

# The Sharing of Macroeconomic Risk: Who Loses (and Gains) from Macroeconomic Shocks?

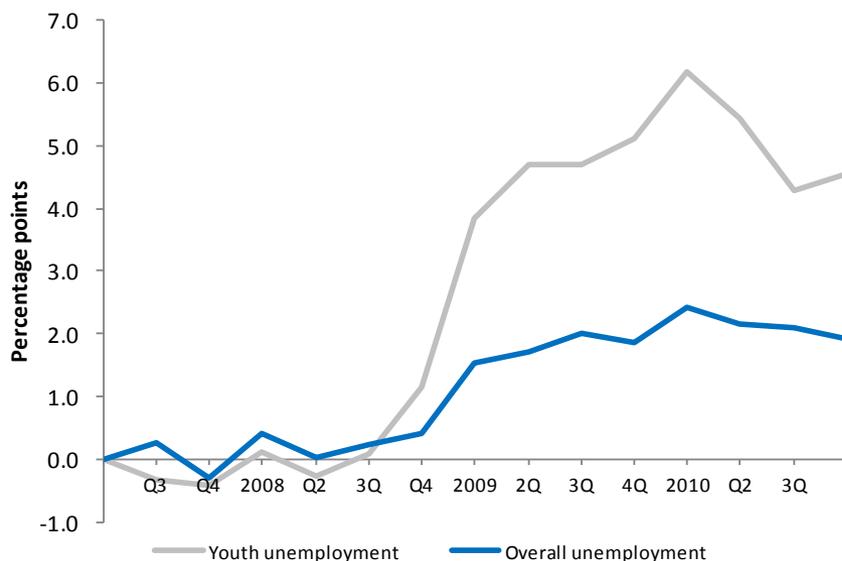


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- Macroeconomic shocks can have large distributive effects with implications for individual and social welfare
- These effects are shaped by both private and public (policies and institutions) risk-sharing mechanisms

# Young people have been particularly badly hurt by the recent financial crisis, and especially so in countries with high minimum wages

**A. Increase in unemployment with respect to 2<sup>nd</sup> Quarter 2007**



**B. "Excess" increase in youth unemployment with respect to 2<sup>nd</sup> Quarter 2007 (gap with overall change in unemployment)**



## Key issues:

1. How have past macroeconomic shocks affected incomes and employment of different groups across the OECD?
2. How have policies and institutions shaped these impacts?
3. Can groups of countries be identified that share broadly comparable macroeconomic risk-sharing mechanisms?
4. Do these mechanisms imply trade-offs between efficiency and risk sharing? How can such trade-offs be eased?

- Analysis based on roughly 30 years of data prior to recent crisis for 40 OECD and BRIICS countries.
- Identify various types of shocks such as financial crises, or commodity price, exchange rate, and fiscal shocks.
- For a given shock, estimate across countries the average relative impact over the five-year period following its occurrences for various income, wealth, age, gender, and education groups.
- Explore whether the distributive impact of a shock on certain groups depends on the institutional features of the country considered.

- Empirical approach as in Teulings and Zubanov (2009), similar to Cerra and Saxena (AER, 2009).
- Estimate impact on distributional variable of interest for each of the five years after occurrence of shock.

- E.g. equation for the year after the shock (t+1):

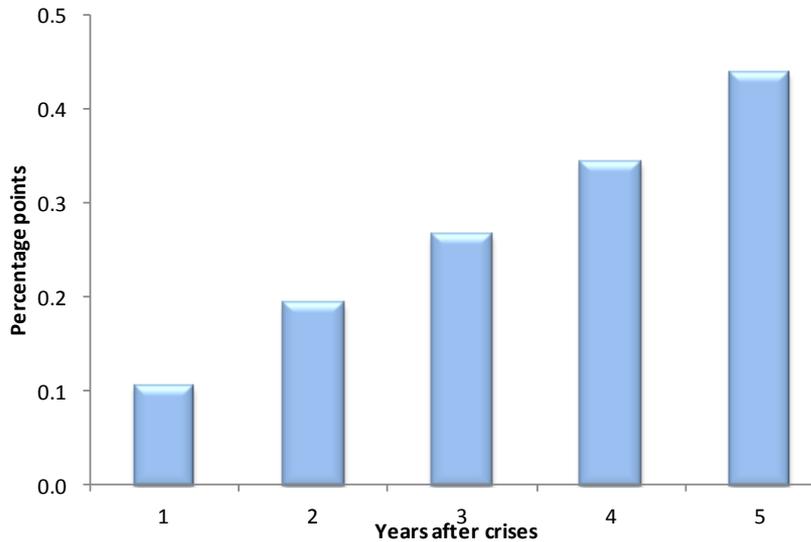
$$Y_{it+1} - Y_{it} = \alpha + \sum_{j=0}^3 \beta_j \Delta Y_{it-j} + \gamma_1 SHOCK_{it} + \delta_1 SHOCK_{it} * INST_{it} + \varepsilon_1 INST_{it} + \bar{\theta} \cdot \overline{COVAR}_{it} + \mu_t + \eta_{it}$$

