POLITECNICO MILANO 1863
DIPARTIMENTO DI ARCHITETTURA E STUDI URBANI

UNIVERSITÀ DEGLI STUDI DI MILANO
DIPARTIMENTO DI SCIENZE SOCIALI E POLITICHE

RISIng
Rising Inequality and Social Insecurity of the middle classes

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Earnings shocks and welfare buffers

Southern Europe in comparative perspective

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Structure

- Research design
- Main findings
- Discussion

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Origin

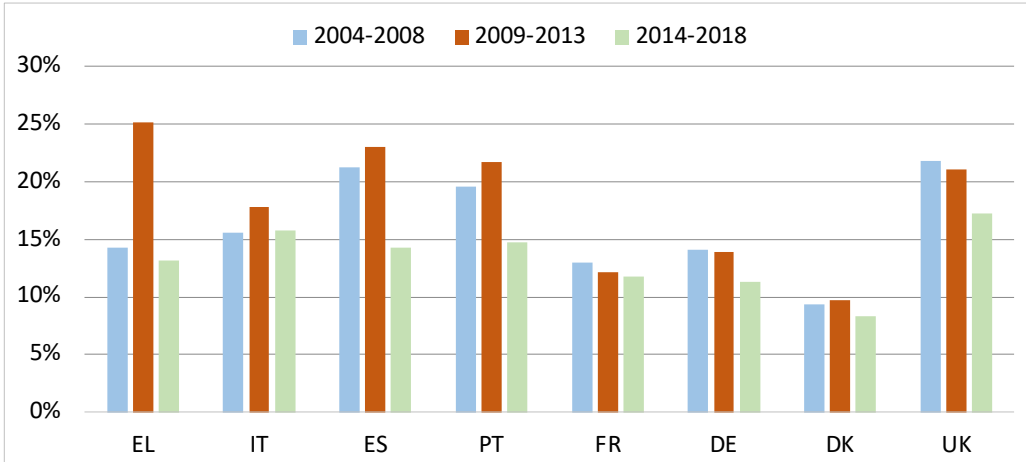
In previous work we analysed **earnings shocks** in Southern Europe and other countries

Over a period from before the global financial crisis to the eve of the pandemic (2004-2018)

Earnings shocks: earnings losses of >20% in year t_1 relative to previous year t_0

Incidence

What was the incidence of earnings shocks in our reference population (roughly speaking: households of working age adults incl. children but excl. the elderly), by sub-period?

