International
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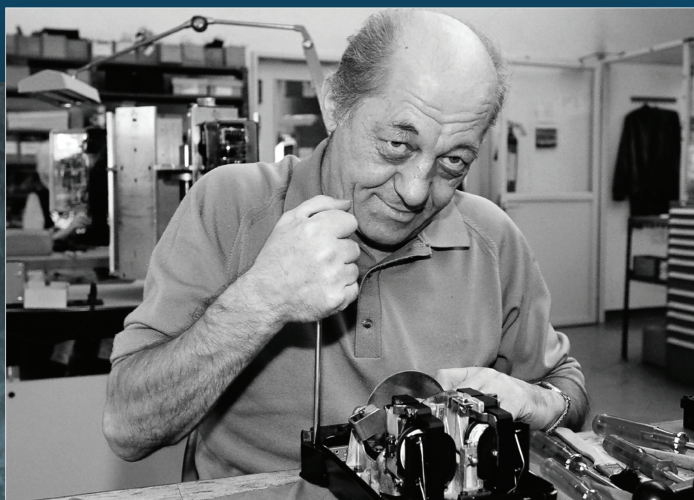
Reversing Pension Privatizations

Rebuilding public pension systems in Eastern Europe and Latin America

Edited by

Isabel Ortiz
Fabio Durán-Valverde
Stefan Urban
Veronika Wodsak



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International Labour Organization

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First published 2018

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Reversing Pension Privatizations: Rebuilding public pension systems in Eastern Europe and Latin America / International Labour Office – Geneva: ILO, 2018.

ISBN: 978-92-2-132242-9 (print)
ISBN: 978-92-2-132243-6 (web)

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This publication was produced by the Document and Publications Production, Printing and Distribution Branch (PRODOC) of the ILO.

Graphic and typographic design, layout and composition, printing, electronic publishing and distribution.

PRODOC endeavours to use paper sourced from forests managed in an environmentally sustainable and socially responsible manner.

Code: JMB-ICA

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Acknowledgements

This book would not have been possible without substantive contributions from colleagues worldwide. To start, this volume would not exist, were it not for the support and guidance from Deborah Greenfield, Deputy Director-General for Policy, International Labour Office (ILO), and earlier Sandra Polaski, sincere thanks for their support.

The authors greatly appreciate comments and suggestions to Part 1 of this book provided by Sandra Polaski, former Deputy Director-General, ILO; José Antonio Ocampo, former Minister of Finance of Colombia and former United Nations Under Secretary-General of Economic and Social Affairs; Michael Cichon, former Director, Social Security Department, ILO; Andras Uthoff, former Director, Social Development Division, United Nations Economic Commission for Latin America and the Caribbean (ECLAC); Carmelo Mesa-Lago, Distinguished Service Professor Emeritus of Economics and Latin American Studies at the University of Pittsburgh, United States; Anis Chowdhury, former Director Macroeconomic Policy and Development Division and Statistics Division, United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP); Helmut Schwarzer, former Social Security Secretary of State of Brazil and Social Protection and Economic Development Specialist, ILO; Juan Pablo Bohoslavsky, United Nations Independent Expert on Foreign Debt and Human Rights; Dean Baker, Co-founder and Senior Economist, Centre for Economic Policy Research, Washington D.C.; Shahra Razavi, Chief, Research and Data and Research Director of Progress of the World's Women, UN WOMEN; Magdalena Sepúlveda-Carmona, Senior Research Associate, United Nations Research Institute for Social Development (UNRISD) and former United Nations Special Rapporteur on Extreme Poverty and Human Rights; Christina Behrendt, Head, Social Policy Unit, Social Protection Department, ILO; Katja Hujo, Senior Research Coordinator, UNRISD; Alex Izurieta, Senior Economic Affairs Officer, Division on Globalization and Development Strategies, United Nations Conference on Trade and Development (UNCTAD); Dorothy Rosenberg, former Senior Social Policy Advisor, United Nations Development Programme (UNDP); Karuna Pal, Head of the Programming, Partnerships and

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The authors of the chapters in Part 2 appreciate the comments and guidance received by Isabel Ortiz, Director, Social Protection Department, ILO; Fabio Durán-Valverde, Head, Public Finance, Actuarial Services and Statistics, Social Protection Department, ILO; Stefan Urban, Social Protection Financing Expert, Social Protection Department, ILO and Veronika Wodsak, Social Security Expert, Social Protection Department, ILO. Additionally to their suggestions, the chapter on Hungary benefited from comments from Kenichi Hirose, Senior Specialist Social Protection, ILO Decent Work Team for Central and Eastern Europe, Budapest, and Hiroshi Yamabana, Senior Policy Advisor in Employment Injury, Global Employment Injury Programme, ILO. In addition, the chapter on Bolivia received support from José Francisco Ortiz Vindas, National Project Coordinator, ILO Office en San José de Costa Rica, Oscar Ferrufino Morro, current Director-General of Pensions, Bolivia's MEFP; Joel Mendizábal, former official at UDAPE; and Marcelo Ticona, former Director General of Pensions in Bolivia. Chapter 9 on pension re-reforms in Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania, and Slovakia would have not been possible without the help and support from Snježana Baloković, Predrag Bejakovic, Linda Chikan, Krzyszstof Hagemejer, Catalin Ghinararu, Ala Lipciu, Lauri Leppik, Jadranka Mrsik, Maria Svorenova, Penka Taneva, Inta Vanovska, Hristina Mitreva, Marian Preda and Tine Stanovnik. Special thanks to Karuna Pal and Victoria Giroud-Castiella of the ILO Social Protection Department, for the coordination of the editing, translation, production, publication and dissemination.

Sincere thanks to all those mentioned and others involved in finalizing this publication. Any errors are entirely the responsibility of the authors, not the reviewers.

List of Abbreviations

ADB	Asian Development Bank
AFJP	Private Pension Fund Administrators in Argentina (in Spanish, Administradoras de Fondos de Jubilaciones y Pensiones)
AFN	Agency for the Regulation and Supervision of Financial Market and Finance Institutions in Kazakhstan
AFP	Private Pension Fund Administrator (in Spanish, Administradoras de Fondos de Pensiones)
AIPS	Argentinian Integrated Pension System
ANASE	National Association of Insured People in Nicaragua
ANDEN	National Association of Educators of Nicaragua
ANSES	Argentinian Social Security Administration (in Spanish, Administración Nacional de la Seguridad Social)
APS	Pension and Insurance Oversight and Control Authority of Bolivia (in Spanish, Autoridad de Fiscalizacion y Control de Pensiones y Seguros)
ART	Occupational Risk Administrators in Venezuela (in Spanish, Administrador de Riesgo Laboral)
ATES	Tripartite Agreement on Employment and Wage Stability in Venezuela (in Spanish, Acuerdo Tripartito de Empleo y Estabilidad Salarial)
ATSAM	Tripartite Agreement to Revise Minimum Wages in Venezuela
ATSSI	Tripartite Agreement on Comprehensive Social Security and Wage Policy in Venezuela
BBVA	Banco Bilbao Vizcaya Argentaria
BCB	Banco Central de Bolivia
BSP	Basic Social Pension
CC	Certificate for compensation of previous contributions

CEE	Central and Eastern Europe
CISS	Inter-American Conference on Social Security (in Spanish, Conferencia Inter-Americana de Seguridad Social)
COB	Bolivian Workers' Federation (in Spanish, Central Obrera Boliviana)
CONAM	National Government Modernization Council in Ecuador
COSEP	High Council of Private Enterprises in Nicaragua
COSSMIL	Military social security agency in Bolivia (in Spanish, Corporación del seguro social militar)
CREPEN	Commission to Reform the Pension System in Nicaragua
CST	Sandinista Worker's Central of Nicaragua (in Spanish, Central Sandinista de Trabajadores)
DB	Defined benefit
DC	Defined contribution
ECLAC	Economic Commission for Latin America and the Caribbean
EDP	Excessive Deficit Procedure
ESAF	Enhanced Structural Adjustment Facility
EU	European Union
FDC	Financial (or Funded) Defined Contribution
FE	Pension Fund in Poland (in Polish, Fundusz Emerytalny)
FIAP	International Federation of Pension Funds Administrators
Fidesz	Alliance of Young Democrats of Hungary (in Hungarian, Fiatal Demokraták Szövetség)
FOR	Civic Development Forum of Poland (in Polish, Forum Obywatelskiego Rozwoju)
FSU	Former Soviet Union
FUS	Social Insurance Fund of Poland (in Polish, Fundusz Ubezpieczeń Społecznych)
GDP	Gross Domestic Product
HIPC	Highly-Indebted Poor Countries Initiative
HUF	Hungarian Forint
ID	Identification document
IDA	World Bank International Development Association

IDB	Inter-American Development Bank
IESS	Ecuadorian Social Security Institute
IFIs	International Financial Institutions
IGTE	Chamber of Pension Funds of Poland (in Polish, Izba Gospodarcza Towarzystw Emerytalnych)
ILO	International Labour Organization
IMF	International Monetary Fund
INSS	Nicaraguan Social Security Institute
ISSA	International Social Security Association
ISSFA	Armed Forces Social Security Institute in Ecuador
ISSPOL	National Police Social Security Institute in Ecuador
IVSS	Venezuelan Social Security Institute (in Spanish, Instituto Venezolano de Seguridad Social)
Jobbik	Movement for a Better Hungary (in Hungarian, Jobbik Magyarországért Mozgalom)
KNF	Financial Supervision Authority (in Polish, Komisja Nadzoru Finansowego)
KNUiFE	Insurance and Pension Funds Supervisory Authority of Poland (in Polish, Komisja Nadzoru Ubezpieczeń i Funduszy Emerytalnych)
LAC	Latin America and the Caribbean
LMP	Politics can be Different Hungarian Party (in Hungarian, Lehet Más a Politika)
LOSSSI	Organic Law of the Comprehensive Social Security System in Venezuela
MEFP	Ministry of the Economy and Public Finance in Bolivia
MNB	Hungarian National Bank (in Hungarian, Magyar Nemzeti Bank)
MSL	Minimum subsistence level
MTSS	Ministry of Labour and Social Security in Venezuela
NAV	National Tax Authority of Hungary (in Hungarian, Nemzeti Adohivatal)
NBRK	National Bank of the Republic of Kazakhstan
NDC	Notional (or Non-financial) Defined Contribution

NGTT	Economic and Social Council in Hungary
NIK	Supreme Audit Office of Poland (in Polish, Najwyższa Izba Kontroli)
NMS	New Member States
ODS	Old-age, disability and survivors
OECD	Organisation of Economic Cooperation and Development
OÉT	National Council for the Reconciliation of Interests in Hungary (in Hungarian, Országos Érdekegyeztető Tanács)
OFE	Open Pension Fund in Poland (in Polish, Otwarty Fundusz Emerytalny)
OISS	Ibero-American Organization of Social Security (in Spanish, Organizacion Iberoamericana de Seguridad Social)
OLG	Over-lapping generations model
ONYF	Central Administration of National Pension Insurance of Hungary (in Hungarian, Országos Nyugdíjbiztosítási Főigazgatóság
OPZZ	Trade Union Forum of Poland (in Polish, Ogólnopolskie Forum Związków Zawodowych)
PAYG	Pay-as-you-go
PBU	Argentinian Universal Basic Pension (in Spanish, Pension Básica Universal)
PMV	Minimum Pension of Venezuela
PPFA	Private Pension Fund Administrator in Kazakhstan
PPP	Purchasing Power Parity
PROST	World Bank's Pension Reform Options Simulation Toolkit
PSZÁF	Hungarian Financial Supervisory Authority (in Hungarian, Pénzügyi Szervezetek Állami Felügyelete)
PTE	General Pension Society of Poland (in Polish, Powszechne Towarzystwo Emerytalne)
RD	Dignity Pension of Bolivia (in Spanish, Renta Dignidad)
RK	Republic of Kazakhstan
SAPF	Public Accumulation Pension Fund in Kazakhstan
SGF	Sustainability Guarantee Fund in Argentina
SIA	Social Insurance Agency in Slovakia