- $Y_{it}$  distributional variable of interest.
- COVAR: set of covariates that control for possible cross-country differences (including population, GDP p.c., foreign asset position, geographical remoteness, share of commodity exports).
- $\mu_t$  time fixed effects.
- Focus on the coefficients  $\gamma$  and  $\delta$  measuring the response of the distributional variable to a shock and to the interaction of the shock with institutional settings.

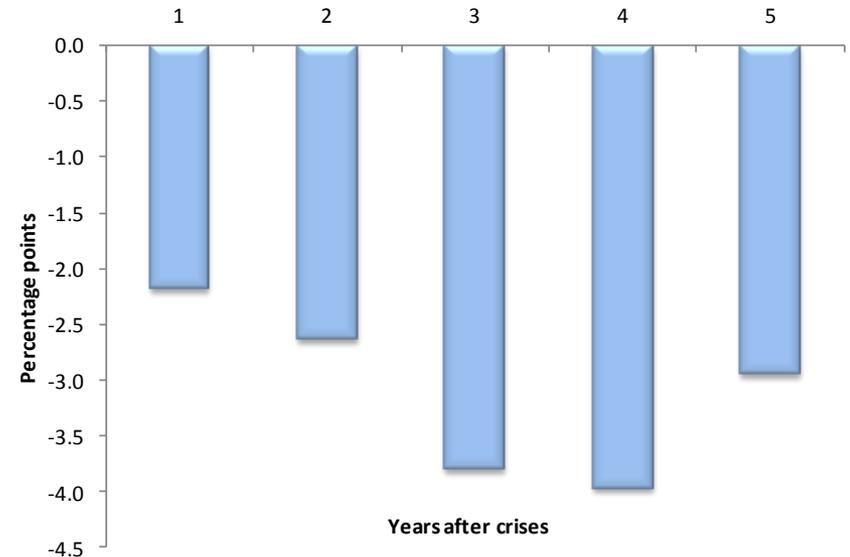
# Financial crises have increased poverty rates and disproportionately affected youth employment