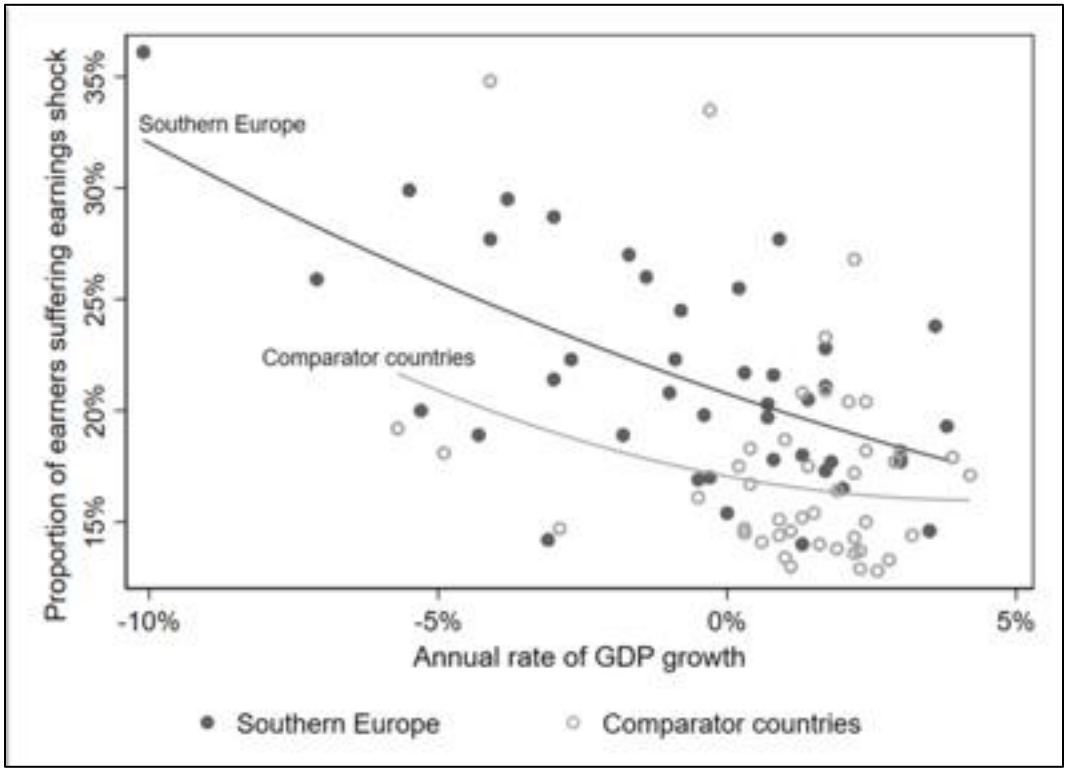


<u>Interpretation</u>: In Southern Europe, the incidence of earnings shocks was highest in 2009-2013 (when the Eurozone crisis was deepest). In Greece, the share of individuals (in our reference population) who lived in households suffering an earnings shock rose to over 25%.

Causes

Southern Europe was more susceptible to earnings shocks because of the interplay of:

- more unfavourable economic conditions
- higher incidence of non-standard work (self-employment and temporary contracts)



Follow-up

In this paper we examine the response of **welfare buffers** to earnings shocks

Welfare buffers: social benefits except pensions and disability benefits

… at household level (i.e. adding up earnings and benefits of all household members)

in 2004-2018

Sample

We use longitudinal data from EU-SILC (SOEP for Germany)

We select *working-age* households
… with at least one earner (aged 16-64)
… whose earnings in a given year (t_1) was at least 20% lower than in the previous year (t_0)

We exclude households with member(s):

- *aged 65+*
- receiving old-age / survivor / invalidity *pension*, or disability benefit (irrespective of age)

We exclude marginal earners with *very low* income from labour

- either Y_i < €1,000 p.a.
- or Y_i < 10% of median earnings
- (in a given year in a given country)

Scope

We compare *Southern Europe*
(IT, ES, PT, EL)

… with 4 countries of *NW Europe*
(FR, DE, UK, DK)

RQs

We ask how the social protection system responded to earnings shocks in the 8 countries

- RQ1
  How many of the households suffering earnings shocks were offered income support?
  (Coverage)

- RQ2
  What proportion of lost earnings was made up by income support (in those households who were offered income support)?
  (Adequacy)

- RQ3
  What proportion of *total* earnings losses was made up by income support (among all households suffering an earnings shock)?
  (Compensation)

- We discuss the implications of our findings for public policy

Definitions

- **Coverage rate** is the share of individuals living in households suffering an earnings shock in t_1 relative to t_0, whose income from social benefits (other than pensions and disability benefits) increased in t_1 relative to t_0

- **Adequacy rate** is the share of earnings loss in t_1 relative to t_0 that was made up by an increase in social benefits (excl. pensions and disability benefits) in t_1 relative to t_0 in households in which this was actually the case.

- **Compensation rate** is the share of earnings loss in t_1 relative to t_0 that was compensated by an increase in social benefits (excl. pensions and disability benefits) in t_1 relative to t_0 in all households suffering an earnings shock, whether compensated or not

Focus on poverty

- Income smoothing one of the key objectives of the welfare state
  - … especially from a lifetime perspective

- Hence, it is not unreasonable to pose the question of how different welfare states perform in terms of buffering large earnings losses

- But how reasonable would it be to take the normative position that the welfare state ought to compensate *everybody* suffering a large earnings loss?
  - Many would see this as a bit of a stretch

- On the other hand, if the individuals suffering an earnings shock live in poverty, or would have fallen into poverty in the absence of income support from the welfare state, the normative argument in favour of income support becomes stronger, and the policy relevance of our exercise greater.

Counterfactual

- In order to investigate the performance of the social protection system in the event of an earnings shock focusing on the poor, and the *potentially* poor, we create a counterfactual income variable

- Within households suffering an earnings shock in t_1 relative to t_0 we select those whose total income in t_1 would be below the poverty line if their income from social benefits remained at the same level as in t_0

- We set the poverty line at 60% of median equivalised household disposable income

pro- vs counter-cyclical

We also raise one final issue:

We ask whether the change in welfare buffers in the 8 countries went

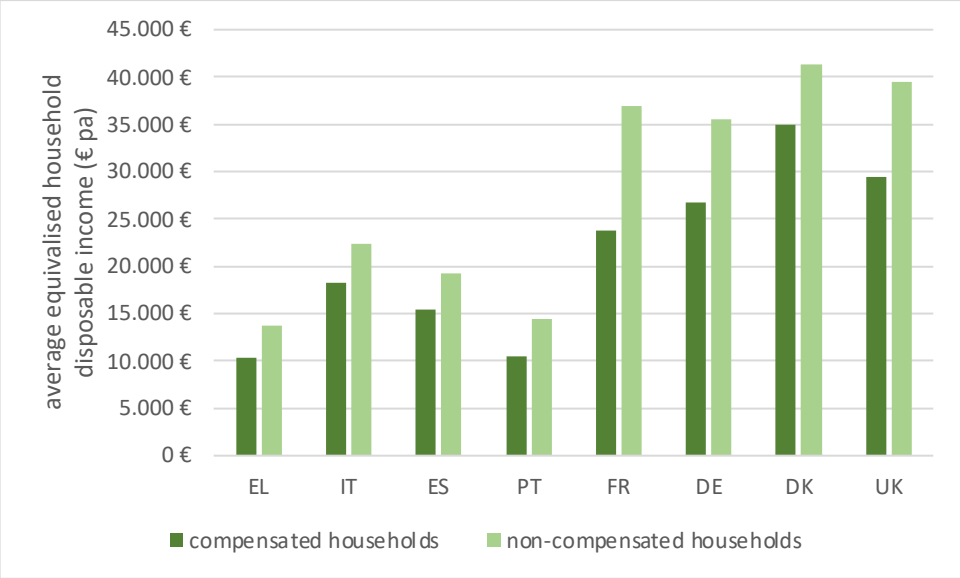
- the same direction as the change in earnings (pro-cyclical)
- the opposite direction as the change in earnings (counter-cyclical), as prescribed

  (*real* change in earnings and in welfare buffers, i.e. accounting for inflation)

- Research design
- Main findings
- Discussion

Household income of those suffering earnings shock

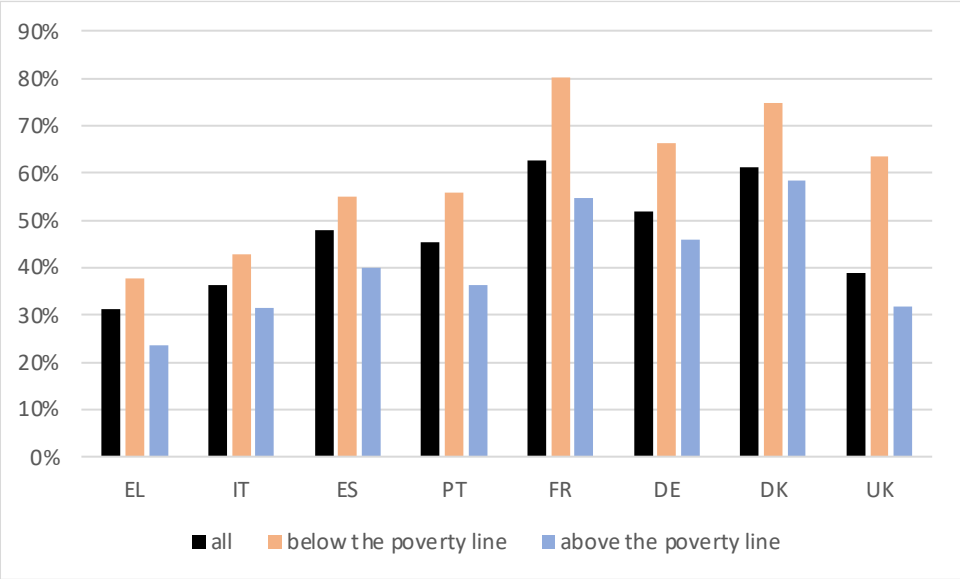
Some of the households suffering an earnings shock were partly compensated by receiving higher social benefits (excl. old-age / survivor / invalidity pensions, and disability benefits), while others were not. What was the average income of each group?



<u>Interpretation</u>: In all countries, among households suffering an earnings shock, compensated ones were on average poorer than non-compensated ones.

Coverage rate below vs above the poverty line

How did the coverage rate (the share of those suffering an earnings shock whose income from social benefits increased) vary between countries. Was it greater for households below the poverty line?

