'Middle' household incomes across OECD countries up to and through the Great Recession: Decomposing by source

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(IARIW) discussion of
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34th General Conference of the IARIW
Session 2E: The Great Recession and the Middle Class

Motivation and questions

Concerns that prosperity is less fairly shared than in the past as even «middle class» incomes stagnate while inequality is on the rise.

Drivers of trends in inequality have been explored at large.

Less explored are the <u>sources</u> of household income and their <u>contribution</u> to household income developments «along the distribution».

This paper
1. describes household income composition along the distribution;
2. documents sources of its developments;
3. explores whether they differ across countries and/or over time.

Data

OECD Income Distribution Database.
Very rich cross-country dataset describing main features of income distribution.

OECD countries covered for several (varying) years at multi-year intervals.

Cleaning and sample selection: 27 countries, unbalanced data, 1985-2012, 234 obs.

Data

Publicly available dataset only provides composition of <u>mean</u> household income along with median incomes by age class.

Authors have additional info of the composition of total household disposable income <u>at each decile of the distribution</u>: wage of head, wage of spouse, wage of other members, income from self-employment, income from capital, transfers, taxes.

Throughout, use average income (by source and total) at each decile to develop and explore a variety of measures (shares, growth rates, growth contributions)

Focus only on households whose head is of working age.
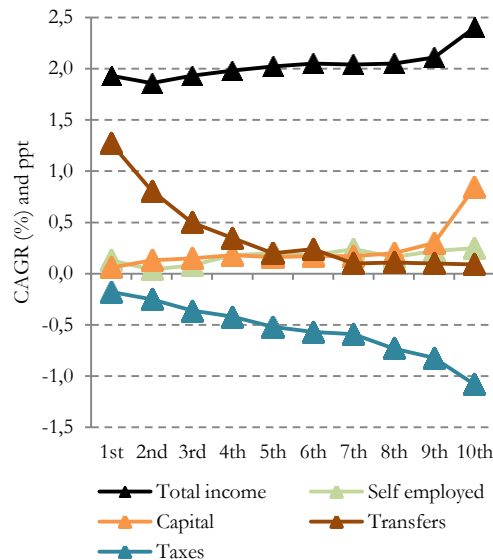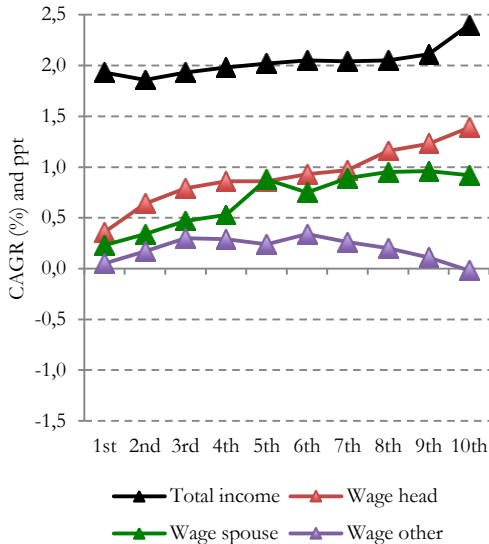
Average composition of 1°, 5°, 10° deciles, 2010-12
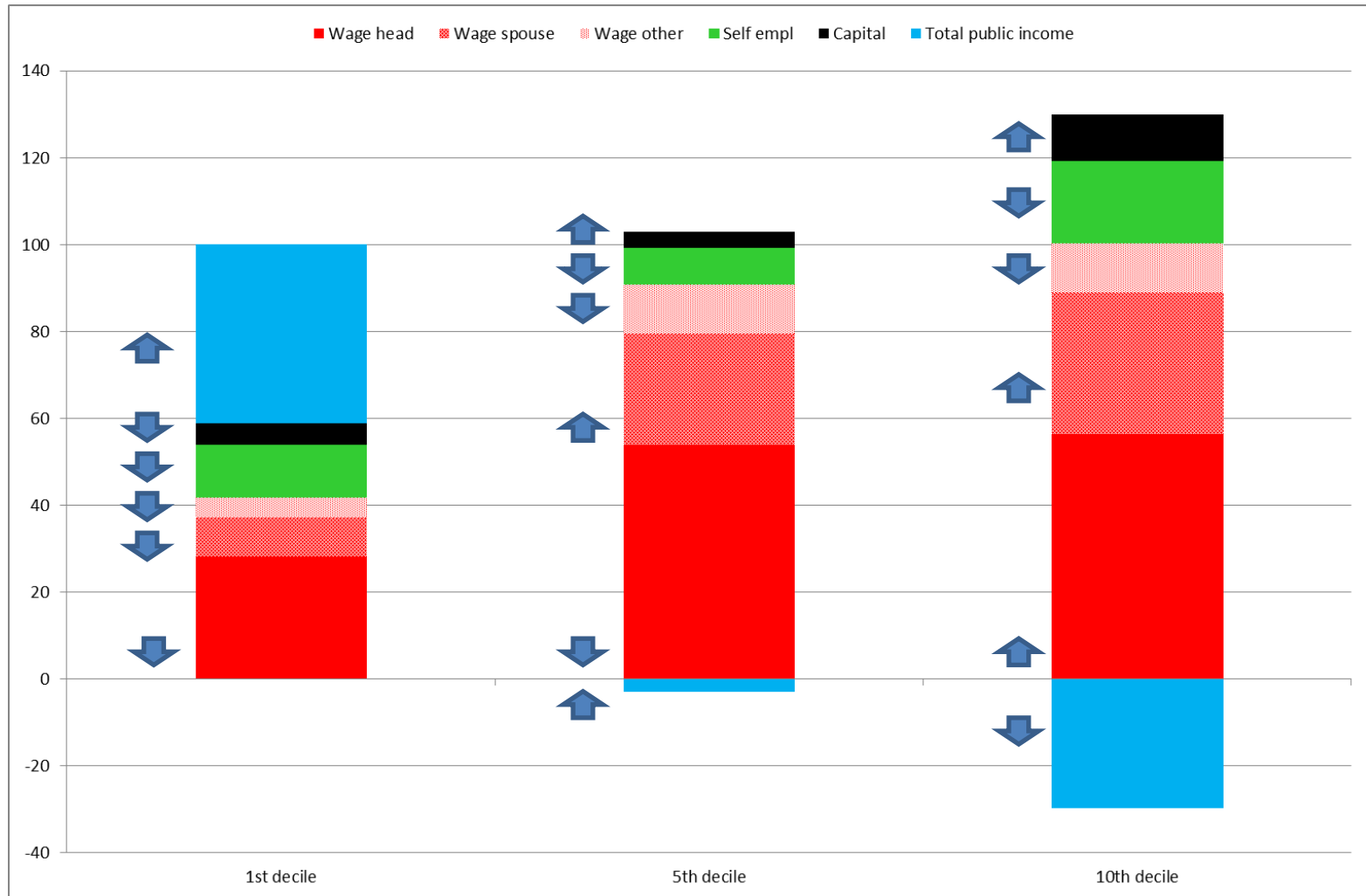
Averages across countries are weighted by the number of years covered per country

# Sources of growth along the distribution

Average annual growth rates of total hh income and growth contributions of sources
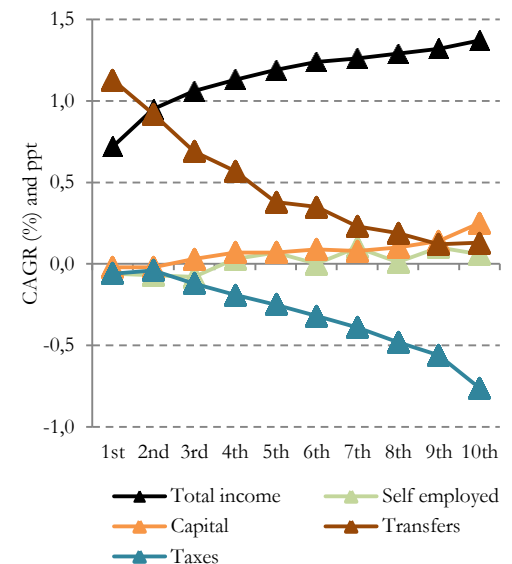
Before Great recession

