**Parametric Pension Reform in European Member States**

**Country Report**

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**COUNTRY BRIEF**

**ITALY’S SOCIAL SECURITY SYSTEM REFORMS IN THE LAST DECADE**

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1. ***Introduction***

In the last decade Italian policymakers (Government and Parliament) completed the reform process of the national social security system, which started already in 1992. Many reasons called for a structural reform of the system. Demographic projections foresaw a prolonged and intense process of ageing for the Italian population, pushed by a low fertility rate coupled with a decreasing trend in mortality, particularly among +65 individuals. A very fragmented and generous system allowed current and past pensioners to receive high benefits, both in term of replacement rates and of internal rate of return. The prevalence of a DB system in the computation of pension benefits induced a substantial share of workers to retire as soon as possible, making the average retirement age particularly low in the international comparisons. Finally the system was fragmented and very badly designed in term of target efficiency: means tested programs for the definition of eligibility of minimum pensions were totally absent and often resources for poverty contrast among older people were totally misallocated. Considering all these factors the pre reformed system was at the same time not financially sustainable, determined undesired intra-generational and the intergenerational distribution of resources and distorted the retirement choice of workers.

After a first structural reform in 1992, which modified the indexation rule, progressively increased legal retirement age and reduced benefits for future pensioners still maintaining the DB formula, Italy introduced an NDC formula in its pension system in 1995. NDC systems usually replace a salary based formula for the computation of individual pension benefits with a (quasi) actuarial one, still maintaining the PAYGO structure, as far as the finance mechanism is concerned. With respect to a “theoretical” NDC scheme, the Italian one, at the beginning of the observed period in 2007, showed some notable peculiarities that jeopardized the internal consistency of the system, its neutrality and its capacity to cushion economic and demographic shocks. In particular: i) contribution rates were not equal across schemes; ii) the retirement age was not flexible; iii) the frequency of the adjustment mechanism in the conversion factor that allows the system to be automatically insured against demographic and economic shocks was agreed to occur every ten years; iv) no adjustment in the indexation mechanism of pension benefits was foreseen.

As for the speed of transition to the NDC system two main aspects of the pension law were worth noticing. First, starting from 1995 the employed population has been split into two groups. Workers with more than 18 years of contributions in 1995 were allowed to compute their future pension benefits under the (more generous) old DB-salary based formula, while workers with less than 18 years of contributions accrued pension rights under the NDC system with a pro rata mechanism. Consequently future pension benefits for workers belonging to this second group will be either computed completely under the NDC rule only for those who entered in the labour market after 1995, while for the remaining workers future pension benefits was to be computed as a weighted average of a DB and a NDC pension, the weight depending on the period of activity before and after the 1995 reform. Second, a “double” exit route to retirement allowed workers in the old DB and in the mixed systems to either retire at the legal age (65 for men and 60 form women) or to anticipate retirement (once having fulfilled less binding eligibility conditions in terms of seniority at retirement and age).

Two priorities were underlined by scholars of pension systems and by international institutions: i) even if the Italian pension system was to be considered as financially sustainable in the long run (i.e. when the NDC system was expected to be completely phased in around in 2035), more troublesome was the financial perspective in the short and in the medium run, particularly because of the very slow transitional path designed in the former years; ii) important distortions in the choice of retirement were still embedded in the (DB) formula that allowed current workers to retire. The low average retirement age of current pensioners was a confirmation of it.

In order to better analyze what happened in the period 2007-2016 it is useful to take into account that, from an economic policy point of view, two different objectives have been pursued by policymakers. The first deals with the long term design of the NDC rule within the Italian pension system, while the second has to do with the speed of the transition from the (old) DB rule to the (new) NDC one. Both of them will have important financial, macroeconomic, microeconomic and distributive consequences.

Main legislative changes occurred in 2010 and at the end of 2011. The picture that emerges, in particular after the 2011 reform, is one of a public pension system that will maintain its centrality in the financing of income during old age. At the same time new rules determine an unprecedented (at least for Italy) increase in the retirement age that seems, ex-ante, the only device that should allow the realization of a system that is both adequate and sustainable during the demographic transition that will end at around 2050. In fact short term result of the sudden raise of the retirement age realized in a period of severe recession seems to show that a substitution effect between young and old workers has frustrated Government aims, while the long term perspective of an ageing working force should solve the question about productivity of older workers.