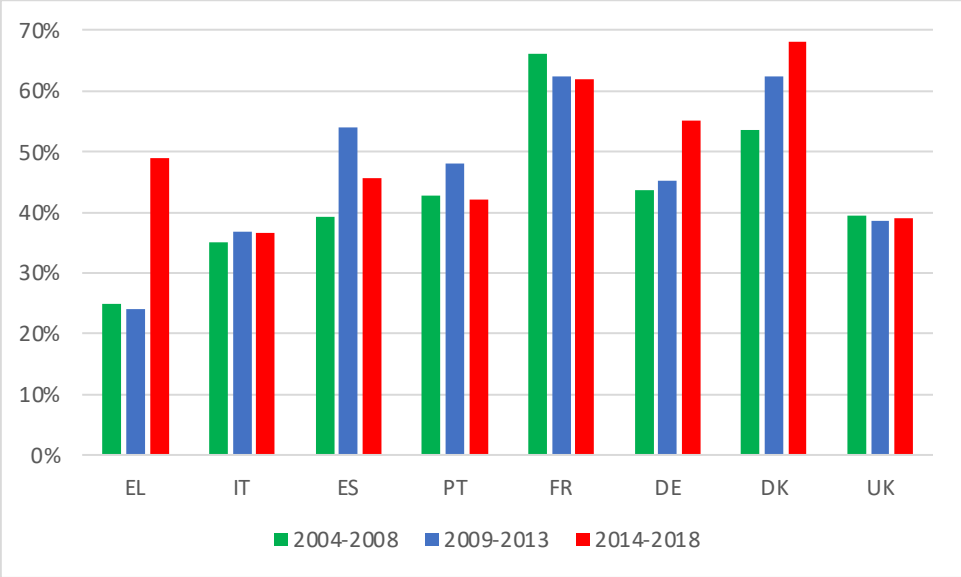


<u>Interpretation</u>: In FR & DK, the coverage rate was over 60%. In EL, it was 31% (averaged over the period). In all countries, among households suffering an earnings shock, those below the poverty line were more likely to be compensated by higher social benefits.

Coverage rate: share of individuals in households suffering an earnings shock whose income from social benefits (other than pensions and disability benefits) increase.

Coverage rate by sub-period

How did the coverage rate vary by sub-period? Was it greater in 2009-2013, when the Eurozone crisis was deepest?

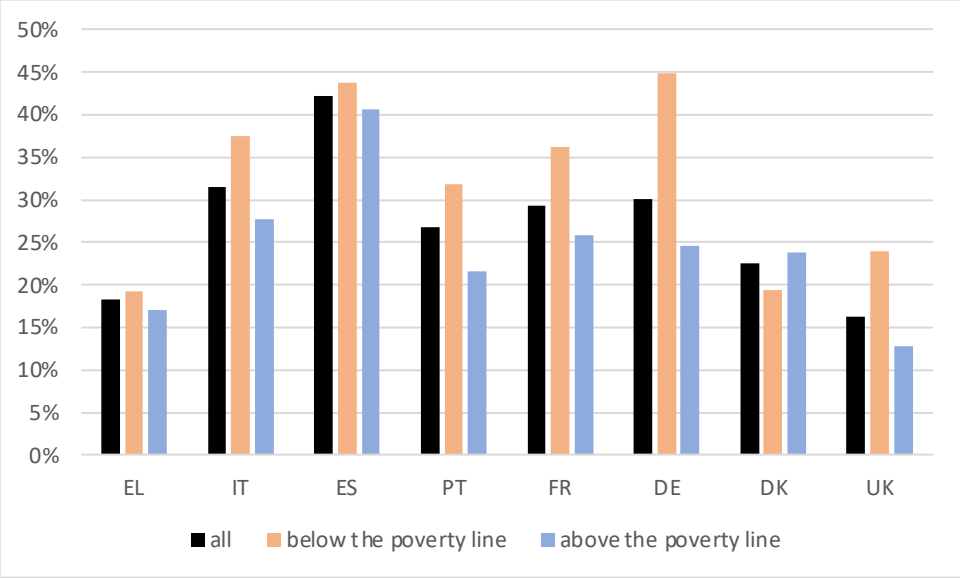


<u>Interpretation</u>: The coverage *rate in ES, PT & DK improved in 2009-2013. In DE & DK, it rose with time. In EL it improved substantially but only after the worst of the crisis.*

Coverage rate: share of individuals in households suffering an earnings shock whose income from social benefits (other than pensions and disability benefits) increase.

Adequacy rate below vs above the poverty line

What proportion of lost earnings was compensated by higher social benefits (in households in which this was actually the case)? Was that share (the **adequacy rate**) greater for those below the poverty line?

