Welfare Reforms as Social Investments
The Role of Economic-Financial Education in Restoring the Generations and Gender Balances

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The crisis of Welfare State and the never ending plea for reforms

- The (European) Welfare State is often believed to be in a condition of (possibly irreversible) decline.
- It is suffering, however, not from an identity crisis but from an adaptation crisis.
  - As a result of structural demographic and economic changes, its original design and financial structure have become unsustainable, inefficient and unfair.
- Reforms are thus necessary to regain sustainability, efficiency and fairness; necessary, but not sufficient.....
  - To this end a more comprehensive paradigm, based on three pillars: “Reform, Inform and Educate” should be adopted and pursued.
- Although the welfare system should consider all the main life cycle risks, in my presentation I will mainly refer to the pension system and reforms.
I. Reform

A definition of “reform”
(from: Wordreference.com)

i. «To improve an existing institution, law, practice, etc. by alteration or correction of abuses»

ii. «To give up or cause to give up a reprehensible habit or immoral way of life»
The respective role of political parties and of experts/technocrats in carrying out reforms

- Economic reforms are usually a mix of political and technical elements, the former in the forefront of communication, the latter more behind the scene.
- When “selling” the reform to the public, political parties typically tend to look at reforms from an ideological perspective and to conceal their more “technical” aspects.
- This schemes weakens or break up in emergency situations, where the technical aspects of reforms become dominant; it is then the task of technocrats (or of experts from international institutions granting aids, like IMF, WB…) to prepare the reforms.
- Technocrats however do not rely on ideological message to communicate the reform and if the public does not understand its basic principles, it risks having little effects or being repealed.
- Information and Economic-Financial Literacy (EFL) thus matter not only for individual wellbeing, but also for society.
Pension reforms from a technical point of view: why are they needed?

- to regain **financial sustainability**:  
  - to promote fiscal short-medium term consolidation  
  - to remedy the long run negative impact of population ageing

- to strengthen **adequacy of provisions for old age**:  
  - which mix work/retirement, PAYGO/funding and public/private?  
  - which indexation (wages or prices) of pension benefits?  
  - which mix of monetary benefits/services (i.e. Long Term Care)

- to realize a **good pension design** conducive to:  
  - a more efficient allocation of risks (in individual l. c. and across generations)  
  - a better incentive structure (avoid incentives to early retirement)  
  - a fairer redistribution (defeating privileges and segmentation of schemes)  
  - greater transparency and lower political manipulation
A worsened *trade-off* between sustainability and adequacy from the macro background

- **The demographic transition**
  Increasing longevity and declining fertility cause sharp increases in old age dependency ratios which threaten the financial sustainability/adequacy of traditional public PAYGO systems;

- **Lower growth rates and higher unemployment**
  Reduce their (equilibrium) “*internal rate of return*”

- **The financial crisis**
  Has reduced returns and created higher volatility in financial markets casting doubts on the superiority of financial returns over GDP growth rates

*Increasing retirement ages is a necessary but partial response*
Old-age dependency ratios
(% ratio of the population aged 65 years or over to the population aged 15-64)

Source: Visco (2006)

Per se, a negative force on growth: a decline in working age population plus a negative effect of productivity?
Old-age vs *economic* dependency ratios

- Unsustainability of pension systems is not only dependent on demographic trends.
- To get a more precise view, one should consider the composition of the *working age population* according to the economic status of individuals: employed, unemployed and out of the labor force (in education, housewives/husbands).
- The *economic dependency ratio* has been defined as the number of pensioners plus unemployed relative to the number of employed.
- For Italy (2011): old-age dr=34.3% economic dr=81%
The dramatic consequences of non-participation, unemployment and early retirement


Graphs taken from: Wöss, J. “The impact of labour markets on economic dependency ratios – Presentation of Dependency ratio calculator”.