No major differences in growth of tot income along distribution, though increased inequality. Deeper differences in sources of tot income growth…
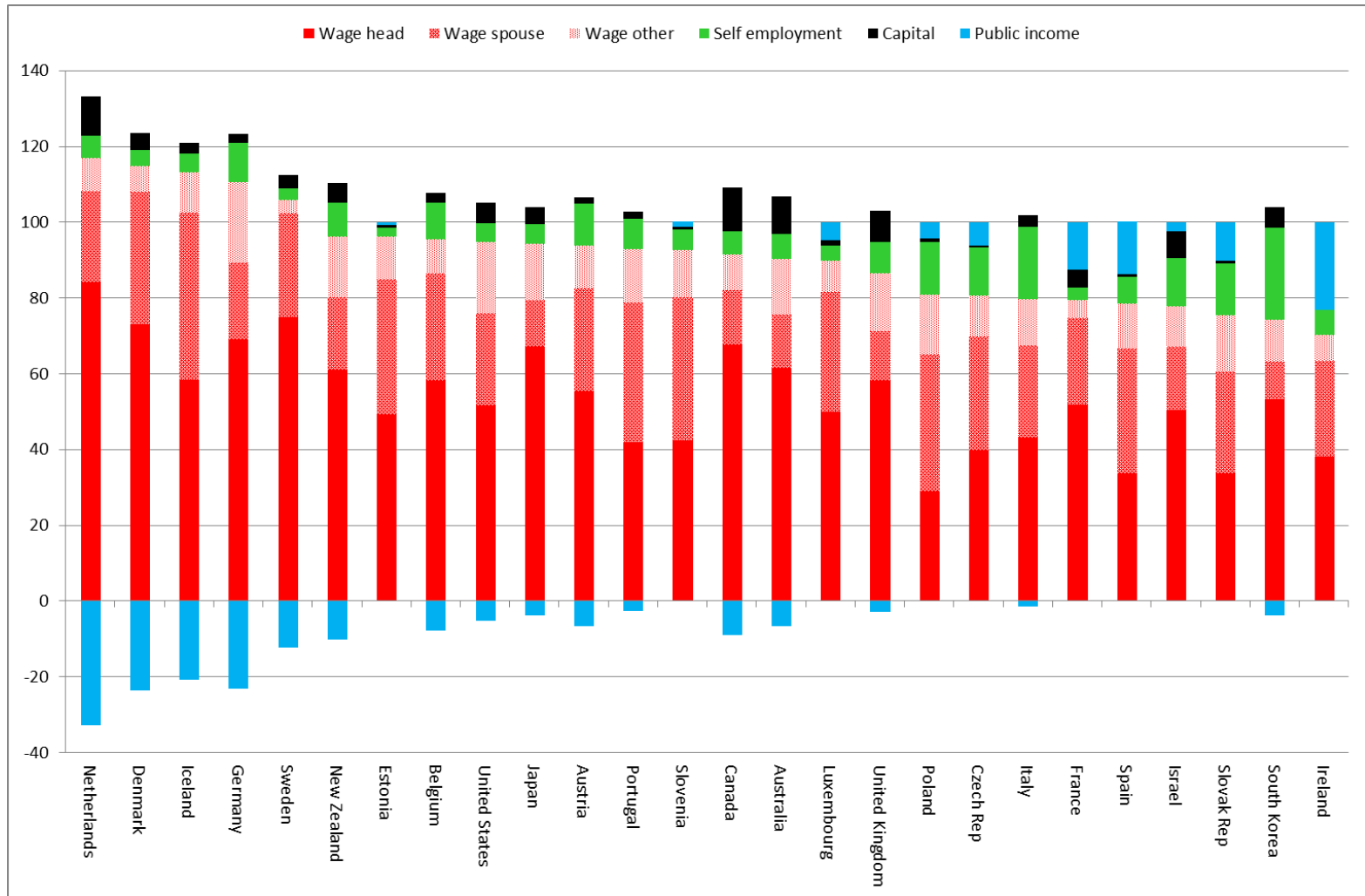
Great recession weighed on lower end of distribution, mostly through developments in labor income…
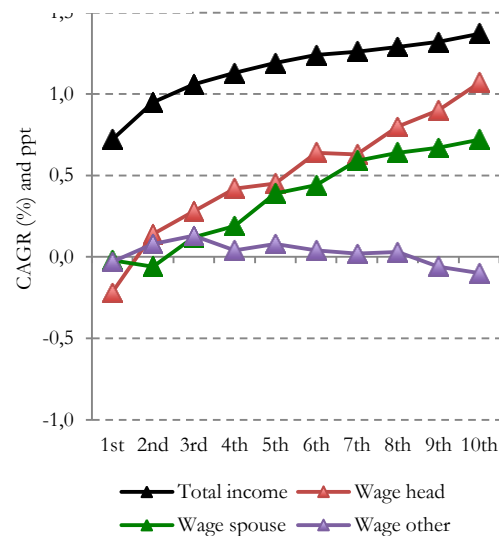
All years

