IRPET Istituto Regionale Programmazione Economica della Toscana

The effects of the two most recent Italian pension reforms on financial and social sustainability in the medium-long run

2019 - IMA 7th World Congress, Galway June 19-21

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Aims of the work

- In Italy, given the ageing of population and public finance constraints, since the ‘90s the pension system has always been subjected to relevant reforms.

- Recently, the Italian pension system was changed with two important reforms, with opposite objectives:
  - **In 2011 → law 214/2011 (so called Fornero reform)**
  - **In 2019 → decreto legge 4/2019 (so called “quota 100” reform)**

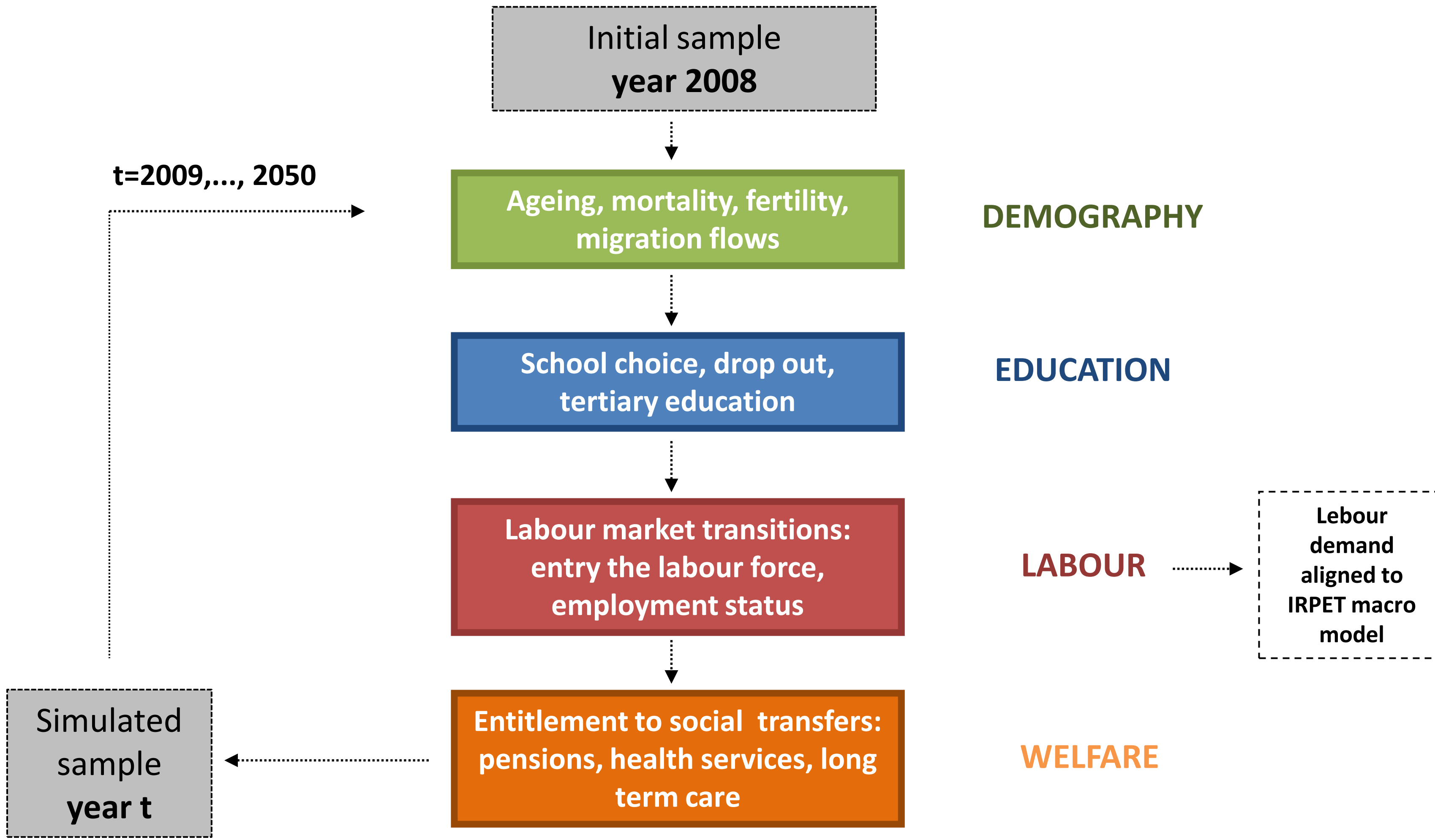
- The objective of this work is to evaluate their effects in terms of **financial sustainability, inter-generational and intra-generational equity** by using a dynamic microsimulation model, IrpetDin.

- **Outline of the presentation:**
  - Brief description of IrpetDin
  - The long implementation of pre-2011 reforms: some evidence
  - The effects of law 214/2011
  - The effects of decreto legge 4/2019

IrpetDin: general features

- **Population based:** ageing and adjustment of a cross sectional sample of the entire population
- **Database:** EUSILC (European Union Statistics on Income and Living Conditions) 2008 - EUROSTAT
- **Closed model:** except newly born children and migrants, the model only uses a fixed set of individuals
- **Dynamic ageing:** produces a longitudinal database of histories of each individual in each period of the simulation
- **Probabilistic:** transitions among states through probabilistic methodologies → Monte Carlo technique
- **Discrete time:** transition and updating for each year
- **Simulation period:** 2009-2050
- **Territorial coverage:** Italy and Region of Tuscany
- **Software environment**: SAS

Sequence of modules



The most important Italian pension reforms made before 2011

- **1993 "Amato" reform**: increase in retirement age + modification of criteria for determining the pension amount + modification of indexation to wage changes
- **1995 "Dini" reform:** substitution of the **Defined Benefit (DB)** with a **Notional Defined Contribution (NDC) plan**
- **1997 "Prodi" reform** : increase in the requirements for seniority pensions
- **2004 "Maroni" reform**: further increase in retirement age
- **2007 "Prodi" reform:** correction trough the so called “steps"
- **2010 "Sacconi" reform:** increase in retirement age and link to gains in life expectancy

The so called "Dini" reform, 1995

Method of calculation of the pension amount by plan

- **DB plan**: average work pay (of the last 10/15/5 work years by type of worker/period) x rate of return x number of years of contributions
- **NDC plan:** accumulated contributions amounts revalued by a capitalization rate x a transformation coefficient increasing with age

