Parametric Reforms in the Public PAYGO Pension Programs[1] 1995 – June 2017

This document compiles the main parametric reforms (approved or under discussion) introduced between 1995 and June 2017 in the new reformed pension systems with public PAYGO programs and the unreformed public PAYGO programs.

[1] Document prepared by FIAP based on information from different specialized pensions media, consulting firms, international agencies and press reports. We are grateful to FIAP member associations for the information and comments provided.

Introduction

Many countries that have not introduced structural reforms to their pension systems and have kept a public PAYGO system open to new workers entering the labor market, have carried out parametric reforms to their social security systems to make them financially sustainable over time. These reforms have naturally tended to increase the revenue of the PAYGO systems (e.g., through an increase in contribution rates or through an increase in the number of years of contributions required for entitlement to a pension) and to reduce their costs (for example, by freezing benefits or by adjusting the index formulae to make pension less generous) in order to reduce the fiscal burden that the payment of State pensions entails.

Another of the recurrent modifications that affects both the costs and the revenue of the PAYGO system is the retirement age. As a result of the economic crises (that affect the treasuries of Governments) and longer-term demographic trends, a large number of countries have opted to increase the official retirement age. This increase, on the one hand, increases the amount of the contributions to be paid during working life (and therefore increases the revenue in the PAYGO system), and on the other hand, decreases the number of years during which the State pension is received (and therefore the costs of the PAYGO system decrease).

There are also countries in which the new reformed pension systems include both a public PAYGO and an individually funded program, with both systems complementing one another (as in Costa Rica and Uruguay and in most of the Central and Eastern European countries). Parametric reforms have also been introduced in the pension systems of these countries in order to make the PAYGO programs that are part of the new pension system more financially sustainable over time.

The purpose of this document is to conduct a survey or inventory of the main parametric reforms approved or implemented in the last nineteen years, between 1995 and June 2017, in countries with unreformed PAYGO systems and countries with PAYGO programs complemented by individually funded programs. For this purpose, an initial survey included as part of a study by the World Bank for the period between 1995 and 2005 was considered[2]. 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[3], as well as the intelligence reports of international consulting firms such as AON Hewitt[4], 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 mid-2017 is performed. Finally, an overall assessment of the reforms introduced or adopted between 1995 and mid-2017 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.

The document is organized as follows: First of all, it provides a summary of all the changes, organizing the parametric reforms according to their type, by country, and at the same time, an account of the major reforms worldwide between 1995 and mid-2017. Subsequently, the main reforms introduced between 2009 and mid-2017 are described in detail by country and continent in the Annex.

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[2] "Reform Option I: Parametric Changes", David A. Roballino, World Bank, 2009.

[3] "International Update", Social Security Administration; available at: http://www.socialsecurity.gov/policy/docs/progdesc/intl_update//

[4] "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

I. Overview

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.

B. Review of some of the parametric reforms for increasing the financial and fiscal sustainability of the Public PAYGO Programs - 2009- June 2017

Based on the information compiled by FIAP through the different sources of available information, it was found that between 2009 and mid-2017 (see Tables No. 1 and No. 2):

- 19 countries increased the contribution rates in their PAYGO programs
- 36 increased the retirement age, and
- 39 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 mid-2017

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 will be updated on the basis of the World Bank document, with the information presented in Tables No. 1 and No. 2, for the periods between 2009 and mid-2017[5].

The simple sum of the figures provided in A and B shows that in overall terms, between 1995 and mid-2017:

- 76 countries increased the contribution rate in their PAYGO programs
- 54 increased the retirement age, and
- 67 adjusted the benefits formula (or directly reduced benefits) in order to reduce fiscal costs.

[5] Note that the global survey of the reforms introduced or approved between 1995 and June 2017 lacks information for the 2006-2008 period. Nonetheless, it is a valid exercise for illustrating the general trends observed.

