

# Retirement, participation rates and economic downturn in Italy: assessing the relationship through CAPP\_DYN

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Workshop

Tackling Pensions Challenges in Europe  
*Better policies through better modelling*

Bruxelles. 27 November 2013



EUROPEAN COMMISSION  
DG Employment, Social Affairs and Inclusion  
Europe 2020: Social Policies  
**Social Protection and Activation Systems**

CAPP  
Centro di Analisi delle Politiche Pubbliche

# December 2011 (Monti-Fornero) pension reform

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## Background:

- ▶ A (long) series of pension reforms, started during the '90s;
- ▶ Demographic transition;
- ▶ Financial instability.

## Goals of the reform:

- ▶ Increase the adequacy and financial sustainability of the pension system;
- ▶ Reduce inter-generational inequality by speeding-up the transition to the NDC.

## Key points of the reform:

- ▶ Significant and sudden rise in legal and anticipated retirement age;
- ▶ Tighten conditions for retirement based on the value of accrued pension benefits.

# Policy Questions

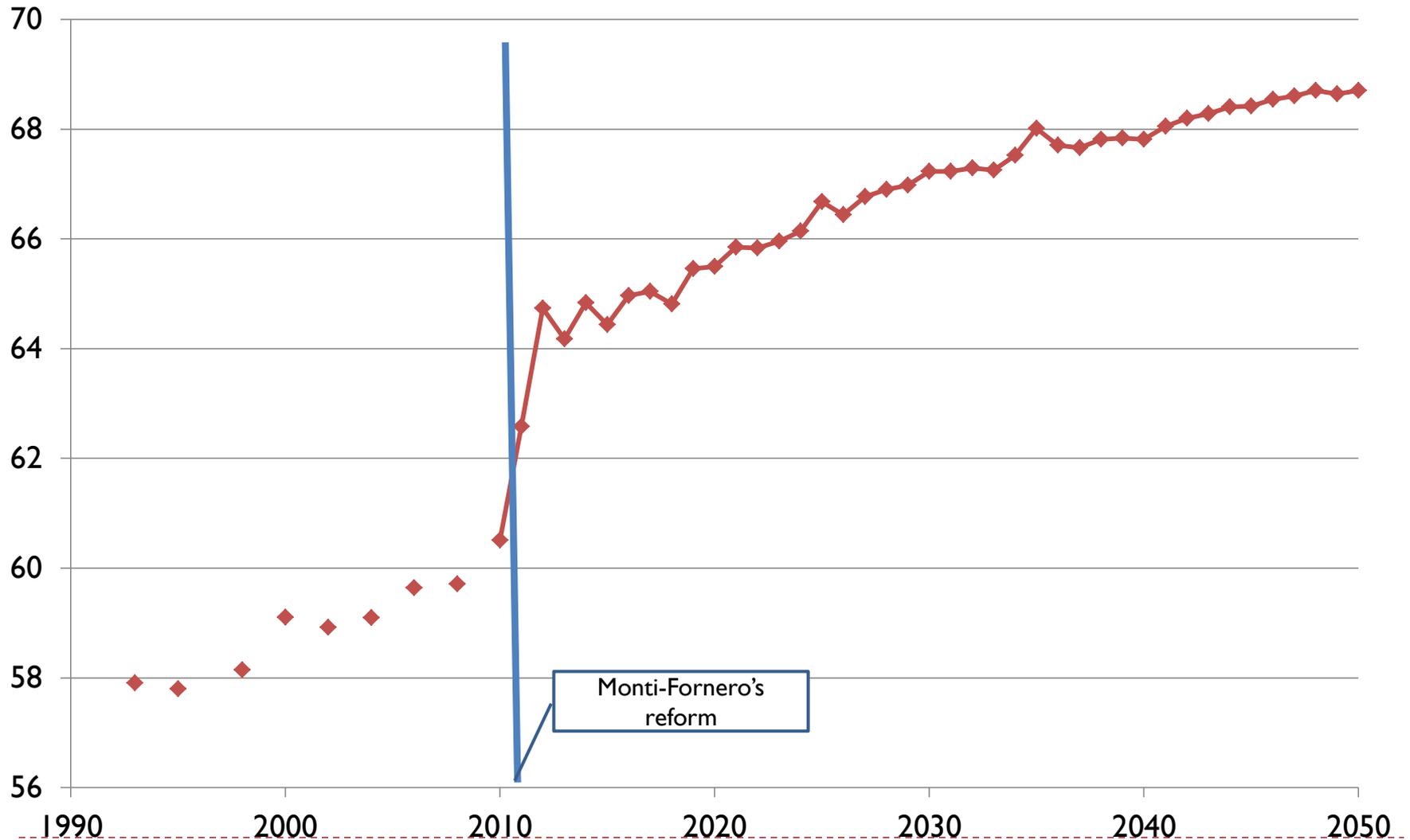
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- ▶ **How changes in the structure of the population and eligibility criteria for retirement translate into changes in labour market participation and finally on pension benefits?**
- ▶ **Under which conditions (in the labour market) the policy goals could be achieved?**
- ▶ **How a prolonged economic downturn would impact on pension income adequacy ?**