Distributional impact of shocks

**A. Average increase in poverty rates following financial crises**



**B. Decline in youth employment following financial crises (gap with overall change in employment)**



# Distributional impact of macroeconomic shocks

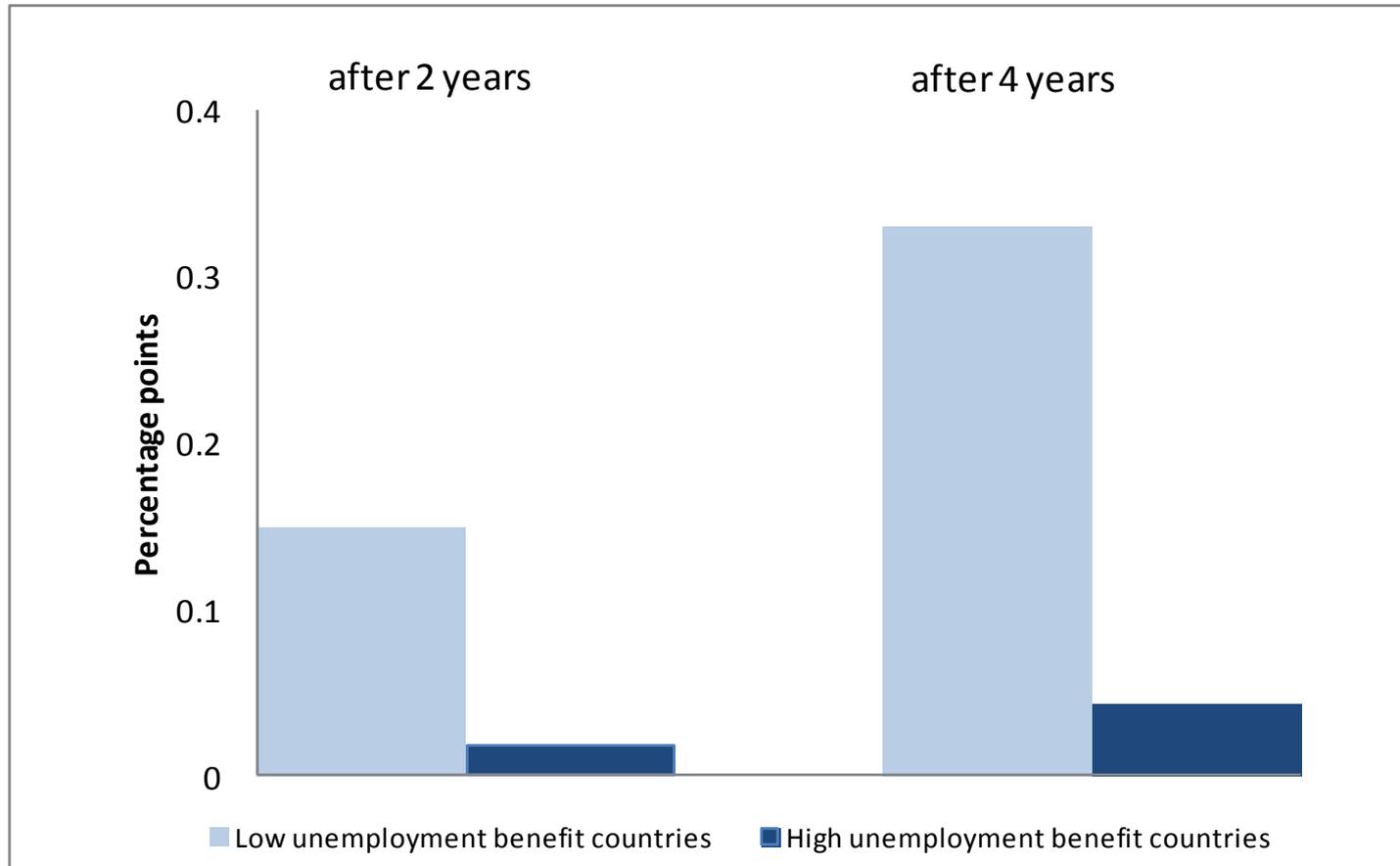
Distributional impact of shocks

	Income Inequality	Poverty	Relative labour market prospects of “marginal groups”
Financial crises	↗*	↗	↘ (young, seniors, women)
Fiscal consolidations	↗	↗	↘ (young, seniors)
Fiscal expansions	↘	↘	↗ (young, seniors)
Exchange-rate devaluations	↗		↘ (young, seniors)
Exchange-rate appreciations	↘		
Commodity-price increases	↗*	↗	↘ (young)
Commodity-price declines	↘		

\* Low and high incomes lose relative to middle class

# Generous unemployment benefits have mitigated crisis-driven increases in poverty

## Increase in poverty rates following financial crises



# The role of institutions (under adverse shocks)

The role of institutions

	Income Inequality	Poverty	Relative labour market prospects of “marginal groups”
Higher/longer-lasting unemployment benefits	Dampen increase	Dampen increase	Amplify deterioration for young people
Higher tax wedges on labour			Amplify deterioration for young people and seniors
More stringent job protection	Shelters middle classes	Dampens increase	Amplifies deterioration for young people; mitigate it for seniors
Stronger unions	Dampen increase		Amplify deterioration for young people; mitigate it for prime-age workers
Broader reach of minimum wages			Amplifies deteriorations for young people (and seniors)

# The role of institutions (under adverse shocks)

The role of institutions

	Income Inequality	Poverty	Relative labour market prospects of “marginal groups”
More pro-competitive product market regulation	Dampens increase	Dampens increase	Mitigates deterioration for young people
Greater openness to trade / FDI	Dampens increase		Mitigates deterioration for young people
Greater openness to capital flows	Amplifies increase		
Financial development	Amplifies declines in income shares of low and high incomes		Mitigates deterioration for young people