Finally reforms, in particular the 2011 one, were approved during a period of severe financial stress for the public budget. This fact did not help a correct and complete communication of the financial and distributive effects of the reform. Complete informative campaigns, already foreseen in the 1995 reform, were not yet completely realized, even though they started in 2015 and should be completed before the end of the year 2017. Empirical research seems to confirm the poor level of information among workers with respect to their expected future level of pension benefits and, particularly worrying, with respect to the eligible retirement age.

1. ***An overview of the Italian social security system***

The Italian public pension system is mandatory and financed through a pay-as-you-go basis. It covers practically the total of individuals above the legal retirement age, currently fixed at 66.7 years. In a broad term two different kind of benefits are provided by the National Social Insurance Institute: i) insurance based benefits which are paid to individuals (and their familiar) that contributed to finance the system when working. Among these the most important are old age, survival and inability pensions; ii) social allowances for the poorest part of the older population that did not participate to the labour market when adult. In particular a not contributory social allowance financed through general taxation and some additional lump sum payment are the principal benefits belonging to this second group.

Total public pension expenditure reached 15.9% of Gdp in 2016. Old age and disability pension benefits covers around 85% of the expenditure, while 10% is directed to finance survival pension benefits and 5% is used to finance social assistance transfers.

The systems has been radically reformed in the last 25 years, starting from first structural interventions in 1992. The crucial change occurred however in 1995 when an NDC formula was introduced in the pension system for the computation of both old age and inability pensions. The basic idea of NDC schemes is to mimic a DC funded pension plan without setting aside reserves. Each worker who belongs to the system is credited a “notional” account where all social security contributions paid during active years of work are registered. Since the systems is not funded and contributions are not invested into the financial market, they earn a rate of return that is defined by the pension law and that does not dependent by the financial markets’ performances. At each point of his/her lifetime the value of the worker’s account is determined by the sum of past contributions and accrued yields. When the retirement age is reached a pension benefit is computed in such a way that the present value of all future expected pension benefits must be equal to the accrued value of the notional capital. Crucial variables in the determination of the first year pension benefit are the amount of the “notional” capital, the individual’s expected lifetime, a discount rate and the indexation rule for future pension benefits. Strict correlation between premium paid and benefits received allows the NDC system to permit a high degree of flexibility in the choice of the retirement age, making the system potentially neutral with respect to the choice of the age of retirement. A simplified version of an NDC pension rule can be synthesized as:

P\_NDCage = kage MCage - 1

As for the Italian system, retirement age flexibility was initially permitted in the age bracket 57 - 65. From 2004 this flexibility was suspended and a retirement age of 65 for men and 60 for women was reintroduced.

The term k was to be computed using gender weighted cohort based demographic projections of mortality of the insured and of the spouse and was to be expected to adjust periodically (every ten years) in order to take into account of longevity changes. The term MC was computed ……

Survivor’s pensions are acknowledged to the spouse and/or children of the deceased pensioner or contributor. They typically amount to 60% of the pension benefit, but this amount can be reduced in as familiar income of the survivor overcome certain thresholds.

A means tested social assistance benefits for older than 65 years individuals was provided in case of low (household) income, regardless of contributions paid during active lifetime. The old age allowance equal to 5,600 Euro per year is increased with a lump sum transfer for the 70+ individuals. Also individuals aged between 65 and 69 can receive a lump sum transfer, but the amount of it is lower and depend also positively on the seniority at retirement.

Pension benefits were indexed to price inflation. Indexation was not complete as it decreased non linearly with the individual’s pension income level.

Contribution rates were differentiated by employment sector. In particular private and public employees paid 33% of their gross labour income of which about 1/3 from the employee and 2/3 by the employer. The self-employed paid 20% of their net income. Atypical workers finally paid 18% of their gross income.