EU-27 Age Structure/Economic status 2010
Demographic dependency ratio: 26 %
Economic dependency ratio: 64 %

EU-27 (“Standard-Scenario”) Age Structure/Economic status 2050
Demographic dependency ratio: 50 %
Economic dependency ratio: 87 %
The negative force of demographic change on European growth

<table>
<thead>
<tr>
<th>EU28</th>
<th>2014</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
<th>2060</th>
<th>2070</th>
<th>2080</th>
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<tbody>
<tr>
<td>Population on 1 January - Total</td>
<td>507.239.310</td>
<td>512.474.771</td>
<td>518.499.055</td>
<td>523.545.921</td>
<td>525.527.890</td>
<td>522.945.539</td>
<td>520.123.107</td>
<td>520.035.469</td>
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<tr>
<td>Annual growth rate</td>
<td>-0.29%</td>
<td>-0.35%</td>
<td>-0.35%</td>
<td>-0.24%</td>
<td>-0.10%</td>
<td>0.00%</td>
<td>-0.13%</td>
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<tr>
<td>Population 65+</td>
<td>94.346.512</td>
<td>104.544.853</td>
<td>123.921.274</td>
<td>140.833.853</td>
<td>147.673.337</td>
<td>148.516.533</td>
<td>146.154.593</td>
<td>149.250.180</td>
</tr>
<tr>
<td>Annual growth rate</td>
<td>1.73%</td>
<td>1.71%</td>
<td>1.29%</td>
<td>0.48%</td>
<td>0.06%</td>
<td>-0.16%</td>
<td>0.21%</td>
<td></td>
</tr>
<tr>
<td>% of population aged 15-64 years</td>
<td>65.9</td>
<td>64.1</td>
<td>61.2</td>
<td>58.5</td>
<td>56.9</td>
<td>56.6</td>
<td>56.9</td>
<td>56.2</td>
</tr>
</tbody>
</table>

What about productivity? No clear evidence of a negative effect of age on productivity, but….
Demographic changes (1)
Figure 1 — Deaths curve – Italy, various years

Demographic changes (2)
Figure 2 — Survival function – Italy, various years
The crude budget constraints
(Basic elements of a PayGo system)

\[ pR = \tau wL \]  PayGo balanced account (expenditure=revenues)

*where*:
\[ p = \text{average pension benefit} \]
\[ R = \text{number of retirees} \]
\[ \tau = (\text{equilibrium}) \text{ payroll tax rate} \]
\[ w = \text{average wage (labor income)} \]
\[ L = \text{number of workers} \]

*or*:
\[ \tau = \left( \frac{p}{w} \right) \left( \frac{R}{L} \right) \]

*where*:
\[ \frac{p}{w} = \text{Average Pension/Average wage (Average Replacement Ratio Re_Ra)} \]
\[ \frac{R}{L} = \text{Old Age Dependency Ratio (De_Ra)} \]

“Stylized” measures for European Countries?

- \[ 0.225 \approx 0.4 \times 0.56 \] (for 2010)
- \[ 0.36 \approx 0.6 \times 0.6 \] (in 2060?)

- **Financial sustainability** refers to the tendency of the system to maintain a balanced budget in the long (?) run

- **Adequacy** is captured by \( \frac{p}{w} \) (the ratio of retirees’ to workers’ income)
Dynamics

\[ \Delta(\tau) \approx \Delta(p/w) + \Delta(R/L) \]

where: \( \Delta = \text{percentage change} \)

- An increase in the replacement ratio ("generosity") and/or in the dependency ratio (demography) must be compensated by an equal % increase in \( \tau \) (if not, the resulting deficit has to be financed through an increase in general taxation and/or in public debt)

- \( \tau \) cannot permanently increase because of economic constraints (loss of competitiveness) and/or political unfeasibility (tax on labor)

If \( \tau \) is at its upper limit (as it is in some European Countries, including Italy):

\[ \Delta(\tau) = 0 \quad \text{and} \]

\[ \Delta(R/L) = - \Delta(p/w) \]

i.e. for financial sustainability, increases in the dep_ratio must be compensated by corresponding decreases in the rep_ratio
$\Delta(R/L)$ determined by demographic changes......but not entirely