Main parametric changes in the past 21 years

(1995 – mid-2017)

- **Within a span of 20 years, from 1995 to June 2017 (*), in order to reduce fiscal costs:**
  - **76 countries increased the contribution rate in their PAYGO programs (example: France, Norway, Russia, Portugal, Costa Rica).**
  - **54 increased the retirement age (example: Germany, South Korea, Denmark, Spain, France, Greece).**
  - **67 adjusted the benefits formula or reduced the benefits plan (example: Brazil, Belgium, Italy, Netherlands, United Kingdom).**

(*) Updated information takes into account reforms approved as of December 2016. In some cases, such approved reforms stipulate that the changes come into effect as of 2017 or later, but they have never the less been included in the assessment of cases. Please see Annex: "Description of reforms by continent and country," for more specific details regarding the regulations. The assessment does not include proposed reforms or recommendations by experts, but only already legislated and approved changes.

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/**
- ✓ **"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**
- ✓ **Towers Watson – Global News in Briefs: https://www.towerswatson.com/en/Insights/Newsletters/Global/global-news-briefs**

Table No. 1

Main Parametric Changes in the Public PAYGO Programs - Type of Parametric Change by Country (2009- mid-2017)

Type of Reform				
Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Andorra	Australia	Andorra	Andorra	Belgium
Cape Verde	Azerbaijan	Australia	Greece	Czech Republic
Bulgaria	Belarus	Belgium	Italy	Germany
Costa Rica	Belgium	Belarus	Latvia	Guyana
Curacao	Bulgaria	Brazil	Portugal	Lithuania
Slovakia	Costa Rica	Bulgaria	Romania	Nicaragua
Estonia	Croatia	Curacao	Russia	Vietnam
France	Curacao	Czech Republic	Slovenia	
Guyana	Denmark	Ecuador		
Kenya	Slovakia	Finland		
Monaco	Slovenia	France		
Morocco	Spain	Greece		
Nicaragua	Estonia	Guatemala		
Norway	Finland	Hungary		
Oman	France	Italy		
Philippines	Germany	Japan		
Poland	Greece	Latvia		
Portugal	Guatemala	Lithuania		
Russia	Hungary	Luxembourg		
	Ireland	Monaco		
	Italy	Netherlands		
	Kazakhstan	Nicaragua		
	Latvia	Norway		
	Lithuania	Portugal		
	Madagascar	Romania		
	Malta	Russia		
	Morocco	Slovenia		
	Norway	Spain		
	The Netherlands	Ukraine		
	Portugal	United Kingdom		
	Czech Republic	Vietnam		
	Romania			
	South Korea			
	St. Maarten			
	Ukraine			
	United Kingdom			
19	**36**	**31**	**8**	**7**

Source: FIAP based on Table No. 2.

Table No. 2

Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009-mid-2017)

Continent	***Country***	***Type of Reform***				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Africa	*Cape Verde*	From 15% to 16% for employers, and from 8% to 8.5% for workers (from April 2016).				
	Kenya	From 5% to 6%, for workers and employers (from May 2014; approved in December 2013)				
	Madagascar		Once only for women: from 55 to 60 (equals the age for men). (Approved and in force since June 2013)			
	Morocco	From 5% to 7% for employers and employees from 2019. (Approved in March 2016).	Gradual: from 60 to 63 from 2017 to 2022. (Approved in March 2016).			

Source: FIAP.

Continues

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Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	***Country***	***Type of Reform***				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Latin America and the Caribbean	*Brazil*			Elimination of the sustainability factor for the adjustment of pensions, replaced with rule 85/95. Under rule 85/95, between 2015 and 2017 the sum of age and the number of years of Social Security contributions must be 85 for women and 95 for men. The law includes an increase of one point every two years in the rule, from 2018 to 2026, when the formula will change to 90/100, (90 points for women and 100 for men).		
	Curacao	From 13% to 15% (increase financed solely by the employer). (Approved and in force since February 2013)	Once only for women: from 55 to 60 (equals the age for men). (Approved and in force since June 2013)	(i) Indexation of pensions is no longer automatically subject to the variation of the CPI; now the pension is adjusted only if the growth of the GDP is > 1%; (ii) the number of years of contribution required for qualifying for a pension increases from 45 to 50 years. (Approved and in force since Feb. 2013)		
	Costa Rica	From 9.16% to 10.16% (increase financed solely by the employer). (Approved in Jan. 2017 and in force since Jun. 2017).	From 55 to 60 for public pensions with charge in the public budget. (Approved in August 2016).			
	Ecuador			Benefits will be adjusted only by the average rate of inflation of the previous year, starting in 2016. (Approved in April 2015).		

