



## Evaluating the distributive impact of VAT reforms in Spain

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### Motivations

- ✓ Tax and benefit reforms introduced in Spain since the financial and economic crisis include:
  - changes in direct taxes marginal rates and tax deduction structure
  - changes in transfer eligibility and new transfers for the poorest
  - changes in indirect taxes: general and reduced VAT rates increases in 2010 and 2012 and changes of specific items' VAT rates from super-reduced rates (4%) or reduced rates (10%) to the general rate (21%) in 2015.
- ✓ Little evidence on comprehensive effect of full tax-benefit policy reform including indirect taxes.

### What do we do?

- ✓ We measure **effects of tax-benefit policy changes** on household disposable income **before and after indirect tax payments** in Spain
- ✓ Using the ES module of EUROMOD we compare the *actual* 2011 tax and benefit system with the 2008 and 2012 tax-benefit systems
- ✓ We use the base 2008 and 2012 systems uprated/backrated by *CPI* inflation as counterfactuals
- ✓ We use a new feature of EUROMOD: the **Indirect Tax Tool (ITT)** - Decoster et al (2013) and Capèau, Decoster and Phillips (2014) – for simulating changes in indirect tax
- ✓ We **combine** EUROMOD **PET** and **ITT** results to measure direct and indirect tax and cash benefit changes simultaneously.

### Two steps analysis and key assumptions

**First step (PET):** identify direct tax and benefit policy effects on household disposable income before indirect tax:

- ✓ Compare 2008-2011 and 2011-2012 holding population characteristics and market incomes unchanged, thereby, isolating direct policy effects from other factors shaping the income distribution.
- ✓ Indexation used to adjust benchmark policies over time: prices.

**Second step (ITT):** isolate the impact of indirect tax reforms undertaken from 2008 by:

- ✓ Imputing hld expenditures based on "PET hld disposable income" and evaluating indirect tax changes
- ✓ No behavioural assumptions on demand price elasticity (i.e. Constant Quantities and/or Constant Shares assumptions)

### Data

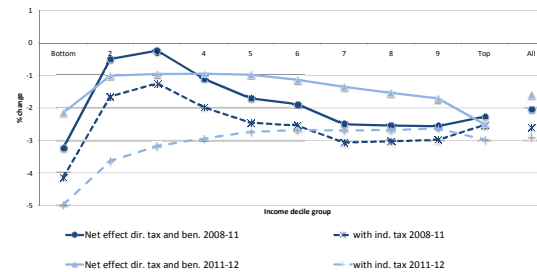
**Basic data:** EUSILC/EUROMOD (2012).

**Complementary data:** Spanish 2011 Household Budget Survey (HBS)

**Main variable of interest:** Household equivalized disposable income after VAT and excises payments; equivalence scale: OECD-modified.

**Observations excluded:** those with negative estimated expenditures

### Distributive impact in 2008-2011, 2011-2012



Notes: Deciles are based on equivalised household disposable income in 2011, with 2008 and 2012 policies in place, indexed by price indexes. Change is measured as a percentage of mean income in 2011. Source: Own simulations with EUROMOD.

### Main tax-benefit reforms 2008-2012

#### Indirect Taxes:

- ✓ 2010 and 2012: Increase reduced VAT rate from 7% to 8% to 10% respectively
- ✓ 2010 and 2012: Increase standard VAT rate from 16% to 18% to 21% respectively

#### Direct Taxes:

- ✓ 2010: capital income tax: introduction of two tax bands, 19% up to €6,000, 21% above; changed to 21% and 27% in 2012
- ✓ 2011:
  - Additional Income Tax (IT) brackets (Central Government) for tax payers over €120,000 (44%) and over €175,000 (45%) + various regions increased top tax rates to over 48% (i.e. Catalonia, Extremadura, Asturias, Andalucía)
  - Replacement of general with a means-tested tax credit in €400, only applicable in a progressive way to those below €12,000
- ✓ 2012: Increase in all tax rates (0.75 first bracket and progressively to 6 pp. for incomes over €175,000). Additional IT bracket for those over €300,000 (54%)

- ✓ Increase in minimum and maximum contributory bases
- ✓ Regions eliminated or scaled-down various tax credits

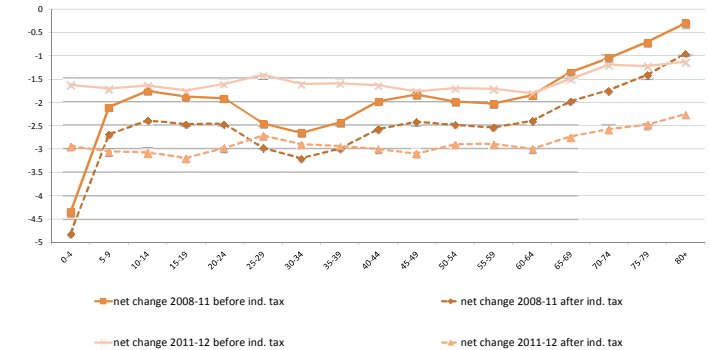
#### Cash benefits:

- ✓ Freeze cash benefits and pensions indexation from June 2010, pensions indexed by 1% in 2012
- ✓ Cut means-tested Child Benefit (June 2010)
- ✓ Elimination of universal Child Benefit at birth (January 2011)
- ✓ Cut long-term unemployed means-tested benefit, only available to 30-45 year-olds with dependants (Spring 2011)
- ✓ Regions eliminated or reformed (scale-down) various benefits

### For further information

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### Gainers and Losers by age groups



### Impact on poverty and inequality

	CPI indexation				
	Gini coefficient %	Median Income	Poverty Line	Floating Poverty rate	Anchored poverty rate*
2008	32.51	1040.98	624.59	22.18	21.54
2011	32.24	1022.69	613.61	21.88	21.88
2012	32.01	1012.62	607.57	21.79	22.20

\* Anchored poverty rate are calculated relative to 2011 poverty line

### Final remarks and further steps

The direct tax and benefit reforms in Spain were:

- progressive from 2008 to 2011 (from the 2<sup>nd</sup> decile) because of increases in direct tax affecting those in the top half most
- quite flat between 2011 and 2012 because of MT benefit cuts affecting those in the bottom half most.

However, controlling for VAT makes the policy reforms between 2011 and 2012 regressive with much larger negative effects for the bottom half.

There were gainers and losers within each income group. The biggest losers were (families with) children, while the smaller losers were the elderly.

Adding in indirect tax increases means larger losses for all age groups in a similar measure.

Tax-benefit policy changes 2008-2012 were inequality reducing (slightly). Thus 2008 system was less effective in reducing relative poverty than 2012 system. However, the anchored poverty line was rising faster than the value of policies which were falling far short of keeping pace with inflation, this makes the 2012 system less effective in reducing absolute poverty.