A double exit route to the retirement was allowed for workers which belong to the DB and the mixed systems. Eligibility conditions, which considered both an age and a seniority parameter, are described in the following table. Figures in the table allow to highlight that, before 2007, workers with a relatively high seniority at retirement were allowed to retire earlier than the “legal” age of retirement. This was particularly true for men, since their retirement age was fixed at 65 (60 for women).

Table 2

Eligibility condition for an anticipated old age pension before 2008.

|  |  |  |
| --- | --- | --- |
|  | **Only contributions****(years)** | **Age and contribution****(years)** |
| **Private employees** | 40 | 57 and 35 |
| **Public employees** | 40 | 57 and 35 |
| **Manual workers** | 40 | 57 and 35 |
| **Self-employed** | 40 | 58 and 35 |

1. **Main legislative changes occurred in the period 2008-2016**

The main legislative intervention into the Italian pension system during the last decade is the 2011 reform. This can be considered as the final point of the long and difficult process that, starting from 1992, radically modified the Italian social security system. Some important changes into the system were also realized also in 2008 and in 2010. In particular eligibility conditions to gain the right to a seniority or anticipated pension benefit, reported in the table 3, were progressively tightened and, starting from 2009 a third condition to be respected to retire earlier, defined by the sum of age and seniority, was introduced in the system. At the same time a peculiar legislative distinction between the age at which the right to retire was acquired and the age at which the pension benefit was supposed to be paid was introduced, determining de facto a delay in all retirement ages of 1.5 years on average. In 2010 the Government proposed and the Parliament approved the linkage of the retirement age to lifetime expectations at 65, implying an increase of around 3 years during the next decades, at least according to Government demographic projections. In the same year the age of retirement for women working in the public sector was raised to 65 years.

As stressed above however the main legislative intervention occurred at the end of 2011 when the Government, pushed by the financial crisis of the Italian public debt proposed a more structural set of changes in the Italian pension system. Main point of this reform can be summarized as follows:

1. The contribution rates for self-employed and for atypical workers have been gradually raised to 24% and 27% respectively.
2. A (theoretical) bracket of ages, from 63 to 70 years substituted fix retirement age of 65 for men and 60 for women.
3. The “normal” retirement age was gradually raised for all categories of workers and for both men and women. Starting from 2017 legal old age pension benefits can be claimed at 67.6 years for all workers.
4. NDC future pensioners can retire at the “normal” age only if their accrued pensions is higher than 1.5 times the social allowance and having matured at least a contributory period of 20 years. If one of this conditions is not fulfilled they are supposed to work longer.
5. An anticipated pension is possible three years before the normal age, but only if the accrued pension benefit is 2.8 time the social allowance. Anticipation is also possible for individuals in the mixed and in the DB scheme with at least 42 years of contributions irrespective of effective age.
6. The frequency of the adjustment in the conversion factor k of equation (1) that contribute crucially to the computation of the final pension benefit is now foreseen every second year.
7. All age and contribution eligibility conditions for old age, anticipated and social allowance pensions will not remain constant in the future as they are directly linked to the evolution of lifetime expectation at 65. This means for example that, according to projections of the National Statistics Institute, the “normal” retirement age and the maximum retirement age could reach respectively 70 and 74 in 2050.

Figure 1

Age eligibility conditions to claim an old age or an anticipated pension. 2012 – 2050.



The main normative change which interests the transition to the NDC rule is that starting from 2012 the NDC formula will apply also to people that had more than 18 years of contribution in 1995, although only for their years of work starting from 2012.

1. **The financial and the distributive impact of the reform**

The medium and the long run financial and distributive effects of the current arrangement of the pension system are monitored by different institutions and models. Pension systems’ performances can be analyzed looking at them from different perspectives. In particular, using a widely used European classification, sustainability, adequacy and degree of modernity of the system, together with intra-generational and intergenerational distribution, are important perspectives thorough which a pension system can be evaluated.