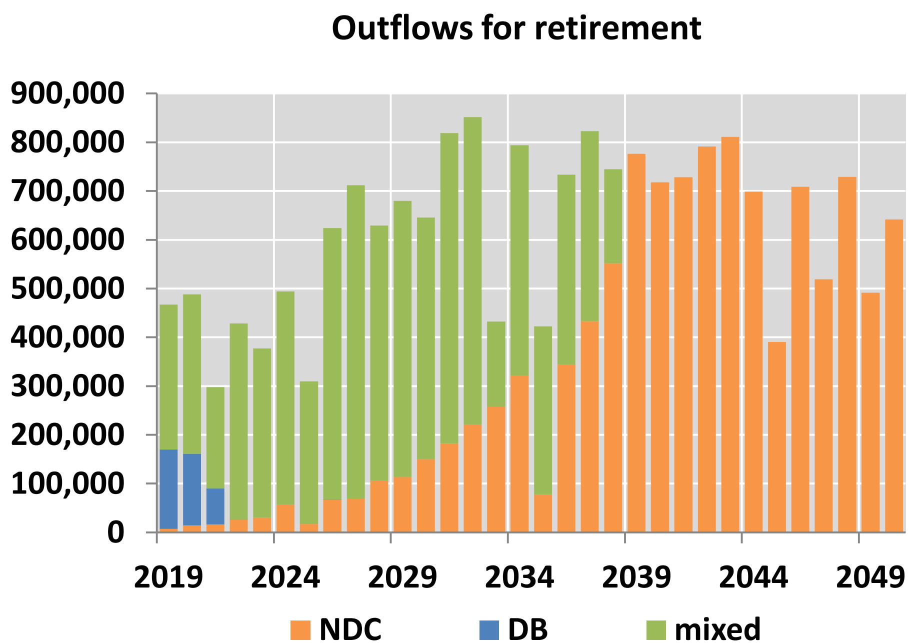
Actual type of plan

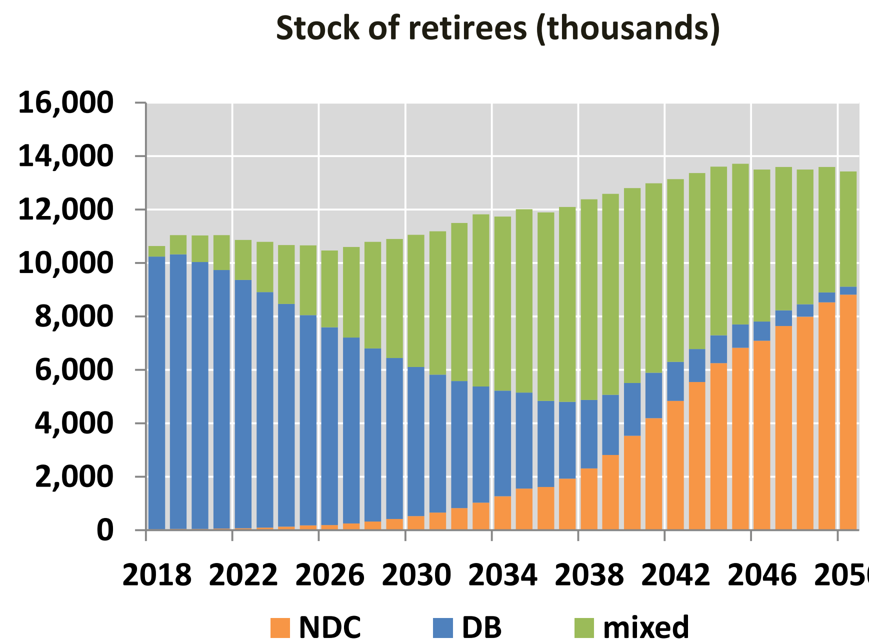
- **DB plan:** workers with more than 18 years of contributions in 1995
- **Mixed plan:** workers with contributions between 1 and 18 years in 1995
- **NDC plan:** workers who started working after 1995

Pension amount by actual type of plan

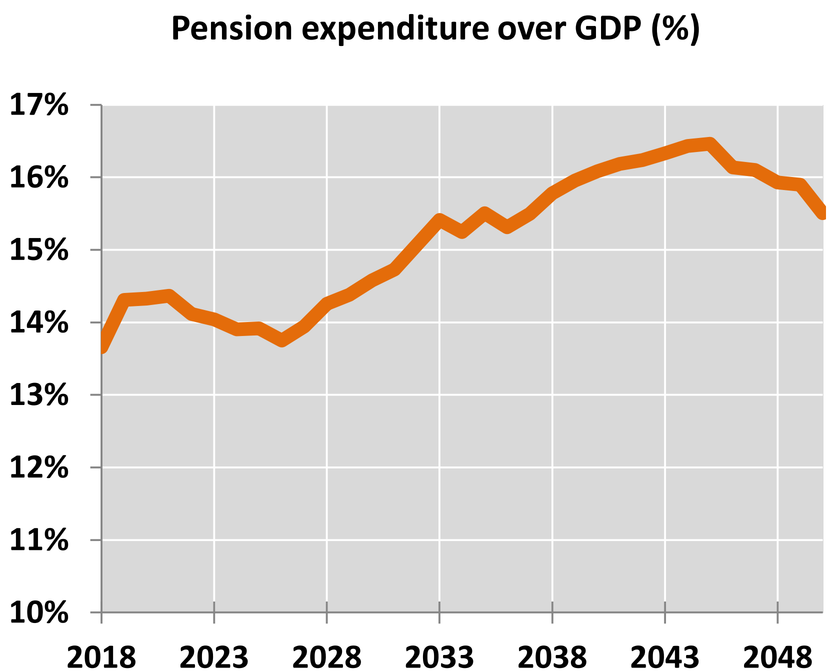
- **DB plan :** full DB
- **Mixed plan :** DB for years before 1995 + NDC for years after 1995
- **NDC plan :** full NDC