- **Retirement age** can be increased, so that the number of retirees move in parallel to the number of workers, stabilizing their ratio
- To ensure **sustainability** at an **adequate** level of benefits, it is essential to **effectively increase the employment rate among the elderly** (and among women)

*Thus pension and labor market reforms are (should be) strictly connected*

Adjustments in Ret_age can be:

- **discretionary**, through *ad hoc* parametric changes
- **automatic**, through an indexation mechanism linking Ret_age to variations in longevity

A number of European Countries – including Italy - have adopted **automatic adjustments** in order to avoid exhausting confrontations with the social partners and unpopular measures with the electorate
**Economic Consistency of Reforms**

**From a macroeconomic perspective:**
- a PayGo system can be rationalized not just as a public redistributive program but as an **intergenerational insurance contract** (Paul Samuelson), having efficiency properties in terms of risk allocation and providing a rate of return circa equal (in equilibrium) to the sum of the labor force and productivity growth rates.

**From an individual perspective:**
- according to the **life cycle hypothesis** (Franco Modigliani), participation in a PayGO scheme can be rationalized as a (compulsory) saving/insurance program allowing people to transfer resources from their working life to retirement and to avoid the risk of consuming too much (or too little).

- **First best solutions** are not achievable.
- **Politics** thus “interferes” with the basic design (for good or bad reasons, i.e. fairness, on the one hand, and populism, on the other), hardly without increasing the implicit debt and reducing efficiency, transparency and equity.
Why reforming pensions is so difficult (in practice)

It is a reform that:

- affects all generations as well as men and women
- is mainly in the interest of the young (future) generations, who are a political minority (not yet born) in an ageing society
- is permeated by value and ideological judgments that tend to dominate the (quite complex) technicalities and impede the social dialogue
- has great communication problems, also motivated by widely held misconceptions ("acquired rights", the "lump of labor fallacy"...)

Technical arguments provides only a guide, but.... “the devil is in the detail”

Politically, important trade offs are involved ("gradual" vs "cold showers" types of reforms, the latter unavoidable in an emergency?)

- transition, credibility and time consistency problems are pervasive
- coordination with other reforms is required (the labor market reform, training and life long learning, liberalization and so on) but hard to obtain

Participation of citizens is very important
Information and financial literacy in individual and collective choices

- Lack of financial literacy has typically been associated to the risk of poor saving choices during the life cycle. This risk is indeed increasing, together with individual responsibility, as a result of both the reform of the welfare state and the greater sophistication of today’s financial and labor markets.

- Financial-economic literacy may also be crucial for the success of (not only emergency-driven) economic reforms. Lack of understanding may cause the reform to be reversed/greatly revised or its incentives not to work.

- A conclusion strongly derived from my own experience as an economist (unexpectedly) turned the Italian Minister of Labor, Social Policies and Equal Opportunities.
Why good information is an essential element of a reform

• The accumulation of pension wealth is a long and complex endeavor
• Workers must have an idea, as precise as possible, of their accumulated pension wealth, retirement options, the benefits they will get at the various possible retirement ages
• This knowledge is essential - particularly in the DC world - for individual planning/decision making, as to whether participate in a pension plan, work longer, consume less, or to avoid mistakes/big disappointments as for the difference between expected and realized benefits, and ensuing painful adjustments
• Information is also fundamental for the sustainability of the pension system and of a reform: if people misinterpret the system and the need for reform they will try to reverse it
• Technical possibilities for a good and transparent information are now available and good practices exist
Public authorities in several countries try to facilitate decision making by regularly sending statements to workers about their pension position. Examples: the *Social Security Statement* sent by the US Administration and the *Orange Envelope* by the Swedish Pension Agency.

Findings on the impact of info on behavior still controversial: significant impact on workers' knowledge about benefits but negligible on retirement choices.

As for reforms, political courage is sometimes lacking: politicians fear the negative electoral consequences of disclosing future pension cuts (and, conversely, the inadequate limitation to privileges).

A vicious circle tends to prevail:
- In the media the reform is presented as “austerity”, while the investment aspect is ignored.
- People are believed not to be able to understand, so informing them appears useless.
Your national public pension – part of your total pension.