The financial impact of the 2011 pension reform can be appreciated looking at the figure below, where the ratio between aggregate pension expenditure and Gdp for the period 2010-2060 as estimated by the Ministry of Economy forecast model, is reported. Both before and after the 2011 reform the ratio of pension expenditure over Gdp decreases in the final part of the simulation period, after 2040. The decreasing ratio in the final part of the simulation can be explained by the stabilization in the demographic ratios coupled with the complete phasing in of the NDC system. Important differences are however present in the pre and post reform scenarios as for the dynamic of the pension expenditure over GDP ratio in the short and in the medium run. The sudden and stringent restriction in the eligibility condition to claim a pension benefits is the main reason that explains the lower value of the sustainability indicators in the post reform scenario.

Figure 2

Ratio of pension expenditure to GDP before and after the 2011 pension reform.

The dynamic of the ratio between pension expenditure and GDP can be decomposed in an economic and a demographic component. The following two figures report the evolution of the average pension over GDP per worker and the evolution of the ratio between the number of pension benefits over the number of workers. Starting from the latter the implications of the restrictive nature of all the interventions on the retirement age for the future pensioners are evident. The raising path of the retirement age reduces considerably the impact of the ageing of the Italian population in the first part of the simulation. The difference between the situation before and after the reform is impressing in particular in the short and in the medium run. The consequence of a higher average retirement age on the level of future pension benefits (for a given value of Gdp per capita) contributes to explain the dynamic of the first economic ratio which sees a remarkable improvement of the relative conditions of average pension benefits with respect to Gdp per worker.

Figure 3

Demographic (left) and economic (right) components of the pension / GDP ratio

before and after the 2011 reform.

Source: Rgs (2012)

In order to evaluate the adequacy of the system the following two figures report the evolution of the replacement ratio (RR) and of the average retirement age derived from the simulation of a dynamic microsimulation model in the period 2011 – 2050. The RR is an immediate but imperfect indicator of the adequacy of a pension system. From one side it reports immediately the ratio between the first pension benefit and the last wage/earing of a pensioner, a quite intuitive measure. From the other side it does not report information on the familiar income situation before and after retirement and it does not take into account of the fact that the ratio, in particular under the NDC rule is “age sensitive”, as it changes remarkably with the retirement age of the pensioners. Accordingly results of the next two figures give a more complete picture of the likely evolution of the adequacy under the reformed pension system in Italy. On a nutshell we can affirm that the Italian pension system appears to be able to guarantee in the next decades similar level of adequacy, with respect to the performances reached in the past and notwithstanding the progressively increasing weight of the NDC rule, only thanks to a remarkable increase in the average retirement age which on average increases from 60-62 in the beginning of the simulation to 70-72 at the end of it.

Figure 4

Forecasted replacement rates between first year pension benefits and last year wages

after the 2011 reform



Source: CAPP\_DYN

Figure 5

Forecasted retirement ages after the 2011 reform



Source: CAPP\_DYN

Important differences are still on. In particular self-employed workers expect a lower RR because of their lower contribution rate, while shorter contributory periods and lower retirement age explain the worse performance of women with respect to men.

1. **Pension system and information**

A distinctive feature of the Italian pension reform process is that the main legislative changes in 1992, 1995 and 2011 were approved during periods of financial crisis, with the aim of reassuring the “financial markets” of the sustainability of the Italian public finance. Accordingly, there was a lack of debate before the approval of the reforms and little effort was expended by public institutions on explaining and describing their likely microeconomic and distributive effects, both in the short and in the medium-long run. In spite of this, the idea that the reform of the pension system was still incomplete and that “worse was still to come” was a constant refrain in media reports throughout the period.

Starting from the first two structural reforms of the pension system (in 1992 and in 1995) the Parliament divided the working population into two distinct groups: workers with more and with less than 15 years of seniority in 1992. Only for the second group new rules for the computation of the future pension benefits were applied according the pro rata mechanism. In fact following this policy Parliaments and Governments realized a generational split, which can be noticed not only in pension law modifications, but also in the creation of a labour market where flexibility and deregulation is much more pronounced among young workers. Some observers highlighted that this could be a consequence of the very high rate of participation of adult workers to national trade unions, which were called to discuss pension reforms, in particular the one of 1995, which introduced the NDC system in Italy. It is also important to remember that in 1993 trade unions and Government signed an important political agreement which introduced in Italy a long period of wages moderation. In this sense the generational split in the pension reforms and the wages’ moderation can be interpreted as two important components of the more general attitude of the Government, which was widespread in the Nineties of the last century, to involve the opposition and trade unions in the most important political decisions. Ex post this policy has had both advantages and costs: on one side it made possible the approval of the reform in the pension system, on the other hand, leaving older workers untouched by the restrictive impact of legislative changes had important financial costs in term of less saving for the public purse.

