THE CAUSES AND CONSEQUENCES OF INCREASING INEQUALITIES

Part I. What drives changes in income inequality? – At the quest of smoking guns

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1858

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Kuznets on the empirical foundation of his seminal article on **inequality and the links with economic development**:

„The paper is **perhaps 5 per cent empirical information and 95 per cent speculation**, some of it possibly tainted by wishful thinking. The excuse for building an elaborate structure on such a shaky foundation is a deep interest in the subject and a wish to share it with members of the Association". (S. Kuznets 1955, *Economic Growth and Income Inequality*, AER, 45:1, p 26)

Since then… the world has changed a lot:

- Large and more comparable **datasets** (LIS, OECD IDD, EU-SILC, WID, SWIID, etc.)

- Large scale **research projects** (GINI, LOWER, EQUALSOC, IMPROVE, etc.) and **research institutes** (Universities, IARIW, etc.)

- A wide array of comprehensive academic **publications** (complete library of articles, Handbooks, series by international organisations and research centres, seminal books by Atkinson, Piketty, and others)

- Most importantly, perhaps: **Raised awareness** of the public and of policy makers about the issue of inequalities, at least since the crisis 2008

Background: much concern but also much talk about rising inequality – mirrored in international institutions:

- *"The crisis has added to the long-term trend of **rising inequalities**"* (J-C. Juncker, European Commission)

- *"This is the first time that the World Bank Group has set a **target for income inequality"** (Jim Yong Kim, World Bank*)

- *"Reducing excessive **inequality** is not just morally and politically correct, but it is **good economics**"* (C. Lagarde, IMF)

- *"**Inequality** can no longer be treated as an afterthought. We need to focus the debate on **how the benefits of growth are distributed***" (A. Gurría, OECD)

But did we actually witness a long-term trend toward ever increasing income inequality in European / OECD countries?

- The gap between rich and poor at its highest level since 30 years
- The richest 10% earn 9.5 times more than the poorest 10%
- This is up from a ratio of 7:1 (1980s); 8:1 (1990s); 9:1 (early 2000s)

Gini coefficients of income inequality, mid-1980s and 2015, or latest date available
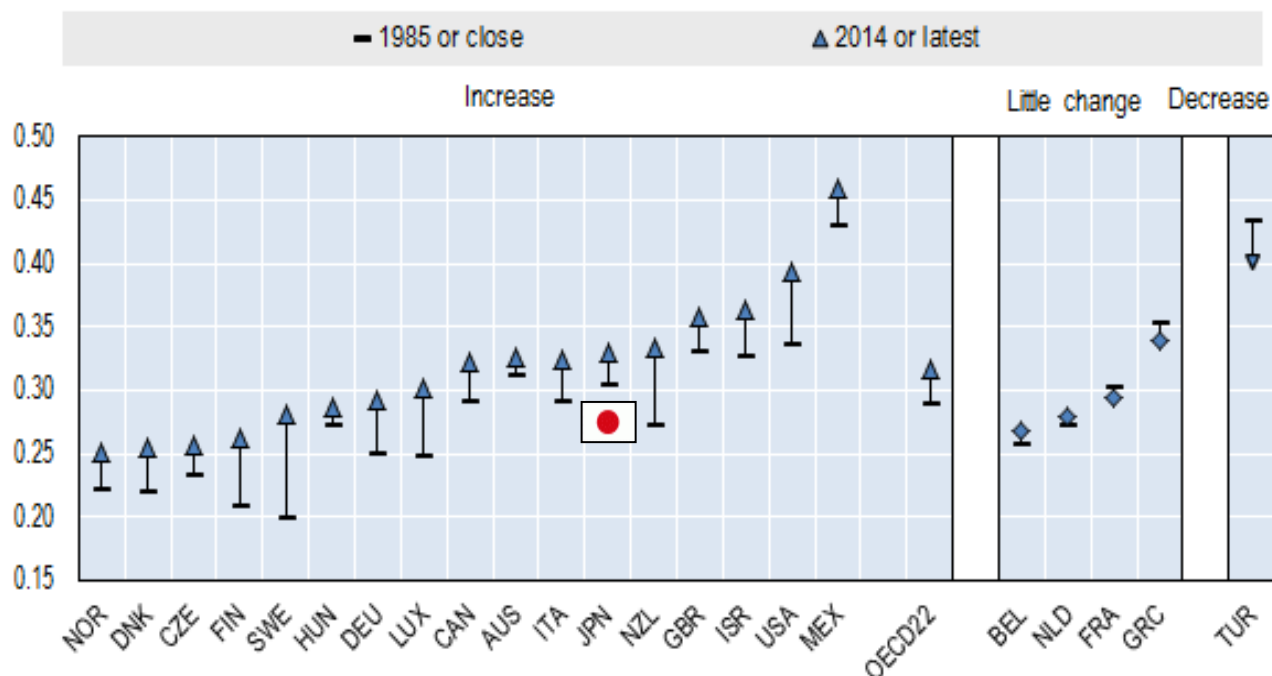
At the upper end of the distribution, the shares of very high incomes surged in many countries
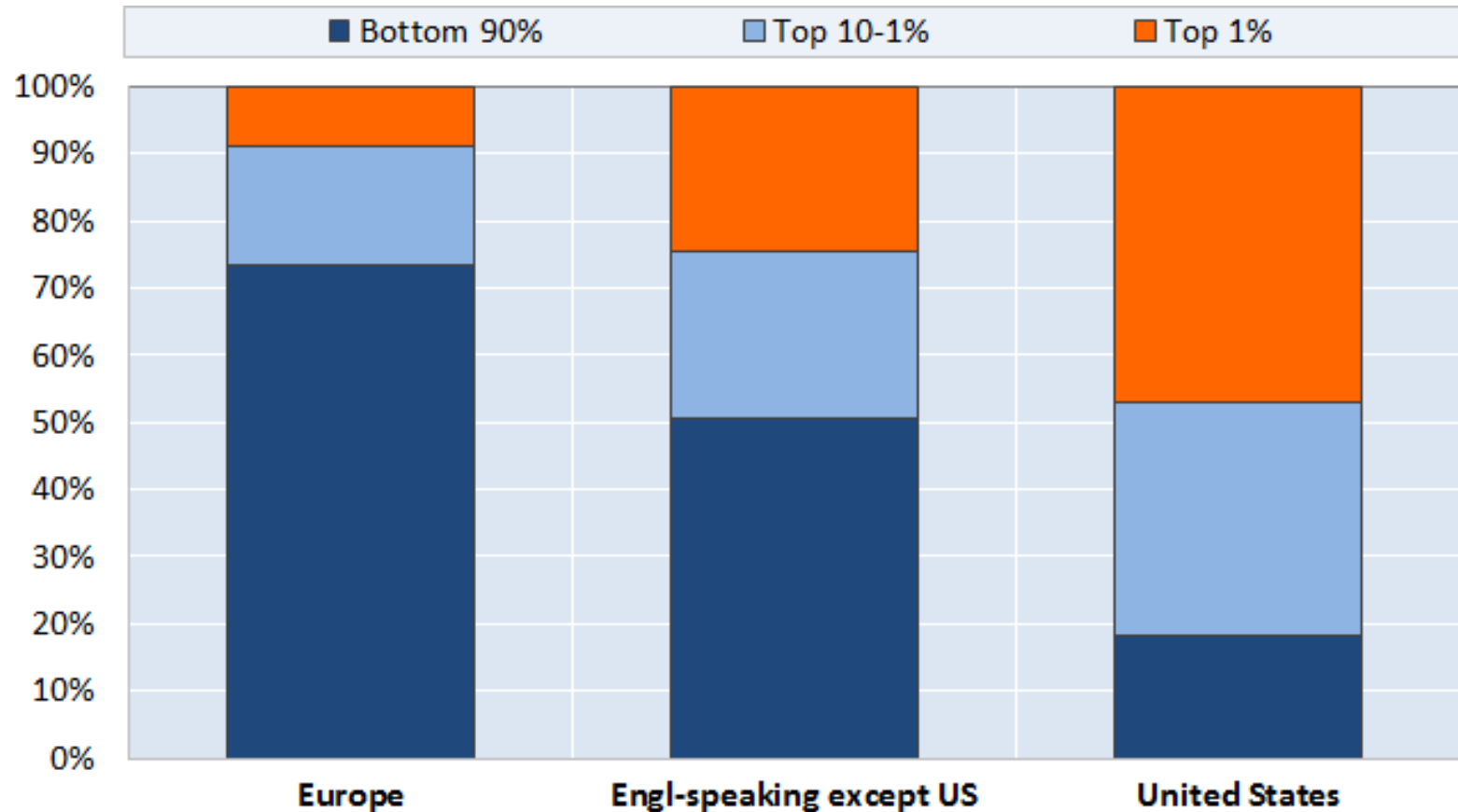
Shares of top 1% incomes in total *pre-tax* income, 1980 – 2012 (or closest)
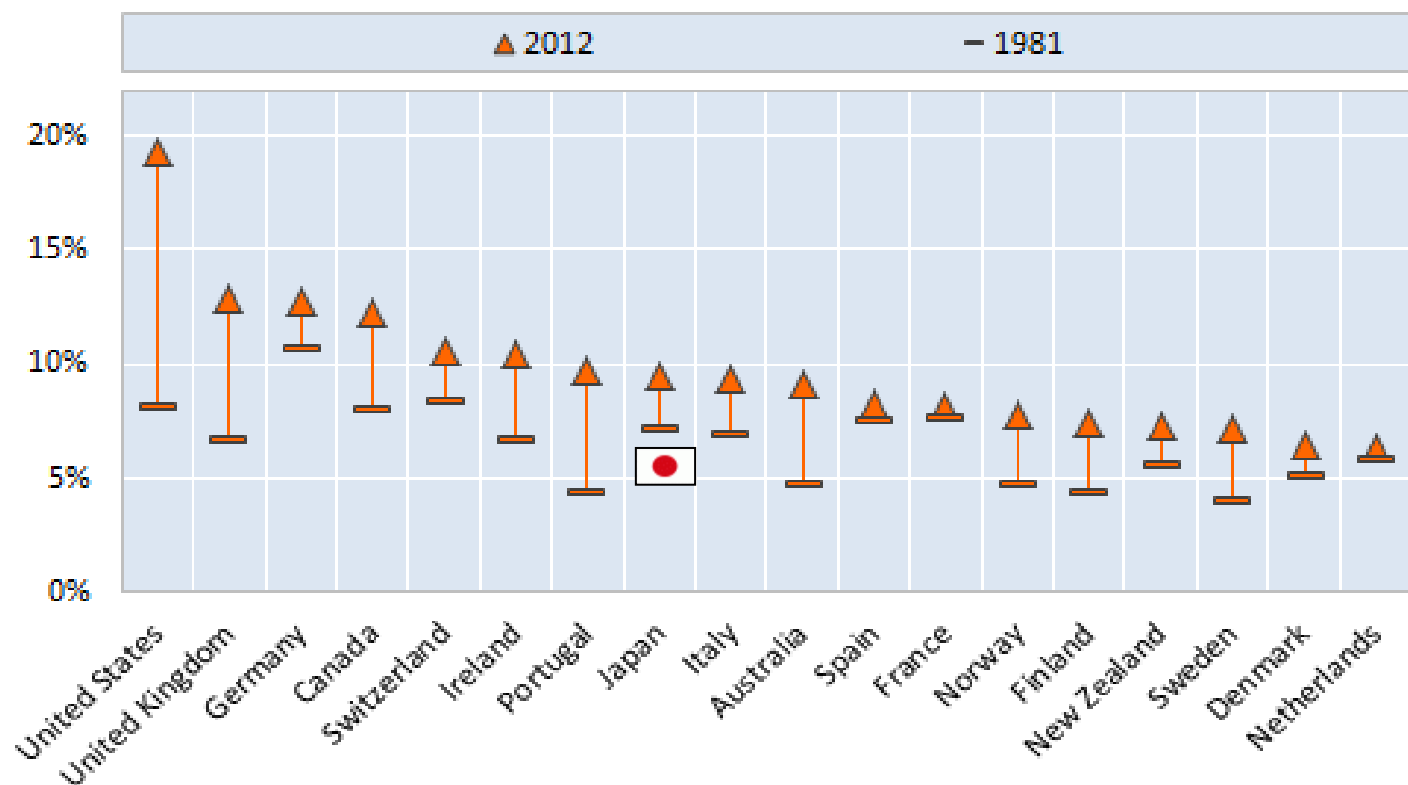
In English-speaking countries, > 20% of long-term growth has been captured by the top 1%