SIP	Comprehensive Pension System of Bolivia (in Spanish, Sistema Integral de Pensiones)
SNUS	Single National Health System in Nicaragua
SOE	State-owned Public Enterprise
SPVS	Pension, Securities and Insurance Regulatory Agency in Bolivia
TGN	Northern Gas Transport Pipeline of Bolivia (in Spanish, Transportadora de Gas del Norte)
UDAPE	Bolivian Unit for the Analysis of Social and Economic Policies (in Spanish, Unidad de Análisis de Políticas Sociales y Económicas)
UFV	Housing Development Unit of Bolivia (in Spanish, Unidad de Fomento de Vivienda)
UN	United Nations
UNFE	Office of the Pension Funds Supervisory Commission of Poland (in Polish, Urząd Nadzoru nad Funduszami Emerytalnymi)
UNRISD	United Nations Research Institute for Social Development
UNYD	Union of Business Owners and Executives for National Development in Nicaragua (in Spanish, Unión de Empresarios y Ejecutivos para el Desarrollo Nacional)
UPF/ ENPF	Unified National Pension Fund of Kazakhstan (in Russian, Edinyi Natsional'nyi Pensionnyi Fond)
USAID	United States Agency for International Development
USD	United States Dollar
USSR	Union of Soviet Socialist Republics
VAT	Value added tax
VMPSF	Vice-ministry of Pensions and Financial Services in Bolivia (in Spanish, Vice Ministerio de Pensiones y Servicios Financieros)
WB	World Bank
ZUS	Polish Social Insurance Institution (in Polish, Zakład Ubezpieczeń Społecznych)

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Part 1

Part 1

Reversing Pension Privatizations: Rebuilding public pension systems in Eastern Europe and Latin America

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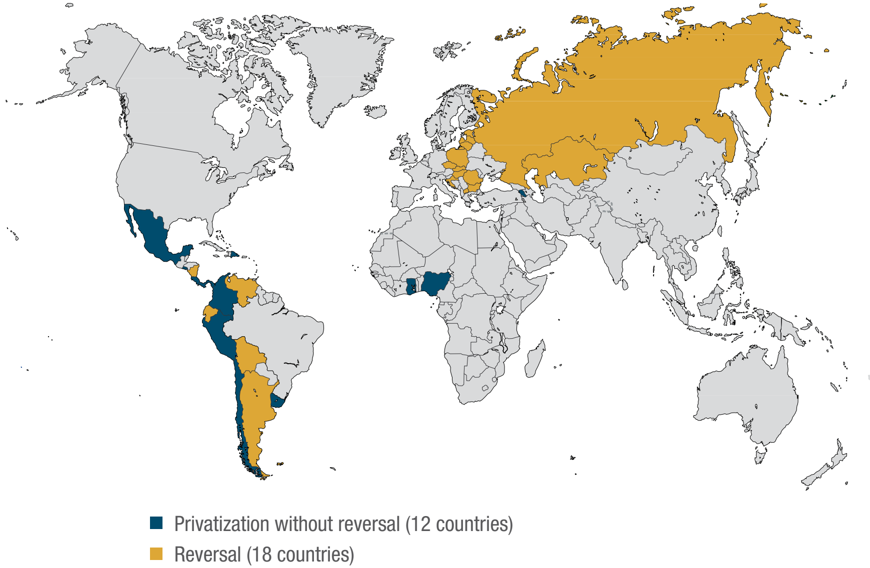
1.1 Pension privatization: Three decades of failure

From 1981 to 2014, thirty countries privatized fully or partially their social security public mandatory pensions (Figure 1). Fourteen countries were in Latin America: Chile (first to privatize in 1981), Peru (1993), Argentina and Colombia (1994), Uruguay (1996), the Plurinational State of Bolivia, Mexico and the Bolivarian Republic of Venezuela (1997), El Salvador (1998), Nicaragua (2000), Costa Rica and Ecuador (2001), Dominican Republic (2003) and Panama (2008). Another fourteen countries in Eastern Europe and the former Soviet Union embarked on the experiment to privatize pensions: Hungary and Kazakhstan (1998), Croatia and Poland (1999), Latvia (2001), Bulgaria, Estonia and the Russian Federation (2002), Lithuania and Romania (2004), Slovakia (2005), Macedonia (2006), Czech Republic (2013) and Armenia (2014). Additionally, two countries privatized their public pension system in Africa, Nigeria (2004) and Ghana (2010). It should be noted that this is a small number of countries. Despite pressures from the international financial organizations and the pension fund industry, only 30 countries privatized all or parts of their pension systems; that is, the majority of countries in the world have opted not to privatize.

As of 2018, eighteen countries have re-reformed, reversing pension privatizations (Figure 1): the Bolivarian Republic of Venezuela (2000), Ecuador (2002),

Figure 1. Countries that privatized social security mandatory pensions and that reversed privatization, 1981-2018



Nicaragua (2005), Bulgaria (2007), Argentina (2008), Slovakia (2008), Estonia, Latvia and Lithuania (2009), the Plurinational State of Bolivia (2009), Hungary (2010), Croatia and Macedonia (2011), Poland (2011), the Russian Federation (2012), Kazakhstan (2013), the Czech Republic (2016) and Romania (2017).

With sixty per cent of countries that had privatized public mandatory pensions having reversed the privatization, and with the accumulated evidence of negative social and economic impacts, it can be affirmed that the privatization experiment has failed. The reasons are multiple, ranging from high fiscal and administrative costs, to low coverage and benefits, to the unpredictability of old-age income due to capital market risks, as documented in this chapter and in the country cases in this book. While some governments repealed privatization early, the large majority of reforming countries turned away from privatization after the 2007-2008 financial crisis, when the drawbacks of the private system became evident and had to be redressed.

In light of the responsibility of governments to guarantee income security in old-age, the objective of this volume is to provide policy makers and social security institutions with an analysis of the reversals of pension privatization, including lessons learnt from recent re-reforms. The chapter is organized in three

parts. The first part presents the privatization experiment, and the reasons that led countries to abandon this model. The second part documents the reversals from privatization. The third and final part abstracts the policy steps needed to redress pension privatization for those governments interested to return to public pension systems.

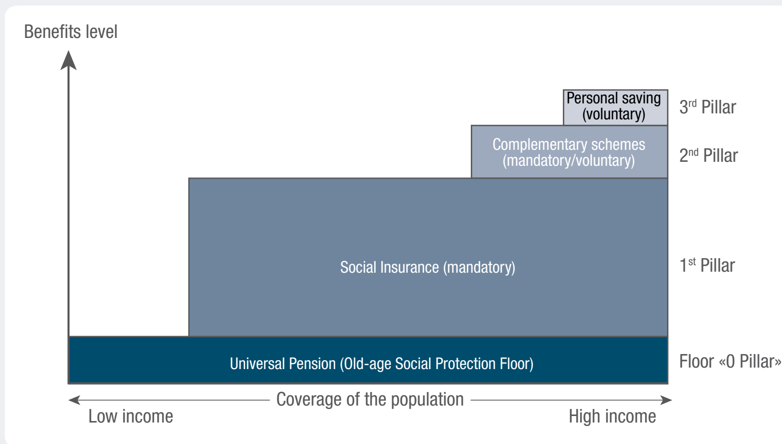
1.1.1. The Privatization Experiment

Since the origin of social security systems, the private insurance industry has typically catered the small 3rd pillar (voluntary pensions) and sometimes the 2nd pillar (complementary pensions). The wave of pension privatizations during the 1980s-2000s was an incursion of the financial sector into expanding to the larger 1st social insurance pension pillar (Box 1). This radical experiment was initiated in 1981, during the dictatorship of General Pinochet in Chile.[1] With the backing of a group of free-market economists trained at the University of Chicago, the Chilean public pension system (1st pillar) was changed to a private system run by private pension administrators. This structural reform was aimed at reducing for the government the fiscal costs of social security by replacing social insurance pensions with individual accounts managed by private pension fund administrators. Affiliation to the private pension system was mandatory for employees and voluntary for the selfemployed; interestingly, the military were excluded and kept their pensions in the public system. Employers' contributions were eliminated under this new system, but they had to provide an 11 per cent wage increase to workers at the time of the reform. Workers, instead of receiving a pension with a Defined Benefit (DB) at the end of their careers, were required to deposit Defined Contributions (DC) into their individual accounts, and these savings at the age of retirement were to be used to buy an annuity from a private insurance company. Workers could also make voluntary deposits to the mandatory individual account; both the mandatory and voluntary deposits were tax-deferred. Workers became compulsory consumers of the financial industry without sufficient information to make informed decisions, assuming individually all financial market risks. A primary objective of the pension privatization experiment was to mobilize people's savings to stimulate national long-term savings and develop capital markets.

[1] The reform was implemented under an authoritarian regime, without public discussion; with the Congress in recess since the military coup of 1973, the Military Junta held legislative power.

Box 1: Understanding pension systems: the multi-pillar pension model of the International Labour Organization (ILO)

Pension systems exist in all countries with the objective to eliminate old-age poverty and provide income security for older persons. In most countries, the right to social security for all is enshrined in the Constitution and/or secured by law. The right to social security is also asserted in Articles 22 and 25 of the Universal Declaration of Human Rights. Countries aim to achieve universal pension coverage at adequate benefit levels. This is normally achieved by a public system that includes contributory public social insurance, combined with non-contributory social pensions, complemented by voluntary pensions for those who want more savings for retirement.



Pillar 0 – the Pension Floor: It is aimed at establishing a social protection floor for older persons. This pillar is usually provided through a non-contributory pension scheme. It is financed from the general budget. Universality of coverage can be achieved through a universal non-contributory scheme or by a combination of social insurance and a means-tested or pensions-tested pension scheme. Regardless of the specific design of Pillar 0, it should guarantee a minimum level of income, with adequate levels of benefit, for a life in decency and dignity.

1st Pillar – Social Insurance: It follows the typical design of social security pension systems, defined benefit and mandatory, financed through employer and worker contributions. Its objective is to provide higher levels of pension benefits in order to

maintain the standard of living after retirement. It should provide at least a minimum pension at 40 per cent of pre-retirement insured income for 30 years of contributions, as well as a reduced/adjusted minimum benefit for those who have contributed for at least 15 years. Implementation of, as necessary, successive parametric reforms are required to ensure its sustainability.

2nd Pillar – Complementary Pillar: Not all countries need to have this pillar, it is a complementary contributory component, it can have any characteristics, voluntary or mandatory, employment-based occupational or non-occupational, defined benefit or defined contribution, usually financed by employer's contributions and privately managed, aimed at supplementing the pension benefits from the previous two pillars.

3rd Pillar – Voluntary Personal Savings Pillar: This pillar is also complementary, comprised of a set of voluntary private pension schemes for those with the economic capacity to make additional personal savings, generally managed by private pension administrators under full market competition and government regulation.

Source: ILO, 2018a and 2018b; Gillion et al, 2000; Cichon et al, 2000.

The Chilean pension experiment caught the attention of many. As it was being implemented, those friendly to privatization and market-led reforms described it as a pioneering experience for other countries to follow. Eventually, major International Financial Institutions (IFIs) and conservative think-tanks began to promote similar social security reforms, primarily the World Bank, together with USAID, the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), the Cato Institute and the Inter-American and Asian Development Banks (Mesa-Lago, 2012; Orenstein, 2008). The publication *"Averting the Old Age Crisis: Policies to protect the old and promote growth"* (World Bank, 1994) served as an important reference and blueprint for policy discussions. It presented pension systems as multi-pillar, and focused on the reform of the first pillar shifting towards private individual accounts invested in capital markets instead of public social insurance (Wodsak and Koch, 2010). With a strong emphasis on promoting economic growth, the World Bank publication depicted the traditional public pension system as a failure – both socially and economically. The World Bank emphasized the positive effects that pension privatization could have on capital markets, supporting investment growth, as well as claiming that they could provide higher benefit levels and stronger incentives for people to contribute –

Table 1. Typology of pension privatization reforms 1981-2010

	Full privatization	Partial privatization
Main Features	Replacement of the public Pay-As-You-Go (PAYG) system with a privately managed pension system, based on fully-funded individual accounts and defined contributions.	Introduction of a complementary fully-funded individual accounts component in a larger system, resulting in a system composed of several pension schemes, some public (with DB, PAYG and public administration features) and others privately managed (with DC and fully-funded individual accounts). The weight of the pillars significantly differs among countries. The larger the private pillar, the lower is the capacity of the public pillar to deliver adequate income security to older persons.
Country Examples	Chile (1981), Plurinational State of Bolivia (1997), Mexico (1997), El Salvador (1998), Kazakhstan (1998), Nicaragua (2000), Dominican Republic (2003), Nigeria (2004)	Argentina (1994), Uruguay (1996), Hungary (1998), Poland (1999), Costa Rica (2001), Latvia (2001), Bulgaria (2002), Croatia (1999), Estonia (2002), the Russian Federation (2002), Lithuania (2004), Romania (2004), Slovakia (2005), Macedonia (2006), Ghana (2010)

Source: Mesa-Lago, 2004; Mesa-Lago and Hohnerlein, 2002; Obermann, 2005; Orenstein, 2008; Grishchenko, 2014.

however, they failed to explain the very high costs of transition as well as the many risks to pensioners.

