PENSION PROJECTIONS IN ITALY
experience and current issues

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The Italian context on pensions

2008: pension projections (PPs) are introduced for members of private, funded supplementary pension schemes

2015->: the Italian social security agency (INPS) launches a service offering PPs to members of the main public, PAYG pension schemes

2016: in the EU, the IORP 2 Directive introduces rules for PPs at European level (to be implemented by January 2019)

Current issues in Italy regarding PPs

Take-aways from the Italian experience
The Italian context on pensions

- Universal coverage of mandatory pension schemes – mostly public and PAYG
  - a large PAYG, mandatory system covers most workers; transformed in NDC in mid’90s – with a long transition
  - contributions are 33% of salary
  - public expenditure for pensions is around 16% of GDP
  - substitution ratio (pension/last salary) lower than for current retirees, but still around 70% for «full» careers (net of taxes)

- Private, funded pension plans for all workers introduced from mid/end-90’s
  - voluntary membership; significant tax allowances are in place (but system is still «ETT» - or rather «ETt»)
  - main source of contributions is the severance pay (so-called TFR), set at 7% of annual salary; total contributions often reach 9-10% of salary but may also be much lower (if the TFR is not diverted to pension funds)
  - in 2007, nation-wide auto-enrolment was introduced but with limited success
  - as of 2018, still only 25/30% of workforce is enrolled
  - occupational, industry-wide, non-profit pension funds are the main component of the system
  - in practice, market-based open pension funds and insurance-based personal plans are important as well
  - new pension schemes are only DC
  - strong emphasis on comparability, rich and standardized information to members and competition between plans

- From 2004 and especially in 2009-2011, the reform of the public pension system was pushed ahead
  - retirement age was raised and indexed to life expectancy; currently is set at 67, expected to reach 70 in 2050;
  - women’s retirement age is set equal to men’s

- In 2018, the new Gvt is heading for some reform reversal of public pensions
  - retirement age for public pensions is brought back – «quota 100» is the new rule (sum of age + years of contributions)
  - private pension funds should not be touched
PPs for private, funded pension schemes

2008: a comprehensive regulation is introduced by COVIP

- paper-based PPs are made mandatory
  - to actual members, personalized PPs are sent annually
  - to potential members at joining, generic PPs for representative individuals
- macro-economic/financial scenario is standardized
  - different expected returns are set for bonds / equity
  - uncertainty is not taken into account, except than in a written caveat
- actual costs of the plan are included in the calculations
- format is standardized
- all monetary figures are shown in real terms
- specific rules are set for pension calculators
  - wage growth can be chosen by members, with a cap at 3% real
  - multiple scenarios must be symmetric wrt standard, central scenario
  - may include PPs for PAYG, public pensions
### PPs: COVIP rules for setting the parameters

<table>
<thead>
<tr>
<th>Parameters &amp; assumptions</th>
<th>standardized</th>
<th>fund-specific</th>
<th>member-specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Current age</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Current wage</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Current contribution rate</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Age of retirement</td>
<td>✓</td>
<td></td>
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</tr>
<tr>
<td>Rates of return bonds/equity</td>
<td>✓ (2%-4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inflation rate</td>
<td>✓ (2%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage growth rate</td>
<td>✓ (1%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conversion in annuities</td>
<td>mortality tables, charges, technical rate</td>
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<td></td>
</tr>
<tr>
<td>Costs</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Bond/Equity asset allocation</td>
<td>✓</td>
<td></td>
<td>✓ investment option</td>
</tr>
</tbody>
</table>
additional assumptions: retirement age 67, annual contribution 2.500 euro/year; male

<table>
<thead>
<tr>
<th>Entry age</th>
<th>Years of contribution</th>
<th>Investment option</th>
<th>Contributions paid into the plan</th>
<th>Account balance at retirement</th>
<th>First annuity</th>
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</thead>
<tbody>
<tr>
<td>30</td>
<td>37</td>
<td>Guaranteed</td>
<td>111,269</td>
<td>114,960</td>
<td>6,643</td>
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<td></td>
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<td>Bond</td>
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<td>161,588</td>
<td>7,405</td>
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<tr>
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<td></td>
<td>Equity</td>
<td></td>
<td>178,944</td>
<td>8,201</td>
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<tr>
<td>40</td>
<td>27</td>
<td>Guaranteed</td>
<td>77,052</td>
<td>93,521</td>
<td>4,286</td>
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<tr>
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<td>4,639</td>
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<tr>
<td></td>
<td></td>
<td>Equity</td>
<td></td>
<td>108,965</td>
<td>4,994</td>
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<tr>
<td>50</td>
<td>17</td>
<td>Guaranteed</td>
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<td>52,058</td>
<td>2,485</td>
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<tr>
<td></td>
<td></td>
<td>Bond</td>
<td></td>
<td>54,742</td>
<td>2,613</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Equity</td>
<td></td>
<td>57,345</td>
<td>2,738</td>
</tr>
</tbody>
</table>
Example: web-based pension calculator

