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AIReF Independent Authority *for* Fiscal Responsibility

Opinion on the determination of the 2015 Pension Revaluation Index

Executive Summary

The Pension Revaluation Index (PRI) aims to contribute to the financial stability of the Social Security System (SSS) in the medium and long term.

In this Opinion, AIReF assesses the figures used by the Ministry of Employment and Social Security (i.e. MOESS) in the determination of the 2015 PRI. This document complies with the provisions of Law 23/2013, of 23 December, on the Sustainability Factor and the PRI of the SSS (fourth additional Provision).

On the basis of the information provided by the MOESS, AIReF concludes that the solely application of the legal formula would result in a PRI below the legal minimum. Therefore, contributory pensions are bound to grow in 2015 by the minimum 0.25% threshold, as stated in the Draft State Budget (DSB).

The 2015-2020 expenditure forecasts provided by the Government are in line with AIReF estimates. However, the official revenue projections for this period appear rather demanding. According to AIReF estimates, there are two necessary conditions for official revenue projections to materialize. First, macroeconomic conditions should develop in line with the DSB baseline scenario.

Second, the measures designed at improving the efficiency of the SSS and broadening the contributory bases should achieve their full potential.

AIReF recommends taking into account the PRI results for decisions on the long-term sustainability and sufficiency of the contributory pension system. This Opinion also includes additional recommendations aimed at improving the transparency of the whole process by which the PRI is determined.

Introduction

According to Law 23/2013 on the Sustainability Factor (SF) [1] and the Pension Revaluation Index (PRI), AIReF is responsible for issuing an Opinion on the figures used by the Ministry of Employment and Social Security (MOESS) in the determination of the 2015 PRI. [2] This document fulfils such legal requisite, in agreement with AIReF Resolution 6/14 of 23 September 2014, which sets out the Opinion's content and methodology.

The aim of this Opinion is to assess whether the values and parameters used by the MOESS in the calculation of the 2015 PRI are realistic and consistent with the formula provided for by the law.

This Opinion consists of four sections on top of the introduction. Section 1 explains the formula used in the annual revaluation of pensions, aimed at ensuring the balance between the revenue and the expenditure side over the medium to long term. Section 2 describes the information requirements for the determination of the PRI. Section 3 contains AIReF assessment on the 2015 PRI, on the basis of the revenue and expenditure figures provided by the Government. Finally, section 4 contains AIReF's recommendations.

This Opinion is accompanied by three annexes and a spreadsheet. The first annex contains a detailed description of the mathematical formula used in the PRI calculation. Annex 2 develops the methodology behind the validation of changes in the number of pensions and the replacement rate. The third annex explains the estimation of the social contribution series for the 1995-2013 period, on the basis of its relevant explanatory variables. Lastly, a user-friendly spreadsheet, allowing for PRI simulations, is provided as a complement to this Opinion.

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[1] Final Provision 5 of Law 23/2013 defers the implementation of the Sustainability Factor (FS) until 2019.
[2] This obligation is also set out in article 23 of Organic Law 6/2013 on the creation of the AIReF, and in article 22 of Royal Decree 215/2014, enacting itsOrganic Statute.

I. The revaluation formula explained

Contributory Social Security pensions, including the amount of the minimum pension, will increase at the start of each year according to the PRI. This index is mathematically calibrated (see Annex 1 for a detailed methodological explanation).

Strict application of the mathematical formula ensures the overall balance, over the medium term, between the revenue and the expenditure sides of the Social Security contributory segment. Additionally, if an imbalance already exists, it enables its automatic correction, guaranteeing the long-term stability of the system.

The PRI formula can be divided in two parts. The first component represents, in levels, the balance between revenues and expenditures within the contributory segment. In the absence of initial imbalances, this part will fade out and thus have no impact on the PRI calculation. The second component of the formula relates the annual growth rate of revenues with the three factors that determine the expenditure side: a) change in the number of pensions; b) change in the average amount of pensions due to the netting out of entries and exits from the system (the replacement rate); and c) the annual increase of existing pensions (i.e. the PRI). This second factor is explicitly designed to prevent the appearance of new imbalances due to an impaired evolution of revenues and expenditures.

Therefore, in a situation in which medium term revenues and expenditures are balanced, the formula states that individual pensions may increase by an amount equivalent to the increase in revenue minus the increase in expenses. The latter depends on the change in the total number of pensions and the replacement rate.

Nevertheless, if imbalances have been previously accumulated in the SSS, the revaluation of pensions must be adjusted within specific limits, in order to allow for the gradual correction of deficits or surpluses. In this situation, the PRI must also help in closing the gap between revenue and expenditure over the period of time set by the regulation. The resulting PRI could even turn out to be in the negative territory.