Advocates of privatization also claimed that defined benefit public social insurance would lead to an unavoidable "social security crisis" or an "old-age crisis", using this as justification to introduce structural reforms and the full or partial privatization of social security pension systems, particularly in middle-income countries (Table 1). In countries where a full privatization of the first pension pillar was not feasible, some schemes or regimes were privatized, while others were kept public. Costa Rica, for example, after several years of pressure and advice from the IFIs, adopted private individual retirement savings as a complement to the defined benefit public system. In countries where privatization

was not possible at all due to excessively high transition costs or insurmountable public resistance, the World Bank promoted as a second best reform option a non-financial (notional) defined contribution (NDC)[2] system facilitating the path towards future privatization (Holzmann and Palmer, 2006). With significant resources and direct access to Ministries of Finance, the World Bank, the IMF, the OECD, USAID and the Inter-American Development Bank and the Asian Development Bank, managed to promote the pension privatization agenda through policy advice, setting up regulators or supervisory bodies, creating modelling software, training, publications and by providing multi-million dollar loans. Orenstein (2008) estimates that the success rate of the World Bank projects promoting reform consistent with pension privatization was high – nearly 76 per cent – despite being a highly contentious and difficult issue in most countries.

Indeed, pension privatization was controversial. The reforms were contested by the International Labour Organization (ILO) and by many others, including by the World Bank's Chief Economist at the time, Nobel Laureate Joseph E. Stiglitz (Orszag and Stiglitz, 1999). The ILO expressed disagreement and objected in numerous statements and reports (Gillion et al., 2000; Cichon, 1999 and 2004; Bonilla-Garcia and Conte-Grand, 1998; Fultz, 2004), including a joint ILO-ISSA publication (Beattie and McGillivray, 1995). The ILO emphasized the importance of a well-balanced consideration of pension adequacy, financial sustainability and equity. For the ILO, pension systems should be guided at their core by the objective to provide old-age income security, contrary to the World Bank, with its prevalent objective to support economic growth and reduce fiscal pressures. The ILO argued in particular against relying too heavily on privately managed DC individual accounts that inevitably shift the risks to the individual. It also drew attention to the immense difficulty for countries to shoulder the high transition costs and double burden of phasing out or reducing the pay-as-you go schemes and introducing the new individual accounts pillar. The ILO further highlighted that good governance was a requirement for both the public and the private systems, and that privatization did not necessarily improve the quality of governance. In addition, substantial decrease in benefit levels were often disguised and pushed through such structural reforms.

[2] Non-financial (notional) Defined Contributions are notional or fictitious individual personal accounts under a public PAYG system, that -according to the World Bank- could smooth a transition from the DB to the DC system (Holzmann, 2017).

The ILO, through its technical advisory support as well as its policy and technical documents, has long recommended parametric reforms[3] to reinforce public pension schemes, instead of structural reforms to privatize them (Cichon et al. 2006; Diop, 2008; ILO, 2014; ILO, 2017). The position of the ILO is rooted in its body of international labour standards drawn up and adopted by representatives of governments, employers and workers from around the world (Box 2). The ILO was and is against alarmist predictions of an "old-age crisis" caused by demographic and sustainability challenges. While it is correct that the maturation of pension systems entails increased benefit expenditure in the long term, this is a normal phenomenon, and hardly cause for alarm. The experience of higher income countries demonstrates that it is feasible to adapt pension systems though minor parametric reforms in order to make them sustainable throughout demographic change, pension schemes' maturation and other future challenges.

Ultimately, over time the arguments advanced by the ILO proved correct. Even in European countries – with large older populations – the pension systems are sustainable with adequate parametric adjustments and some limited public budget support (European Commission, 2015). Private pension systems underperformed, as shown in the next section. Despite pressures from the financial industry, requests from governments to IFIs for support for structural pension reforms reduced. The World Bank abandoned the pension privatization push, replaced the leadership of the Bank's Social Protection Department, and since the mid-2000s there have been no stand-alone pension reform projects within the World Bank loans portfolio.[4]

1.1.2 Lessons learnt from three decades of pension privatization

Pension privatization was presented as a clear cut solution to address population ageing and ensure the sustainability of social security pension systems. At the time, pension systems in many countries were facing a range of challenges, such as the proliferation of special social security regimes and fragmentation, informality

[3] Structural reforms transform the public system, for example replacing it in whole or part with a private one. Parametric reforms on the other hand involve minor changes, such the age of retirement, contribution rates, benefit formula, etc. of the existing public system with the aim to strengthen their long-term financial sustainability while ensuring old-age income security.

[4] Though in a few cases they may be subcomponents of financial sector loans, public sector reform programmes or technical assistance by the World Bank's Financial Sector and Capital Markets Global Practice, but not stand-alone loans for pension reforms.

Box 2: ILO principles for designing and reforming pension systems

An international consensus was forged by governments, and employers' and workers' organizations on the objectives, functions and appropriate design principles of pension systems. These are reflected in principles embodied in the international social security standards. These principles include:

Principle 1. Universality. Social security is a human right, which in practical terms is understood as the need to guarantee universal protection without leaving anyone behind. The principle of universality is not only enshrined in ILO standards but also in several United Nations (UN) instruments, including the Universal Declaration of Human Rights, Article 22 which states that *"everyone, as a member of society, has the right to social security."*

Principle 2. Social solidarity and collective financing are at the centre of social security and ILO standards. Contrary to privately operated pension schemes based on individual savings accounts, collectively financed protection mechanisms generate positive redistribution effects and do not transfer the financial and labour market risks onto individuals.

Principle 3. Adequacy and predictability of benefits. This principle refers to the entitlement to defined pension benefits prescribed by law. The Social Security (Minimum Standards) Convention, 1952 (No.102) and the Invalidity, Old-Age and Survivors' Benefits Convention, 1967 (No. 128) envisage the provision of income security to people who have reached pensionable age through: (i) earnings-related contributory pensions (guaranteeing minimum benefit levels, or replacement rates corresponding to a prescribed proportion of an individual's past earnings – in particular for those with lower earnings) and/or (ii) flat-rate pensions (mostly residency-based and financed by the general budget) and/or means-tested pensions. These standards prescribe that earnings-related schemes need to provide periodic payments of at least 40 per cent (Convention No. 102) or 45 per cent (Convention No. 128) of the reference wage after 30 years of contribution or employment. These standards also require that pensions need to be periodically adjusted following substantial changes in the cost of living and/or the general level of earnings.

Principle 4: Overall and primary responsibility of the State. It refers to the obligation of the State, as the overall guarantor for social protection, to ensure the "financial, fiscal and economic sustainability" of the national social protection system "with due regard to social justice and equity" by collecting and allocating the needed

resources with a view to effectively delivering the protection guaranteed by national law (ILO Social Protection Floors Recommendation, 2012 (No. 202)).

Principle 5: Non-discrimination, gender equality and responsiveness to special needs. With a view to secure gender equality, pension designs should duly take into account solidarity between men and women, by adopting financing mechanisms, eligibility conditions and benefit conditions that offset gender inequalities originating in the labour market or due to interruption in the careers of women arising from their reproductive roles and/or care responsibilities (Recommendation No. 202).

Principle 6: Financial, fiscal and economic sustainability. Ensuring the sustainability is a permanent challenge for the State in exercising its overall and primary responsibility to guarantee a functional and comprehensive social protection system. This requires taking all necessary measures, including realizing periodically the necessary actuarial studies and introducing as required minor parametric reforms to ensure the sustainability of the pension system. The State is also accountable to ensure the sustainability of national social security systems in view of, among other factors, demographic change.

Principle 7: Transparent and sound financial management and administration. The principle refers to the need for good governance of the system, particularly with respect to financing, management and administration, to ensure compliance with the legal and regulatory frameworks (Convention No. 102 and Recommendation No. 202).

Principle 8. Involvement of social partners and consultations with other stakeholders. The principle recognises the need to ensure social dialogue and representation of protected persons in social security governance bodies. The principle of participatory management of social security systems has been since long established in international social security standards, namely in Article 72(1) of Convention No. 102, which stipulates that "where the administration is not entrusted to an institution regulated by the public authorities or to a government department responsible to a legislature, representatives of the persons protected shall participate in the management, or be associated therewith in a consultative capacity, under prescribed conditions; national laws or regulations may likewise decide as to the participation of representatives of employers and of the public authorities".

Source: ILO, 2018a and 2018b; ILO Conventions and Recommendations.

and low coverage and low contribution rates, which could have been addressed with parametric reforms preserving public systems. No advanced industrialized democratic country replaced its public pension system with a private, fully funded individual account system.[5] However, in developing countries privatization was put forward as the solution. Expectations were high when reforms were introduced and countries hoped to improve both their pension systems and their overall economic performance. Coverage rates and benefit levels were expected to increase, inequality to decrease, administrative costs to decrease through competition, governance of pension management to improve, and capital markets to deepen supporting new investments and economic growth.

In practice, however, pension privatization did not deliver the expected results (Table 2). Coverage rates stagnated or decreased, pension benefits deteriorated and gender inequalities compounded, making reforms very unpopular. The risk of financial market fluctuations was shifted to individuals. Administrative costs increased reducing pension benefits. The high costs of transition – often underestimated – created large fiscal pressures. While private sector administration was supposed to improve governance, it weakened it instead. Workers participation in management was eliminated. The regulatory and supervisory functions were captured by the same economic groups responsible for managing the pension funds, creating a serious conflict of interest; furthermore, the private insurance industry – which ultimately benefits from people's savings – moved towards concentration. Last, but not least, pension reforms had limited effects on capital markets and growth in most developing countries.

A. Coverage rates stagnated or decreased

There is international consensus on the objective of extending social protection to all. This is in line with the human right to social security and the principle of universality of protection. Advocates of pension privatization argued that mandatory individual accounts would earn higher interest and thus improve compliance and willingness to contribute (World Bank, 1994). However, evidence shows that reforms did not extend pension coverage; on the contrary, a majority of countries registered a decrease in coverage rates[6] of contributory schemes.

[5] Sweden's pension system is the only case of a developed country with individual accounts as the first pillar: however, the system remains publicly managed, even with private companies involved in the investment of assets.

[6] Often estimated as the share of active contributors in the labour force.

The decentralization of the contributions collection function acted as an important trigger for the reduction in coverage rates. Before privatization, normally contribution collection was done by a centralized scheme under the control of social security institutions. Following the Chilean model, many of the countries that privatized their systems transferred and decentralized the function to private pension fund managers, thus creating a highly inefficient and ineffective fragmented contributions collection system.

In Argentina, the number of contributors fell from 46 per cent of the labour force in 1993 (prior to the reform) to 35 per cent in 2002 for men, and from 42 to 31 per cent respectively for women (Bertranou et al., 2018). Likewise, coverage rates in Chile dropped from 64 per cent in 1980 (prior to the reform) to 61 per cent in 2007 (Mesa-Lago, 2014). In Hungary, coverage decreased from around 75 per cent of the labour force before 1998 to 71.8 per cent in 2009 (Simonovits, 2012). In Kazakhstan, coverage rates decreased from around 66 per cent before 1998 to 63 per cent at the end of the reform in 2013.[7] Coverage in Mexico also fell from 37 per cent to 30 per cent from 1996 to 2004 (Mesa-Lago, 2004).

In other countries, coverage stagnated after the privatization, therefore failing to meet expectations. In the Plurinational State of Bolivia coverage rates stagnated between 1997 and 2009 at around 12 per cent (Mesa-Lago, 2018). Between 1991 and 2010, coverage rates in Colombia stagnated at around 28 per cent (World Bank, 2014). In Poland between 1999 and 2013 coverage rates stagnated at around 78 per cent (Polakowski and Hagemejer, 2018). Similarly, coverage rates in Uruguay stagnated at around 70 per cent between 1995 and 2003.