**We make projections using a population-based dynamic microsimulation model (CAPP\_DYN)**



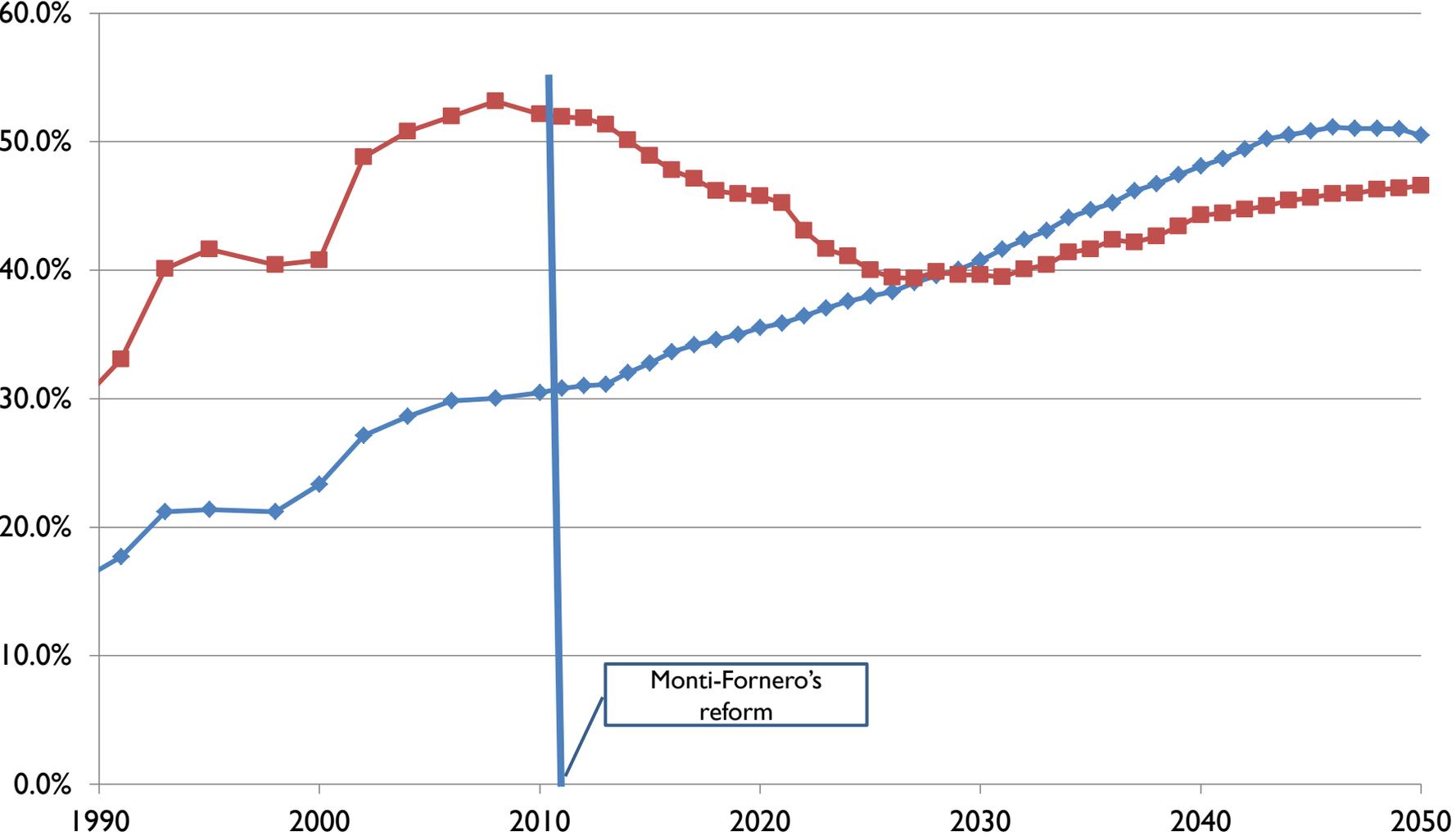
# Historical and projected average retirement age for the flow of new pensioners. 1993 - 2050