A second important point so stress is the opacity in the communication policies on the effects of the reforms. A notable example is the way the Government and trade unions decided to inform individuals about the likely effect of the reform. Choosing to concentrate attention only on the Replacement Rate as an indicator of the effect of the introduction of the NDC system they missed the opportunity to make clear the intertemporal implications both on the labour supply decision and on the long term (dis)advantage of the NDC system with respect to the DB one from the point of view of the worker.

As for informational policies it is also important to notice that the National Pension Institute (INPS) was supposed, starting from 1995, to inform each worker yearly about his/her prospective level of pension benefit and the age at which he/she would be able to claim the pension, but this legislative duty was constantly disregarded. It was only starting from 2015 that INPS promoted an information campaign called “La mia pensione” (my pension) with the purpose to fulfil this duty.

It is only with the 2011 reform that the generational split starts to end, but in a sense, this happens late since the majority of older workers of the 1992 are already pensioners.

Using various waves of the Bank of Italy’s Survey of Household Income and Wealth (SHIW), we study the evolution of the Italian population’s expectations on future level of pension benefits and retirement age between 2000 and 2014.

Figure 6

Statutory replacement rate, expected replacement rate and planned retirement age (1989–2012). Average values over the survey’s population.

Average values reported in the Figure 6 above convey the idea that Italian workers revised downward their expected replacement rate and upward their expected retirement age in line with actual changes enacted in the pension reform process. However, matters are more complex than these statistics show.

Table 2

Expected pension benefits and retirement age

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | % anticipating the correctretirementage  | % with expected pension <75% of the correct pension | % with expected pension within 75%–125% of the correct pension | % with expected pension >125% of the correct pension | % with correct retirement age + correct replacement rate |
| 1989 | 88.6 | 4.0 | 71.6 | 24.4 | 63.4 |
| 1991 | 88.4 | 9.0 | 73.5 | 17.5 | 65.0 |
| 2000 | 77.7 | 9.0 | 52.1 | 38.9 | 41.9 |
| 2002 | 82.5 | 7.9 | 58.5 | 33.6 | 49.9 |
| 2004 | 84.8 | 8.7 | 56.7 | 34.5 | 49.8 |
| 2006 | 81.5 | 10.4 | 54.3 | 35.3 | 46.6 |
| 2008 | 87.5 | 8.8 | 58.4 | 32.9 | 52.9 |
| 2010 | 59.8 | 8.4 | 57.7 | 33.9 | 40.7 |
| 2012 | 60.6 | 14.3 | 61.6 | 24.1 | 37.7 |
| 2014 | 63.0 | 11.5 | 62.1 | 26.4 | 40.0 |
| **Gender** |  |  |  |  |  |
| Men | 75.4 | 11.0 | 60.4 | 28.8 | 47.7 |
| Women | 76.8 | 7.8 | 52.2 | 40.0 | 41.6 |
| **Cohort** |  |  |  |  |  |
| Min/1950 | 71.9 | 10.5 | 61.9 | 27.6 | 45.1 |
| 1951/1960 | 75.3 | 7.5 | 62.9 | 29.6 | 49.4 |
| 1961/1970 | 78.7 | 9.5 | 52.6 | 37.9 | 44.0 |
| 1971/max | 75.1 | 13.8 | 52.5 | 33.7 | 41.3 |
| **Geographical area** |  |  |  |  |  |
| North | 76.4 | 11.0 | 61.9 | 27.0 | 49.2 |
| Centre | 74.8 | 9.4 | 54.9 | 35.7 | 42.6 |
| South | 76.0 | 7.6 | 50.9 | 41.5 | 40.9 |
| **Education** |  |  |  |  |  |
| Primary | 75.74 | 10.1 | 60.1 | 29.7 | 47.7 |
| Secondary | 76.15 | 9.1 | 57.1 | 33.9 | 45.5 |
| Degree | 76.12 | 10.0 | 50.4 | 39.6 | 39.3 |
| **Pension regime** |  |  |  |  |  |
| Defined Benefit | 74.0 | 10.5 | 78.3 | 11.2 | 58.8 |
| Pro rata | 77.9 | 8.6 | 54.2 | 37.1 | 44.8 |
| Notional Defined Contribution | 73.9 | 11.2 | 42.4 | 46.4 | 33.2 |
| **Single** |  |  |  |  |  |
| No | 76.0 | 9.6 | 58.9 | 31.5 | 46.3 |
| Yes | 75.8 | 10.0 | 54.3 | 35.7 | 43.7 |
| **Occupational status** |  |  |  |  |  |
| Private employee | 75.6 | 10.0 | 63.1 | 26.9 | 49.7 |
| Public employee | 73.7 | 4.8 | 57.8 | 37.4 | 45.0 |
| Self-employed | 80.8 | 17.1 | 38.0 | 44.9 | 32.2 |