Country composition of 5° decile, 2010-12

Absolute and relative income growth of 5° decile...

Explore whether composition of income evolves in different ways in periods of absolute and relative income growth at the 5° decile.

Absolute – total income of 5° decile records positive growth
Relative – total income of 5° decile grows more than average income

$x_c = \{x_{1c}, ..., x_{nc}\}$ shares in total income (at 5° decile) of sources (1,...,n) in country c.

Test that mean of multivariate random variable x (of which x_c are hped to be independent realizations) is the same in prds of +- (abs or rel) income growth.

|	Absolute growth			Relative growth		
	Sign.	Yes	No	Sign.	Yes	No
Wage head		-0,20	-0,05		-0,17	-0,10
Wage spouse	*	0,30	-0,41	**	0,34	-0,51
Wage other		0,06	-0,31		0,02	-0,24
Total wage	**	0,16	-0,77	**	0,19	-0,85
Self employment		0,10	-0,16	*	0,13	-0,23
Capital		0,03	-0,03		0,02	-0,03
Transfers	***	-0,32	1,18	***	-0,32	1,24
Taxes		0,03	-0,21		-0,02	-0,13
Public income	***	-0,29	0,97	***	-0,34	1,11

3 countries, 3 welfare states, same horizon
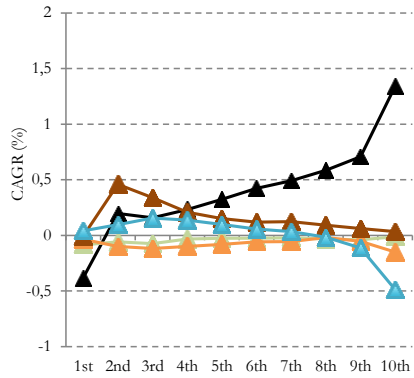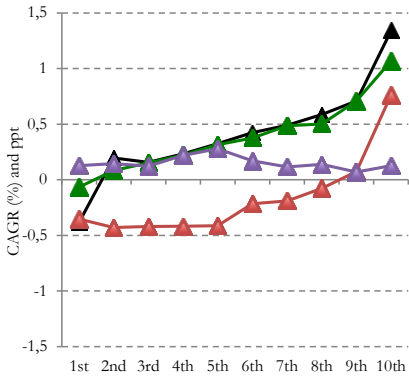
United States
(1894-2012)
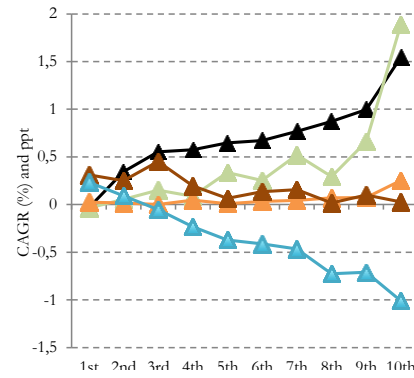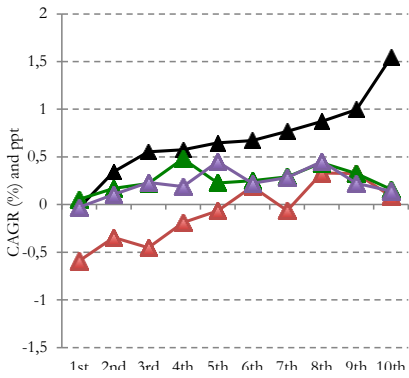
Germany
(1985-2011)
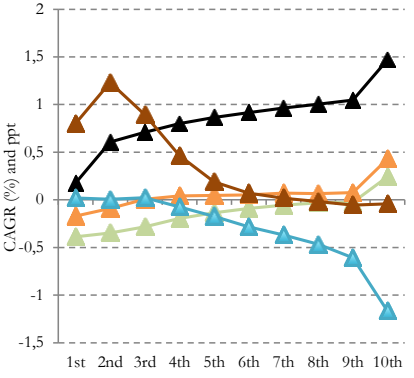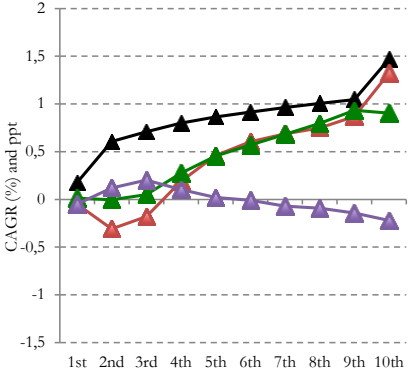
Denmark
(1985-2011)

Total income   Wage head
Wage spouse   Wage other

Total income   Self employed
Capital   Transfers
Taxes

Conclusions

Explore whether composition of income evolves in different ways in periods of absolute and relative income growth at the 5° decile.

Unveil substantial differences in income composition (and changes thereof) across the distribution and interactions with macro developments.