Contributions credited based on the most recently confirmed income tax declaration (2008)

Total value of savings up to date (31 December 2009)

Pension forecast, from the age of 65.

Incentive to postpone retirement
III. “Educate”- What people should know about the pension system

• A PAYGO system represents an “intergenerational compact”
• However, it has an implicit debt dimension which must be kept under control
• The crucial variable is the rate of return on contributions, which depends on demographic and economic trends.
• The generosity of today’s system is not secured by past (myopic?) political promises and cannot be independent of the structural decline in n+g
• Two intrinsic elements of unsustainability:
  ➢ the political tendency to favor the present generations at the expense to the young and future ones
  ➢ the inability of badly designed systems to effectively respond to the economic and demographic challenge
Basic Concepts

• The knowledge of *compound interest* is crucial to understand that pension wealth is accumulated by paying contributions; that each euro paid into their “retirement account” will add to their retirement income and the longer the period the higher the accumulated wealth.

• Another fundamental concept is that *postponing retirement contributes twice to benefit increase*: through more contributions and lower expected longevity.

• The concept of *risk diversification*, properly understood even if only at its core, could help people in their decision to participate in a pension fund, as a way to combine both an unfunded and a funded pension, as they are characterized by different risk/returns combinations.
….. and (pervasive) misconceptions

“Acquired rights” or unjustified privileges? A call for intra and intergenerational re-balancing behind the reform

• When people understand that their pension “entitlements” were partly built on debt to be honored by future generations they can be less hostile to pensions restructuring

• An expensive pension system is financed mainly from contribution by workers/employers, implying a trade-off between “generous” pensions and high labor costs.
The “lump of labor fallacy”

- The idea that jobs are in a *fixed number* so that *early retirement* by the elderly is an instrument to facilitate jobs for the young has long dominated, particularly in some countries, the public debate in the field of pensions and brought about policies directed at reducing the average retirement age.

- This belief still creates hostility towards the reform and obscures its generational rebalancing by making people believe that if retirement is postponed there will be fewer opportunities for the youth (and/or for women: indeed, the same erroneous reasoning has also long been applied to women and reduced female labor market participation).
Overcoming ignorance and financial illiteracy

- Several countries have undertaken financial education policies differing in target audience (general population, in schools, workplace, low income...), delivery channel (training, awareness campaigns, booklets, ...) and content
- Scarcity of rigorous programme evaluations makes it difficult to identify what works
- Policies are more effective if “teachable moments” are identified (but difficult to find room in school programs)
- Intermediaries and pension providers should provide information and transparency (too much information can however generate paralysis)
- A good “choice architecture” (consisting of sensible default options and governance rules, and the reduction of intermediaries’ conflicts of interest) remains essential
Is Europe converging to a good design?

Although European countries have followed different paths, pension promises have not only been downsized, but also redesigned:

- **Ret ages** have been raised and in some cases made more flexible
- **Re_Ra** have been reduced and benefits indexation downgraded from wages to prices
- the **link between individual benefits and contributions** has been strengthened (often with valorization of contributions with GDP or labor income growth rates, in line with the internal rate of return of the system)
- **actuarial corrections** have been (in some countries) introduced (through indexation of retirement ages and/or pension benefits to longevity)
- **access conditions** to early retirement and disability schemes have been tightened
- **gender differences** have been reduced
- **transparency** has been improved, also through greater information to workers
- **pre-funding**, through participation in (mainly occupational) pension funds, has been encouraged
- **pension portability** among EU countries has been enhanced
Actuarial mechanisms

Definitions:

• Actuarial **fairness**: the discounted sum of contributions paid during the working career is equal to the discounted sum of expected benefits received during retirement

• Actuarial **fairness at margin**: any additional contributions paid in case of postponed retirement is equivalent to the (present value) of additional pension benefits

➢ DC schemes are in line with actuarial principles

➢ Some countries (e.g., Sweden, Italy, Latvia, Poland) have introduced notional DC schemes (NDC)

➢ If properly designed, NDC schemes guarantee quasi-actuarial fairness/at margin through conversion coefficients (CC, given by the inverse of the present value of a unitary life annuity).