Share of income growth going to income groups from 1975 to 2007

Legend: ■ Bottom 90% ■ Top 10-1% ■ Top 1%

Categories: Europe, Engl-speaking except US, United States

... but growing disparities were not only a reflection of the top moving away

.. also lower and lowest incomes were increasingly left behind

Trends in real household incomes at the bottom, the middle and the top, 1985 = 1

OECD-17 | United States | Japan

Legend: Bottom 10%, Mean, Median, Top 10%
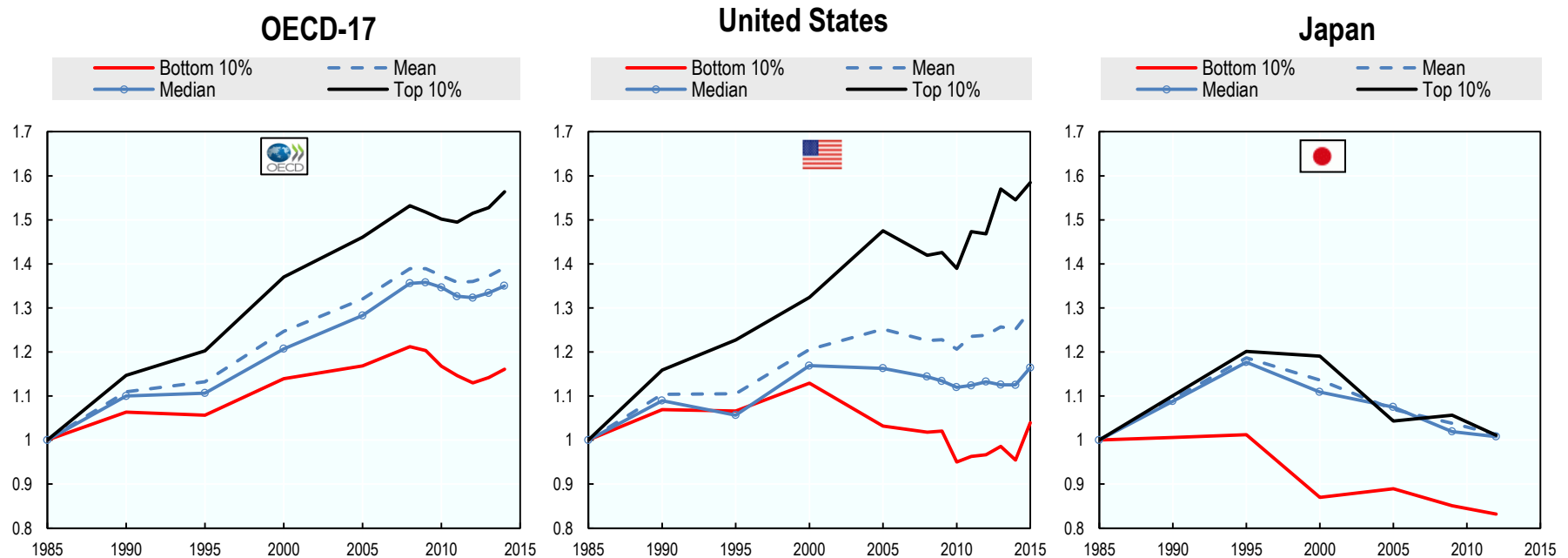
However, rather than continuous long-term trends, we witness country-specific "episodes" of inequality increases

Long-term trends in inequality of disposable income (Gini coefficient)

In order to understand these trends in income distribution and to be able to define possible remedies and policies, we need to know the underlying causes →

- Direct factors, providing "hints" at

- Underlying driving forces, or "causes"

- We classified these driving forces into six overall headings (*Handbook of Income Distribution*, chapter 19)

The six broad groups of „underlying" causes of inequality

- 3. Labour relations and regulations
- 2. Globalisation
- 4. Political processes
- Earnings/income INEQUALITY
- 1. Macro-economic structure
- 5. Redistribution via taxes and spending
- 6. Demographic and societal structure

Source: Förster and Tóth (2015), in: *Handbook of Income Distribution* (eds. Atkinson and Bourguignon), chapter 19, "Cross-country evidence of the multiple drivers of inequality changes in the OECD area"

Scope of review

- Inequality of <u>outcomes</u> – not opportunities
- Inequality of <u>household income</u> inequality – not wages, neither top incomes
- <u>Personal</u> distribution of incomes – not functional distribution
- Macro and micro studies on <u>within-country</u> but not on between-country income inequality
- Geographical coverage: <u>OECD</u> area, not developing countries
- Focus on <u>multivariate</u> explanations and recent studies from the last 10-15 years

→ 50 articles selected (from 200+, in three disciplines) as most relevant for a "concise summary review"

On <u>specification</u>:

The general structure of inequality regressions

$$INEQ_{i,t} = \alpha + \beta * X_{i,t} + \gamma * Z_{i,t} + \lambda * Q_{i,t} + \eta_i + \mu_t + \varepsilon_{i,t}$$

$INEQ_{i,t}$ = var. of hh incomes within countries

$X_{i,t} = \{z_{j,i,t}\}$ macro-economic and institutional variables

$Z_{i,t} = \{x_{j,i,t}\}$ population characteristics (aggregated from individual or household attributes)

$Q_{i,t} = \{q_{j,i,t}\}$ historic/contextual variables

η_i and μ_t = country and time dummies

ε = error term

i = 1,…N for countries

t= 1, …T for years

1. Structural macro-economic sectoral changes

Major hypothesis: sector bias and sector dualism (Kuznets and aftermath)

$$INEQ_{i,t} = \alpha\, y_{i,t} + \beta\, y_{i,t}^{2} + AX_{i,t} + \varepsilon_{i,t}$$

However, evidence is <u>inconclusive</u>, and sector dualism does not seem to find support

In addition, what explains the "great U-turn"? Different explanations have been investigated: → globalisation, skill-biased technological change and institutions

While trade and financial markets integration and technological progress grew rapidly, regulations and institutions became weaker

Developments in trade integration, financial openness and technological change, OECD average, 1980-2008 (1980=100)
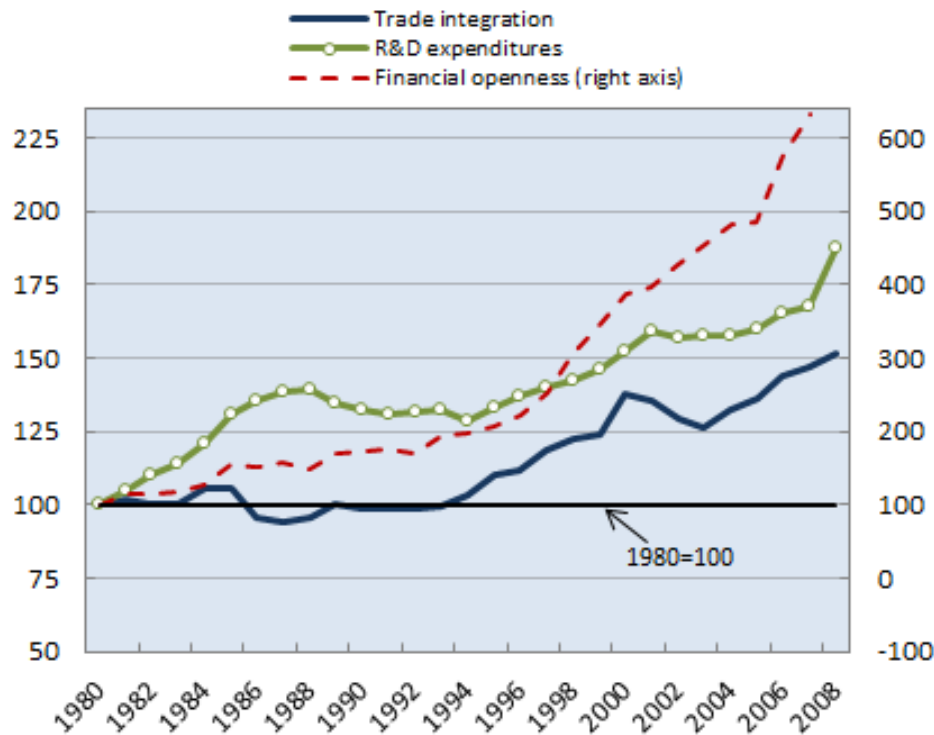
Developments in product market regulation, employment protection legislation and union density, OECD average, 1980-2008 (1980=100)
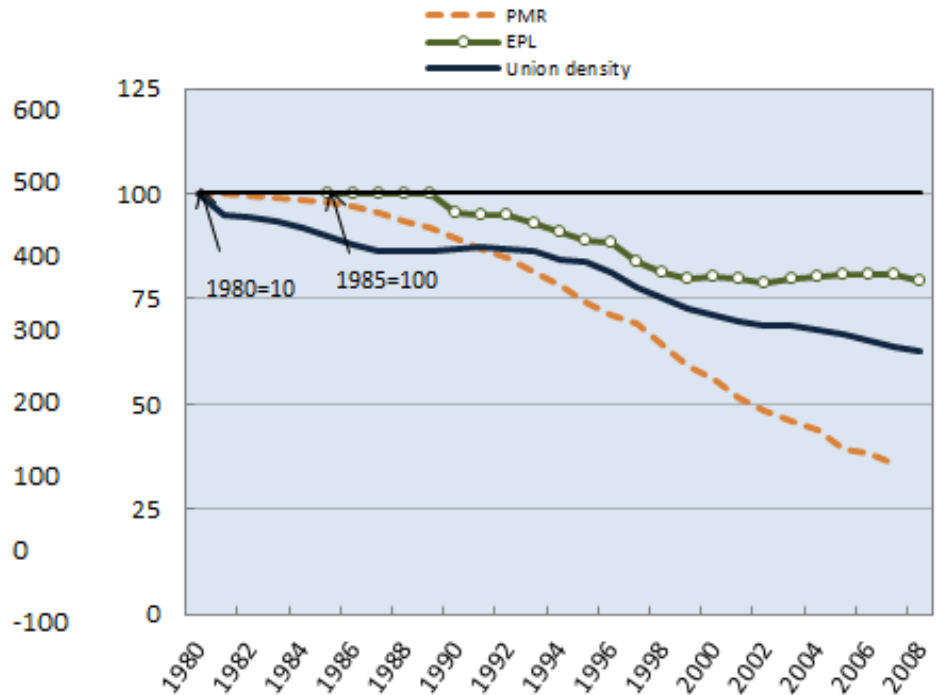
Source: OECD (2011), "*Divided We Stand*", http://www.oecd.org/els/soc/dividedwestandwhyinequalitykeepsrising.htm
Note: Trade integration is defined as the sum of imports and exports as a percentage of GDP. Financial openness is defined as the sum of cross-border liabilities and assets as a percentage of GDP. R&D expenditures refer to business sector expenditures on research and development as a percentage of GDP. "PMR" is a summary indicator for product market regulation. "EPL" is a summary indicator of the strictness of overall employment protection legislation (only available from 1985 onwards). "Union density" is the number of union members as a proportion of all employees eligible to be members.

2. Globalisation and technological change

<u>Trade</u>

Difficult to reconcile empirical evidence with theoretical predictions (Heckscher-Ohlin-Samuelson HOS model)

- Largely reported insignificant, otherwise inconclusive results

<u>Financial openness</u>

FDI models usually predict increased inequality in ACs

- Mostly reported insignificant, otherwise (sometimes) disequalizing

<u>Outsourcing</u>

Production sharing is expected to increase skilled-wage premia within rather than between industries

- Overall inconclusive results

<u>Technological change</u>

Whether factor or sector biased, TC is expected to increase wage premium and/or increase unemployment among low-skilled

- Mostly reported disequalizing

3. Changes in institutions and regulations

- While recognised that institutions matter, this factor has for a long time been limited/ignored in econometric studies

- A majority of (but not all) studies finds significant negative association on wage inequality:
  - Union density/coverage
  - Wage co-ordination/centralisation
  - Employment protection legislation, esp. for temporary workers
  - UB generosity
  - Tax wedge
  - Minimum wage
  - Product market regulation

- However, Checchi & Garcia-Penalosa (2008) and OECD (2011) suggest that wage-dispersion and employment effects were often off-setting, with an undetermined effect on overall inequality

So, what are the relative weights of globalisation, technological change and institutions as inequality drivers?

CAVEAT!