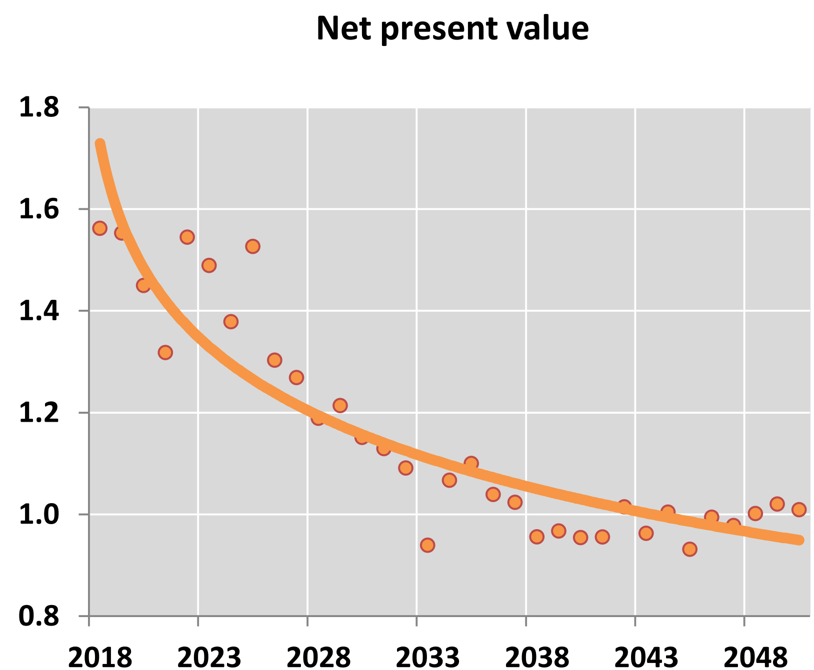
Pensions: flows and stocks by plan



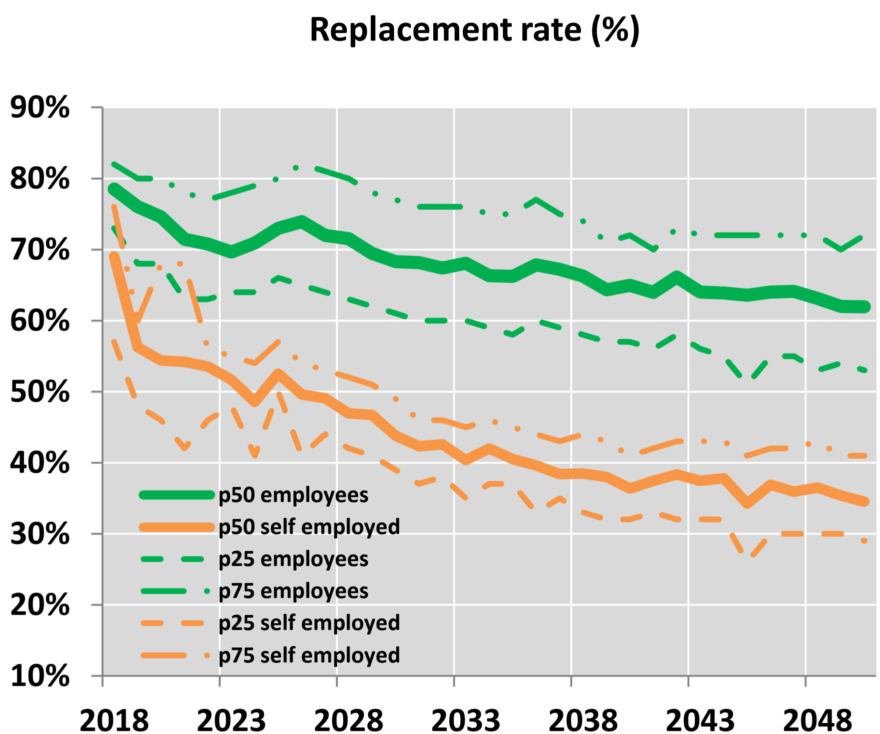


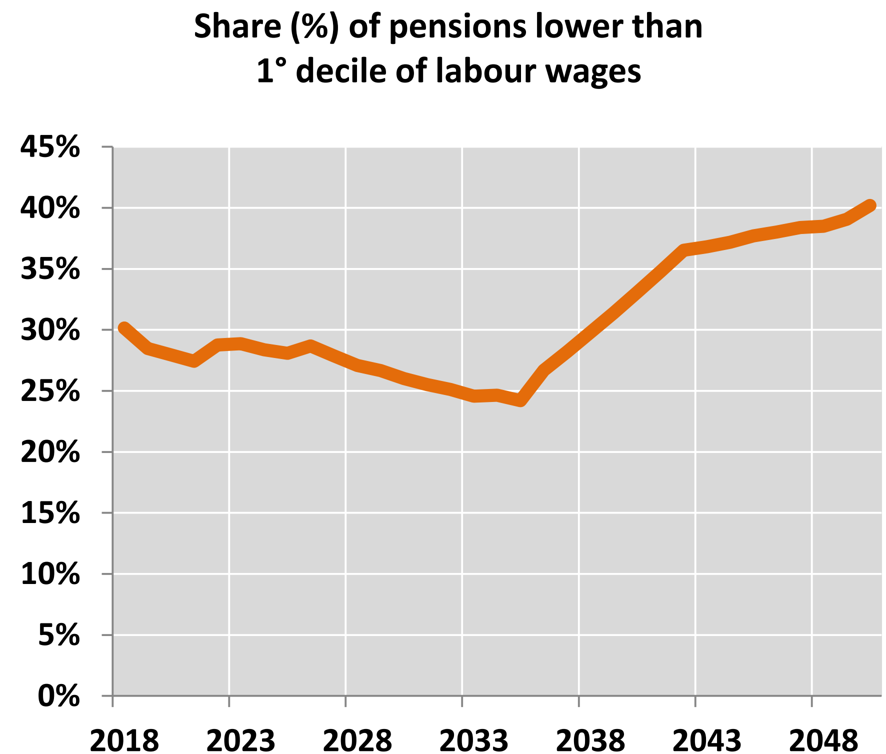
Financial sustainability and inter-generational equity





Intra-generational equity





Law 214/2011 (so called Fornero Reform)

- **Strong further increase in retirement requirements** (for old age and seniority pensions)