Mesa-Lago (2004) points out that the weighted average of coverage for nine countries[8] in Latin America decreased from 38 per cent before the privatization reforms to 27 per cent in 2002 after the reforms. While the absolute coverage figures may differ, the overall trend is the same, indicating underperformance in coverage as a result of the privatization reforms.

B. Pension benefits deteriorated

The shift in the privatization processes from defined benefits to defined contributions had a major effect on replacement rates. It had a serious negative impact on

[7] Estimations based on Hinz et al. (2005), OECD (2014) and Maltseva and Janenova (2018).

[8] These include: Argentina, the Plurinational State of Bolivia, Chile, Colombia, Dominican Republic, El Salvador, Mexico, Peru and Uruguay.

pension benefit adequacy, with pension levels often not meeting ILO standards as prescribed by the Social Security (Minimum Standards) Convention, 1952 (No.102)[9] and the Invalidity, Old-Age and Survivors' Benefits Convention, 1967 (No. 128)[10] that envisage a replacement rate of at least 40 per cent (ILO Convention No. 102) or 45 per cent (Convention No. 128) of the reference wage after 30 years of contribution or employment (Box 2).

In the Plurinational State of Bolivia, following the reform, the replacement rate averaged 20 per cent of the average salary during working life, well below ILO international standards. In Hungary, in the privatized system, the replacement rate for persons with 20 years of contributions were estimated to be between 9.8 to 12.5 per cent lower than the pre-reform levels and more than 18 per cent lower for persons with 30 years of service (Szikra, 2018). In Kazakhstan, the replacement rate fell from 60 per cent before the reform to 29.27 per cent in 2013 following the reform and just before the privatization reversal. In Poland, the shift from the DB to DC system resulted in a fall in the replacement rate from an average of 67 per cent prior to the reform to below 40 per cent following the reform, falling well short of the promised replacement rate of at least 71 per cent (Maltseva and Janenova, 2018; Mesa-Lago, 2018; Polakowski and Hagemejer, 2018; Szikra, 2018). In Chile, the recent review of the private mandatory pension system revealed that the median future replacement rates average 15 per cent, (and only 3.8 for low income workers), well below ILO standards and requiring significant public support (Comisión Presidencial de Pensiones Bravo, 2015, p. 88). The deterioration of benefit levels resulted in increases in old-age poverty, undermining the main purpose of pension systems which is to provide adequate income security in old-age.

C. Gender and income inequality increased

Pension privatization broke the social contract enshrined in social security. Well-designed social insurance schemes are redistributive for two main reasons: (i) they include transfers from employers to workers, and (ii) they are designed to redistribute income from those with higher lifetime earnings to those with lower lifetime earnings and from the healthy and abled to those sick, disabled or unable to work, such as during maternity (Ortiz, 2018). Public pension systems traditionally offset gender and income inequalities, and also provide solidarity

[9] Henceforth ILO Convention No. 102.

[10] Henceforth ILO Convention No. 128.

Table 2: Pension privatization reforms and main results

	Argentina	Bolivia, Plur. State of	Hungary	Kazakhstan	Poland
Coverage rates of contributory schemes	Coverage rates fell between 1993 and 2002 from 46 to 35 per cent of the labour force for men, and from 42 to 31 per cent for women.	Coverage rates stagnated at 12 per cent of the labour force, the lowest level in Latin America.	Coverage rates decreased from around 75 per cent of the labour force before the reform in 1998 to 71.8 per cent in 2009.	Coverage rates decreased from around 66 per cent of the labour force before the reform in 1998 to 63 per cent at the end of the reform in 2013	Between 1999 and 2013, coverage rates stagnated at around 78 per cent
Benefit levels/ replacement rates (adequacy)	Replacement rates oscillated between 45 per cent and 52.5 per cent. However, benefits above the minimum were lacking automatic indexation – thus resulting in declining purchashing power.	Benefit levels deteriorated; replacement rates averaged 20 per cent of the average salary during working life, much below ILO international standards	Pensions were at least 9.8 per cent lower than the pre-reform levels with 20 years of contributions and 18 per cent lower with 30 years of contributions.	Benefit levels deteriorated; replacement rates fell from 60 per cent before the reform to 29.3 per cent in 2013 just before the reversal of privatization.	Pension benefits deteriorated; replacement rates fell below 40 per cent after the reform from an average of 67 per cent before the reform, and thus failing to meet the promised rate of at least 71 per cent.
Cost of transition	Very high; the pension privatization-driven annual deficit grew from 1 per cent of GDP in 1994 to nearly 3 per cent of GDP in 2001. It is estimated to cost 3.6 per cent of GDP in 2040 instead of achieving a surplus of 0.2 per cent as initially estimated.	Very high; transition costs were 2.5 times the initial projections. Estimated to cost annually 1.7 per cent of GDP in 2040 instead of the initial estimation of 0.2 per cent of GDP.	Very high; annual transition costs increased from 0.3 per cent of GDP in 1998 to 1.2 per cent of GDP in 2010.	Very high; increased the annual budget deficit by 1.7 per cent of GDP in 1998, and 2.8 per cent in 2008. The cumulated cost between 1998 and 2025 is estimated by the IMF to reach 36.5 per cent of 1997 GDP.	Very high; the annual cost was estimated to rise from 1.48 per cent of GDP in 2000 to 2.22 per cent in 2017. The cumulated transition cost between 1999 and 2012 was estimated at 14.4 per cent of 2012 GDP.

	Argentina	Bolivia, Plur. State of	Hungary	Kazakhstan	Poland
Administrative costs	Very high. In 1995 following privatization, administrative costs were at 3.54 per cent of contributor's income, representing 32.2 per cent of total contributions. In 2002, these costs rose to 50.8 per cent of contributions. .	High. In 2004, the costs were at 2.2 per cent of contributor's income. The administrative costs represented about 18 per cent of contributions.	Very high. The costs represented 14.5 per cent of contributions in 2007 and 12.3 per cent in 2010. Administrative costs were estimated to represent 22.6 per cent of the final balance of the individual account after 40 years of contributions.	Very high. In 2007, average fees were 0.05 per cent on individual account balances and 15 per cent on investment returns. Together, these administrative costs were estimated to represent 16.8 per cent of the final balance of the individual account after 40 years of contributions.	Very high. Until 2004 fees remained unregulated and some pension fund administrators charged up to 10 per cent of contributions. Administrative costs were estimated to represent 18.74 per cent of the final balance of the individual account after 40 years of contributions.
Financial risks transfered to individuals	Yes	Yes	Yes	Yes	Yes
Loan conditionality and/or supported by IFI loan	Yes: IMF included pension reform in loan conditionality	Yes: World Bank loan	Yes: World Bank loan	Yes: World Bank and Asian Development Bank loans	Yes: World Bank loan
Social dialogue	Deteriorated social dialogue following the privatization	Limited social dialogue during the reform process	Social dialogue deteriorated	Social dialogue deteriorated	Limited social dialogue

	Argentina	Bolivia, Plur. State of	Hungary	Kazakhstan	Poland
Gender inequalities	Increased. The reform reduced replacement rates due to women's shorter careers and contributory periods, and higher longevity	Increased; The proportion of older women receiving any type of pension fell from 23.7 to 12.8 per cent from 1995 to 2007	Increased; The reform reduced replacement rates due to women's shorter careers and contributory periods, and higher life longevity	Increased; The reform reduced replacement rates due to women's shorter careers and contributory periods and higher longevity	Increased: The share of women at risk of old-age poverty reached a level as high as 22.5 per cent.
Who benefitted most from pension privatization	Financial sector - Pension fund administrators and commercial life insurance companies	Financial sector - Pension fund administrators and commercial life insurance companies	Financial sector - Pension fund administrators and commercial life insurance companies	Financial sector - Pension fund administrators and commercial life insurance companies	Financial sector – Pension fund administrators and commercial life insurance companies
Effect on capital markets	Limited	Limited	Limited	Limited	Limited

Main sources: Bertranou et al., 2018; Maltseva and Janenova, 2018; Mesa-Lago, 2018; Polakowski and Hagemejer, 2018; Szikra, 2018.

across generations, from the youngest workers to the most vulnerable older persons. Guaranteeing a minimum pension for low-income earners or compensating for interruptions in career and contributory periods due to child-caring or family care responsibilities support gender equity. Gender-specific constraints, such as lower participation in the labour market, lower income and asset ownership, should be considered in the design of pension systems (Arza, 2015; UN Women, 2015).

However, those in favour of privatization argued that the redistribution and savings functions should be fulfilled through different schemes/pillars because of the “distortions and evasions” that solidarity elements would generate (World Bank, 1994, p. 82). The redistributive components of social security systems were eliminated with the introduction of individual accounts, as a result, those with low incomes or unable to work, even if temporarily, had very small savings and consequently ended with small pensions, thereby increasing inequalities.

In particular, gender inequality was exacerbated. Women typically have lower contributory records since women generally have work records interrupted by maternity, are often partially employed and earn lower salaries than men. In some Latin American countries, the unemployment rate of women is twice that of men, and the regional average wage of women is 30 per cent lower than that of men. Pension privatization reforms increased the minimum number of contribution years required to qualify for the minimum pension, with particularly adverse effects on women.

The pension formula of public PAYG schemes often contains solidarity elements to counteract gender inequalities, for example by recognizing time spent for child or elderly care responsibilities as contributory years or by introducing a minimum guaranteed pension level (Fultz, 2011). As an example, the redistributory mechanism in the Norwegian pension and tax system reduces the 43 per cent income difference between women and men to only 7 per cent (Hansen, 2018). This type of mechanism is not found in privatized individual account systems in which savings during working years and the returns on investments of contributions determine benefit levels. In addition, the use of sex-differentiated mortality tables to calculate annuities based on accumulated savings in the individual accounts is also discriminatory, as women live longer than men. The element of solidarity between men and women and the degree of redistribution that exists in public pension systems has been lost with the introduction of individual accounts, with highly detrimental impacts on women (Behrendt and Woodall, 2015).

Women are more likely to be adversely affected by pension privatization reforms. In the Plurinational State of Bolivia, the proportion of elderly women receiving a contributory pension fell from 23.7 per cent in 1995 to 12.8 per cent in 2007 as a result of the reform (Mesa-Lago, 2014). Average pension levels for women ranged from 39 to 86 per cent of the average pension for men, depending on the type of pension. In Kazakhstan women are more likely to be engaged in farming or in household activities, therefore unlikely to contribute to and benefit from private schemes. Hungary reduced the maximum creditable period of contributory years for child care to one year, which directly affected benefit levels for women (Maltseva and Janenova, 2018; Mesa-Lago, 2018; Szikra, 2018).

D. High transition costs created large fiscal pressures

The costs of transitioning from a public PAYG to a "funded" private system were seriously underestimated across all reformed countries, and created new fiscal pressures which were difficult for most governments to afford.

Transition costs were often very high, coming from two sources. First, government had to recognize the contribution pension entitlements or acquired rights of insured persons in the prior PAYG system[11]. Second, the transfer of active contributors from the PAYG system to the new private system abruptly generated a financial deficit in the PAYG system and thus increased the tax burden in the short-term because the PAYG system still had to continue to honour existing pension payments. Given the high fiscal costs, most governments required private pension funds to invest their accumulating reserves in government bonds, creating a circular dynamic in which the only beneficiaries were the private pension administrators who benefited from the fees and commissions they charged.

These transition costs from the public solidarity based systems to private individual account systems were not properly assessed by international financial institutions and technocrats who were promoting them. In some cases, no sound analysis of the expected transition costs was carried out, in others calculations were based on unfounded optimistic assumptions. In The Plurinational State of Bolivia the actual transition costs of the reform were 2.5 times the initial projections. The World Bank had initially estimated the transition costs of privatiza-

[11] In fact, Chile and some other countries which followed its experience and adopted the full replacement of PAYG schemes, opted to issue "recognition bonds", financed by the National Treasury, to explicitly recognize the acquired rights of participants in the previous PAYG system, creating new public debt and exacerbating fiscal pressures (Queisser, 1998a; Riesco, 2004).

tion in the Plurinational State of Bolivia at 0.2 per cent of GDP in 2040 – after the privatization, the World Bank projected it as 1.7 per cent, about 8 times the original estimate. In Argentina, it was initially estimated that the transition to privatization would range from a cost of 0.2 per cent of GDP to a surplus of 0.2 per cent of GDP; however, after the privatization, the World Bank estimated the transition would cost at 3.6 per cent of GDP – 18 times the original estimate (Mesa-Lago, 2004).