➢ Systematic differences in life expectancy within the population should be taken into account
Flexibility

- Raising retirement age is one of the most effective ways to improve financial sustainability of public systems
- However, it also introduces rigidity in the personnel management
- Some countries have introduced flexibility features in the transition from the “active” to the “inactive” state
- Variable retirement ages (minimum age plus an age windows) with actuarial adjustments is common in NDC systems
- Partial retirement: the worker starts being paid a share of the pension benefit while keeping earning a reduced salary from a part time activity. The amount of the benefit is usually inversely proportional to the number of hours worked or directly linked to the labor income lost due to the reduction in work hours
- Combination of labor and pension income
Flexibility and actuarial adjustment in the Italian NDC

2013 Conversion Coefficients (from Pension Wealth to Pension Benefits)

<table>
<thead>
<tr>
<th>Retirement age</th>
<th>values</th>
<th>Retirement age</th>
<th>values</th>
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<tr>
<td>57</td>
<td>4,304%</td>
<td>64</td>
<td>5,259%</td>
</tr>
<tr>
<td>58</td>
<td>4,416%</td>
<td>65</td>
<td>5,435%</td>
</tr>
<tr>
<td>59</td>
<td>4,535%</td>
<td>66</td>
<td>5,624%</td>
</tr>
<tr>
<td>60</td>
<td>4,661%</td>
<td>67</td>
<td>5,826%</td>
</tr>
<tr>
<td>61</td>
<td>4,796%</td>
<td>68</td>
<td>6,046%</td>
</tr>
<tr>
<td>62</td>
<td>4,940%</td>
<td>69</td>
<td>6,283%</td>
</tr>
<tr>
<td>63</td>
<td>5,094%</td>
<td>70</td>
<td>6,541%</td>
</tr>
</tbody>
</table>

- **Main assumptions**: unisex, expected long run GDP growth =1.5%, recent ISTAT cross-sectional mortality tables, incorporate survivors’ (60%, age difference between pensioner and widow: 3 years); revision every 3 years

- **Main deviations from fairness**: redistribution in favor of longer living (women, higher SES), cross-sectional instead of longitudinal (cohort) projected mortality, incentives to retire before revision
Survivor's pensions

- In the past, only widows or surviving dependents; at present, no distinction between spouses. In some countries also live-in partners are entitled.

- **Requirements**: the deceased must have paid minimum contributions; the survivor usually has to meet the requirements on marriage length, age and, in some countries, income etc.

- **Benefits**: a percentage of the deceased’s pension in or a fixed amount. Often the survivor’s pension is reduced proportionally to the survivor’s income. In the case of a flat-rate component, the s.p. ceases once the survivor has reached retirement age.

- **Recent reforms**: aimed at reducing benefits, with stricter requirements.
Which way from where we are?

After a period of serious cuts in the public component and the near collapse of financial markets, a question arises:

• *how can people’s confidence in the welfare system be restored?*

The answer has to be constructed around three building blocks*:

• **Continuation of reforms** in the public component to strengthen sustainability, improve adequacy and modernize the system

• **Honest, transparent and adequate information**

• **Financial literacy and education programs**

* When the system is mixed, partly public and unfunded and partly private and funded, another pillar can be added:

• **Good regulation of the market** (a level playing field for the various providers, and serious supervision of investment restrictions, administrative and managing costs, selling techniques, reporting)
Conclusions

➢ Running for one’s pension is becoming a new sport. People have difficulties in understanding why they have to run, why the old security provided by the state is no longer feasible, why pensions have become brainteasers

➢ In the face of greater uncertainty and greater individual responsibility, relying on information and financial literacy, on the demand side, and on a good regulation of the market, on the other, is essential, but it is not enough

➢ To adequately protect savers, special attention has to be devoted to groups more at risks, such as women and vulnerable workers

➢ On top of all this, the public system need to regain the confidence once had in the eyes of citizens. For Europe, this is a real challenge