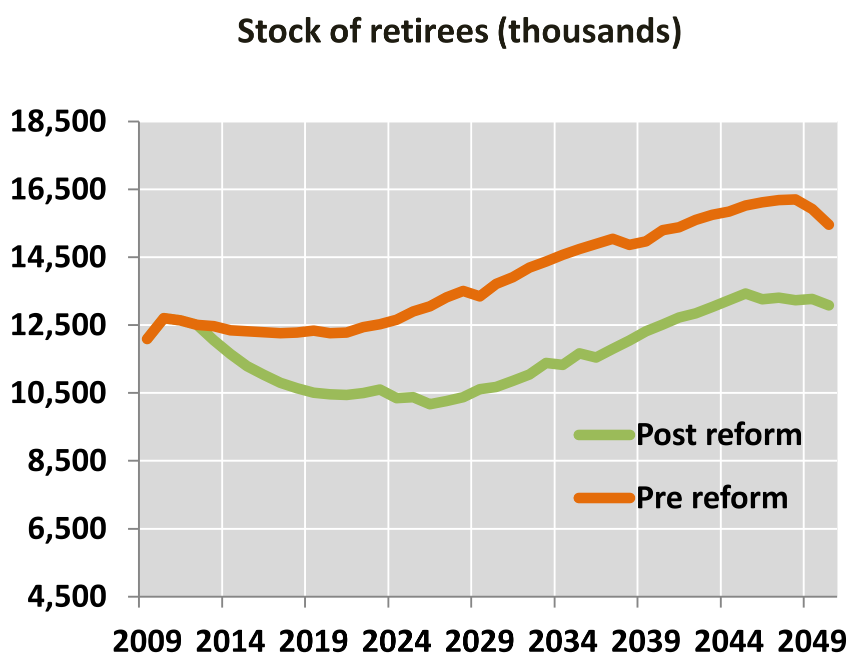
- **Retirement requirements** (and transformation coefficients) **linked automatically to** earnings on **life expectations**

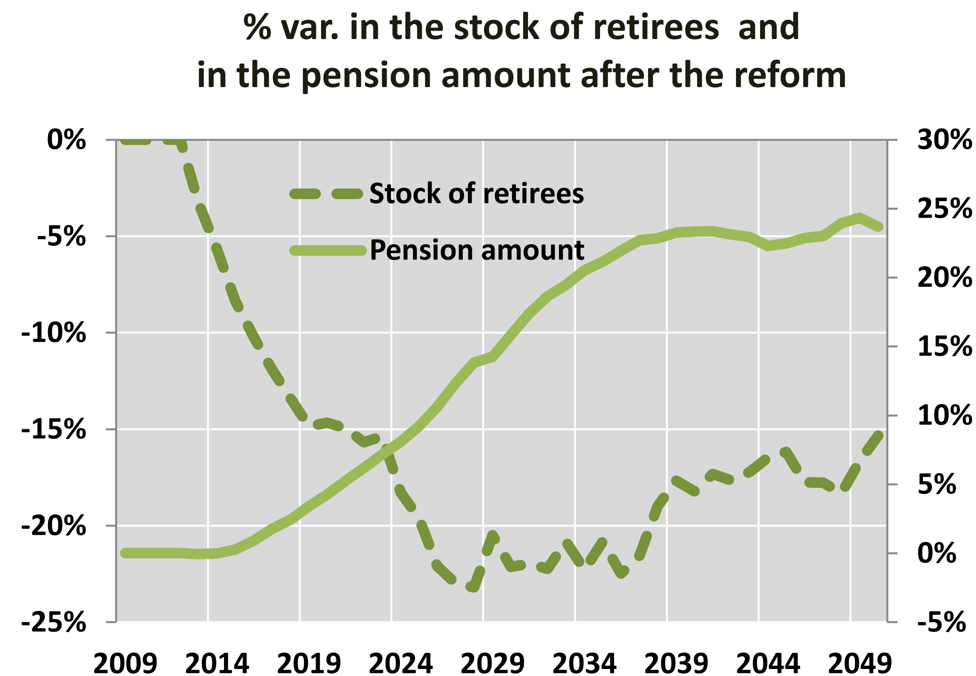
- Ability to exit early if the pension amount exceeds certain thresholds

- **Partial application of NDC** for workers with more than 18 years of contributions in 1995 (for years after 2011)

- The reform is evaluated by comparing two simulations with different pension rules in the welfare block of IrpetDin:
    - **Post reform simulation:** rules after 214/2011
    - **Pre reform simulation:** rules before 214/2011

The effects of the Law 214/2011 (so called Fornero Reform)





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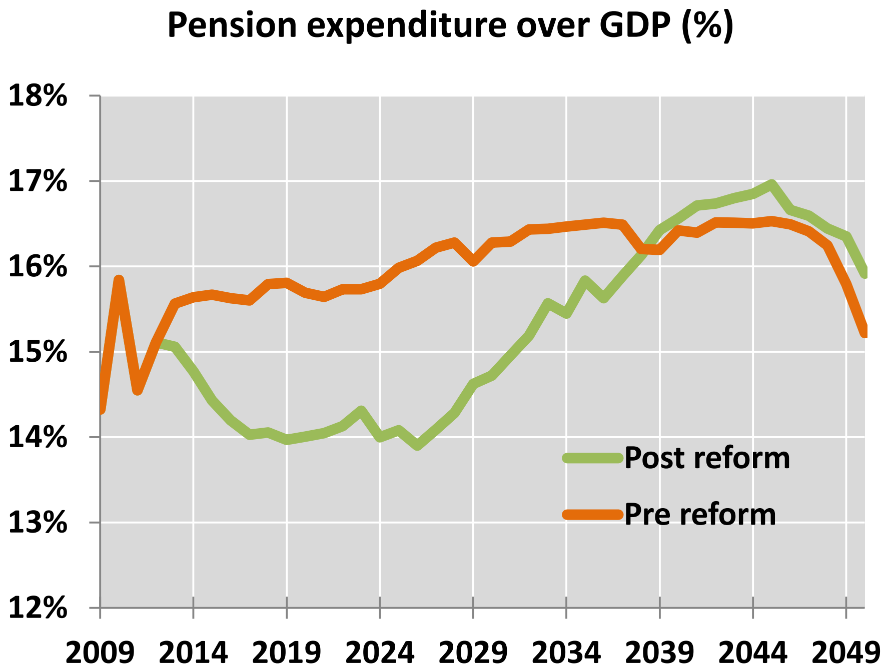
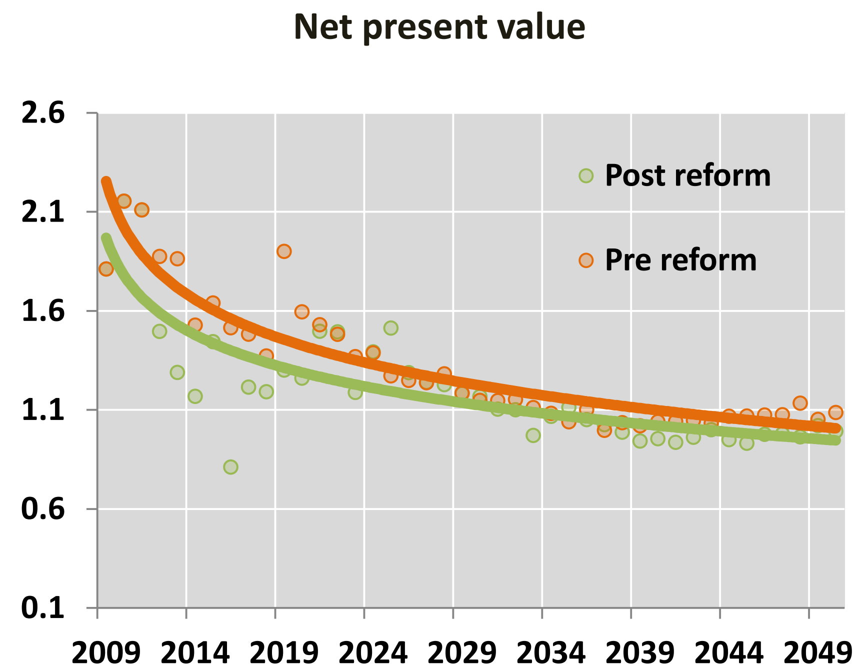