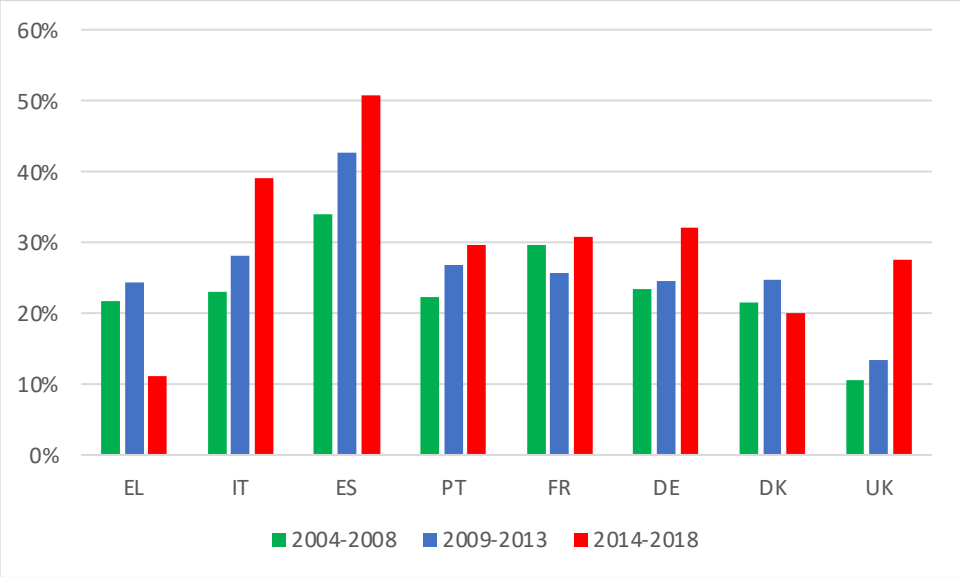


<u>Interpretation</u>: The adequacy rate ranged from below 20% (EL & UK) to over 40% (ES, and DE in 2009-2013). Except in DK, households in poverty had a greater share of lost earnings compensated by higher benefits. In EL, there was little difference between the two groups.

Adequacy rate: share of lost earnings compensated by an increase in social benefits (excl. pensions and disability benefits) in compensated households (i.e. those which received higher social benefits having suffered an earnings shock).

Adequacy rate by sub-period

How did the adequacy rate vary by sub-period? Was it greater in 2009-2013?

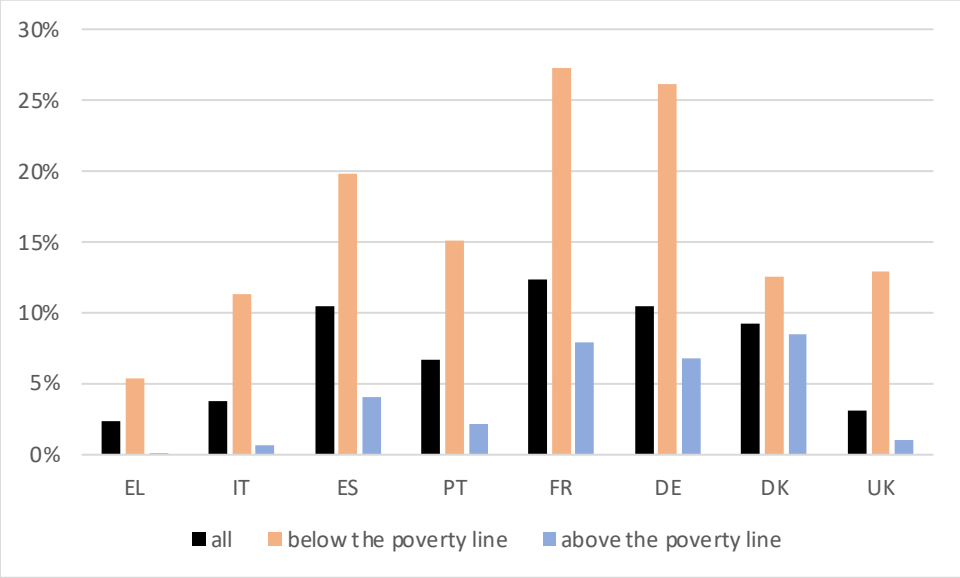


<u>Interpretation</u>: In almost all countries, the adequacy rate rose with time. In EL, it decreased after the worst of the crisis (as coverage increased).

Adequacy rate: share of lost earnings compensated by an increase in social benefits (excl. pensions and disability benefits) in compensated households (i.e. those which received higher social benefits having suffered an earnings shock).

Compensation rate below vs above the poverty line

The **compensation rate** is similar to the adequacy rate, except for the fact that it is computed across all households that suffered an earnings shock, compensated and non-compensated alike. What proportion of lost earnings was compensated by higher social benefits (in all households suffering an earnings shock)? Was it greater for those in poverty?