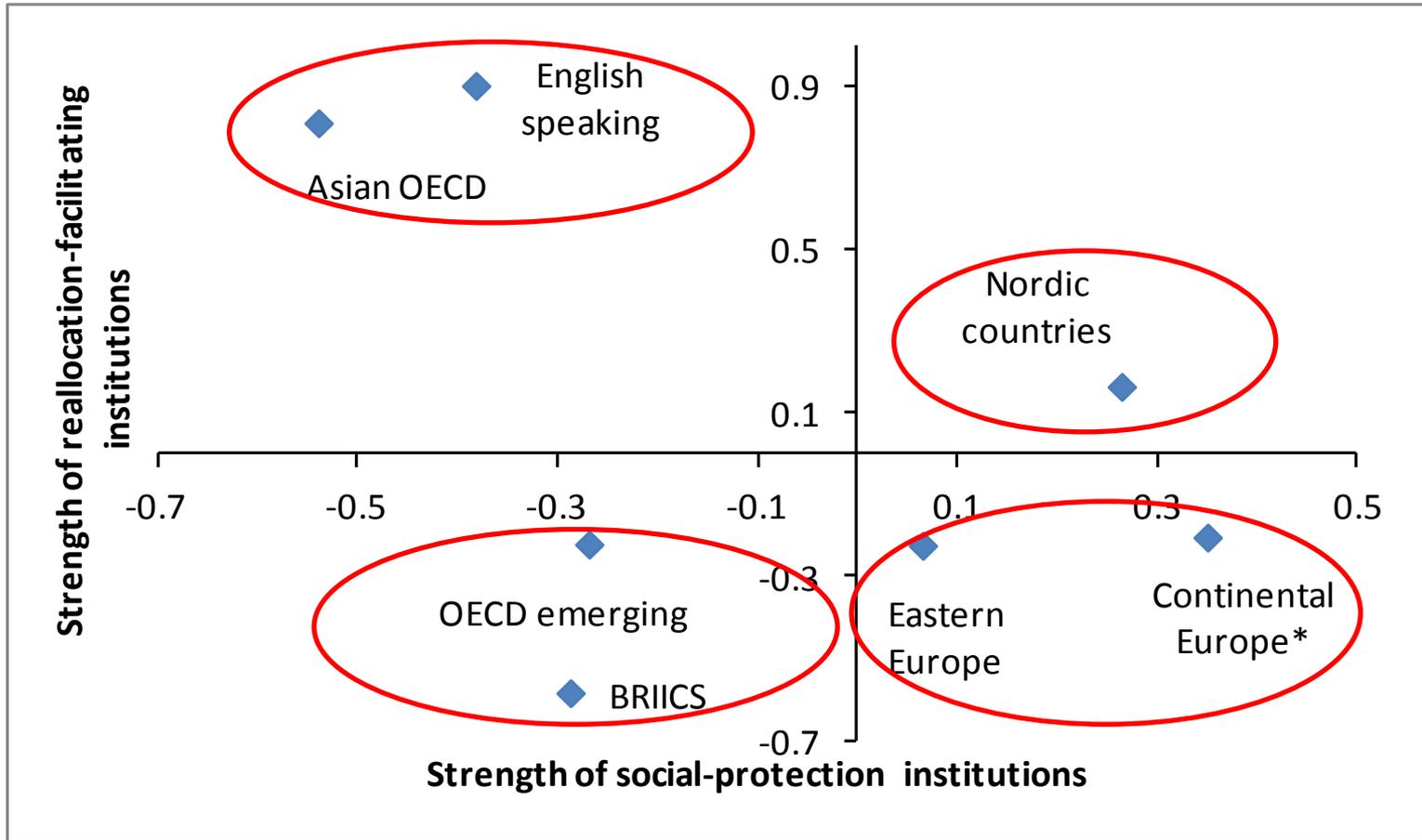
## Broad country models of income risk sharing

- Overall, two broad types of institutions that mitigate adverse distributive effects of shocks:
    - *“Social-protection” institutions*, including unemployment benefits, job protection, minimum wages or strong unions
    - *“Reallocation-facilitating” institutions*, including pro-competitive product market regulations
  - Former are more effective short-term risk-sharing mechanisms, but they can harm outsiders (young) and typically imply some efficiency loss => design is key to minimising these drawbacks
- => Four broad groups of countries can be identified

## Four stylised models of income risk sharing

- Countries providing income risk sharing mainly via social-protection institutions:
  - the large majority of continental-European countries (Switzerland most notable exception).
- Those relying mainly on reallocation-facilitating institutions:
  - English-speaking and Asian OECD countries.
- Countries where neither class of institutions are developed:
  - typically OECD and non-OECD emerging economies (eastern-European countries halfway between continental Europe and the emerging economies).
- Countries relying strongly on both of them:
  - Nordic countries.

# Four stylised models of income risk sharing



\*excluding Switzerland

- Institutions are found to shape the distributional effects of macroeconomic shocks.
- Some of the institutions that improve risk-sharing are also good for growth or jobs, thereby providing obvious directions for reforms. Examples examined here are competitive product markets or low tax-wedges on labour; other examples likely include well-designed short-time working schemes and prudent fiscal policy.
- Others, such as minimum wages or stricter job protection, can come at a cost, and particular care is therefore needed in designing them.

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