The Law specifies a floor and ceiling for the annual revaluation of pensions. Regardless of the result obtained by applying the PRI formula, contributory pensions may not increase by less than 0.25%. At the same time, their increase cannot be larger than the change in the Consumer Price Index of the previous year plus 0.5pp. This means that during periods of relatively low (or high) revenue, pensions will have a floor (ceiling) which helps containing pension revaluations. On the one hand, this legal provision prevents excessive fluctuations in pensions, providing pensioners with more certainty about their future revenue. On the other hand, existing imbalances will take longer time to correct.

The corresponding value for each variable in the formula is obtained as the average of the values corresponding to 11 years, to limit pro-cyclical effects. The 11-year period is centred on the calculation year, including thus: the four previous years; the current year; the year for which the PRI is calculated; and the five subsequent years. This prevents pension revaluations from being either excessively small during recessions or excessively large during expansions.

II. Necessary information for the determination of the 2015 Pension Revaluation Index

The MOESS has provided information on the variables which are used to calculate the PRI. The information supplied is the following:

- Aggregate revenue and expenditure, taken from the SSS accounts for the 2010-2013 period (on a non-consolidated basis);

- Initial values for the variables included in the PRI formula, collected from the Social Security 2014 and 2015 budgets;

- For the 2016-2020 period, the aggregate revenue and expenditure and their average annual percentage change (4.1% and 3.1%, respectively). Additionally, AIReF received the annual change in the number of pensions (with an average growth rate of 1.3% for the period 2016-2020) and the replacement rate, presenting an average growth of 1.5%.

The data shows a gradual closure of the gap between revenue and expenditure for the 2014-2020 period (see graph below). The latest available year (2013) presents a deficit, which gradually disappears over the projection period (see the continuous line in the graph below). The average balance for the 11 years used in the calculation of the 2015 PRI is represented by the dotted line in the graph.

The gap between revenue and expenditure in the SSS contributory segment
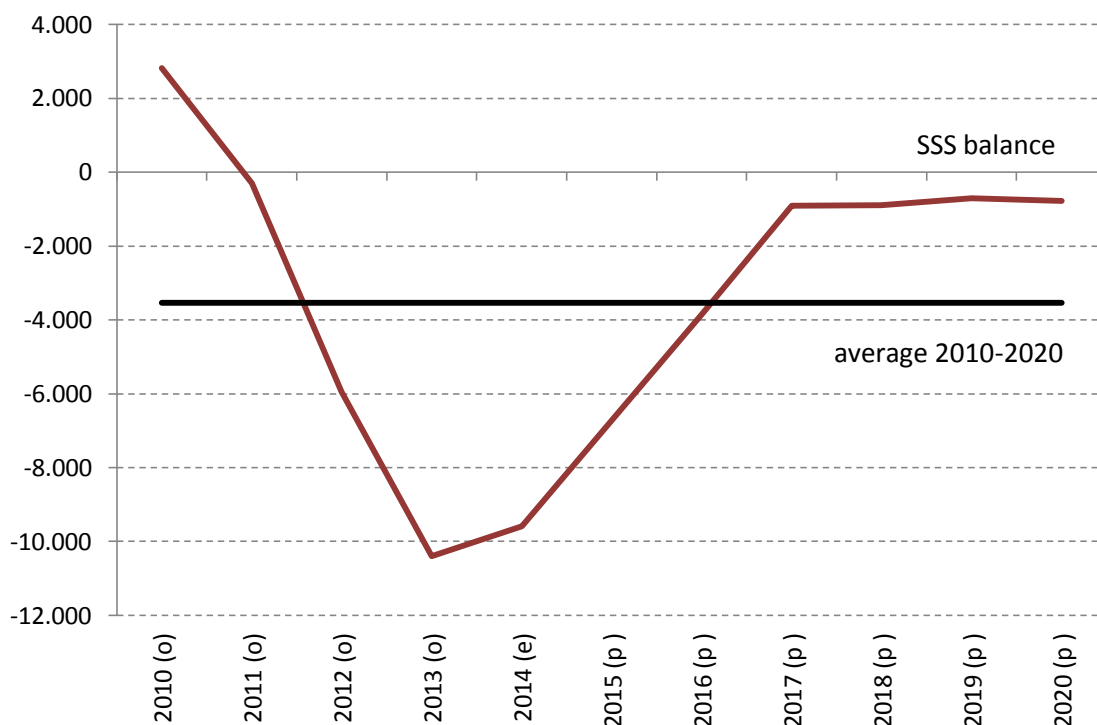
Likewise, the Ministry of the Economy and Competitiveness has supplied AIReF the macroeconomic scenario provided to the MOESS for the initial projection of revenues and expenditures.