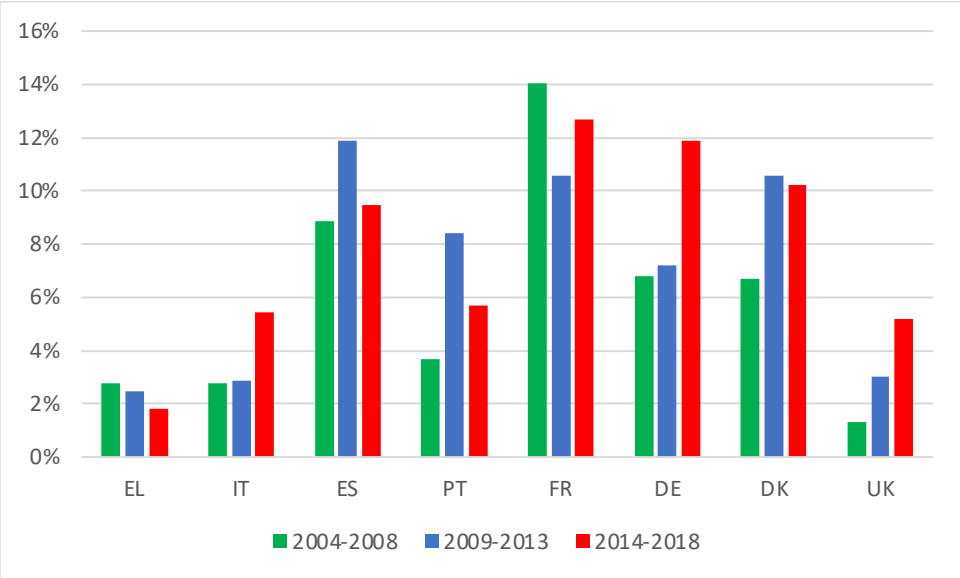


<u>Interpretation</u>: The compensation rate ranged from below 4% (in EL, IT, UK) to over 10% (in FR, ES, DE). In all countries, households in poverty had a greater share of lost earnings compensated by higher benefits (over 25% in FR & DE).

Compensation rate: share of lost earnings compensated by an increase in social benefits (excl. pensions and disability benefits) in all households suffering an earnings shock (i.e. whether compensated through higher social benefits or not).

Compensation rate by sub-period

How did the compensation rate vary by sub-period? Was it greater in 2009-2013?



<u>Interpretation</u>: In IT, DE, UK, the compensation rate rose with time. In ES, PT, DK, it peaked in 2009-2013, then stayed high (higher than pre-crisis). In EL, it was low to start with, then gradually declined.

Compensation rate: share of lost earnings compensated by an increase in social benefits (excl. pensions and disability benefits) in all households suffering an earnings shock (i.e. whether compensated through higher social benefits or not).

Are welfare buffers counter- or pro-cyclical?

In theory, as citizens' earnings contract (e.g. in a recession), income support policies kick in to mitigate their loss. When this is the case, welfare buffers as said to be **counter-cyclical**. This has important macroeconomic implications (welfare benefits as 'social stabilizers').

In practice, as in the Eurozone crisis, the opposite may occur: as citizens' earnings contract because of the recession, income support policies may be retrenched because of the austerity. When this happens, welfare buffers act **pro-cyclically**. At macroeconomic level, this makes the recession deeper.

Counter- or pro-cyclicality also works in reverse.

- When the economy booms, it is natural for spending on welfare buffers to decrease (*counter-cyclically*). This will also contribute to prevent the economy from over-heating.
- On the contrary, should spending on welfare buffers increase (*pro-cyclically*) even though there is less unemployment etc., this will contribute to over-heating.

Are welfare buffers in Europe counter-cyclical or pro-cyclical?

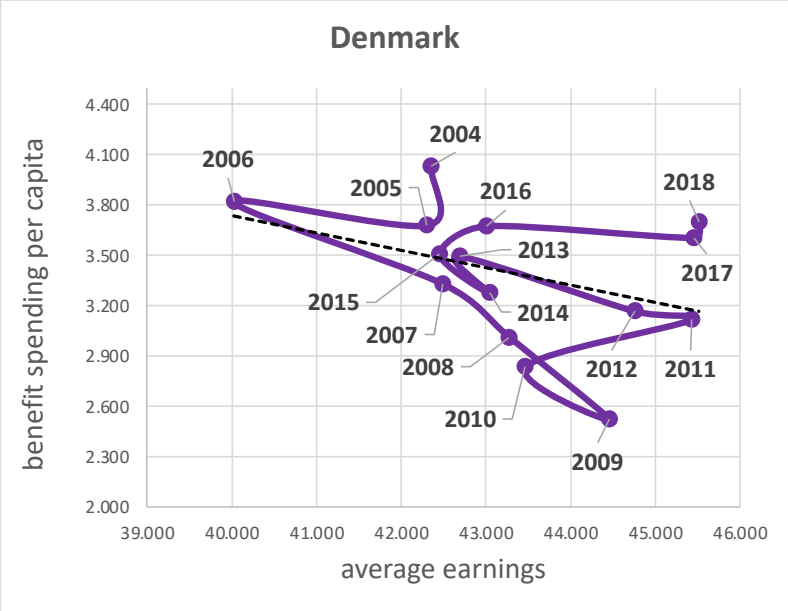
As shown next, this in 2004-2018 varied by country and by year.