"***Technological change*** *and* ***globalisation*** *are wrapped around each other" .. " If, in addition, we regard* ***policy changes*** *as endogenous with respect to globalisation, it becomes very clear that all three elements .. are mutually dependent and* ***cannot be separated***..*"*

Branko Milanovic 2016, *Global Inequality*

→ looking at "smoking guns" : identifying the key drivers with a "step-wise" approach, leading to a **qualitative** overall assessment

At the quest of *smoking guns* – identifying the key drivers: a "step-wise" approach
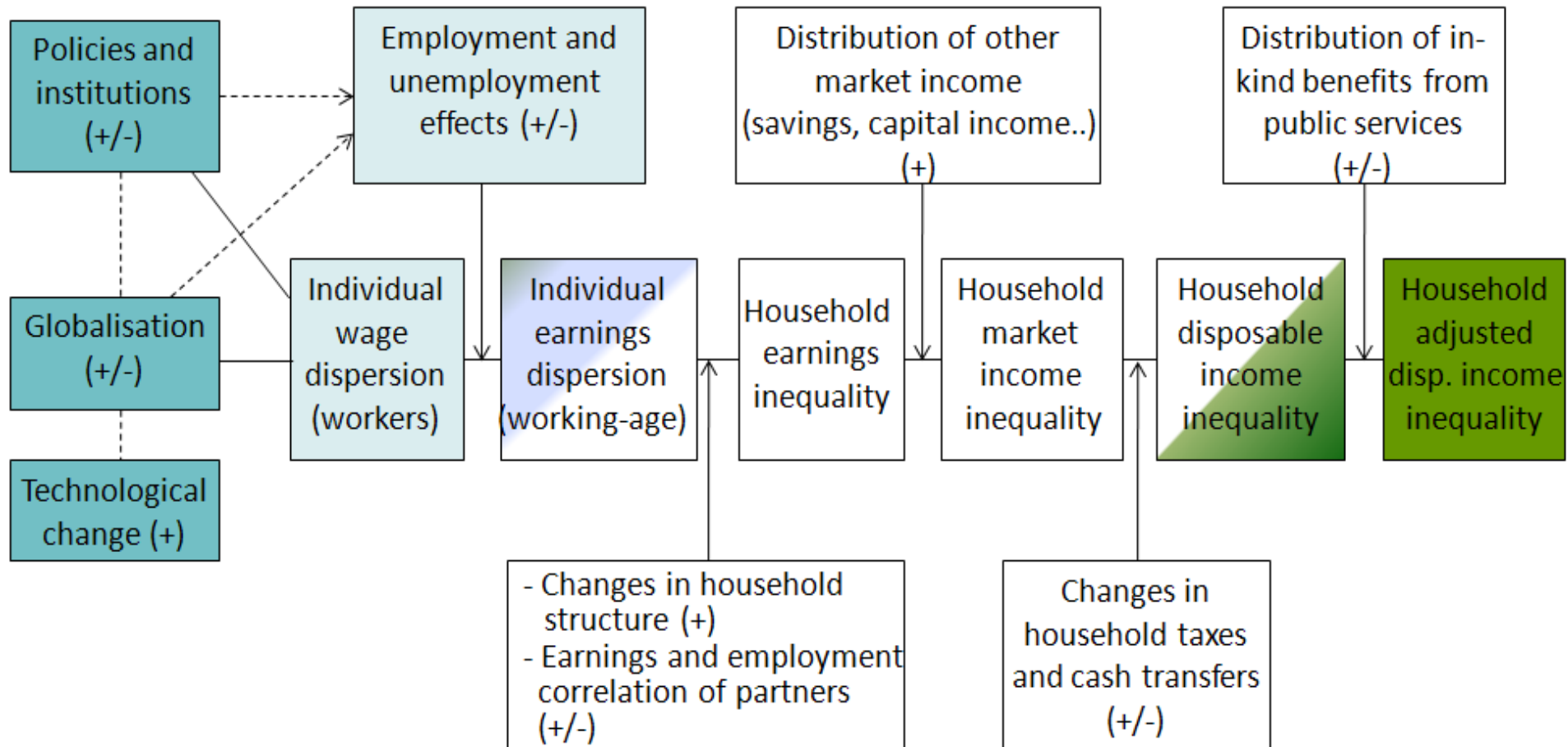
New employment patterns contributed to inequality:

- Non-standard work arrangements increased:
  - Today, one third of jobs are "non-standard", and 43% of working households include a non-standard worker
  - > 50% of all jobs created since 1995 were non-standard jobs

- Those jobs provide less job quality:
  - hourly wages (-30% for temp work);
  - job security;
  - training;
  - job strain;
  - social protection (esp. "new self-employed").

- But do they improve labour market prospects? "Stepping-stone" effects do exist, but mostly for prime-age and older workers

A qualitative summary:
the multiple drivers of increasing income inequality

Globalisation

- Trade openness: largely reported insignificant
- Financial openness: insignificant or (sometimes) dis-equalising
- Inward FDI: inconclusive
- Outsourcing: inconclusive
- Technological change: dis-equalising (especially at the upper part of the distribution)

Labour institutions and regulations

- Unionization (coverage, density) and wage coordination: largely equalising, rarely insignificant
- EPL: equalising
- Minimum wages: (modestly) equalising
- UB replacement rate: equalising, rarely insignificant
- Tax wedge: inconclusive

Employment effects tend to off-set inequality effects, except for EPL

Macro-economic structure

- Evidence on inequality/development relationship inconclusive, including for enlarged country sample
- Industry sector dualism : generally not confirmed but there may be issues of knowledge sector dualism and bias
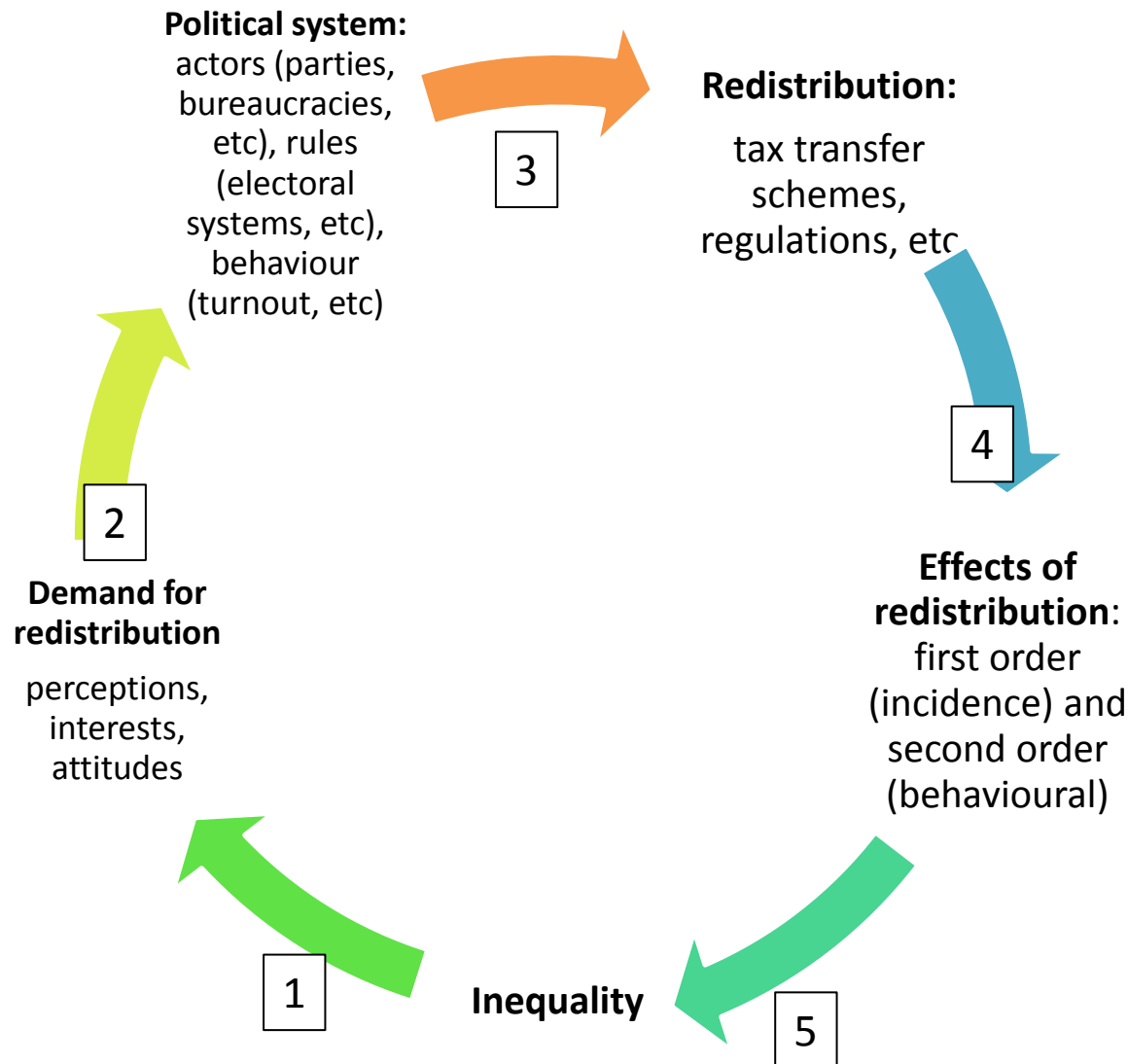
Inequality