Role of specific sources changes also with proxies of how widespread is household income growth (absolute vs relative growth).

My Comments

Very rich paper, a lot of information and promising ways to cut the data.

Maybe too much: very hard to parse all the info and extract a consistent «story».
→ Streamline empirical evidence around a clearcut narrative.

Time coverage and data frequency differ across countries.
Country specific evidence aggregated by «number of years covered per country»
Hard to draw reliable inference from averages across countries:
        -Why give more weight to countries with longer time series?
        -What are we supposed to learn from (or control for) this strategy?
        -Why not use (e.g.) population size?
→Go as much as possible for neater exercises:
        -aggregate and/or perform country comparisons over common horizons;
        -find alternative (interpretable) weighting schemes or drop altogether
          aggregation and use empirical methods to single out regularities
          from the data.

My Comments

Patterns in income composition are tough to study: «shares» sum up to 1 so any increase must be accompanied by a decrease.

→ Empirical analysis should either fully take into account specific structure of correlation across shares (thus abandoning implicit multivariate normality underlying chi-sq tests) or fully neglect it and just go for simple descriptive linear regressions for each source j e.g.

$$x_{jct} = bG_{ct} + e_{ct}$$

where G_{ct} is a dummy that signals whether time t in country c was a (abs or rel) growth period.

Thanks to the organizers for giving the chance of reading this paper and to Stefan for quickly answering many questions...

... and thanks to you for your attention.