Are welfare buffers counter- or pro-cyclical **in DK**?

Did spending on welfare buffers* in **Denmark** evolve counter-cyclically wrt average earnings?

(Negative-sloping x-y line = counter-cyclical; positive-sloping x-y line = pro-cyclical)

** social benefits other than pensions and disability benefits*



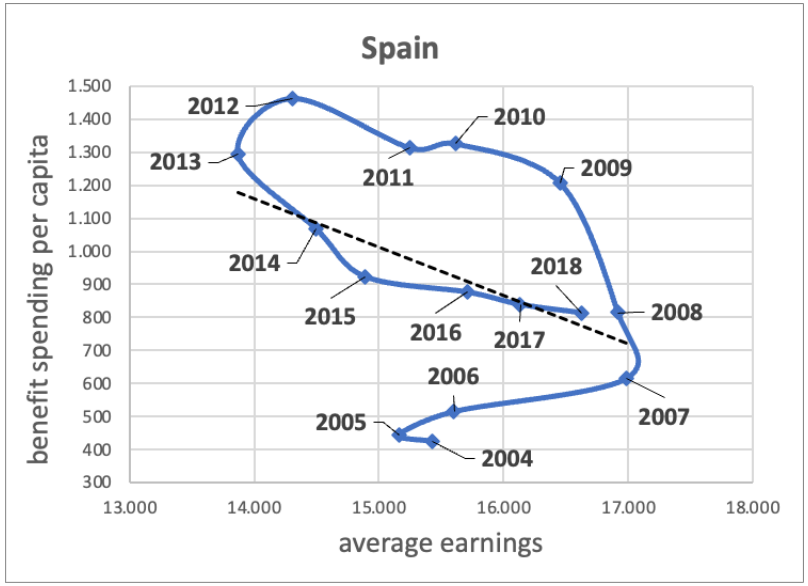
*<u>Interpretation</u>: In 2006-2009, welfare buffers were **counter-cyclical** (i.e. spending on welfare buffers went down as earnings went up). In 2009-2010 and 2011-2013 too, albeit in the opposite sense: as earnings contracted, welfare buffers kicked-in.*

Are welfare buffers counter- or pro-cyclical in ES?

Did spending on welfare buffers* in **Spain** evolve counter-cyclically wrt average earnings?

(Negative-sloping x-y line = counter-cyclical; positive-sloping x-y line = pro-cyclical)

** social benefits other than pensions and disability benefits*



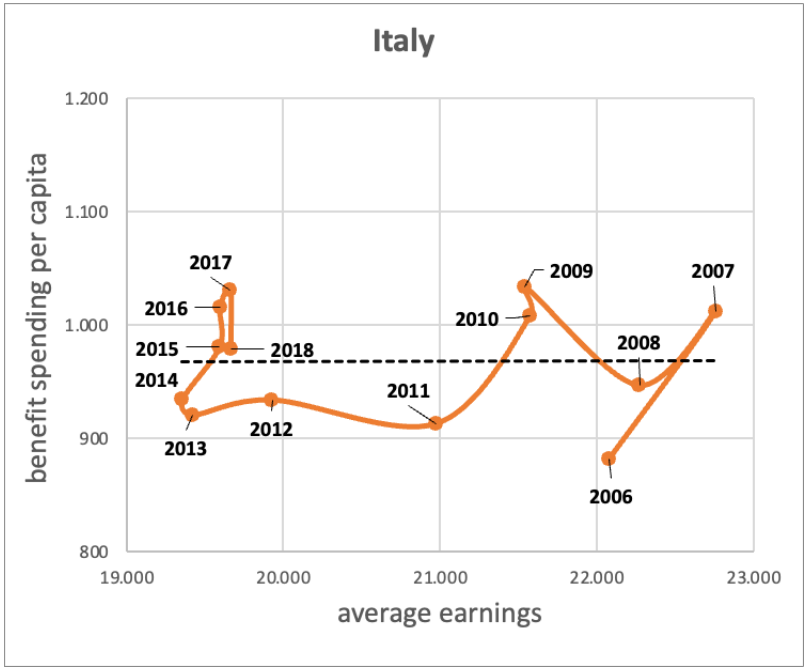
*<u>Interpretation</u>: In 2007-2012, welfare buffers were **counter-cyclical** (i.e. spending on welfare buffers went up as earnings went down). In 2013-2018 too, albeit in the opposite sense: as earnings recovered, welfare buffers decreased. In 2005-2007 and 2012-2013, they were **pro-cyclical** (i.e. both earnings and welfare buffers increased in the former period, and both decreased in the latter).*