Source: Baldini, Mazzaferro and Onofri (2017)

In order to analyse the level of knowledge about the future pension benefits and the retirement age in our sample and its heterogeneity Table 2 presents a more disaggregated evidence for the two variables. The first column reports the share of workers whose expected retirement age is consistent with his/her particular eligibility conditions. The following three columns refer, respectively, to (i) the proportion of workers whose expected pension benefit underestimates future statutory pension benefits by at least 25%, (ii) are within (+/-) 25% of their computed benefits and (iii) overestimate their benefits by at least 25%. Finally, the fifth column contains the proportion of workers who correctly report both the retirement age and the replacement rate.

In 1989, 88.6% of workers were able to correctly report their retirement age. The percentage of correct responses remains relatively high until 2008. It decreases abruptly in 2010 and still in 2014 the share of those who correctly anticipate their retirement age, at 63%, is abundantly below the level registered during the nineties of the last century. The ability to correctly predict the age of retirement emerges as a new source of uncertainty in the Italian social security system.

The ability to correctly predict a future value for the pension benefit was higher before the reform process began. Starting from a percentage of 71.6% of the sample before 1992, it dropped to 52% in 2000 and then increased more or less constantly. Similar to the case of retirement age expectations, it seems that workers, on average, need time to assimilate changes to the pension benefit formula progressively introduced by the reforms. At the same time an important cut point is the 2011 pension reform. Its impact on workers expectations is evident looking at the proportions of workers who underestimate and overestimate the pension benefit by year: moving from 2010 to 2012 the changes in the share of pessimists’ increases from 8.4% to 14.3% and the share of optimists’ decreases from 33.9% to 24.1%. Men seem to better predict their future pension benefits than women. They are also much less optimistic. Controlling by cohort and by pension regime returns similar qualitative information: younger workers are much worse at computing their future pension benefits and are essentially either more optimistic or more pessimistic, denoting a higher dispersion of expectations. Looking at the educational level, a peculiar picture emerges, at least considering results from other countries (Barret et al. 2013; Finseraas and Jakobson 2014): better educated workers in Italy do not display a greater ability to predict either future pension benefits or retirement age. This result is consistent with the findings of Bottazzi et al. (2006) and this evidence can be explained by the fact that among the employed population, more educated workers are much more concentrated in younger cohorts and among individuals who will accrue their pension rights under the less generous and more uncertain NDC system. In fact, the ability to correctly compute the future level of the pension benefit is sensibly lower among NDC workers, who are also more optimistic. In terms of occupational status, the self-employed perform worse than dependent workers. Again, the transition from the DB to the NDC system might explain the difference between these two groups as the change in the computation rule hurts the first group more than the second.

Looking at the last column, it emerges that the proportion of workers who appear to have sound information on both the retirement age and the replacement rate is negatively influenced by the reform and by its duration.