Anno	Average % var. expenditure on GDP	Average var. expenditure (billion euro)
2012-2020	-1.4%	-24
2021-2030	-1.8%	-26
2031-2040	-0.6%	-29
2041-2050	0.3%	-30

Decreto legge 4/2019 (so called "quota 100" reform)

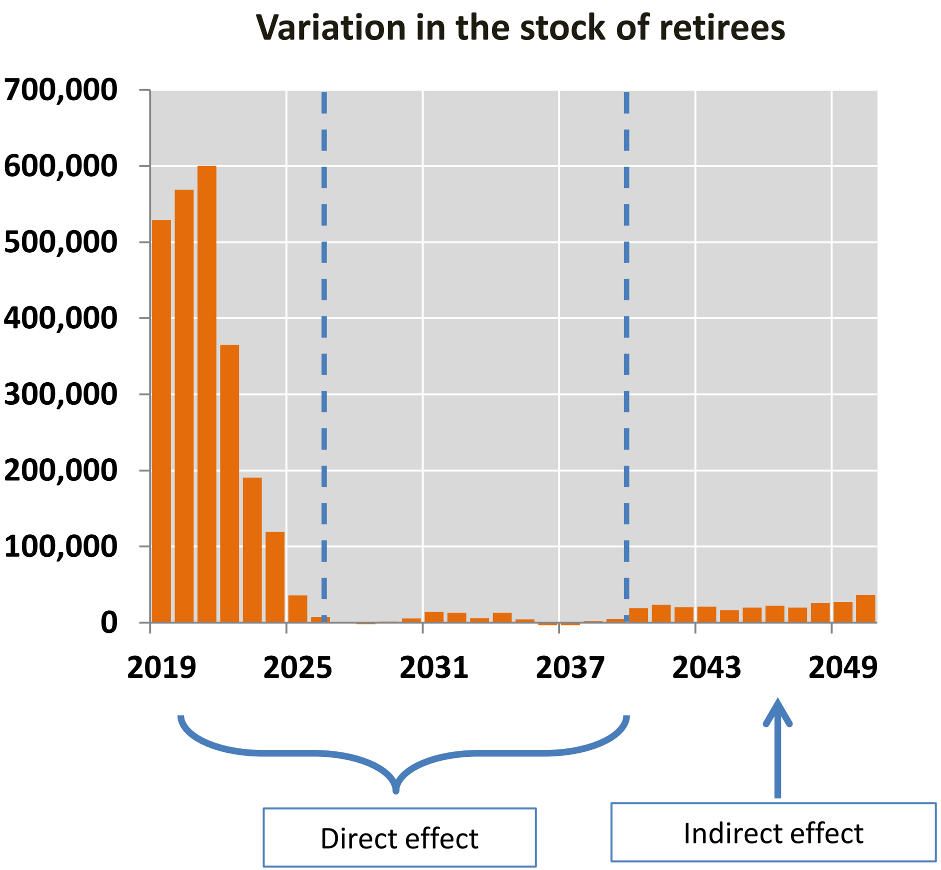
1. **Only for three years, from 2019 to 2021, possibility to retire in advance respect to legal requirements** with at least 62 years old and 38 years of seniority contributions "temporary possibility to retire in advance"

2. **Interruption until 2026 of the link to life expectancy of retirement requirements for seniority pensions** "break in the link to life expectancy"

- The reform is evaluated by comparing three simulations with different pension rules in the welfare block of IrpetDin:
  - **Pre reform simulation:** rules after 214/2011
  - **Post reform simulation:** rules after decreto 4/2019 (only "temporary possibility to retire in advance")

  - **Pre reform simulation:** rules after 214/2011
  - **Post reform simulation:** rules after decreto 4/2019 ("temporary possibility to retire in advance" + "break in the link to life expectancy") → full reform

The effects of the temporary possibility to retire in advance (decreto 4/2019)