Source: FIAP. **Continues**

Table No. 2

Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	***Country***	***Type of Reform***				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Latin America and the Caribbean	*Guatemala*		Once only: 60 to 62 (new workers entering the labor market). (In force since Jan. 2011).	The number of years of contribution required for qualifying for a pension increases from 15 to 20 years. (In force since Jan. 2011).		
	Guyana	Rates funded by workers: from 5.2 to 6.2% (self-employed workers); 11.5% to 12.5% (self-employed workers). (In force since June 2013)				The maximum taxable ceiling almost doubled to reach USD 11,503. (In force since June 2013)
	Nicaragua	Gradual increase in the rate funded by the employer: 7% (2013) to 10% (2017) (Approved in Dec. 2013)		The formula for calculating the pensions of workers with income > US$ 272 is modified, reducing their benefits with respect to prior rules. Minimum pensions will be calculated based on the average salary and not on the minimum wage. (Approved in Dec. 2013)		The maximum taxable ceiling almost doubled, reaching US$ 2,816 per month. (Approved in Dec. 2013)
	St. Maarten		From 60 to 62 starting in January 2018. (Approved in June 2016).			

Source: FIAP.

Continues

Table No. 2

Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	***Country***	***Type of Reform***				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Asia-Pacific	*Australia*		Gradual: from 65 to 67 from 2017 to 2023. In May 2014 was approved another increase from 67 to 70 by 2026.	(i) Pensions will be adjusted to the CPI only. (ii) Tighten the asset test to access an public pension (Approved in May 2014, in force from Sep. 2017).		
	Azerbaijan		Gradual: from 62 to 63 (men); from 57 to 60 (women) (approved in Oct. 2008; in force as of Jan. 2010)			
	Japan			Change in the way in which current benefit payments are adjusted, and restricting future increases of pensions in relation to wages and inflation. (Approved in Dec. 2016)		
	Kazakhstan		Gradual: from 58 to 63 (women), matching the age for men. (Approved in June 2013; in force as of Jan. 2018).			
	Oman	From 21% to 24%: from 6.5% to 7% (workers); from 10.5% to 11.5% (employers); from 4 to 5.5% (State). (Approved Nov. 2013, in force since Jul. 2014).				
	Philippines	From 10.4% to 11% (approved on Oct. 2013; in force as of Jan. 2014). From 11% to 12.5% (in force as of May 2017).				
	South Korea		Gradual increase from 60 to 65 years of age, from 2016 to 2033. (Approved in 2013; applicable as of January 2016 in private enterprises with more than 300 employees and all public companies; applicable to all other enterprises as of 2017.			
	Vietnam			The number of years of contributions required for men to access a full old age pension increased from 15 to 20 years (this change has been in effect since Jan. 2016); the rate of increase in pensions for each year of contributions after 15 years of service, will drop by 1 percentage point (change in effect as of 2018).		The taxable income for paying Social Security contributions was increased (change in effect since Jan. 2016)