4. Political processes

How and to which extent do political factors and institutions account for the variability of inequality across countries and over time?
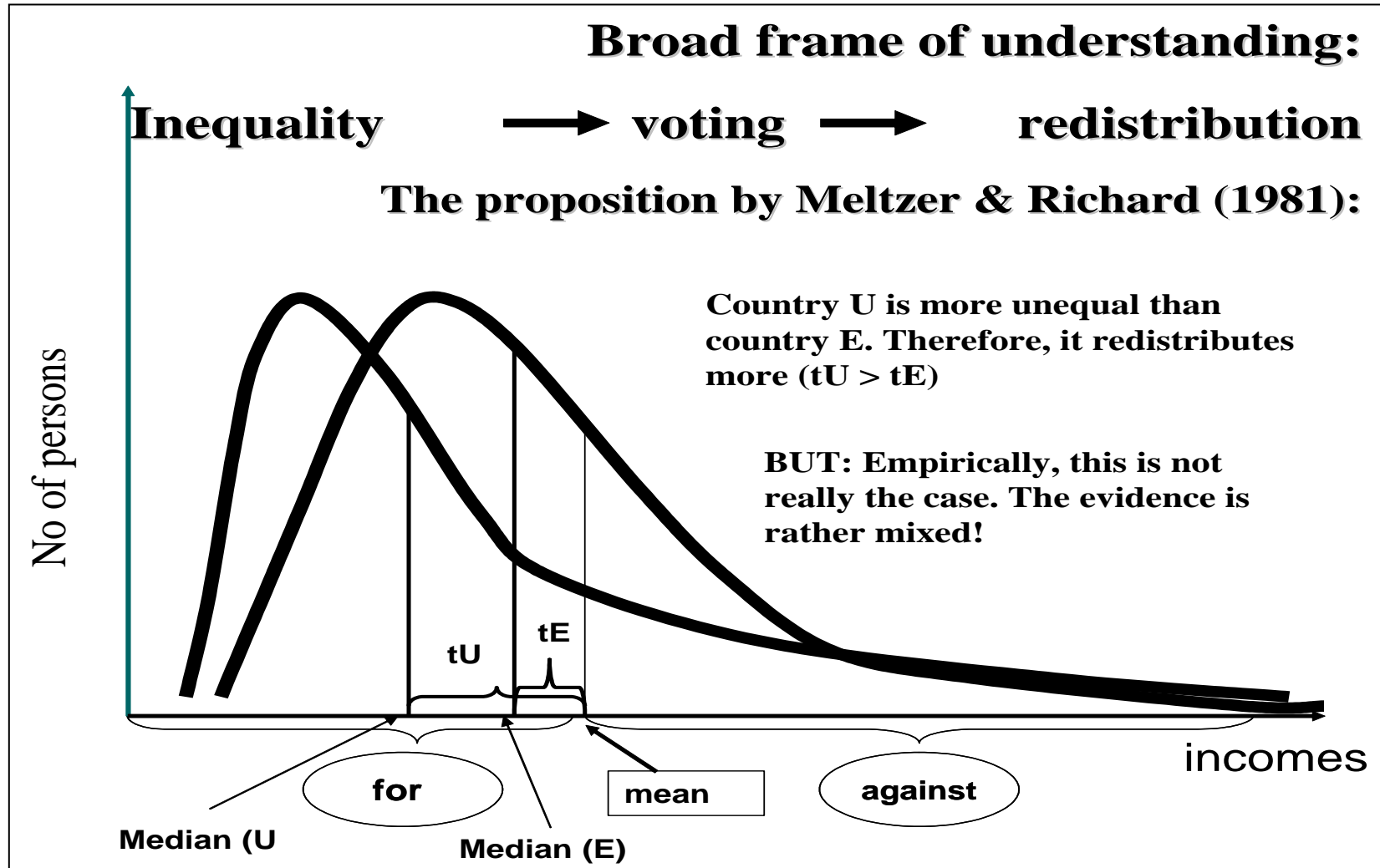
The channels of the transition:

(i) democratic representation and partisan politics;

(ii) interest groups and lobby organizations and;

(iii) redistributive policies of the state (governments).

The inequality impact of politics: part of the political cycle

Political system: actors (parties, bureaucracies, etc), rules (electoral systems, etc), behaviour (turnout, etc)

3

Redistribution: tax transfer schemes, regulations, etc

4

Effects of redistribution: first order (incidence) and second order (behavioural)

5

Inequality

1

Demand for redistribution perceptions, interests, attitudes

2

Source:
Tóth et al., 2014

Inequality and the demand for redistribution in a representative democracy, under majority voting

Meltzer & Richard framework:

Broad frame of understanding:

Inequality → voting → redistribution

The proposition by Meltzer & Richard (1981):

No of persons

Country U is more unequal than country E. Therefore, it redistributes more (tU > tE)

BUT: Empirically, this is not really the case. The evidence is rather mixed!

tU

tE

incomes

for

mean

against

Median (U

Median (E)

The MR model needs to be refinded and respecified

- Tax/transfers schemes are more complex than assumed
  - insurance type and intergenerational redistribution
  - Rather than post tax/transfer inequality, pre-state inequality and redistribution should be analysed

- Redistributive demand may not be inversely related to actual rank in income distribution due to misperceived rank position; altruistic or reciprocative motives; mobility expectations

Actual and perceived levels of income inequality
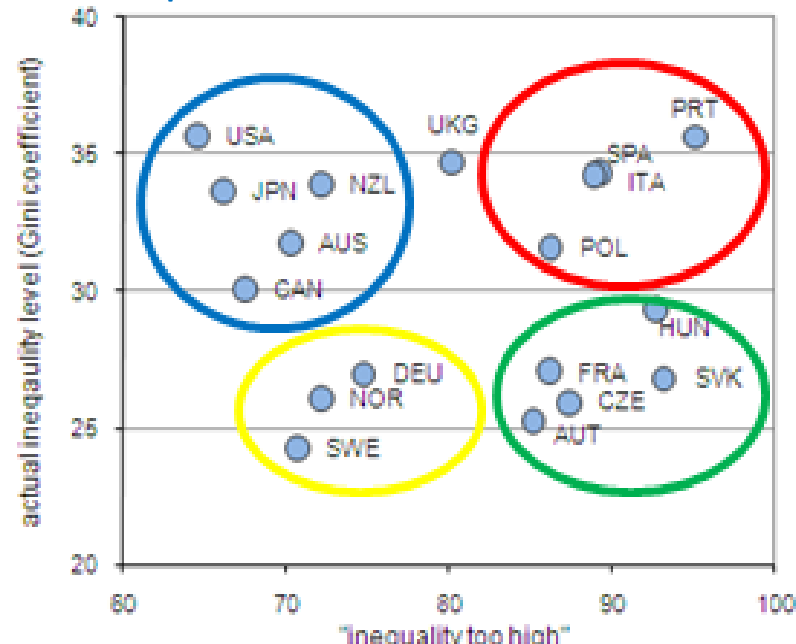
Source: Chapple, Förster and Martin (2009)

Alternative channels of political processes, recently under study

- Unequal participation in elections (also aletering redistribution preferences), mobilitsation of voters (middle class, older citizens);

- Differentiated political particanship, consistuencies of the left and right parties (insider/outsider divide)

- Effect of being located in general political or welfare 'regimes' on Inequality (liberal vs corporatist regimes)

- 'Class parties' rather than assumption about median voter, to represent income groups? (power resources theory)

5. Redistribution

The accounting framework: defining pre- and post redistribution inequality

Wages and salaries
+ Self employment
+ Capital and property incomes
= **Market incomes**
+ Social benefits
= Gross income
- Taxes (income taxes and social contributions)
= **Disposable cash income**