► Sources: Historical data based on own elaboration of SHIW data; Projections obtained through CAPP\_DYN. Econometric estimates of the individual's labour force participation at the intensive/extensive margins based on Italian LFS data 1993-2010.

# Dependency ratio and ratio between pensioners and workers. 1980 - 2050

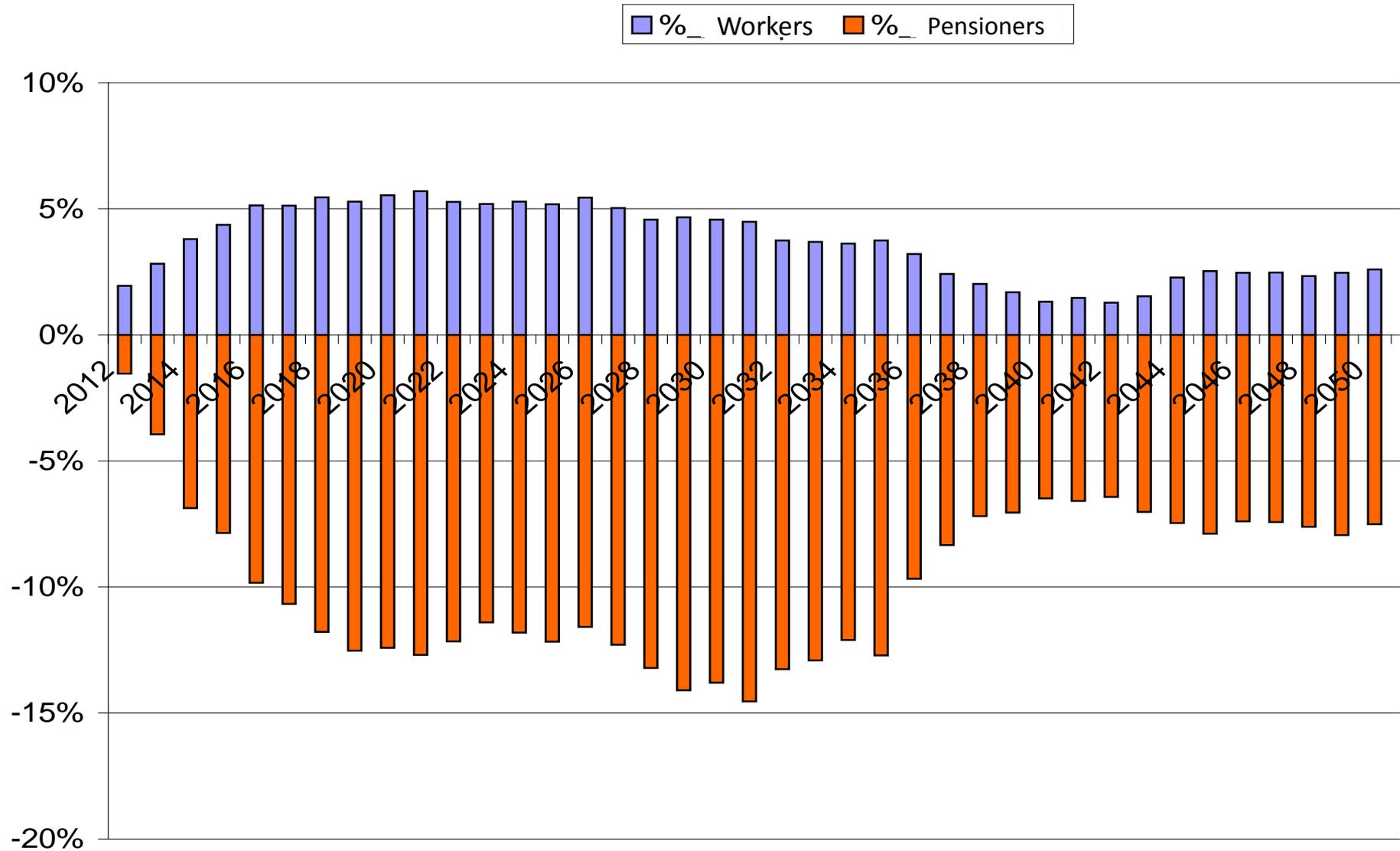
◆ Dependency ratio    ■ Pensioners / Employed