Source: FIAP. **Continues**

Table No. 2

Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	Country	Type of Reform				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Europe	*Andorra*	From 2.5% to 3.5% (worker); from 7.5% to 8.5% (employer). (Approved in July 2013; in force as of Jan. 2014).		(i) The number of years of contribution required for qualifying for a pension increases from 15 to 20 years; (ii) pension indexing will be based on the variation of the CPI, salaries and the sustainability factor (contributors/pensioners ratio). (Approved in July 2013; in force as of Jan. 2014)	Reduction of pensions greater than 150% of the minimum monthly wage. (Approved in July 2013; in force as of Jan. 2014).	
	Belgium		Gradual: from 65 to 66 by 2025, and 67 by 2030. (Approved in Aug. 2015).	The number of years of contributions required for obtaining an early pension increase from 40 to 41 in 2017, and to 42 in 2019.		Definition of taxable income extended: now includes monetary compensation for termination of employment relationship or breach of contract (retail workers). (In force since Oct. 2013)
	Belarus		Gradual: from 60 to 63 (men) and from 55 to 58 (women) by 2023 (6 months per year; approved in April 2016, in force since Jan. 2017).	The minimum number of years of contribution required for accessing a pension increases from 5 to 10 years. (Approved in Sept. 2013; in force as of Jan. 2014).		
	Bulgaria	Increase of the overall old age, disability and survival contribution rate (employer + employee) of 1 percentage point per year in 2017 and 2018, from 17.8% to 19.8% of the gross salary of the worker (approved in July 2015; in force as of Jan. 2016).	Gradual until 2029: from 63 to 65 (men); from 60 to 63 (women). (Initially approved in Dec. 2010; and reapproved in Jul. 2015; in force as of Jan. 2016). The retirement age for both men and women will be 65 starting in 2037. Thereafter the retirement age will be linked to the increase in life expectancy. Workers with insufficient contributions will be allowed to take early retirement at 65 years and 10 months, until 2016, increasing gradually to 67 years of age as of 2017.	The required minimum number of years of contributions for accessing a full pension will increase gradually from 34 to 37 for women, and from 37 to 40 for men. (Approved in Dec. 2010; and reapproved in July 2015; in force as of Jan. 2016).		

Source: FIAP. **Continues**

Table No. 2

Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	Country	Type of Reform				
		Increases in contribution rates destined to the public PAYGO program	Increases in the normal retirement age	Adjustment of parameters in the benefits formula	Cutbacks or freezing of the amount of the old-age pension	Increases in Taxable Income or Maximum Taxable Ceiling
Europe	Croatia		From 65 to 67, since 2028. (Approved in April 2016; in force since 2018).			
	Czech Republic		Gradual: from 62 years & 2 months up to 65 years (men) and from 57 to 65 (women without children), by 2028. (In force since Jan.	(i) The number of years of contributions required for accessing a full pension increases gradually from 25 to 35 years by 2019 (in force since Jan. 2010); (ii) From 2013 to 2015, pensions will be adjusted automatically by 33.3% of the variation in the CPI and 33.3% of the growth of the average wage (formerly pensions were adjusted only according to the change in the CPI and by 33.3% of the growth of the average wage) (approved in September 2012).		Increase in the maximum taxable ceiling, from 48 to 72 times the national average monthly wage. (In force since Jan.
	Denmark		From 67 to 68 years, since 12.29.2015, for those born from 1963 onwards; future automatic adjustments of one year every 5 years.			
	Estonia	Transitory increase from 16% to 20% in 2010; drops from 20% to 18% in 2011; and from 18% to 16% in 2012. (Approved in 2009).	Gradual: from 63 to 65 (men) and from 60 to 65 (women), by 2026. (Approved in April 2010, will be enforced as of 2017).			
	Finland		Gradual increase in minimum retirement age from 63 to 65 by 2025, and maximum retirement age from 68 to 70. From 2025 onwards, the retirement age will be adjusted according to life expectancy, with maximum increases of 2 months per year (reform approved in February 2016, in force since Jan. 2017).	The discount factor on income throughout working life will be standardized at 1.5% and income earned from the age of 17 will be considered. (In force since Jan. 2017).		