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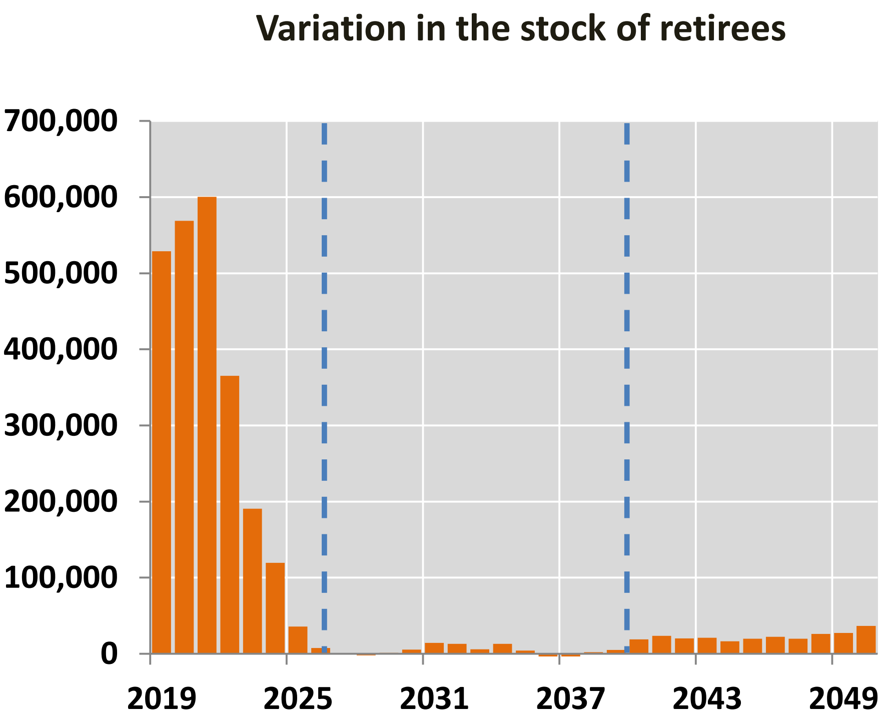

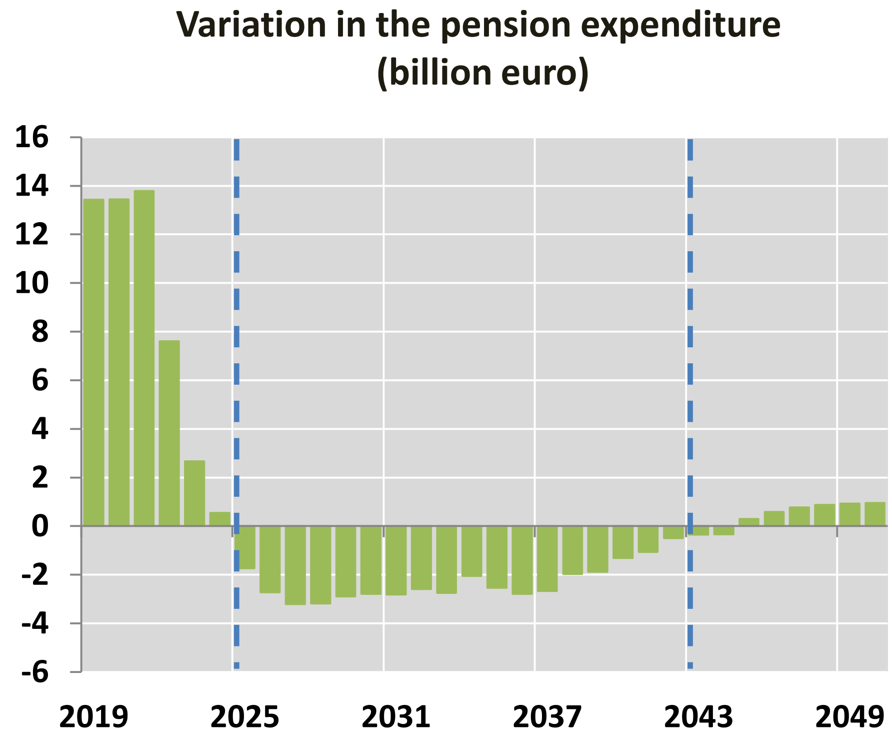

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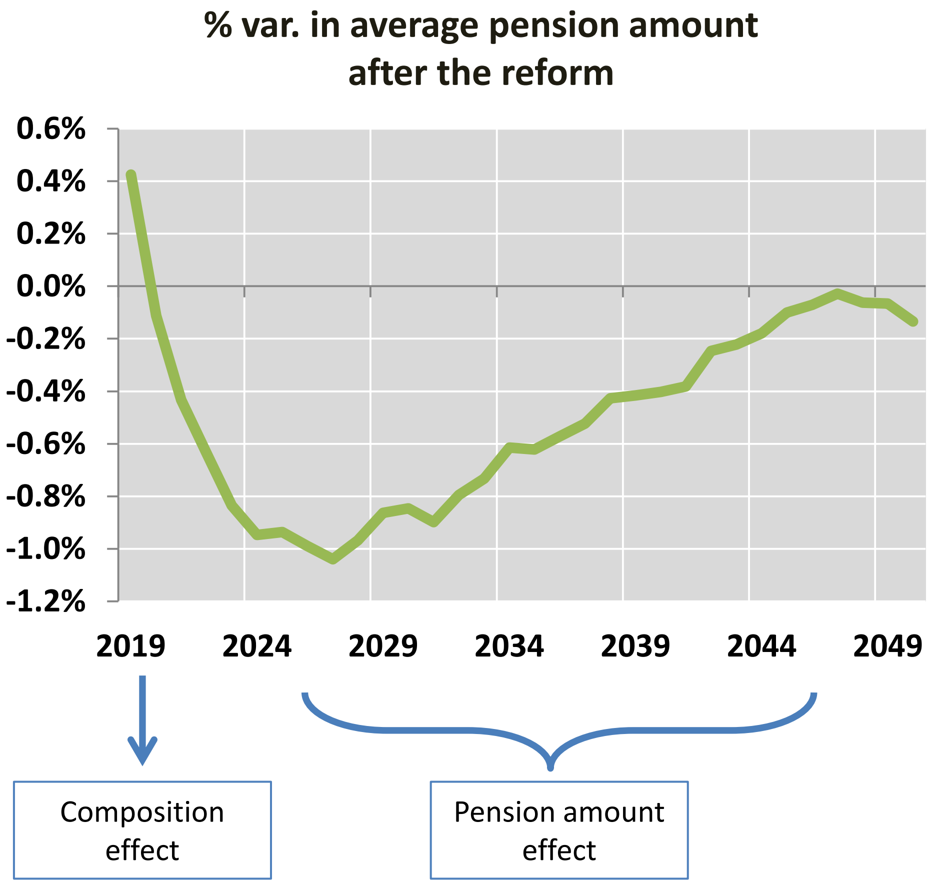
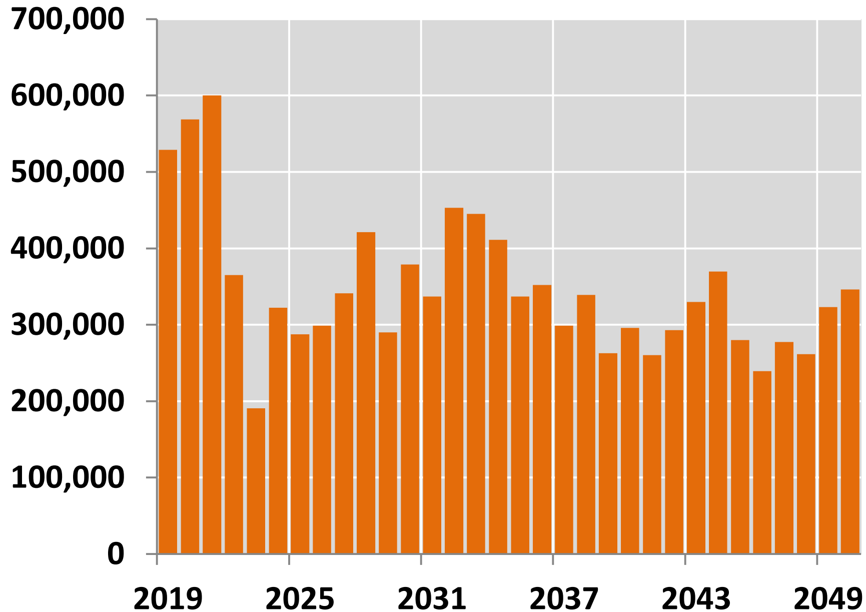