The newly created fiscal distress was unacceptable to many governments, particularly as concerns regarding fiscal pressures and the financial sustainability of public pension systems were the main driver behind privatization reforms in all countries. Privatization had been presented as the remedy to avoid a "social security crisis" and to ensure more sustainable future financing for pension systems.

Financing the transition towards individual accounts exacerbated pre-existing fiscal pressures in most countries. In Poland, between 1999 and 2012, the cumulative transition costs of the reform were estimated at 14.4 per cent of 2012 GDP, and approximately 6.8 per cent of GDP was consumed in servicing the additional public debt. In comparison, the cumulative privatization revenues over the same period amounted to 5.24 per cent of 2012 GDP. In Kazakhstan, government budget deficit was estimated to have increased by approximately 1.7 per cent of GDP in 1998 to cover transition costs and it reached a peak of 2.8 per cent of GDP in 2008; while the cumulative cost (1998-2025) was estimated at 36.5 per cent of 1997 GDP (IMF, 1998; Maltseva and Janenova, 2018; Polakowski and Hagemejer, 2018).

In Chile, even thirty years after the reform, in 2010, transition costs represented still 4.7 per cent of GDP (Mesa-Lago, 2014). While in Argentina the public system ran an annual deficit of 3.3 per cent of GDP in 2000, contributions diverted to the private system represented around 1.5 per cent of GDP (Bertranou et al., 2018; Titelman et al., 2009).

As a consequence of the reform in Hungary, the state budget required to cover the fiscal deficit increased from 0.19 per cent of GDP in 1998 to 1.36 per cent of GDP in 2009 (Hirose, 2011; Szikra, 2018). Drahokoupil and Domonkos (2012) documented that government bonds in Hungary and other countries were often issued to finance the transition costs of pension privatization, generating a vicious and costly cycle. The private pension fund administrators were the only beneficiaries of this cycle, cashing in the administrative costs for the financial transactions. With respect to the costs of the reforms, in addition to

concerns regarding direct transition costs, concerns arose also regarding potential additional costs resulting from compensatory measures that governments had to implement to cover the low benefit levels in the privatized schemes. In some countries, following the Chilean example, governments provided a minimum guaranteed level of return on investments of pension funds to compensate for financial losses in times of economic downturn. As a consequence, in countries like Chile, taxpayers were required to cover not only the very high cost of transition to the private system that was supposed to be financially sustainable and provide higher pension benefits, but also the pension "top-ups" to increase the very low levels of pension benefits provided by the private system. Many governments were distressed by these facts and considered the advantages of moving back to the PAYG public pension schemes, that would avoid such high fiscal costs and where future obligations could be calculated with greater certainty.

E. High administrative costs

The privatization of the management of pension funds was expected to minimize administrative expenses due to competition between funds (World Bank, 1994). However, in practice, this was not the case as apart from rent-seeking and profit generation, private pension fund administrators need to finance many overhead costs that do not occur in public PAYG systems such as for marketing, corporate overheads, or adverse selection. Ionescu and Robles (2014) estimated that administration charges, investment management fees, custodian fees, guarantee fees, audit fees, marketing fees and legal fees, among others, would reduce accumulated assets (or pensions) over a 40 year period by as much as 39 per cent in Latvia, 31 per cent in Estonia and 20 per cent in Bulgaria. Nobel Laureate Peter Diamond and Nicholas Barr (2008, p. 163) demonstrated that on average, for each percentage point deducted on commissions, future pensions are reduced by 19.6 per cent.

Administrative costs of private pension funds are much higher than those of public administrations, and as a consequence making returns and ultimately pensions lower. As an example, administrative costs of pension systems jumped from 6.6 per cent in 1990 (public system) to 32.2 per cent in 2000 (post-reform) in Argentina and from 2.6 per cent in 1993 (public system) to 14.1 per cent in 1999 (post-reform) in Colombia (table 3). Only the Plurinational State of Bolivia experienced a reduction following the privatization due to strict regulation and close oversight, as well as by eliminating competition between pension funds – the later defeating a main supposed benefit of privatization.

Table 3: Administrative costs before and after privatization reforms in selected countries (as a percentage of contributions)

Country	Before privatization reform	After privatization reform
Argentina	6.6 (1990)[a]	50.8 (2002)[c]
Bolivia, Plur. State of	8.6 (1992)[a]	18.1 (2002)[c]
Hungary	2.0 (1998)[d]	14.5 (2007)[b]
Colombia	2.6 (1993)[a]	25.9 (2002)[c]
Chile	8.0 (1980)[d]	19.5 (2002)[c]
El Salvador	7.8 (1996)[a]	21.3 (2002)[c]
Peru	NA	30.5 (2002)[c]
Mexico	NA	40.3 (2002)[c]
Uruguay	6.5 (1990)[e]	18.2 (2002)[c]

Sources: [a] Claramunt, 2004; [b] Mesa-Lago, 2014; [c] Mesa-Lago, 2004; [d] Iglesias and Acuñas, 1991; [e] Based on consolidated administrative data of Banco de Previsión Social (BPS, 2005).

Private pension fund administrators disguise commissions under different types of fees, making it difficult to enact regulations to capture all of them. For example, in Poland, funds charged three different types of fees: a distribution/sales fee[12], a management fee and a premium fee. Until 2004, the level of the distribution/sales fee remained unregulated and some pension funds applied rates as high as 10 per cent of the value of contributions, estimated to represent 18.7 per cent of the final balance of an individual account after 40 years of contributions (Ionescu and Robles, 2014). This fee was reduced to 3.5 per cent after 2004. Many members were unaware of the fees being charged to them.

Other governments like Argentina and Kazakhstan also introduced caps on commissions in light of the excessive fees charged. Poland additionally introduced a ban on marketing of pension funds since this was an additional cost driver. In Argentina, the average administrative costs reached 3.54 per cent of income of contributors in 1995 – representing 32.2 per cent of contributions-without any restriction established by the government at that time (Rofman, 2000). In 2002, when the minimum contribution rate was set at 5 per cent of

[12] This includes fees paid out by pension fund administrators to cover the marketing and selling shares of the funds.

total income, the administrative fees increased to about 50.8 per cent of contributions (Cetrángolo and Grushka, 2004).

In Kazakhstan, prior to the 2013 pension re-reform, commission fees charged by private pension funds often reached the maximum limits of 15 per cent of their investment income and 0.05 per cent per month of pension assets (Hernandez and Stewart 2008). The total administrative costs were estimated to represent 16.84 per cent of the final balance of an individual account after 40 years of contributions (Ionescu and Robles, 2014). In Hungary, administrative costs were above 10 per cent of contributions, reaching up to 14.5 per cent in some cases. The impact of these costs is estimated to represent 22.57 per cent of the final balance of an individual account after 40 years of contributions (Ionescu and Robles, 2014; Szikra, 2018).

In the private systems of Mexico and Costa Rica, members were expected to pay the equivalent of 5 years of contributions throughout their contributory career solely to cover administrative fees (Durán-Valverde and Pena, 2011). In El Salvador, the management costs of the public system before the reform as a percentage of the contributions was 7.8 per cent, and increased to 21.3 per cent in 2002 following the privatization. The highest management costs emerged in Mexico and Argentina, where these increased to 40 and 45 per cent of contributions respectively. According to Mesa-Lago (2004), the non-weighted average of management costs as a percentage of contributions for 10 Latin American countries[13] was 25.8 per cent in 2003 (Mesa-Lago, 2004). In Chile, total administrative costs as a percentage of contribution rose from 8 in 1980 to 19.5 in 2002 – representing 33.8 per cent of accumulated assets even 20 years after the reform (Mesa-Lago, 2012).

F. Weak governance: Capture of regulation and supervision functions

The overall objective of government regulation of private pension funds is to ensure that pension fund managers act in the interest of the workers and pensioners and not (only) in the interest of the insurance company. Pension fund regulations are meant to address a number of market imperfections such as asymmetric information, moral hazard, myopic individual behaviour and imperfect competition. Regulatory efforts also aim to prevent evasion, mismanagement, fraud or corruption, inefficient administration as well as overly risky business

[13] These include: Argentina, the Plurinational State of Bolivia, Chile, Colombia, Dominican Republic, El Salvador, Mexico, Nicaragua, Peru and Uruguay.

strategies (Orszag and Stiglitz, 1999; Gillion et al. 2000). To fulfil this role, it is indispensable that regulatory authorities are independent and have sufficient intervention powers. However, in many cases, the regulatory function of private pension funds was captured by private interests.

Regulatory capture is the situation in which a regulatory agency, created to defend the public interest, acts on behalf of certain economic interest groups in the industry which it is required to supervise. Capture usually occurs in a non-visible manner, including through situations such as influencing traffic or insider trading. In the private pension fund industry, the functions of regulation and supervision of the pension system were often captured by the same economic groups responsible for managing pension funds, creating a serious conflict of interest.[14] Already early in the privatization debate, the World Bank and various researchers identified the risk of a 'revolving door' between the fund management companies and the supervisory agency – that is to say the risk of industry capture (Didier and Schmukler, 2014).

The capture of pension regulators by industry lobbies is documented in some financial markets e.g. Ireland and United States (Turner, Hughes and Maher, 2016), and less well-documented in others. In most developing countries where financial and regulatory structures were still underdeveloped, pension privatization processes favoured the entry of large foreign financial conglomerates, creating a quasi-market with limited competition (Impavido, Lasagabaster and García-Huitrón, 2010). Additionally, most countries preferred to regulate and supervise this pension quasi-market with small specialised agencies – more susceptible to regulatory and supervisory capture – than integrating the supervision into broader financial and regulatory structures, less prone to capture (Hu and Stewart, 2009; Turner, Hughes and Maher, 2016; Queisser, 1998a and 1998b; Didier and Schmukler, 2014).

The close ties between politicians and the financial sector, as well as the scarcity of high-level staff skilled in financial market regulation, contributed to the selection of regulators from the existing industry, thus accommodating private interests (Didier and Schmukler, 2014; Crabtree and Durand, 2017; Urteaga-Crovetto, 2014). In Costa Rica, the ex-president of the Central Bank

[14] For example, in Argentina, at the turn of the century, the private pension fund supervisory body (the Superintendence of AFPs) colluded with the government to allow pension funds to change US dollar instruments into peso set instruments at the time when the exchange rate was at par; this caused those instruments to lose two-thirds of their value when the devaluation of the peso occurred (Mesa-Lago, 2008).

Jorge Guardia publicly denounced the fact that regulators/supervisors of the financial system, comprised of superintendencies (supervisory bodies) including for the private pension system, often aligned with private banks' interests.[15]

In this context, the implementation of privatization reforms did not create the necessary incentives for pension fund managers or regulators to pursue the interests of the members of the fund. In Chile, AFPs are among the largest shareholders of privatized public entreprises (Undurraga, 2011). Depósito Central de Valores S.A. – a private company owned by the financial industry including the AFPs, replaced the central bank as the custodian of pension assets (Queisser, 1998a).

Further, in many countries like the Plurinational State of Bolivia and Poland, the direct involvement of social partners in the supervision of the private pension funds was excluded, thus decreasing the supervisory oversight in place. Overall transparency and accountability were low and governance structures were under-developed.

In general, the management, supervision and regulation of the pension funds has been weak, creating room for mismanagement. The reforms created loopholes that allowed pension funds to reap excessive profits for the industry and foreign investors to become dominant players. The more extensive and longer pension systems are privatized, the larger the influence of private pension funds and the financial sector, making the reversal from privatization more difficult (Wilson Sockey, 2017).

G. Concentration of the private insurance industry

A further argument advanced by proponents of the pension privatization was that it was expected to generate competition among many pension administrators and thus improve efficiency and service delivery (Impavido et al., 2010). In effect, generally when mandatory private pensions were launched a significant number of private pension administrators were present in the market; however, over time the move towards market concentration happened in all cases and often national companies were absorbed by large foreign corporations.