Source: FIAP. **Continues**

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Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	Country	Type of Reform				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Europe	*France*	Gradually, from 6.75% to 7.05% (workers) and from 8.4% to 8.7% (employer), from 2014 to 2017. (Approved in Dec. 2013)	Gradual: from 60 to 62 (for reduced early pension); from 65 to 67 (for normal full pension), by 2017. (Approved in Dec. 2011).	The minimum number of years of contribution required for accessing a pension increases gradually from 41.5 to 43 years, from 2020 to 2035. (Approved in Dec. 2013).		
	Germany		Gradual: from 65 to 67, by 2029. (Approved in March 2007; in force since 2012).			Increase of the tax ceiling from 72,600 EUR (approx. US$ 79,562) to EUR 74,400 (approx. US$ 81,534) in Western Germany and from EUR 62,400 (approx. US$ 68,384) to EUR 64,800 (approx. US$ 71,014) in Eastern Germany (in force as of January 2016).
	Greece		(i) Gradually, from 60 to 65 (women) from 2011 to 2013 (approved in May. (ii) Gradual increase, from 65 to 67 by 2020; from then on and every 3 years, the retirement age will be adjusted on the basis of life expectancy (approved in Nov. 2012).	The minimum number of years of contribution required for accessing a pension increases gradually from 37 to 40 years, as of 2015. (Approved in June 2010); (ii) As of 2014, pensions will be indexed according to the variations of the CPI and will be calculated by taking the average salary of the entire career as a reference (instead of taking the 5 years of best wages of the last 10 years prior to retirement).	(i) Freezing of pensions in 2011-2013 (Approved in June 2010); (ii) Freezing of pensions extended to 2015 (approved in June 2011); (iii) Reduction of monthly pensions > US$ 1,299, between 5% - 15%.	
	Hungary		Gradual: from 62 to 65, by 2022. (Approved in May 2009).	Change in the way that pensions provided in the PAYGO system are indexed, subject to conditions of economic and wage growth. (Approved in May 2009).		

Source: FIAP.

Continues

Table No. 2
Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	Country	Type of Reform				
		Increases in contribution rates destined to the public PAYGO program	*Increases in the normal retirement age*	*Adjustment of parameters in the benefits formula*	*Cutbacks or freezing of the amount of the old-age pension*	*Increases in Taxable Income or Maximum Taxable Ceiling*
Europe	*Ireland*		Gradual: from 66 to 67 by 2021; and from 67 to 68 by 2028. (Approved in June 2011).			
	Italy		Gradual: (i) from 61 to 65 (women in the public sector), as of 2015. (Approved in July 2010); (ii) from 65 to 66 (men) and from 60 to 62 (women), starting in 2012; will increase to 67 by 2022; from 2013 the retirement age will be adjusted in accordance with the variation in life expectancy (approved in Dec. 2011).	Increase in the number of years of contributions necessary for obtaining an early pension, to 42 years and one month for men and 41 years and one month for women, based on life expectancy (+ 3 months, starting in 2013).(Approved in Dec. 2011).	Freezing of pensions exceeding USD 1,825) during 2012 and 2013. (Approved in December 2011).	
	Latvia		Gradual: from 62 to 65, between 2014 and 2025 (approved in May 2012).	The number of years of contributions required for accessing a pension increases from 10 to 15 years by 2014, and from 15 to 20 years by 2025.	Reduction of pensions by 10% between July 2009 and Dec. 2012; pensioners who work will only receive 30% of the State pension (Approved in 2009).	
	Lithuania	(i) Increase from 23.85% in 2008 to 26.35% until June 2009; from July 2009 to Dec. 2011, increased to 27.35%; in 2012 rose to 27.85%; and in 2013 dropped to 26.85% (for workers who pay a % of their social security contribution to individual accounts). (Approved in 2009; amendments in 2011); (ii) Increase from 26.85% to 27.35% in 2014 (approved in Nov. 2012).	Gradual: from 62.5 to 65 (men) and from 60 to 65 (women), from 2012 to 2026. (Approved in June 2011).	Increase in the number of years of contributions required for accessing a full pension, from 30 to 35 years, as of 2017. (Approved in June 2016)		A tax ceiling of a 120 times the average annual salary will be implemented as of 2017; it will be gradually reduced to sixty times the average annual wage by 2022. There was previously no tax ceiling. (Approved in June 2016).