Change in characteristics of stock of retirees after the reform

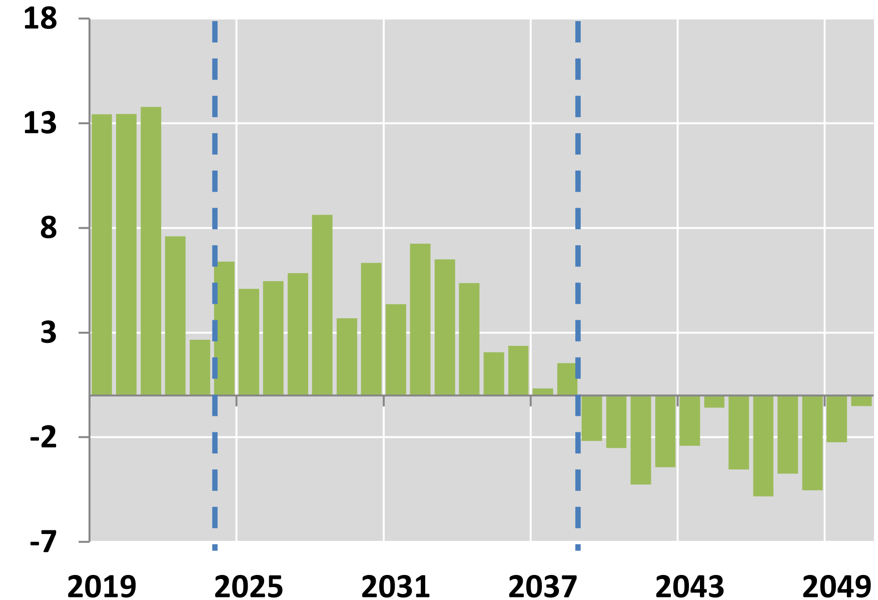
	Var. in average education (%)	Var. share of male (p.p.)
2019-2024	1,0	0,452
2025-2050	0,0	0,033