In some countries, such as the Plurinational State of Bolivia and El Salvador, there were only two major pension administrators creating oligopolistic markets and thus defeating the benefits of competition. In the Plurinational State of Bolivia, pension administration and assets were concentrated in the hands

[15] See "En Guardia," La Nación, 2 October 2012.

of two AFPs that belonged to foreign financial institutions Zurich Financial Services AG and Spain`s Banco Bilbao Vizcaya Argentaria SA (BBVA). In El Salvador, following a number of mergers and acquisitions of pension administrators, only two administrators survived, one belonging to the Spanish BBVA, and the other to Citigroup USA which were later bought by a Honduran and a Colombian firm respectively , another illustration of how the private insurance industry tends towards concentration. The number of private pension fund administrators shrank from 60 to 21 in Hungary and the six biggest firms concentrated 90 per cent of contributing members. In Poland there were initially 21 funds, while over the years – mainly through mergers or acquisitions– the sector was consolidated into only 12 funds, with 48 per cent of the assets being managed by only three funds. Argentina's AFPs reduced in number from 24 at the time of privatization of the system to 10 at the time of the reversal of privatization. Chilean AFPs fell from 21 to 5 between 1994 and 2008; concentration of contributors in the biggest three firms rose from 67 per cent to 86 per cent (Mesa-Lago and Bertranou, 2016; Mesa-Lago, 2018; Polakowski and Hagemejer, 2018; Szikra, 2018).

H. Who benefitted from people's pension savings? The financial sector

Who benefited from national pension savings of individuals? This is an important developmental question. In many countries, the pension reserves of young pension systems in the accumulative phase were used for national development; for example, in Finland, accumulated public pension funds in the 1930-40s were used for rural electrification and basic public infrastructure, and after 1961 to finance industrialization, benefitting millions of Finnish people (Kangas, 2006). However, the potential use of pension funds for national public investment was generally lost with "funded" privatized systems, which invested the savings of individual members in capital markets seeking high returns, without prioritizing national development goals. Privatization was supposed to give an important role to private pension funds in national development including for housing, infrastructure and environmental priorities through the purchase of mortgages, government bonds and securities. However, the limited benefits of using capital markets for these types of investments should be questioned, instead of using direct public investment (Muller, 2008; Hujo, 2014).

Indeed, it is the financial sector, the private pension administrators and commercial life insurance companies, who appear to benefit most from people's pension savings. Table 4 below illustrates the increase in pension fund assets under

private management, including mandatory and voluntary pensions. On average, the amount of people's savings going to the financial sector increases steadily from 2000 to 2016, reaching an average of 14 per cent of the countries' GDP. In Chile, the amount was as high as 70 per cent of GDP in 2016. Overall, in 2016 the financial sector was administering approximately USD 616 billion of assets covering people's pension savings in 24 countries (Table 4).

Furthermore, in a majority of countries national investment regulations do not include any restrictions on the investment of pension funds abroad even in countries in much need of social and economic investments (e.g. Armenia, Bulgaria, Croatia, Czech Republic, Estonia, Lithuania, Romania and Slovakia); in others, some limits are indicated (e.g. Costa Rica 50 per cent, Peru 42 per cent, Colombia 40 per cent, Poland 30 per cent, Mexico and the Russian Federation 20 per cent). In Chile, private pension administrators can invest up to 80 per cent of their assets abroad representing 56 per cent of Chile's GDP. Only the Dominican Republic and Nigeria prevent pension funds from investing abroad (OECD, 2018).

In addition to pension fund administrators, commercial life insurance companies have benefited from a captive market to deliver annuities. Typically, once the member of the pension fund reaches retirement age, the accumulated balance in the individual savings account is used to purchase an annuity (lifetime or fixed period annuity) from the private annuity market. Insurance companies, normally operating as part of the same economic interest groups as the AFPs, are the only ones authorized to sell annuities and thus often charge substantial commissions.

Furthermore, often international financial groups are major shareholders of national pension fund administrators, or the national pension funds are subsidiaries of large international financial corporations. In the Plurinational State of Bolivia, the pension fund Futuro de Bolivia S.A, was acquired by Switzerland's Zurich Financial Services AG, and the country's other pension fund, Prevision S.A. is part of Spain's Banco Bilbao Vizcaya Argentaria SA (BBVA). [16] In Chile, the pension fund Provida SA's controlling shareholder was Spain's Banco Bilbao Vizcaya Argentaria SA (BBVA) until Metlife Chile took it over in 2013. Another example is Chile's Habitat AFP controlled by Citibank (Citigroup) and Invesco until 2014 followed by Prudential Financial US.[17]

[16] Zurich Financial Services Group. Annual Report 2001; see BBVA SA Prevision AFP website www.prevision.com.bo [June 2018].

[17] Actuarial Post, 2013. "MetLife to acquire Chile's largest pension fund Provida".]; Reuters, 2014. "Prudential Financial to buy stake in Chile's AFP Habitat", U.S. insurer Prudential Financial has agreed to purchase up to 40.29 per cent of Chilean pension fund manager AFP Habitat.

Table 4: Assets in funded and private pension funds (as per cent of GDP and in billion USD)

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Argentina	-	-	-	10.4	10.4	10.1	10.3	12.3	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Armenia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.6	1.3
Bolivia, Plur. State of	-	-	-	15.1	18.9	19.8	21.1	19.6	21.3	21.8	25.7	27.3	-	-	-	-	-	-
Bulgaria	-	-	0.6	1.0	1.4	1.9	2.4	2.9	3.7	3.2	4.3	5.3	5.7	7.0	8.3	9.8	10.6	11.5
Chile	-	-	51.3	52.8	56.0	56.0	55.6	57.5	60.8	49.8	61.8	62.3	57.7	59.7	61.9	67.5	69.0	69.6
Colombia	-	-	5.0	6.4	7.5	8.6	11.4	11.3	15.0	14.4	13.3	16.1	16.9	18.2	18.1	20.1	20.5	22.5
Costa Rica	-	-	2.9	4.7	6.0	4.5	5.6	6.7	6.1	7.0	7.6	7.4	8.4	9.5	11.0	11.6	16.6	17.6
Croatia	-	-	-	1.1	2.3	3.5	4.3	5.6	6.8	6.8	9.3	11.6	12.9	16.2	18.5	21.4	23.6	26.0
Czech Republic	-	-	2.1	2.5	2.9	3.3	3.8	4.2	4.4	4.8	5.5	5.9	6.1	6.7	7.3	7.9	8.1	8.4
Dominican Republic	-	-	-	-	0.2	0.6	1.2	1.7	2.3	3.0	4.0	4.6	5.4	6.5	7.5	10.8	11.0	12.0
El Salvador	-	-	-	7.4	10.5	13.6	17.0	18.1	19.7	20.9	24.3	25.6	26.3	28.7	30.1	31.9	32.9	34.6
Estonia	-	-	0.0	0.2	0.8	1.8	2.6	3.5	4.4	4.5	6.7	7.3	6.8	8.3	9.4	11.2	12.8	14.7
Ghana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.3	3.4	4.0
Hungary	-	-	3.9	4.4	5.2	6.7	8.3	9.6	10.8	9.5	13.0	14.6	3.8	3.9	3.9	4.0	4.1	4.3
Latvia	-	-	-	-	-	0.3	0.4	0.4	0.4	0.4	0.7	0.9	0.8	0.9	1.0	1.2	1.4	1.5

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Lithuania	-	-	-	-	-	-	-	-	-	-	-	4.0	3.9	4.3	4.6	5.2	5.8	6.7
Mexico	-	-	3.8	4.6	5.2	5.5	8.8	10.0	9.9	10.0	11.7	12.6	12.7	14.1	14.7	15.5	15.5	15.5
Nigeria	-	-	-	-	-	-	-	-	2.5	2.8	3.4	3.6	3.8	4.3	5.0	5.1	5.6	6.0
Panama	-	-	-	-	-	-	-	-	-	0.4	-	0.6	0.6	0.4	0.7	0.8	0.8	1.2
Peru	-	-	6.9	8.3	10.7	11.4	13.2	16.0	19.1	14.0	19.0	20.9	17.6	19.4	19.1	19.9	20.3	21.0
Poland	0.3	1.3	2.4	3.8	5.3	6.7	8.7	11.0	11.9	10.9	13.2	15.4	14.6	16.8	18.3	8.8	7.9	8.3
Romania	-	-	-	-	-	-	-	-	0.0	0.2	0.5	0.9	1.2	1.7	2.3	3.0	3.6	4.3
Slovakia	-	-	0.0	0.0	0.0	-	0.5	2.4	3.6	4.6	6.2	7.2	8.2	9.4	9.7	10.5	10.2	11.2
Uruguay	-	-	-	8.4	10.6	11.3	12.2	13.4	13.2	11.0	14.0	16.6	16.7	18.9	19.1	20.0	21.7	22.6
Average	0.0	0.1	4.5	6.3	7.1	7.9	9.8	11.1	11.5	9.5	11.6	12.7	11.9	13.1	13.7	13.4	13.4	14.1
Total assets in Billion USD	0.6	2.3	82.6	110.8	132.4	169.7	245.8	319.1	390.0	369.9	391.1	507.8	540.7	609.0	671.9	668.7	608.4	615.6

Source: Based on OECD Global Pension Statistics Database and World Bank Development Indicators.

From a developmental perspective, it is of major concern, particularly for developing countries, that people's pension savings should go to large international financial corporations. Evidence shows that pension privatization has contributed to the concentration of economic power in the hands of international financial firms looking to generate profit rather than contribute to national development. Indeed, privatization generated high levels of profits for pension fund administrators. Even in countries like Hungary where pension funds were formally required to operate on a non-profit basis, they concluded expensive service contracts with their parent or holding companies for the administration of the funds in order to hide profit. As a result, the average real yield of the private pension funds in Hungary was zero between 1998 and 2005, while administration costs were above 10 per cent.

This was one of the main reasons that led countries to nationalize pension funds. When Argentina nationalized ten private foreign-owned pension funds (Law 26,465 Nov 2008), several international banks and insurance groups BBVA (Spain), HSBC Holdings (UK), MetLife Inc (US) and ING Groep NV (Netherlands) were among the companies that were controlling those funds. By nationalizing private pension funds and converting private pension entitlements into public pension entitlements, approximately USD 25.5 billion was transferred from the individual accounts of the closed private system to the Argentinian government and its National Social Security Administration (ANSES) (Hohnerlein, 2012).

I. Limited effect on capital markets in developing countries

The World Bank in its 1994 flagship publication "Averting the Old Age Crisis: Policies to Protect the Poor and to Promote Growth" claimed that the introduction of a mandatory private pension pillar could help to develop capital markets and the financial sector. However, many of the arguments only hold if certain pre-conditions are met such as the existence of well-functioning, competitive markets with sound financial regulation (Barr, 2000, p. 37). This was typically not the case in developing countries privatizing pensions.

The contribution of private pension funds to the expansion of local capital markets in developing and emerging economies has been limited (Laeven, 2014). The exceptions are Chile and the high income economies, where there is evidence of positive effects. However, in most of the countries in this volume, the development of capital markets was rather limited. While Hungary, Poland and Argentina were able to develop slightly more diversified capital and investment

markets, –even before the reforms in the case of Argentina-, Kazakhstan and the Plurinational State of Bolivia had nascent capital markets. As a result, private pension fund investment opportunities and potential outcomes were limited.

Overall, in countries with not very deep and not very diversified capital markets, investments could either be heavily concentrated abroad or focused on government bonds. Governments opted for the latter, for obvious developmental reasons explained in earlier sections. In Hungary government bonds initially constituted 80 per cent of all assets, and in the Plurinational State of Bolivia 81 per cent (in 2007). In Kazakhstan, pension funds invested 50.5 per cent of contributions in national government securities, 25.9 per cent in corporate securities and 10.4 per cent in bank deposits with low capital returns; only a small share went into domestic private stocks. A similar herding trend, with highly concentrated investments, often in government bonds and bank deposits occurred in other countries that had privatized pensions and that faced similar limitations with respect to investment markets.

Due to the heavy concentration of investments in government bonds and bank deposits, private pension funds contributed very little to the development of local capital markets. In fact no positive effect on the Hungarian capital market could be traced to the pension funds, and only marginal effects were observed in the capital market of the Plurinational State of Bolivia. In Costa Rica, Dominican Republic, El Salvador and Uruguay hardly any pension funds are invested in local stocks. In El Salvador where the law regulating the capital market was enacted almost at the same time as the pension reform, the lack of national instruments and pressure from the government resulted in 81 per cent of the pension fund invested in state debt, which was used to finance the transition (Mesa-Lago and Rivera, 2017). Similarly, the limited investment possibilities in Kazakhstan and the high transition costs led to state restrictions on investment; pension funds in Kazakhstan failed to trigger the development of the capital market (Maltseva and Janenova, 2018).