Source: FIAP. **Continues**

Table No. 2
Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	*Country*	*Type of Reform*: *Increases in contribution rates destined to the public PAYGO program*	*Increases in the normal retirement age*	*Adjustment of parameters in the benefits formula*	*Cutbacks or freezing of the amount of the old-age pension*	*Increases in Taxable Income or Maximum Taxable Ceiling*
Europe	*Luxembourg*			Gradual modification (by 2052) of the benefits formula in two parts: (i) fixed portion, which depends on the number of years of paid-in contributions, which will increase slightly; and (ii) variable portion, which depends on the level of income, and will decrease significantly. As a result, workers must work 3 years more than what they work today in order to obtain a pension equal to the levels granted in 2012. (In force since Jan. 2013)		
	Malta		Gradual: from 61 to 65 (men) and from 60 to 65 (women), from 2007 to 2027. (In force since 2007).			
	Monaco	From 6.15% to 6.55% (workers) and from 6.15% to 6.95% (employers). (In force since Oct. 2012).		The pension calculation formula will be based on a points system, making it less generous. (In force since Oct. 2012).		
	Norway	From 18.8% to 19.6%: from 7.8 to 8.2% (workers) and from 11% to 11.4% (employers). (In force since Jan. 2011).	Introduction of flexible retirement between age 62 and 75; workers can collect a pension and continue working; (under the current rules, the retirement age is 67, but it can be deferred up to age 70, gaining a credit to obtain a higher pension). (In force since Jan. 2011)	(i) Changes in the benefits calculation formula, based on the average contributions throughout working life from age 13 to 75, plus credits for periods with no paid-in contributions due to unemployment; (ii) Pensions will be adjusted annually based on the growth of wages, less 0.75 percentage points (benefits will not be adjusted downwards in case of wage reductions); (iii) pensions will be adjusted in accordance with the "longevity factor" based on the age of the individual at the time of retirement. (In force since Jan. 2011)		

Source: FIAP.

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Table No. 2
Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009-mid-2017)

Continent	***Country***	***Type of Reform***				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Europe	*Netherlands*		Gradual: from 65 to 66 by 2018; to 67 by 2021. The retirement age will be adjusted automatically starting in 2022, based on the changes in life expectancy. (Approved in Jan. 2015).	The maximum benefit has been lowered through the modification of the benefit formula by further reducing the maximum annual accrual rate from 2.15% to 1.875% of average earnings. Another measure will set a ceiling on pensionable earnings at EUR 100,000 (USD 108,248) a year. (Approved in Jan. 2015).		
	Poland	From 18.22% to 23.22% as of May-Dec. 2011 (due to the reduction in the contribution to individual accounts by 5 pp); in 2012 it rose by 2 pp to 25.22% (due to the increase of the part destined to the disability and survival insurance managed by the State); in 2013 it dropped to 24.72% (since the contribution to individual accounts increased by 0.5 pp). (In force since May 2011). Starting in 2014, for workers who choose to keep contributing to a private fund, the contribution rate to individual accounts will increase by 0.12 pp, and therefore the part destined to the public system will drop to 24.6% (signed into law by the President in Dec. 2013; pending final approval).				

Source: FIAP. **Continues**

Table No. 2

Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009-mid-2017)

Continent	**Country**	***Type of Reform***				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Europe	*Portugal*	From 11% to 11.2% for all workers (announced in April 2014).	From 66 to 66 years and 3 months (automatic increase, approved in April 2016, in force since January 2017).	(i) Modification of the sustainability factor for calculating pensions starting in 2015 (now life expectancy in 2010 and not 2006 will be used as the basis), which implies a reduction in the initial pension of 12.34%. (Approved in Dec. 2013). (ii) Introduction of a balance factor—a new way of adjusting pensions—based on the relationship between revenues and expenditures (announced in April 2014, but no implementation date was established).	(i) Freezing of public pensions since 2010; ((ii) Introduction of special pension tax on pensions > USD1,985 per month. (Approved in 2010).	
	Romania		Gradual: from 63 years & 9 months to 65 (men) and from 58 years and 9 months to 60 (women), by 2015; and from 60 to 63 (women) by 2030. (Approved in Dec. 2010).	The number of years of contributions required for accessing a full pension increases from 36 years & 6 months to 35 years (men) and form 27 years & 6 months to 30 years (women) (In force since Jan. 2010); (ii) The public pension indexation system changes to a much less generous system (public pensions will now increase according to the CPI plus the growth of wages). (Approved in Dec. 2010).	Freezing of pensions for 2011. (Approved in Dec. 2010).	
	Russia	From 20% in 2010 to 26% in 2011 (approved in Jul. 2009; in force since 2010). Starting in 2014, in the case of workers who do not choose a non-State private Fund (contributing to the State fund manager, by default), the contribution rate to the PAYGO pillar will increase by 4 percentage points. (Approved in Dec. 2013)		Gradual increase in the minimum number of years of contributions required to qualify for a public pension, from 6 to 15 by the year 2024. (Approved in Jan. 2015).	The indexing of public pensions based on inflation was suspended as of the second half of 2016. (Approved in Aug. 2016).	