### Summary of Projected Values

<table>
<thead>
<tr>
<th></th>
<th>Early retirement</th>
<th>Old-age pension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retirement age</td>
<td>66 years and 9 months</td>
<td>69 years and 9 months</td>
</tr>
<tr>
<td>Life-long annuity</td>
<td>8,425.47 €</td>
<td>10,744.48 €</td>
</tr>
<tr>
<td>Pension Benefit amount</td>
<td>23,754.88 €</td>
<td>27,846.41 €</td>
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<tr>
<td>Last Annual Gross Salary amount</td>
<td>43,352.29 €</td>
<td>44,865.91 €</td>
</tr>
<tr>
<td>Substitution Rate</td>
<td>54.79 %</td>
<td>62.34 %</td>
</tr>
<tr>
<td>Supplementary pension substitution rate</td>
<td>18.86 %</td>
<td>24.06 %</td>
</tr>
<tr>
<td>Total substitution rate</td>
<td>73.66 %</td>
<td>88.40 %</td>
</tr>
</tbody>
</table>

### Benefits' Performance Over Time

Graph showing the performance of benefits over time with categories: Montante in forma Capitale (una tantum), Estimated Income Gap, Income from Supplementary Pension, Income from State Pension.
PPs for PAYG, public pensions

• the Italian public, PAYG pension system for all employed workers was converted from wage-based to NDC in 1995, with a long transition

• from 2004 to 2010, several changes aimed at easing the burden for the public deficit, but transition remained long

• at end-2011 a major reform made transition much quicker
  • retirement age raised to 66 and indexed to life expectancy
  • earlier retirement for women to be cancelled by 2018

• public pension rules seemed to have reached a certain stability and predictability → to offer official PPs became easier

• From 2015, major initiative by INPS: «La mia pensione»
  • millions of letters sent, with the Swedish «orange envelope» as a model
  • pension calculator was set up on the INPS web-site
PPs in the EU Directive «IORP 2»

• With respect to the original IORP Directive of 2003, the new «IORP 2» Directive approved in 2016 is much more detailed in terms of information to members

• Art.39: PPs are made mandatory, to be sent annually by IORPs to members together with the PBS (Pension Benefit Statement)

• If economic scenarios are used for PPs, they should include:
  • a «best estimate» scenario
  • an unfavourable scenario

→ some doubts on the interpretation, but multiple scenarios may become the standard for DC pension plans
Current issues for PPs in Italy

- Reviewing macro-economic & financial assumptions
  - Global low-yield context and its persistence
  - Specific issue for Italy: sovereign risk premium

- How to deal with uncertainty
  - Multiple scenarios
  - Stochastic models

- Stochastic models may be used in two ways:
  - to obtain & show the complete distribution of outcomes
  - even in the context of a deterministic approach, to help choose the distance from the central, best estimate scenario of one, two or more alternative scenarios

- Stochastic models look promising but specification for PPs may be difficult
- Main issue is to distinguish long-term risk from short volatility. Only the first matters for PPs
An example: a PP projecting short-term volatility in the long term

Figure 4. Stochastic projected assets for multiple probabilistic scenarios (in €)
Take-aways from the Italian experience

- PPs are increasingly relevant in the context of DC-based pension systems
- Macro-economic & financial assumptions are a delicate task, especially in the context of a low-yield environment
- Multiple scenarios are likely to quickly become the standard
- The appropriate use of stochastic models for PPs directed to members is challenging. More work & experience are needed, especially to distinguish long-term from short-term volatility. Only the second is relevant for PPs
- For public pensions, a pre-requisite for reliable PPs is the stability/predictability of the rules
Thank you for the attention!

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