J. Financial market and demographic risks transferred to individuals

While the primary objective of social protection arrangements is to pool risks and to protect against life cycle risks, private individual account schemes shift the systemic risks burden (i.e. demographic, financial and economic) to the individual. It is the worker/pensioner who bears the investment, longevity and inflation risks in a funded individual account scheme. As regards the investment

risk in defined contribution systems, the worker faces great uncertainties regarding the future level of pension benefits as it depends on the rate of return earned. Since financial markets in low and middle income countries are more volatile, this risk exposure is even higher for workers in those countries. This was particularly the case during the 2008 financial crisis which had a catastrophic impact on workers who retired with very low pension entitlements because the value of their accumulated savings and expected future rates of return had diminished drastically.

As the risks were transferred to individuals, the successive financial and economic crisis had major negative social and economic impacts for workers and pensioners. In Argentina, the domestic financial crisis of 2001-2002, lead to a 44 per cent decrease in the values of the pension funds in 2002 – from USD 20.381 million in 2000 to USD 11.650 million in 2002 (Hohnerlein, 2012). In order to mitigate the financial losses of pension funds, avoid future risks of financial fluctuations and guarantee the level of benefits, the termination of the private system– discussed since 2002 – was approved during the crisis of 2008 (Bertranou et al., 2018). In Chile in 2008, the AFPs lost 60 per cent of all benefits accrued during the period 1982-2008 (CENDA, 2010). The crisis has also produced a generation of workers who face more irregular, insecure or part-time work, leading to more disrupted contributory histories. This will most likely translate into a resurgence of old-age poverty or a build-up of political pressure for the (re-)introduction of solidarity elements and pension top-ups, changes in the benefit formula or supplementary benefits for retirees.

Furthermore, in some countries the State has stepped in to finance and provide or supplement the pensions that should have been provided by the private pension system. This was the case in Argentina before the reversal of privatization where, as individual accounts were being drained, the State stepped in to cover in full 77 per cent of the pensions payments to 445,000 private pillar pensioners, as well as additional payments to 179,000 pensioners to maintain the minimum guarantee, and 33,000 pensions for those who had depleted their individual accounts (Bertranou et al., 2018).

Of concern is also the investment strategy followed by private pension funds with high-risk portfolios which made the funds more vulnerable to economic and financial crisis. In Peru, during the global financial crisis of 2008-2009, the assets of pension funds dropped by 50 per cent or more as portfolio managers of the private funds administrators AFPs, had invested the funds in high-risk instruments taking risk even above those assumed by the participants in the

Peruvian stock market. In addition, the evaluation of the management performance of the portfolio managers of the AFPs shows the absence of competitive behavior (Flores and Sanchez, 2016).

As regards the longevity risks, most countries that have mandatory defined contribution schemes do not make choice of an annuity mandatory, thus allowing for full withdrawal of account assets, in which case the individual is fully exposed to the longevity risk. Even where annuities are mandatory, private pension funds face a structural disadvantage since they have much smaller risk pools than a single, public pension fund. The smaller the risk pool, the greater the variance around the average life expectancy. Private pension funds calculate the risk of longevity carefully - at the cost of lower annuities for pensioners (Gillion et al., 2000, p. 59). The inflation risk erodes the value of fully funded pensions further. Typically, defined contribution schemes do not automatically provide annuitized benefits and, when they do, those benefits generally are not price indexed. Pensioners thus bear the inflation risk under the privatized schemes whereas defined benefit schemes are usually indexed to prices or wages (Gillion et al., 2000).

K. Deteriorated social dialogue

ILO Convention No. 102 highlights the importance of social dialogue and the representation of protected persons in social security governance bodies. Participatory management of social security systems has been long established in international social security standards, and social dialogue is one key element to create the transparency and understanding necessary to operate social insurance schemes.

Most structural reforms that privatized pensions in Central and Eastern Europe and Latin America were implemented with limited social dialogue, which later led to questionable legitimacy (Mesa-Lago, 2014). Prior to the reform, most social security pension funds had some form of tripartite governance through representatives of workers, employers and the government. Privatization eliminated such participation in the new system, despite the fact that workers were the sole contributors and the owners of the individual accounts (in Chile, small pension funds initially had such representation, but this eventually disappeared). In Argentina, the Plurinational State of Bolivia, Colombia, El Salvador, Mexico, Panama and Peru, workers were excluded from the administration of their pension funds (Mesa-Lago, 2008). Likewise in Hungary, the tripartite administration of the public system continued right after the reform but was later abolished

by the conservative government. These reforms were against ILO standards, especially ILO Convention No. 102. Article 72 of the Convention stipulates that, "where the administration is not entrusted to an institution regulated by the public authorities or to a Government department responsible to a legislature, representatives of the persons protected shall participate in the management, or be associated therewith in a consultative capacity." The abolition of employer contributions in Chile and the Plurinational State of Bolivia moreover was against Article 71 of the Convention which requires employers and workers to share the contribution obligations.

Decisions on pension reforms were adopted without adequate consultation or the participation of social partners, the general public or those most affected by the reforms. In the Plurinational State of Bolivia, privatization was undertaken against strong opposition from the ministries of labour and health as well as trade unions leading to public demonstrations in protest of the reform.

There were strong media campaigns to promote private pensions, often marketing by private pension funds, to diminish public opposition. The experience of Hungary and Poland "demonstrates that provider's advertising and marketing campaigns can overshadow the government's information NPCC [National Pension Communication Campaign] and give rise to a situation where consumers over-estimate the benefits and under-estimate the cost and risks of the DC system." (Atkinson et al., 2012, p. 24).

Distrust in private pension systems increased rapidly when replacement rates plummeted and pension benefit adequacy became a serious problem, failing to provide sufficient protection in old age, putting older persons at risk of poverty, as well as when coverage extension stagnated as in the case of Hungary and Kazakhstan, or fell as in the case of Argentina, the Plurinational State of Bolivia, Chile, Dominican Republic, El Salvador and Mexico (Bertranou et al., 2018; Maltseva and Janenova, 2018; Mesa-Lago, 2018; Polakowski and Hagemejer, 2018). In a perception survey conducted in 2008 before the reversal of privatization in the Plurinational State of Bolivia, only 38 per cent of respondents wanted to maintain the private system and 61 per cent were in favour of a new system that reversed privatization. Even stronger opposition evolved in Argentina during the crisis in which people had witnessed a widespread failure in respecting contracts and property rights, accompanied by a political crisis and a weakening of the "social contract". More recently, in Chile, over the last few years, demonstrations against the private pension fund system mobilized millions of people in the streets.

1.2. Reversing pension privatizations

After a couple of decades of problematic implementation, many countries began to re-reform their pension systems. The first countries to repeal pension privatizations and/or consider privatizations unconstitutional were the Bolivarian Republic of Venezuela (2000), Ecuador (2002) and Nicaragua (2005). They were followed by Bulgaria (2007), Argentina (2008), Slovakia (2008), Estonia, Latvia and Lithuania (2009), the Plurinational State of Bolivia (2009), Hungary (2010), Croatia and Macedonia (2011), Poland (2011), the Russian Federation (2012), Kazakhstan (2013), the Czech Republic (2016) and Romania (2017).

In total, eighteen countries, thirteen in Eastern Europe and the former Soviet Union and five in Latin America, reversed privatizations, that is, 60 per cent of the countries that had privatized pensions reversed the process and started to switch back to public systems. As described in the previous section, these countries retrenched privatization and fully or partially re-reformed their pension systems mainly due to the high fiscal costs of privatization; the decrease or stagnation in coverage and pension benefit levels; the very high administrative costs; the shift of economic and financial risks to individuals exposing them to deteriorating pension levels; and the lack of tangible benefits to national development, among other reasons. Pension privatization was not providing income security to the majority of older persons; on the contrary, pension benefits deteriorated, increasing gender and income inequalities. The system of individual accounts became unpopular and untenable.

The privatization of pensions did not meet expectations in most countries and generated a lot of frustration. The political support which had brought about privatization reversed gear, to support a return to the public system or to minimize the share of mandatory private schemes in the provision of old-age protection and its financing. The experience on pensions is similar to other sectors such as water supply, transport, postal services, electricity and power, that also reversed earlier privatizations and re-nationalized or re-municipalized public services in recent years (Box 3).

The main wave of pension privatization reversals occurred during the global financial and economic crisis of 2008, when the drawbacks of the private systems became impossible to overlook and had to be redressed. The crisis severely affected financial and capital markets, significantly reducing the real value of private pension assets and, consequently, causing popular outrage with the results of the private system. Many pensioners had to rely on social support as the value of their pension benefits had fallen to very low levels, often below the poverty

Box 3. Privatization and recent re-nationalization and re-municipalization experiences in other sectors: Water supply, transport, electricity and power, postal services.

The experience of the reversals of pension privatization presented in this book is not different from other recent experiences of privatization and renationalization of the provision of public goods and services such as utilities and transport.

In the 20th century, the role of the government as provider of public services was not questioned until the 1980s-1990s, when the international financial institutions such as the IMF and the World Bank as well as other organizations such as the OECD and USAID started promoting privatization. Despite this policy push, the public sector owns and operates the majority of public services in cities and countries all over the world. In recent years, a number of governments that privatized are renationalizing public services due, among others, to poor performance, reduced services, high user fees leading to affordability issues, regulatory capture, collusions leading to monopoly profits and declines in investment. Some examples:

- Water supply: During the last 15 years, 235 cases of water remunicipalization, concentrated in high-income countries, with 184 remunicipalizations compared to 51 in low- and middle-income countries, for example in France, the United States, Spain, Germany and Argentina; perhaps the most known case was Paris (2010) water re-municipalization, which improved delivery and reduced water prices by 8 per cent.

- Transport: Private sector failure was common in privatized local public transport, services were reduced dramatically and prices saw steep increases. Some examples of renationalization: Japan (2010), New Zealand (2008 railways), Argentina (2008 airlines; 2015 railways), United Kingdom (2009 railways), Pakistan (2011, railways).

- Electricity and power: Public ownership of electricity companies is common in Europe, United States, Asia including China, India, Indonesia, South Korea; many countries that had privatized reversed privatization, such as France (1982), Germany (in 2005 renationalized electricity distribution networks and created new public municipal renewable energy), Brazil (2007), Argentina (2009), Finland (2011), the Plurinational State of Bolivia (2012), Japan (in 2012 Tokyo Electric Power Company was nationalized after the Fukushima Daiichi nuclear disaster).

- Other: Postal services and communications renationalized in France (1982), Argentina (2003), the Plurinational State of Bolivia (2008); Canada (2008) remunicipalized solid waste collection, snow removal, police and fire to lower costs and improve efficiency; Germany (2008) re-nationalized security, national registration; the United Kingdom (2008) and Finland (2011) stopped urban cleaning private contracts for cost reduction and employment generation.

Sources: Kishimoto, Lobina and Petitjean, 2015; Hall, 2012.

line. In addition, for countries in the Eurozone that were struggling to comply with the Maastricht criteria regarding debt and fiscal deficits, the costs of transition were excessive and found little support among governments as they were ultimately transferring badly needed public funds to the financial sector. As a consequence of unmet expectations and the fiscal challenges, many countries reversed pension privatization.

Argentina terminated the individual accounts of its members and beneficiaries during the global financial crisis in December 2008 and transferred all funds to the PAYG scheme under the newly established Argentine Integrated Pension System (SIPA). The government of Cristina Kirchner enjoyed vast legislative support and popular support at the time (Bertranou et al, 2018; Mesa-Lago, 2014).

Hungary turned to the IMF and the European Union (EU) for credit in the wake of the 2008 financial crisis, limiting its scope for policy options. Hungary had to adhere to the Maastricht criteria that set the limits of fiscal deficit at 3 per cent and debt levels at 62 per cent of country GDP. Fiscal constraints were decisive in its resolution to nationalize the private individual account system. In an attempt to ease fiscal pressures, the Hungarian government announced for 2010 and 2011 the suspension of payments to the private pension funds as a preliminary measure and diverted these to the public system. In December 2011, Prime Minister Viktor Orban announced the temporary measure to be permanent. Hungary officially nationalized the private pension assets and eliminated the individual accounts in 2011, returning to its pre-1998 mandatory PAYG public pension system (Szikra, 2018; Simonovits, 2012).