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Source: Ministry of Employment and Social Security

(o): observed (e): estimated (p): projected

III. Overall Assessment

The PRI used by the MOESS in 2015 for the annual increase in pensions is consistent with the existing information on revenues and expenditures from the contributory segment of the SSS. AIReF concludes that, according to the series used by the MOESS for the calculation of the 2015 PRI, the resulting index lies below the legal minimum. This triggers the automatic implementation of the minimum 0.25% increase, as provided for in the DSB.

The corresponding expenditure projections supplied by the MOESS are consistent with AIReF's calculations for the change in the number of pensions and the replacement rate. The expenditure projections are obtained by exploiting micro-data on the labour force (Muestra Contínua de Vidas Laborales) and demographic projections from the National Statistical Institute.

The official revenue projections for 2015-2020 (implying an average annual growth rate of 4.1%) are assessed as demanding. According to AIReF estimates, there are two necessary conditions for these figures to materialize. First, the macroeconomic environment should develop in line with the DSB baseline scenario. Second, the measures designed to broaden the SSS contributory bases and to improve its management efficiency would have to generate the total amount of revenues originally estimated.

The revenue from SS contributions is estimated according to AIReF's internal model (see Annex 3).[3] Projections for the 2015-2020, based on the medium-term macroeconomic scenario included in the DSB, amount to an average annual growth of around 3%, well below the official figures. The detailed macro assumptions behind this scenario are the following: employment and wages average growth of 1.86% and 1.87%, respectively; and inflation gradual convergence over the coming years to the

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[3] The three main variables which influence the variation in social quotas according to this model are the number of wage earners, salary per wage earner and the maximum base for contribution.

European Central European Bank inflation target (estimated at 1.8%).[4]

Achieving the level of revenue projected by the Government would require an additional 1% of GDP of revenue per year for the period 2015-2020. In this context, the extra revenues from the policy measures aimed at broadening the bases (approx. 2,500 million euros by including payments in kind) and increasing efficiency (yielding approx. 3,700 million euros from the full implementation of the new direct payment system –CRETA– and the execution of an anti-fraud campaign) appear as crucial to close the gap. The gains from these measures will also have to stay over the subsequent years. In any case, irrespective of the final impact of these reforms, the final PRI for 2015 would still be the legal minimum (i.e. 0.25%).

AIReF model also allows for sensitivity exercises, studying the impact on the PRI due to changes in the macroeconomic scenario:[5]

- A 1 p.p. permanent increase in the growth rate of wage-earners for the period 2015-2020 has a positive effect on the 2015 PRI of 0.8 p.p.

- A 1 p.p. permanent increase in the growth rate of the average wage for the period 2015-2020 implies an increase of the 2015 PRI of 0.6 p.p.

- A one-off 1 p.p. increase in the revenue in 2015 (for example from efficiency gains) has an effect on the 2015 PRI of 0.18 p.p.

The PRI formula is circular in its resolution. In fact, the calculation of the index for one year depends on the total expenditure for the same period, which requires, in turn, the PRI figure for its determination. This adds complexity to the

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[4] As the Budget Plan ends in 2017, a process of convergence with the nominal GDP at 3.5% has been assumed up to 2020, together with a growth in wage earner salaries consistent with an apparent growth in productivity of labour of 0.4%, plus inflation at the expected rate of 1.8%.
[5] The AIReF includes an Excel template to replicate the type of mechanism followed in the simulations and evaluate the results in the 2015 PRI by introducing user-defined assumptions.

calculation. AIReF has solved this difficulty by two different methods,[6] yielding very similar results, and thus concludes that the different solutions to the problem of circularity have only a marginal effect on the final result.

IV. Recommendations

1. AIReF recommends taking into account the PRI for decisions on the long-term sustainability and sufficiency of the contributory pension system. It is particularly desirable that revenue developments are closely monitored since changes in expenditure are more inertial and therefore more foreseeable.

2. AIReF recommends improving transparency by publishing the information required for the PRI calculation. This involves publishing the baseline series, including the different components of expenditure and revenue, together with the underlying macroeconomic assumptions and the final PRI, before applying the legal boundaries. This would, in turn, improve public understanding of this mechanism. Although a publication date is not set by law, it would be convenient to supply this information within the annual DSB (i.e. the Social Security Economic and Financial Report).

3. AIReF recommends the Government to publish the methodology used to go around the circularity of the PRI formula.

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[6] An AIReF working document on the circularity of the IRP formula, authored by Ignacio Moral and Federico Geli, will shortly be published.

5. AIReF believes consolidated SSS revenues and expenditures should be used. The current legal obligation to use non-consolidated figures for revenue and expenditure operations between entities inside the SSS presents some drawbacks when applying the PRI formula. First, the same criterion must be used to project these operations for revenue and expenditure and therefore these elements need to be identified. Second, the imbalance correction component in the formula is systematically lower when using non-consolidated data. The latter feature decreases the speed of adjustment in times of deficit or surpluses.