Comparing pre-and post-redistribution items items gives an estimate of *redistribution* (but first-order effects only!)
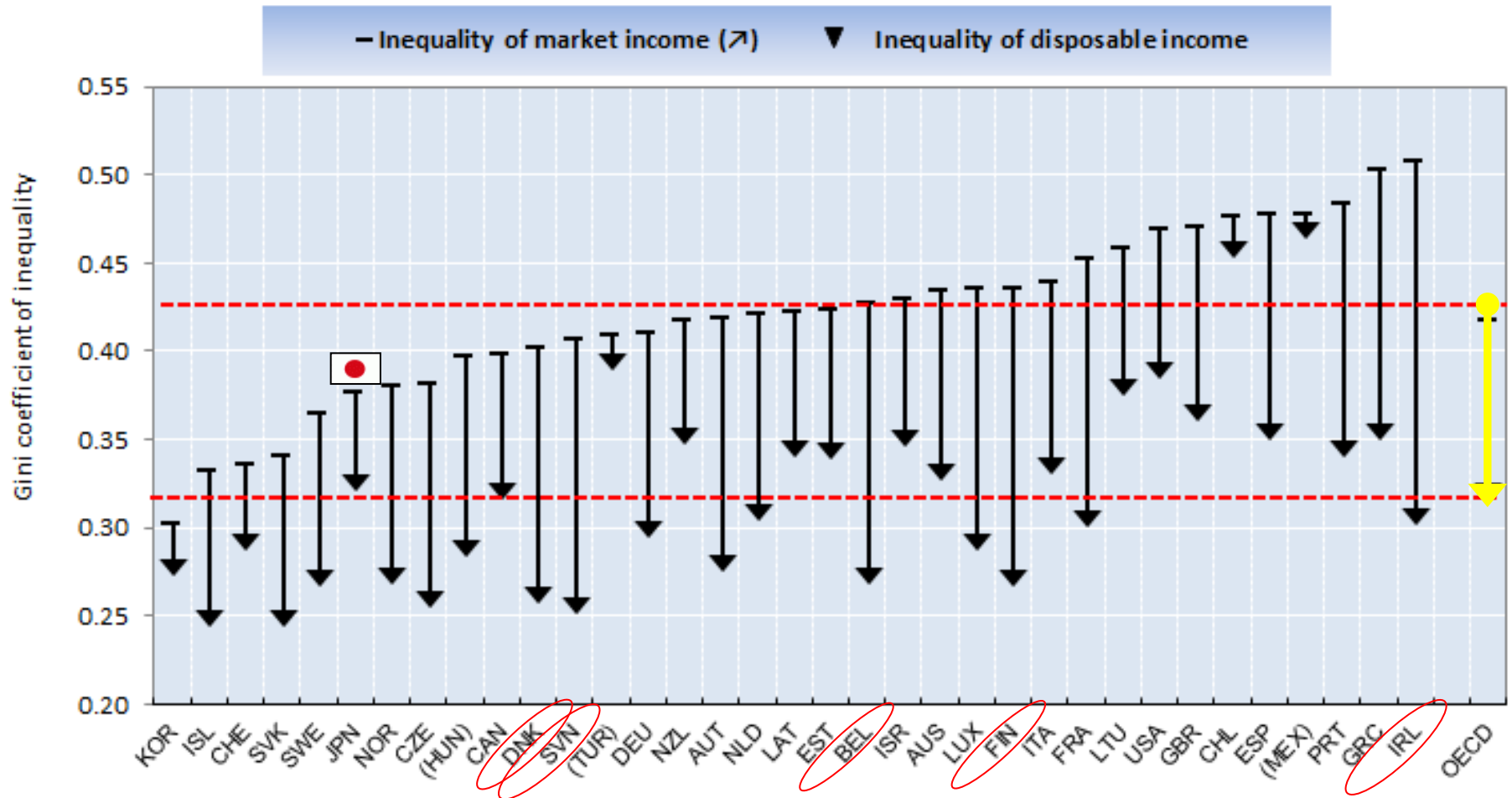
Redistribution via taxes and benefits plays an important role in (almost) all OECD countries

Gini coefficient of disposable and market income: impact of taxes and transfers, working-age population, 2015
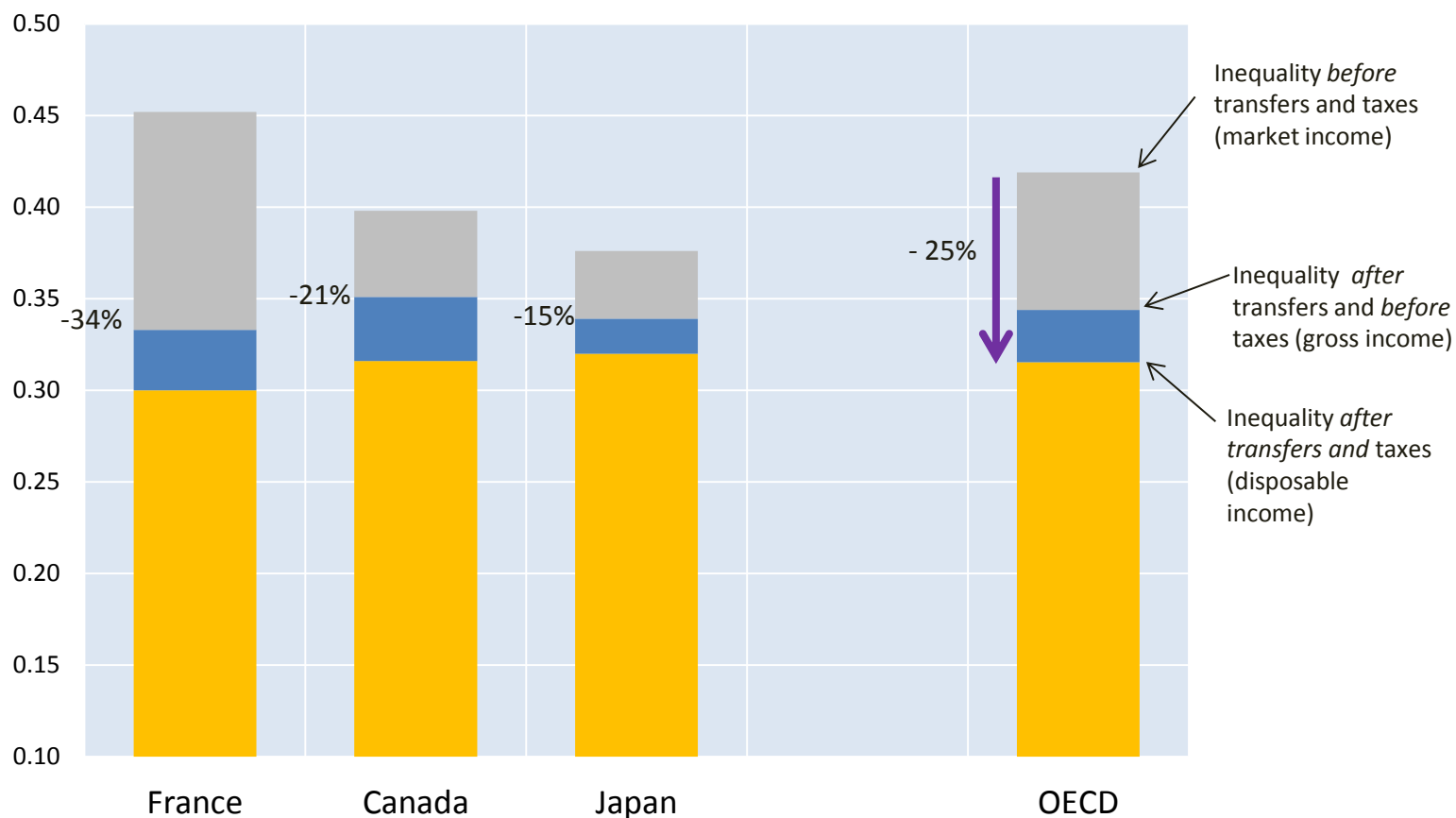
Redistribution via taxes and benefits varies a lot across OECD countries

Inequality of (gross) market and disposable (net) income, working-age persons

Source: OECD Income Distribution Database www.oecd.org/social/income-distribution-database.htm. Note: Data refer to the **working-age population**.