The overall effects of decreto 4/2019

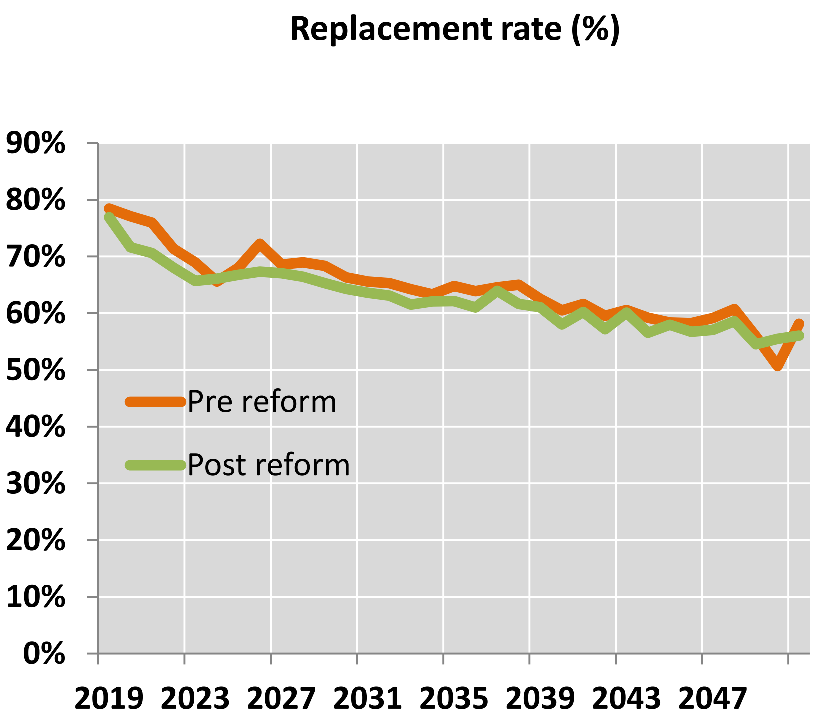
Variation in the stock of retirees

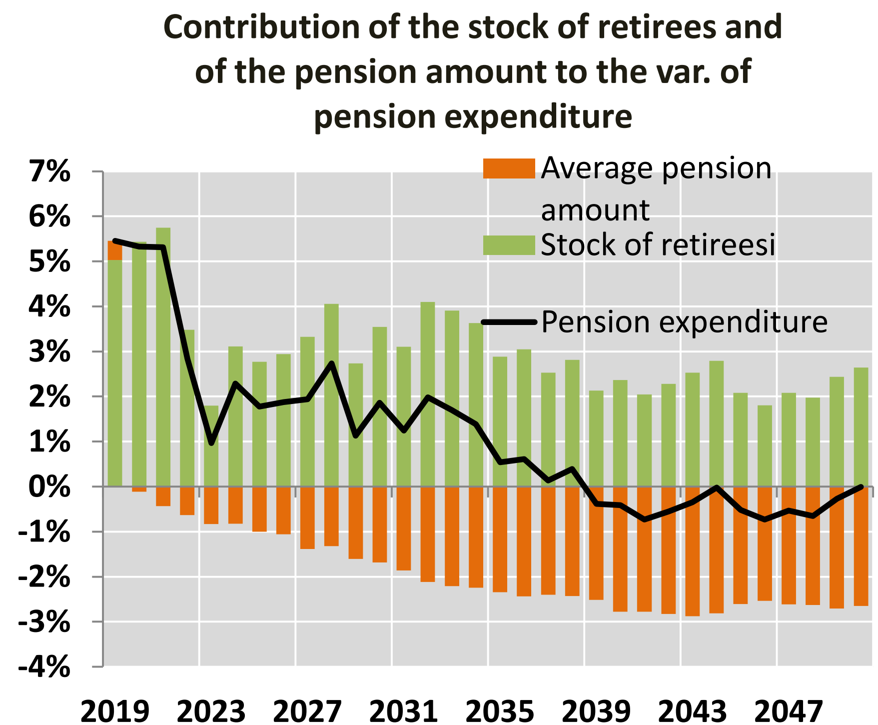


Variation in the pension expenditure (billion euro)

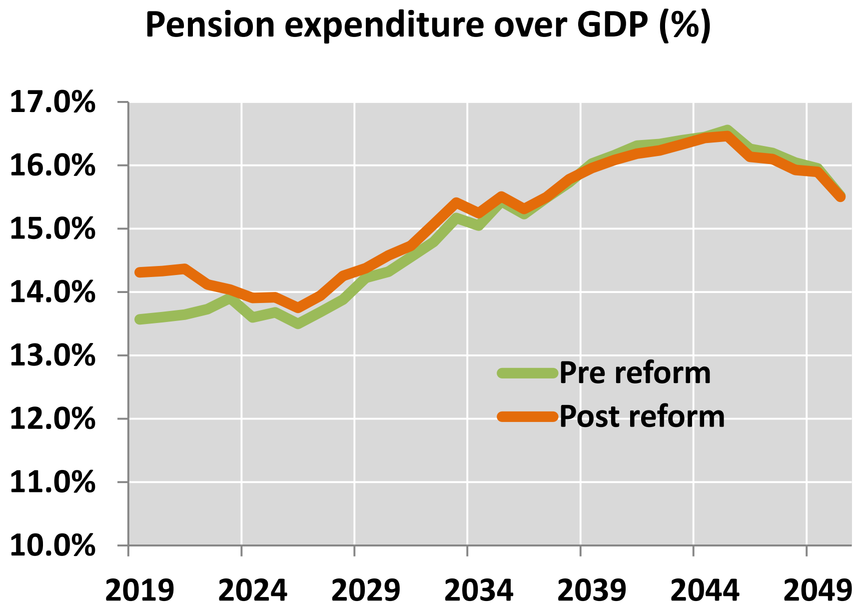


The overall effects of decreto 4/2019

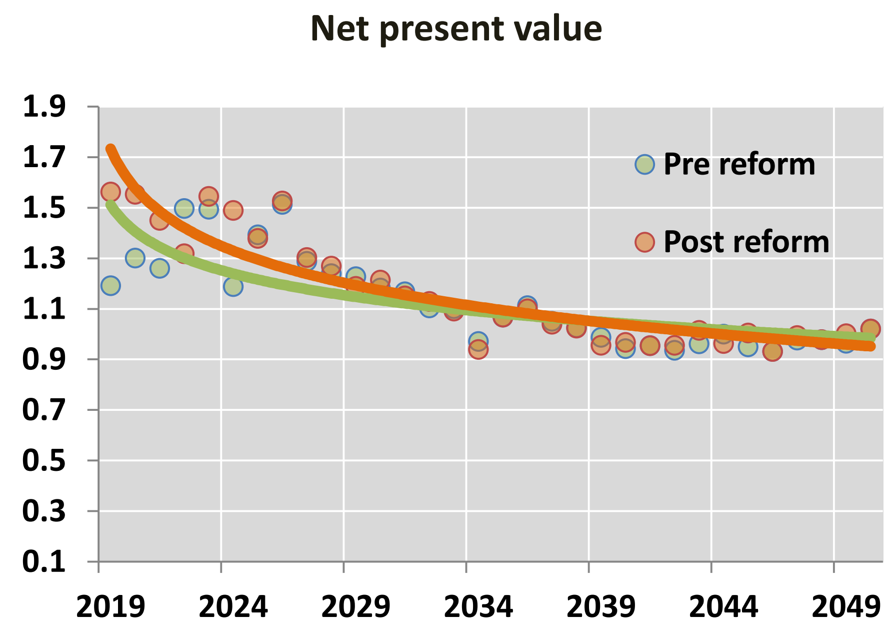




The overall effects of decreto 4/2019



Anno	Average % var. expenditure on GDP	Average var. expenditure (billion euro)
2019-2025	0.5%	9
2026-2037	0.2%	5
2038-2050	-0.1%	-3



Conclusions

- The most important Italian pension reform -from DB to NDC- made in 1995 has been post-poned in time until 2050.
  - In the very long run, it will make the pension system financial sustainable and fair between generations.
  - But, it will create a problem of poverty among retirees → Which role of social assistance for old-people? What about private pensions?

- The effects of the two most recent Italian pension reforms depend on the reform made in 1995 (effects are different in the short-medium and in the long term) and they have opposite signs.

- The so called “Fornero” reform:
  - strongly increases financial sustanability by, not gradually, postponing the retirement of a large number of workers;
  - increases inter-generational equity in the short-medium run;
  - increases pension amounts and, in this way, decreases intra-generational equity in the long run.

- The so called “quota 100” reform:
  - decreseas financial sustanability but it does not counterbalance the Fornero reform;
  - decreases inter-generational equity in the short-medium run but it is neutral in the long run when NDC plan starts to prevail → by guaranteeing flexibility to retire.

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Thank you for your attention