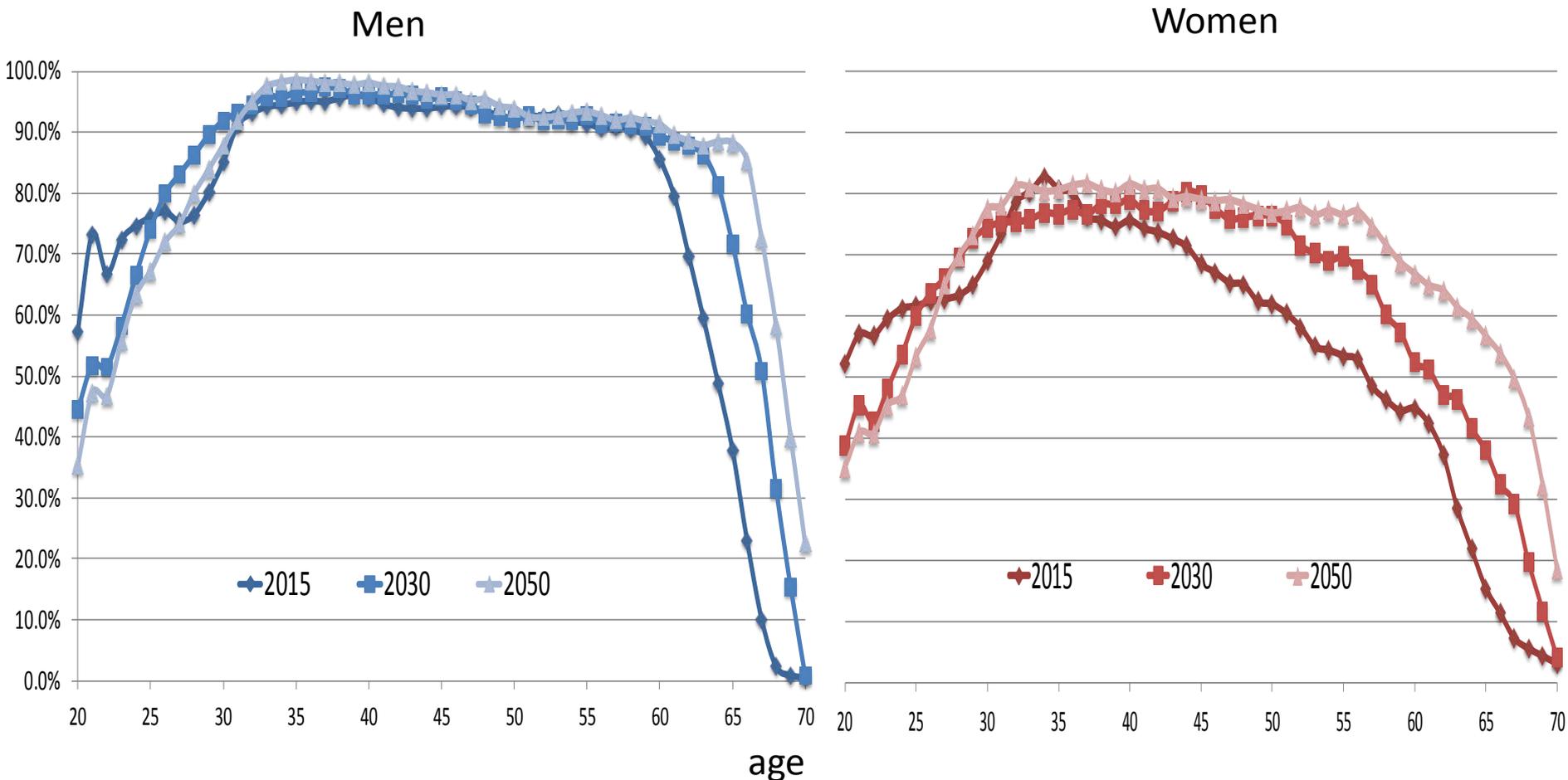
Monti-Fornero's reform

► Sources: Historical data based on own elaboration of SHIW data; Projections obtained through CAPP\_DYN.