Source: FIAP. **Continues**

Table No. 2

Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009-mid-2017)

Continent	***Country***	***Type of Reform***				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Europe	*Slovakia*	From 9% to 14% (increase financed only by the employer). (In force since Sept. 2012).	Gradual: from 60 to 62 (men by 2007); from 53/57 to 62 (women; by 2015). (Approved in 2003)			
	Slovenia		Increase linked to the number of years of paid-in contributions: from 58 to 60 years (men) and from 57 years &4 months to 60 years (women), with at least 40 years of contributions; from 63 to 65 (women), with at least 15 years of contributions. (In force since Jan. 2013)	Less generous indexation of pension: the 24 years of highest income will be taken into account (instead of 18). (In force since Jan. 2013)	Freezing of pensions in 2011 (they increase in 2012 only if inflation > 2%). (Approved in September 2010)	
	Spain		Gradual: from 65 to 67, by 2027. (Approved in Aug. 2011; in force since Jan. 2013)	The minimum number of years of contribution required for accessing a pension increases gradually: from 15 to 25 years by 2022 (reduced pension); from 25 to 38.5 years by 2025 (full pension). (Approved in Aug. 2011; in force since Jan. 2013); (ii) Introduction of "Sustainability Factor," linking the pension to the evolution of life expectancy (approved in final form in December. 2013; applies from 2019); (iii) Introduction of “Appreciation Rate" which adjusts pensions by a minimum of 0.25% and a maximum equivalent to the CBI of the previous year + 0.5% if economic situation is favorable.		

Source: FIAP.

Continues

Table No. 2

Main Parametric Changes in the Public PAYGO Programs - Detail by Continent and Country (2009- mid-2017)

Continent	***Country***	***Type of Reform***				
		Increases in contribution rates destined to the public PAYGO program	***Increases in the normal retirement age***	***Adjustment of parameters in the benefits formula***	***Cutbacks or freezing of the amount of the old-age pension***	***Increases in Taxable Income or Maximum Taxable Ceiling***
Europe	*Ukraine*		Gradual: from 55 to 60 (women), from October 2011 to 2020; 60 to 62 (male public servants) from January 2013 to 2016. (Approved in Sep. 2011).	The number of years of contributions required for accessing a full pension increases from 20 to 30 years (women) and from 25 to 35 years (men).; (ii) The number of years of contributions required for accessing a minimum pension increases from 5 to 15 years; (iii) from 2012, the average national salary of the last three years will be used for calculating the pension (approved in Sep. 2011); (iv) As of July 2013, pensions are indexed with a flexible formula, which considers the variation of the CPI and always an adjustment of at least 20% of the wage increase.		
	United Kingdom		Gradual: from 66 to 67 between 2026 and 2028. Additionally, the government will be required to review the state pension age every 6 years starting in 2017. (Approved in May 2014)	(i) Increase in the number of contribution years required to access to a full benefit from 30 to 35. (ii) Benefits will be indexed annually by at least the increase in average earnings (Currently benefits are adjusted to the growth in average earnings and price increases, or by 2.5%, whichever is higher) (Approved in May 2014, in force from April 2016).		

Source: FIAP.