



# **Parametric Reforms in the Public PAYGO Pension Programs 1995 – December 2021**

*This document compiles the main parametric reforms approved between 1995 and December 2021 in the pension systems worldwide.*

## I. Executive Summary

### Main parametric changes in the past 26 years

(1995 – December 2021)

Within a span of 26 years, from 1995 to December 2021 (\*), in order to reduce fiscal costs:

- **80** countries increased the contribution rate in their PAYGO programs  
(example: Spain, Netherlands, Norway).
- **64** increased the retirement age  
(example: Israel, Ukraine, United Kingdom).
- **63** adjusted the benefits formula or reduced the benefits plan  
(example: Costa Rica, Brazil, Italy).

(\*) Updated information takes into account reforms approved as of December 2021. In some cases, such approved reforms stipulate that the changes come into effect as of January 2022 or later, but they have nevertheless been included in the assessment of cases. Please see document "[ANNEX: Parametric Reforms in the Public PAYGO Pension Programs 1995 – December 2021](#)," for more specific details regarding the regulations.

Sources: FIAP based on:

- ✓ "Reform Option I: Parametric Changes", David A. Robalino, World Bank Core Course on Pensions, 2009."
- ✓ "Crisis of the PAYGO Systems and Infringement of the Benefits Promise: Recent Developments in the Complex World Scenario," Angel Martinez-Aldama, in the FIAP 2012 book "Opportunities and Challenges of the individually Funded Systems in a Globalized World" (FIAP Mexico Seminar, May 2012)."
- ✓ "The impact on workers of parametric changes in the PAYGO programs (FIAP document, 2009).
- ✓ "International Update", Social Security Administration; available at: [http://www.socialsecurity.gov/policy/docs/progdesc/intl\\_update/](http://www.socialsecurity.gov/policy/docs/progdesc/intl_update/)
- ✓ "Global Retirement Update", AON Hewitt, available at: [http://www.aon.com/human-capital-consulting/thought-leadership/leg\\_updates/global\\_reports/reports-pubs\\_global\\_retirement\\_update.jsp](http://www.aon.com/human-capital-consulting/thought-leadership/leg_updates/global_reports/reports-pubs_global_retirement_update.jsp)
- ✓ Towers Watson – Global News in Briefs: <https://www.towerswatson.com/en/Insights/Newsletters/Global/global-news-briefs>
- ✓ Progress of the Pension Systems, FIAP: <https://www.fiapinternacional.org/en/publications/marcha-de-los-sistemas-de-pensiones/>

## II. Introduction

Demographic changes (increase in life expectancy and reduction of the birth rate) are affecting the finances of pension systems worldwide and especially in the "Pay-as-you-go" (PAYGO) pension programs. Given this situation, many countries have been forced to make parametric reforms in their pension systems, such as increasing contribution rates, increasing the retirement age, increasing the number of contribution years needed to qualify for a pension, freezing pension benefits, or introducing adjustments to the formula for indexing pensions to make them less generous, thus helping to reduce the fiscal burden that the payment of State pensions entails.

The purpose of this document is to conduct an inventory of the main parametric reforms approved or implemented in the last 26 years, between 1995 and December 2021, in the PAYGO programs of the pension systems worldwide.

## III. Methodology

To meet the stated objective, the methodology consists in considering an initial inventory included as part of a study by the World Bank for the period between 1995 and 2005<sup>1</sup>. Subsequently, using different media and sources of information, including the regular reports of the United States Social Security Administration on the reforms to social security systems worldwide<sup>2</sup>, as well as the intelligence reports of international consulting firms such as AON Hewitt<sup>3</sup>, and other specialized agencies and media in the pensions and social security sphere, an assessment of the main parametric reforms adopted or approved between 2009 and December 2021 is performed. Finally, an overall assessment of the reforms introduced or adopted between 1995 and December 2021 is performed, which is a valid exercise for illustrating the general trends observed, even though information for the period between 2006 and 2008 is lacking. Each stage is explained in detail below.

### **A. Review of parametric changes between 1995 and 2005**

Historical reviews in this regard are scarce in the available literature. One of the few documents that address this issue is a 2009 World Bank report ([Reform Option I: Parametric Changes](#), David A. Roballino). This document states that in a period of ten years, between 1995 and 2005:

- 57 countries increased the contribution rate in their PAYGO programs
- 18 increased the retirement age, and
- 28 adjusted the parameters of the benefits formula and cut back or froze old-age pension amounts in order to reduce fiscal costs.

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<sup>1</sup> "[Reform Option I: Parametric Changes](#)", David A. Roballino, World Bank, 2009.

<sup>2</sup> "International Update", Social Security Administration; available at: [http://www.socialsecurity.gov/policy/docs/progdesc/intl\\_update/](http://www.socialsecurity.gov/policy/docs/progdesc/intl_update/)

<sup>3</sup> "Global Retirement Update", AON Hewitt, available at: [http://www.aon.com/human-capital-consulting/thought-leadership/leg\\_updates/global\\_reports/reports-pubs\\_global\\_retirement\\_update.jsp](http://www.aon.com/human-capital-consulting/thought-leadership/leg_updates/global_reports/reports-pubs_global_retirement_update.jsp)

**B. Review of some of the parametric reforms for increasing the financial and fiscal sustainability of the Public PAYGO Programs - 2009 – December 2021**

Based on the information compiled by FIAP through the different sources of available information, it was found that between 2009 and December 2021:

- 23 countries increased the contribution rates in their PAYGO programs
- 46 increased the retirement age, and
- 35 adjusted the parameters of the benefits formula and cut back or froze old-age pension amounts in order to reduce fiscal costs

**C. Global assessment of the parametric changes approved between 1995 and December 2021**

In order to be able to carry out a long-term assessment of the main parametric changes in the public PAYGO systems, a reliable source of historical information is necessary. Hence, the survey referred to in A is updated on the basis of the World Bank document, with the information presented in Tables No. 1 and No. 2 of the document “[ANNEX: Parametric Reforms in the Public PAYGO Pension Programs 1995 – December 2021](#)”, for the periods between 2009 and December 2021<sup>4</sup>.

The simple sum of the figures provided in A and B shows that in overall terms, between 1995 and December 2021:

- 80 countries increased the contribution rate in their PAYGO programs
- 64 increased the retirement age, and
- 63 adjusted the benefits formula (or directly reduced benefits) in order to reduce fiscal costs

For more details, review the document “[ANNEX: Parametric Reforms in the Public PAYGO Pension Programs 1995 – December 2021](#)”.

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<sup>4</sup> Note that the global survey of the reforms introduced or approved between 1995 and December 2021 lacks information for the 2006-2008 period. Nonetheless, it is a valid exercise for illustrating the general trends observed.