Redistribution declined in most countries since the 1990s/2000s

Trends in market income inequality **reduction**, working age population
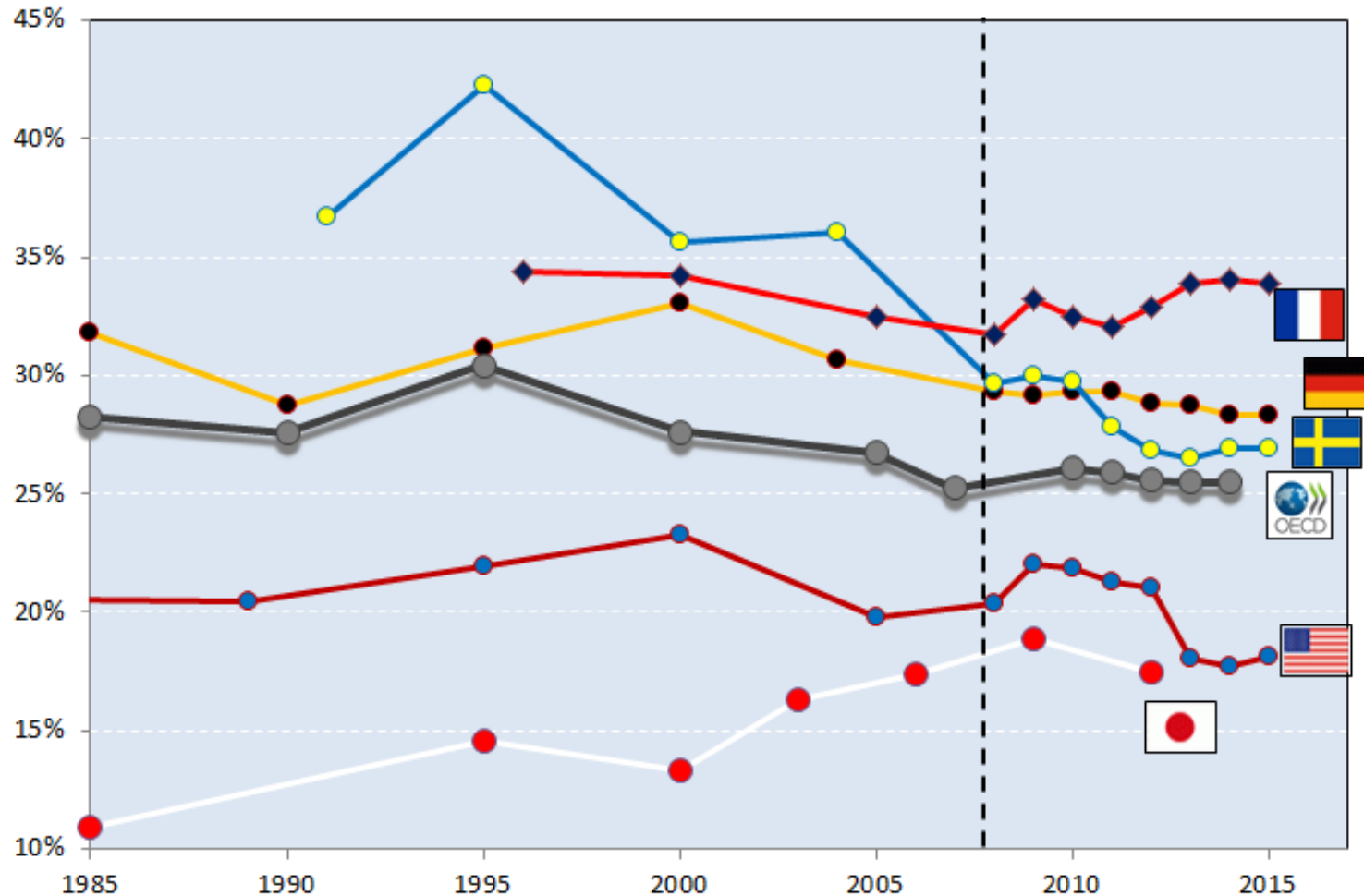
6. Structural societal change

Areas of change

- Demographic patterns: ageing, household composition, assortative mating

- Education composition

- Migration

Conclusions

- Few systematic studies

- Some but not all demographic trends (single parent families, assortative mating) contribute to increased inequality

- Changes in employment composition (esp. rise of female employment patterns) are equalising

- Results on migration are inconclusive

- Improved education composition is equalising

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Political processes

Inequality: distribution structure matters via the position of the pivotal voter

- Voter turnout: significant, equalising especially if low income voters are mobilized
- Partisanship: equalising for lLeft cabinet seats
- Indirect effects (via institution formation and redistribution): sizeable but direction is inconclusive

Inequality

Macro-economic structure

- Evidence on inequality/development relationship inconclusive, including for enlarged country sample
- Industry sector dualism : generally not confirmed but there may be issues of knowledge sector dualism and bias
- Unemployment/labour market desequilibria: dis-equalising

Demographic and societal structure

- Education: largely reported equalising
- Assortative mating: dis-equalising
- Female employment: equalising
- Single headed households: dis- equalising
- Age composition: inconclusive
- Migration: inconclusive