# % changes in the number of employed and retired people after the 2011 reform



# Labour market participation rate by age and gender 2015, 2030 and 2050



Sources: Projections obtained through CAPP\_DYN.

Gender-specific econometric estimates of the individual's labour force participation at the intensive/extensive margins based on Italian LFS data 1993-2010. Estimated parameters used in simulating probability of being in the labour market and (conditional on participation) the intensity of participation at each simulated year (projections). Controlling characteristics: polynomial of age, education, marital status, experience, area of residence, immigrant status, etc.

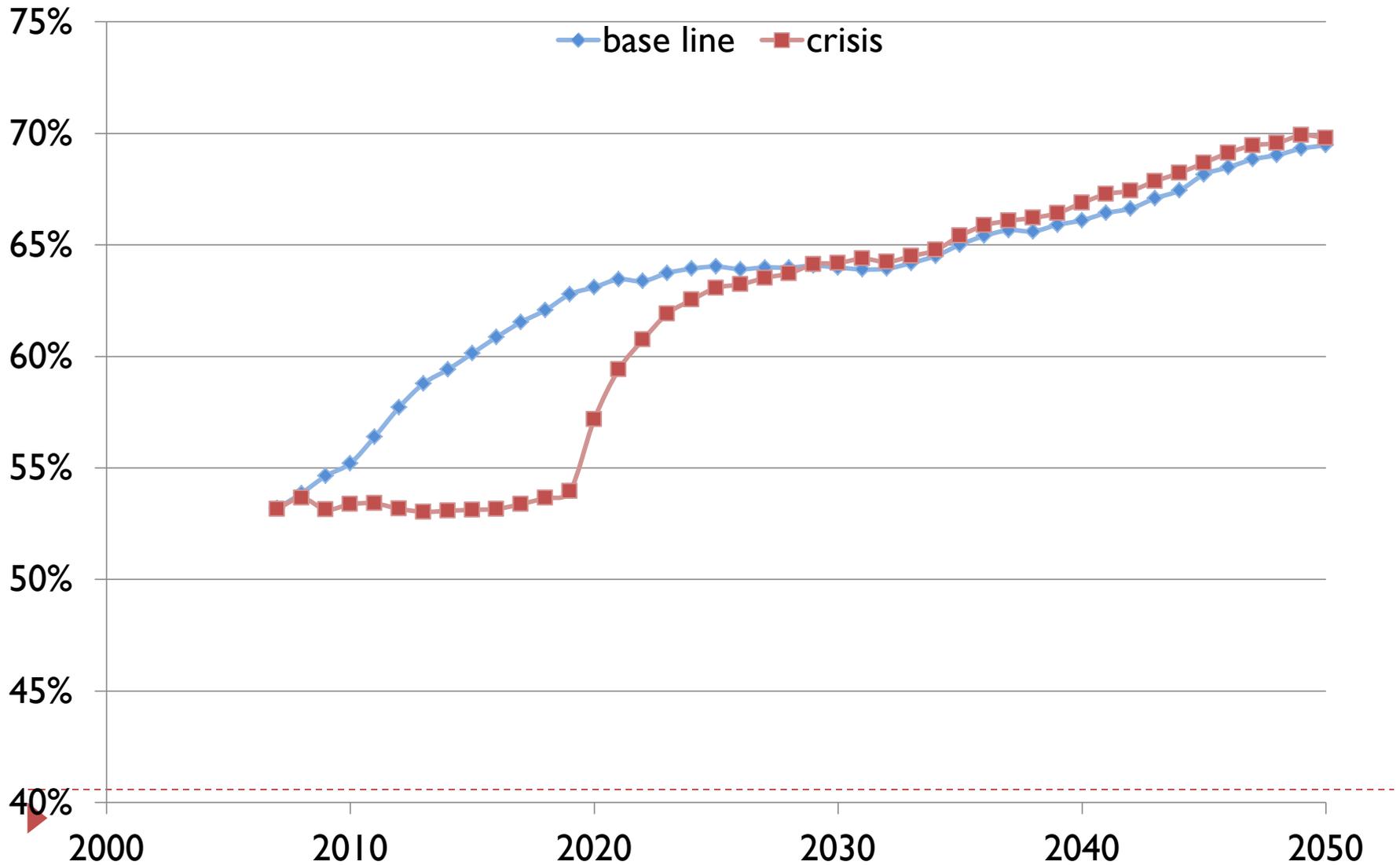
## Projected changes in the composition of the labour force and pensioners

