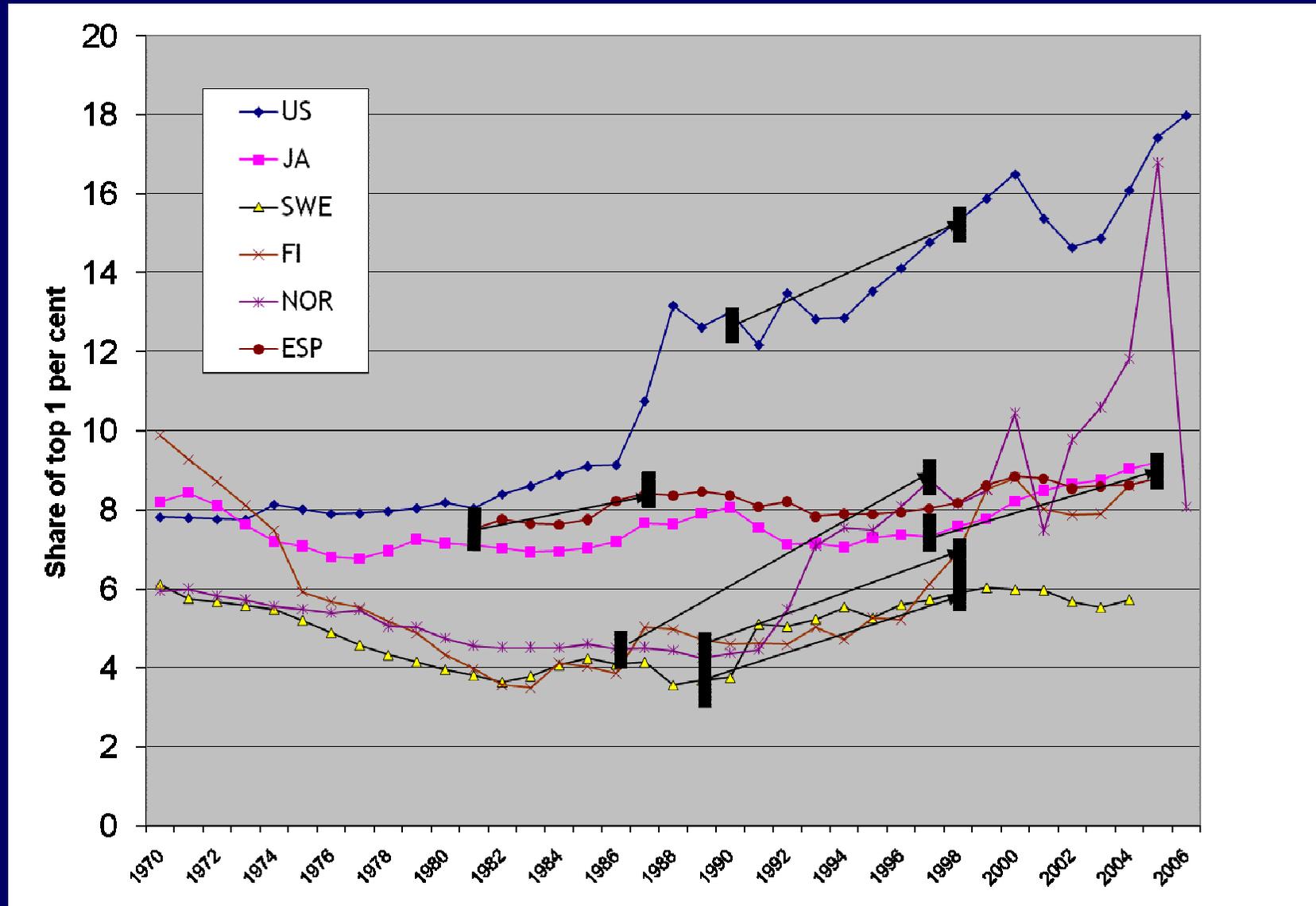
Within-country distribution 1929-39: Share of top 1% (0.1% in UK) Not all depressed.



Gini coefficient and Banking-crisis induced recessions



Share of top 1% and Banking-crisis induced recessions



Conclusions

- We are increasingly thinking in global terms, but we need to clarify underlying source of concern with inequality.
- Empirical data greatly improved, but still important gaps in knowledge.
- International distribution diverged in a major way, but limited convergence to date.
- Within-country inequality fell substantially, but now U-turn.
- Grounds for concern about the distributional impact of economic crisis.