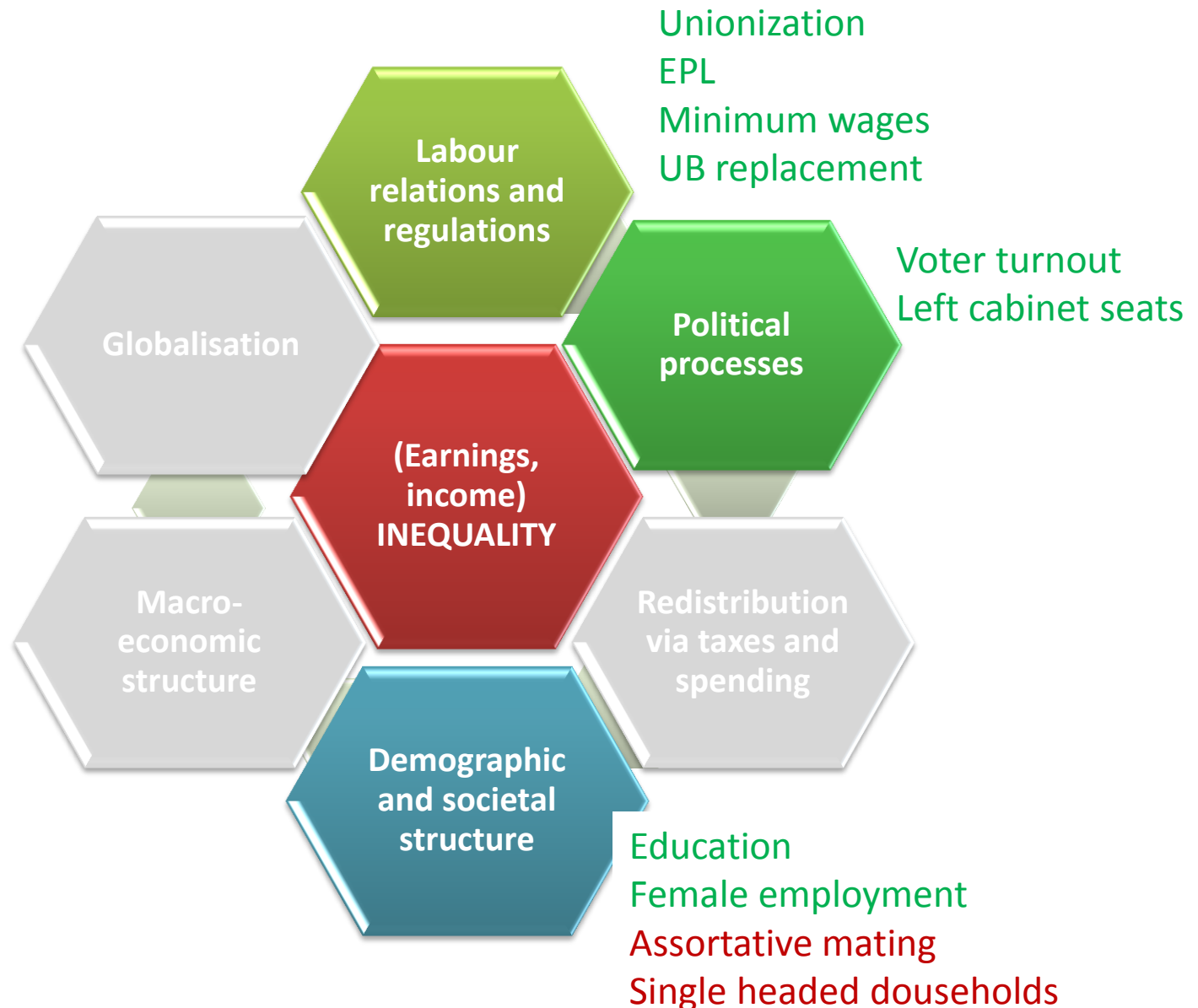## Redistribution via taxes/transfers

- Tax/transfer systems: equalising, with great county variation
- Reduction in redistributive effectiveness: dis-equalising (since 1990s)
- Cash transfers generally have larger equalising impact than income taxes (except with decomposition calculations)
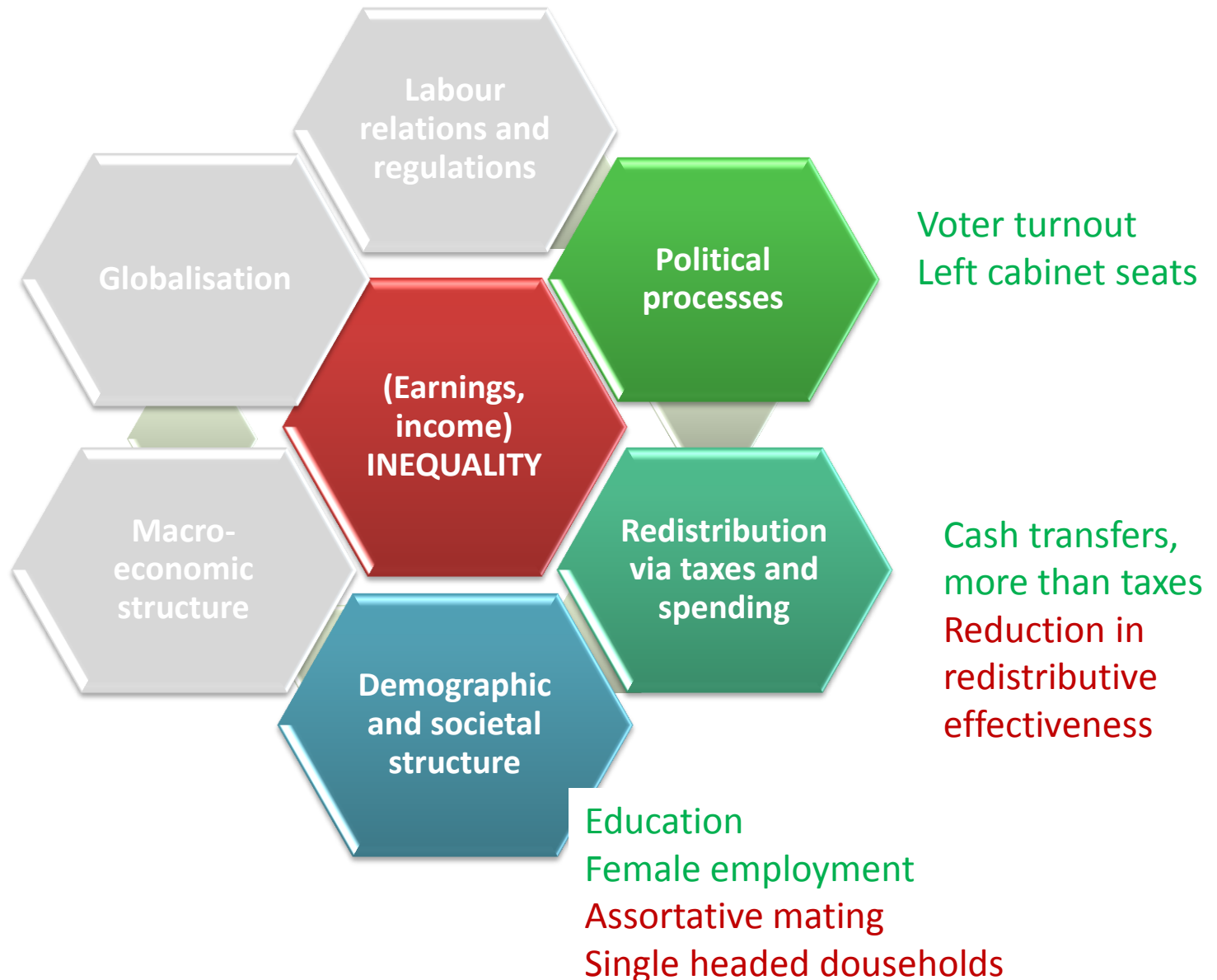- 2nd order effects (disincentives) off-set but do not outweigh 1st-order redistributive effects

Conclusions (methods, design)

- Economics, political science and sociology models test different narratives/factors (in reduced form)

- Most employ some variables relevant for the other „narratives" as controls, (at most letting others being absorbed by country fixed effects)

- Few attempts to build more comprehensive models (e.g. OECD 2011, Cornia 2012 (on LAC), Mahler 2010)

- Too small number of countries, too many competing explanations on too short time series: a built-in factor behind inconclusiveness.

- Heisenberg principle: the sharper we can measure a variable, the less an effect will be found

Stylized description of reduced models of determinants of income distribution change („political science?")

Labour relations and regulations

Unionization
EPL
Minimum wages
UB replacement

Globalisation

Political processes

Voter turnout
Left cabinet seats

(Earnings, income) INEQUALITY

Macro-economic structure

Redistribution via taxes and spending

Demographic and societal structure

Education
Female employment
Assortative mating
Single headed douseholds

Stylized description of reduced models of determinants of income distribution change („sociology?")

Stylized description of reduced models of determinants of income distribution change („economics?")

Unionization
EPL
Minimum wages
UB replacement

Technological change

Sector dualism
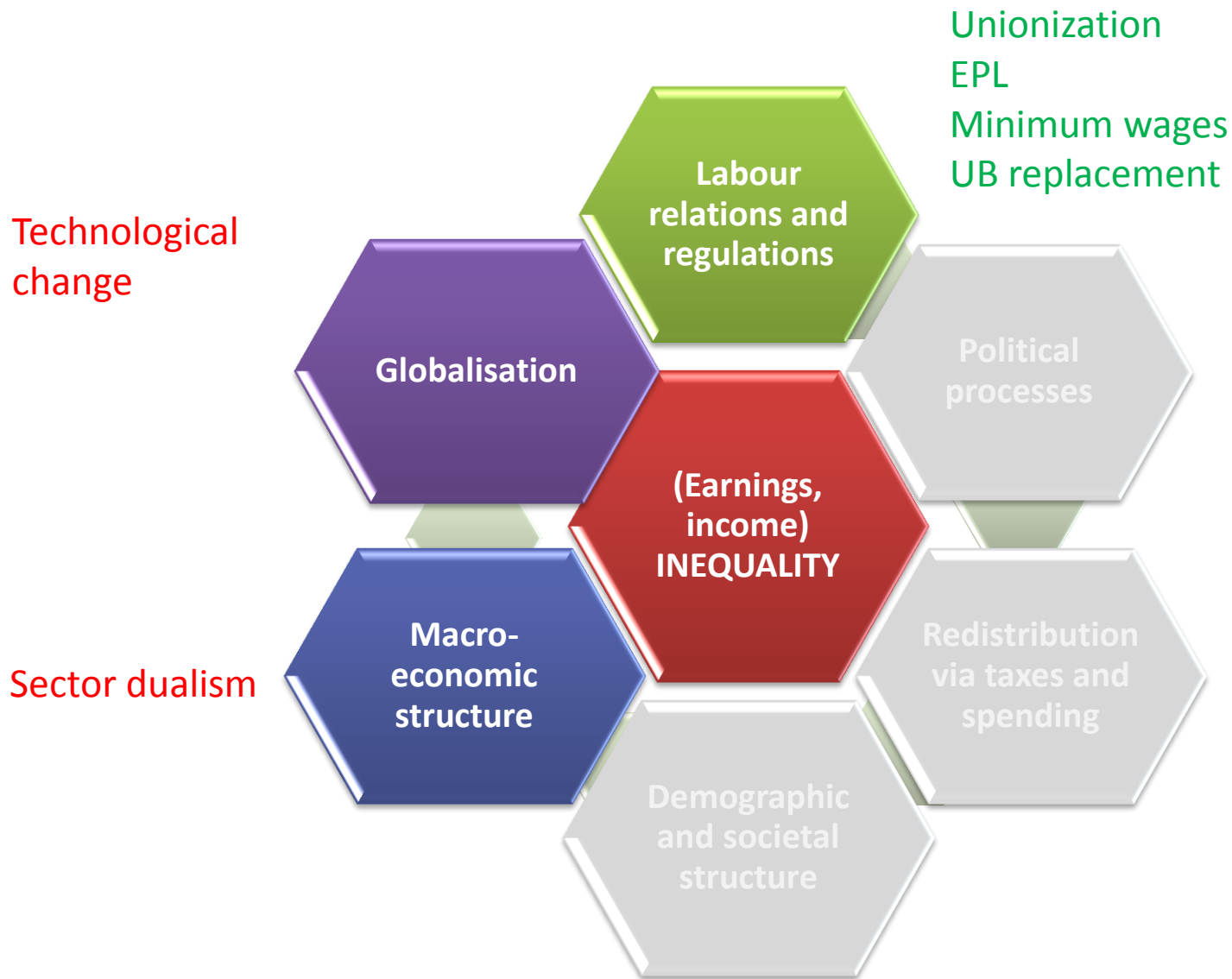
Conclusions (contents)

Despite many inconclusive results on most particular drivers (globalisation, regulations, etc.), some very important conclusions emerge:

- Technological changes and repercussions on labour market structures are key drivers;

- Policies count, and politics also matter (unionization and corporatism, but class politics not that much);

- Redistribution is another key driver: but not only its size, rather its structure and forms matter; benefits have a stronger effect than taxation;

- Demography/societal structure changes contribute but less than often assumed;

- Educational changes and changes in womens' employment participation are key *offsetting* factors

Further research needs and research directions

- Bringing together the findings of macro and micro analyses

- More need for interdisciplinarity , especially political scientists and economists need to talk

- Look deeper at inequality effects at different points, and at polarization:

- Need to model social norms with regard to income inequality

Thank you for your attention!

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www.oecd.org/social/inequality-and-poverty.htm

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