Are welfare buffers counter- or pro-cyclical **in IT**?

Did spending on welfare buffers* in **Italy** evolve counter-cyclically wrt average earnings?

(Negative-sloping x-y line = counter-cyclical; positive-sloping x-y line = pro-cyclical)

** social benefits other than pensions and disability benefits*



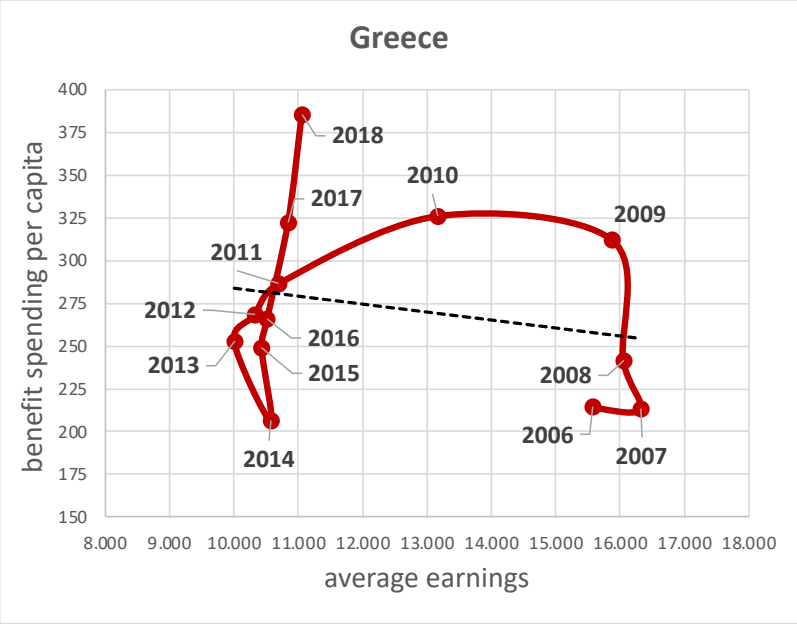
*<u>Interpretation</u>: In 2008-2009, welfare buffers were **counter-cyclical** (i.e. spending on welfare buffers went up as earnings went down). In 2009-2011, they were **pro-cyclical** (i.e. both earnings and welfare buffers decreased). In 2014-2017 too, albeit in the opposite sense: both earnings and welfare buffers increased.*

Are welfare buffers counter- or pro-cyclical in EL?

Did spending on welfare buffers* in **Greece** evolve counter-cyclically wrt average earnings?

(Negative-sloping x-y line = counter-cyclical; positive-sloping x-y line = pro-cyclical)

** social benefits other than pensions and disability benefits*



*<u>Interpretation</u>: In 2010-2013, welfare buffers were clearly **pro-cyclical** (i.e. both earnings and welfare buffers decreased). In 2015-2018 too, albeit in the opposite sense: both earnings and welfare buffers increased (the latter more than the former).*

- Research design
- Main findings
- Discussion

Main findings

- ✓ In all 4 Southern European countries (and the UK), a majority of the population suffering a large earnings loss were unable to rely on a compensating increase in welfare buffers. The coverage rate was higher for those at risk of poverty.
- ✓ The share of lost earnings compensated by an increase in welfare buffers (when that was the case) was low: from 16-18% in UK & EL, to 30-31% in DE & IT. Those in poverty were more likely to be better compensated.
- ✓ Taking in both compensated and non-compensated households suffering a large earnings loss, the share of lost earnings compensated by an increase in welfare buffers was woefully low: at best, 10-12% (FR, ES, DE); at worst, 2% (EL).
- ✓ At aggregate level, welfare buffers were often pro-cyclical, i.e. evolved in line with earnings, rather than moving in the opposite direction as advertised.
- ✓ Given the austerity of the 2010s, this was especially the case in Southern Europe.