years	2012	2025	2035	2050
<b>LABOUR FORCE COMPOSITION</b>				
<b>average age</b>	41.2	43.4	44.3	44.5
<b>by age classes</b>				
<i>18-35 years</i>	33.1%	30.8%	28.7%	28.6%
<i>36-55 years</i>	54.8%	47.9%	47.1%	46.6%
<i>56-70 years</i>	12.0%	21.3%	24.2%	24.8%
<b>% of women</b>	42.6%	43.3%	44.7%	45.4%
<b>% high educated</b>	16.9%	18.7%	19.6%	23.2%
<b>% net migration</b>	9.6%	16.8%	22.1%	25.6%
<b>PENSIONERS COMPOSITION</b>				
<b>average age</b>	72.6	77.0	77.7	79.1
<b>by age classes</b>				
<i>less than 70 years</i>	43.9%	24.0%	19.4%	11.5%
<i>between 71 and 80</i>	38.7%	44.1%	47.9%	48.8%
<i>81 and more</i>	17.4%	31.9%	32.7%	39.8%
<b>% women</b>	44.9%	45.0%	46.4%	51.1%
<b>% net migration</b>	0.7%	1.8%	3.3%	9.1%



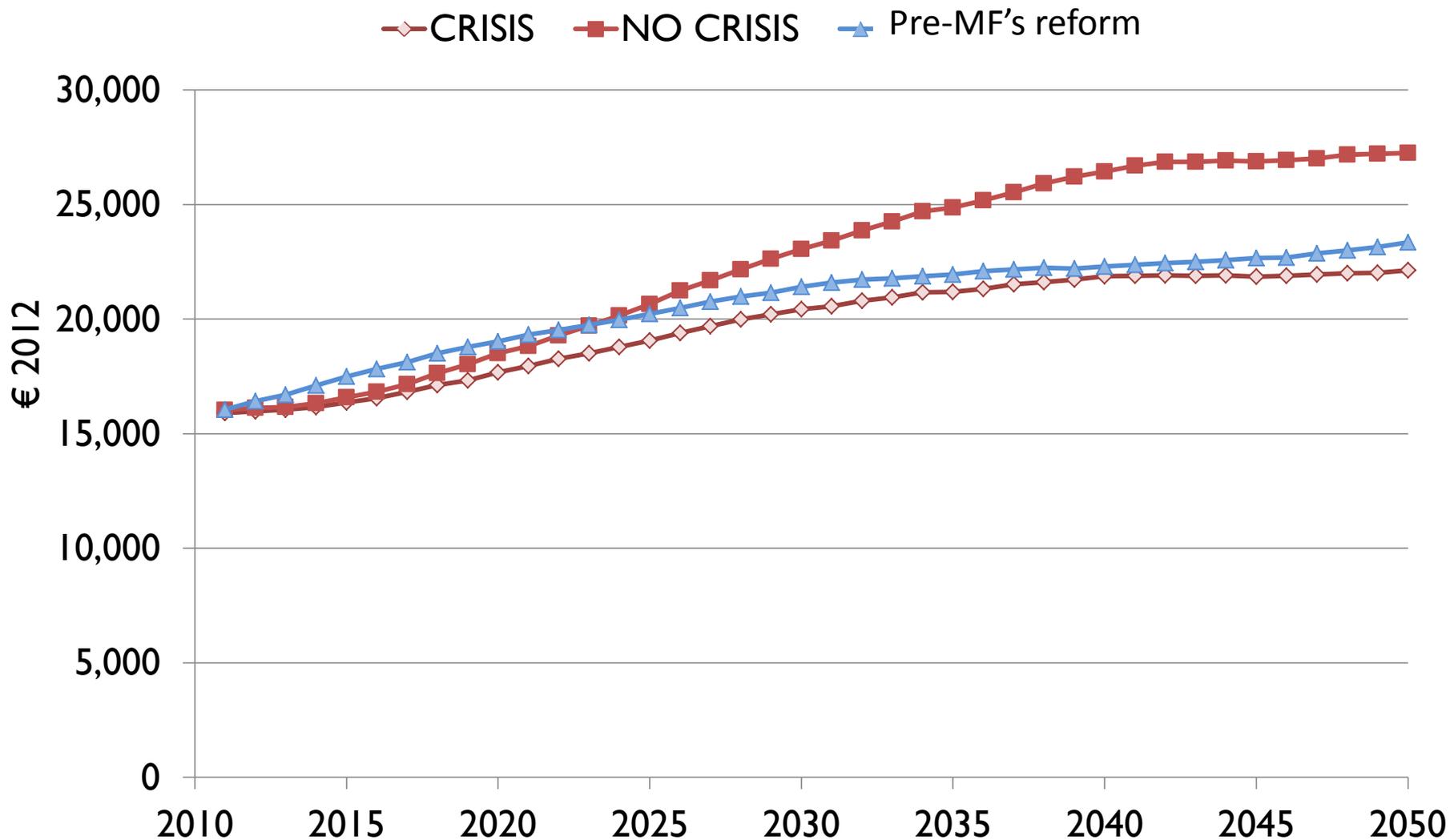
# Sensitivity analysis:

## The effect of the economic crisis on employment rate



# Sensitivity analysis:

## Average pension benefits post MF's reform (with and without *crisis*) and pre-reform



# Discussion

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Significant changes in the labour force level and composition caused by:

- ▶ Demographic transition;
- ▶ Cohort effects (already in force and observed in the past 20 years);
- ▶ Reforms in the pension system;
- ▶ Economic downturn (and its effects on GDP growth and employment).

Open questions for future analyses:

- ▶ With such strong cohort trends + policy reforms how the labour market would “adjust” itself?
  - ▶ Changes in the relative wages between:
    - younger and mature workers;
    - gender;
    - Immigrants vs. natives;
- ▶ How accounting the consequences of the ageing of a population on productivity?
- ▶ How drawing a post-crisis scenario to assess the adequacy of future pensions?

# References

(webpage: [http://www.capp.unimore.it/strumenti/CAPP\\_DYNen.html](http://www.capp.unimore.it/strumenti/CAPP_DYNen.html))

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## On technicalities of the Dynamic Microsimulation Model:

- ▶ Mazzaferro, C. and M. Morciano (2012 revised version), *CAPP\_DYN: A Dynamic Microsimulation Model for the Italian Social Security System*, Center for the Analysis of Public Policies (CAPP) no.48.

Available at: <[http://www.capp.unimore.it/pubbl/cappapers/Capp\\_p48.pdf](http://www.capp.unimore.it/pubbl/cappapers/Capp_p48.pdf)>

## Recent peer-reviewed publications:

- ▶ Marano A., Mazzaferro C. and Morciano M. (2012), 'The strengths and failures of incentive mechanisms in notional defined contribution pension systems'. *Il Giornale degli Economisti e Annali di Economia*, **71 (1)** 33-70;
- ▶ Mazzaferro C., Morciano M. and Savegnago M. (2012), 'Differential mortality and redistribution in the Italian notional defined contribution system'. *Journal of Pension Economics and Finance*, **11 (4)**, 500-530;
- ▶ Mazzaferro C. and Morciano M. (2012), 'Pensioni pubbliche: l'ultima riforma?'. In Zanardi A. (ed.) *La finanza pubblica italiana. Rapporto 2012*. Il Mulino, Bologna. ISBN 978-88-15-23834-4;
- ▶ Mazzaferro C., Marano A. and Morciano M. (2012), 'Le criticità della riforma pensionistica "Monti-Fornero". Una prima valutazione mediante un modello di microsimulazione'. *Economia & Lavoro*, 3/2012
- ▶ Mazzaferro C. and Morciano M. (2012), Atypical workers and the adequacy of the pension system. In Mandrone E. (ed.), *Labour Economics: PLUS Empirical Studies*, Ediguida, Rome. ISBN 978-88-543-0080-4;
- ▶ Mazzaferro C. and Morciano M. (2011), 'Measuring intra-generational and inter-generational redistribution in the reformed Italian social security system', MEF working paper 11-2011, Department of the Treasury, Ministry of Economy and Finance, Rome.

## See also:

- ▶ PROGRESS (2011), Assessing adequacy and long term distributive effects of the Italian pension system. A microsimulation approach. Available at <http://capp.unimore.it/progressEN.html>