Poland also faced fiscal constraints and high transition costs, running at 1.7 per cent of GDP, while trying to meet the Maastricht budget deficit criteria set at

3 per cent (Égert, 2012). The transition costs were financed entirely by borrowing, and 70 per cent of pension funds purchased government bonds, a vicious circle that only benefited the financial sector which cashed in commissions. As a result, in 2011 Poland cut the government's contribution to the private pension system from 7.3 to 2.3 per cent of salaries, shifting the difference to the public PAYG system. In 2013, the government announced that it would let workers transfer their contributions from the private to the public pension plan and eliminated mandatory contributions to the private system. Eventually, in 2014 the government transferred government bonds held by the private funds to the public social security institution, leaving the private funds with portfolios largely in equities. Later that same year, people had to decide whether or not to leave some of their assets with the private funds, with the result that only 100,000 members remained in the private individual accounts system (Polakowski and Hagemejer, 2018).

Kazakhstan reversed pension privatization as part of a modernization plan, *Kazakhstan 2050 strategy*. In 2013, it merged the ten private pension funds with the state-run Unified Pension Fund (UPF), under the Kazakhstan National Bank. With this move, the government not only aimed to improve efficiency in the management of pension savings but gained access to long-term financing for infrastructure and national development investments (Maltseva and Janenova, 2018).

Similar pressures led to retrenchments of private second pillar mandatory pensions in Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania, and Slovakia. In the Russian Federation, it was President Vladimir Putin who privatized pensions in 2002, and it was also President Putin who questioned the policy and reversed privatization back to a public system in 2012 (Wilson Sokhey, 2017; Fultz and Hirose, 2018).

In other countries where privatization has not been reversed, both criticism of the underperformance of private pensions systems and the prevalence of high transition costs have acted as triggers for the introduction of some kind of re-reforms. For example, in 2008 Chile introduced state-financed social pensions and supplementary pension top-ups for those who could not contribute, had insufficient contributory years to the private system, or their pension benefits were too low (Box 4). The government of El Salvador in 2017, in an attempt to tackle these difficulties, increased contribution rates from 13 to 15 per cent and decided to channel 2 percentage points to finance a new collective fund called the Solidarity Guarantee Account, aimed at paying a guaranteed minimum and

supplementary pensions. Colombia, following on-going discussions to tackle performance problems of the pension system, is considering the idea of adopting a public component of notional accounts, to complement a second pillar of mandatory individual accounts. One issue to explore is the additional fiscal cost associated with these reforms, which could worsen existing fiscal pressures.

While many countries reversed privatization after the 2008 financial crisis, a number of countries questioned the private model earlier, like the Bolivarian Republic of Venezuela (2000), Ecuador (2002) and Nicaragua (2005). These countries had strong national debates questioning the public benefit of private pensions, ultimately leading to declaring private pensions unconstitutional and repealing the laws that had created them. In the Plurinational State of Bolivia, the demand for a re-reform was also endogenous, led by the high costs of transition and the detrimental social impacts of private pensions. The government of President Evo Morales merged and nationalized the two private pension funds and combined them with a redistributive component, a move that represented a return to the public PAYG system. The re-reform in 2010 also introduced a new public PAYG system called *Sistema Integral de Pensiones* (SIP) (Diaz, 2018; Mesa-Lago, 2018; Navarro Medal, 2018; Peña-Jarrín, 2018). More countries are currently considering pension re-reforms (Box 4).

Box 4. Ongoing pension reform discussions in Chile, Colombia, El Salvador, Mexico, and Peru

Chile: Since the introduction of the Chilean private pension system in the 1980s, several adjustments have been implemented. Over the years, low contributory coverage and the adequacy of pension benefits have been questioned, both the low benefits paid by private schemes and by the non-contributory scheme.In 2008, a non-contributory state-financed social assitance pension benefit was set up for those who could not contribute, or had insufficient contributory years to the private system during their working period. In addition, the Solidarity Supplement was created, financed through the general budget, which consists of a top-up to the non-contributory pension for those with contributions to the individual accounts, in order to articulate the non-contributory pension with the individual account and encourage the payment of contributions by low-income members. During the administration of former President Michelle Bachelet, attempts were made to reform the pension system, including creating a presidential advisory commission which collected sev-

eral proposals, but with no legislative result. In 2018, the newly elected President Sebastian Piñera announced that he would undertake a pension reform to increase the solidarity pillar, to introduce employer's contribution at 4 per cent, and to create a special benefit supplement for women and the middle-class who are near or past retirement age.

Colombia: The enactment of Law 100 in 1993, introduced a pension reform that allows a public defined benefit system and a private system of individual accounts to coexist in parallel.Members can switch from one system to another at will. However, the main problems that the 1993 reform intended to solve still persist, including low coverage, inequities including high gender inequality, high fiscal pressures, and financial unsustainability. Only a quarter of the population over the age of 65 and only 5 per cent of women are currently benefiting from a pension. Poverty in old age in Colombia is estimated to be one of the highest in Latin America. In the current debate regarding pension reform in Colombia, there is agreement on expanding the existing programmes *"Colombia Mayor"* (a non-contributory programme) and "Periodic Economic Benefits (BEPS)" (a programme based on individual savings for people in the informal economy). The idea of eliminating the duality of the current parallel system is generally agreed, given its economic and political unsustainability. However, opinions differ on whether the contributory component should be based on a public system or private individual accounts. One side advocates for closing the private individual savings system, considered by some sectors to be a bad deal for the state and people, benefiting only pension fund administrators. Whereas the other side promotes the elimination of the defined benefit system, moving towards a multi-pillar system, with privately managed individual accounts as the mandatory first pillar. Both sides are considering the idea of adopting a public component of notional accounts.

Mexico: A first privatization reform took place in 1997, when private individual accounts replaced the public PAYG defined benefits as the mandatory pension system for private sector workers previously affiliated to the Mexican Institute of Social Security (IMSS). In 2007, private pension schemes replaced also the PAYG scheme of the Institute of Social Security and Services for State Workers. Mexico's reform followed the Chilean model and World Bank recommendations at that time. In order to mitigate the detrimental effects of privatization on benefit levels and coverage rates, a targeted non-contributory pension scheme was introduced at the federal level in 2007, which was further adjusted in 2013. This scheme covers the poor population aged 65 and above. Additionally, thirteen Mexican Federal States also introduced targeted non-contributory social pension schemes that pay a complementary pension to beneficiaries aged 68 and above. According to the latest ILO estimates (ILO, 2017),

the current coverage rate of the Mexican pension system is 64 per cent, which is below the average for Latin America, and the projected replacement rates are merely between 16 to 26 per cent. The annual cost of transition from the public to the private schemes has been estimated at 1.3 per cent of GDP (2015) and it is estimated to increase to 3 per cent of GDP in 2046, after 40 years of privatization. In this context, there is a growing consensus that the new government should implement a reform of the pension system, which is expected to include a universal public pension.

El Salvador: In 1998, following advice from the World Bank and the Inter-American Development Bank, El Salvador reformed its public pension system and created the Pension Savings System (SAP), based on individual accounts and administered by private pension fund administrators (AFPs). Since then, coverage rates stagnated between 25 to 28 per cent of the labour force, among the lowest in the Latin American region. The share of retirees receiving monthly retirement payments is as low as 38 per cent, as many are not able to meet the requirement of 25 years of contributions to receive a pension. Lump sum payments – which do not provide income security in old age – are, unfortunately, the predominant form of pension (62 per cent). Replacement rates among those entitled to a pension are also low, ranging between 39 and 43 per cent of the worker's last salary. Competition between AFPs is virtually non existant, as only two AFPs manage all mandatory pension funds. As a result, individual accounts' administrative costs are among the highest in Latin America, reaching around 20.4 per cent (calculated as the net commission plus insurance premium over the deposit in the individual account). Additionally, high transition costs led to a worsening of the fiscal balance, with government debt levels becoming unsustainable. It is estimated that 70 per cent of the fiscal deficit was due to commitments related to the transition to the private pension system. In 2017, as an attempt to tackle this difficutl situation, the government reformed the SAP, increasing contribution rates from 13 to 15 per cent and channelling 2 percentage points to finance a new collective fund called the Solidarity Guarantee Account, aimed at paying guaranteed minimum and supplementary pensions. However, significant transfers from the Government are still required to cover all pension expenses during this transition period, as the 2017 reforms addressed mainly the adverse impact of the transition cost on public finances, leaving aside important matters such as low coverage rates and benefits.

Peru: The Peruvian Private Pension System has experienced a number of reforms since its inception in 1992. However, many problems persist including its very low coverage of no more than 16 per cent of the labour force. Administration costs are the highest among private systems in the region: 29.4 per cent of the deposit. In 2016, a major reform to the private pension system was introduced. Members reach-

ing the retirement age of 65 were allowed to withdraw up to 95.5 per cent of the total available funds in their individual account, leaving the accumulated remaining 4.5 per cent as an insurance premium for Social Security Health Insurance to cover medical services for life. According to recent figures, more than 95 per cent of beneficiaries opt to withdraw 95.5 per cent of their individual account balance. This measure could be considered as a step toward the complete termination of the private individual account system. Public discussions are taking place, including a fusion of the two pension systems, either into a public or a private unified system.

Source: Albo et al., 2008; ILO, 2017; Comision Presidencial Pensiones Bravo, 2015; Mesa-Lago and Rivera, 2017; Soto, 2008; Valencia 2008.

Table 5 below gives an overview of the reversals of pension privatizations, differentiating between two re-reform types. Some countries terminate the system of individual accounts, transferring all private individual account funds to the public system. Others downsize individual accounts, mainly by lowering the share of mandatory contributions to the private pension funds or transferring the management to the state and/or offering the choice to pension fund members of opting back to the PAYG scheme.

While every country case is specific and needs to be assessed in its context, there are common elements. This section will review the main experiences in terms of: (i) timing of the re-reforms, (ii) laws enacted, (iii) basic characteristics of the new public model, (iv) new rights and entitlements, (v) re-establishing the public pension administrator, (vi) transfer of people and funds and recognition of past entitlements, (vii) financing and new contribution rates, re-introducing employers contributions, (viii) contribution collection and fund management, (ix) supervisory and regulatory changes, (x) governance and representation of employers and unions, (xi) social dialogue in the re-reform process; as well as some of the positive impacts: (xii) reduced administrative costs, (xiii) social and economic impacts, and (xiv) fiscal impacts.[18] Table 6 summarizes selected country results in each of these areas.

[18] Unless stated otherwise, the majority of the information in this section is abstracted from the cases of Argentina (Bertranou et al., 2018), the Plurinational State of Bolivia (Mesa-Lago, 2018), Hungary (Szikra, 2018), Kazakhstan (Maltseva and Janenova, 2018) and Poland (Polakowski and Hagemejer, 2018).

Table 5. Reversal of individual accounts and pension privatization

Terminating Individual Accounts	Downsizing Individual Accounts
• Venezuela, Bol. Rep. of (2000), Ecuador (2002) and Nicaragua (2005). • Argentina, 2008 (government ends individual accounts and transfers funds to PAYG system) • Hungary, 2010 (government transfers individual accounts to PAYG system, merging with state budget) • Bolivia (Plur. State of), 2009 (constitutional ban on social security privatization and closing of individual accounts system for new entrants) • Russian Federation, 2012 (contributions to individual accounts are diverted to social insurance) • Poland, 2011 (downsizing) and 2014 (transfer of all individual accounts back to the ZUS social insurance PAYG system) • Czech Republic, 2016 (new government ends Individual Accounts System)	• Bulgaria, 2007 (cancelled the contribution increase in the individual account pillar – currently frozen at 5 per cent) • Estonia, 2009 (government suspended its 4 per cent contribution to the 2nd pillar) • Latvia, 2009 (individual account contribution reduced from 8 per cent to 2 per cent) • Lithuania 2009 (individual account contribution reduced from 5.5 per cent to 1.5 per cent) • Macedonia, 2011 (Contributions to mandatory individual accounts reduced from 7.42 per cent to 5.25 per cent) • Croatia, 2011 (mandatory individual account contribution reduced from 10 per cent to 5 per cent). • Slovakia, 2012 (Individual account contribution reduced from 9 per cent to 4 per cent) • Kazakhstan, 2013 (transfer of administration to the Government) • Romania, 2017 (government reduced and froze contribution rates to 2nd individual account pillar)

Source: Bertranou et al., 2018; Diaz, 2018; Fultz and Hirose, 2018; Kay, 2009; Maltseva and Janenova, 2018; Mesa-Lago, 2014 and 2018; Navarro Medal, 2018; Peña-Jarrín, 2018; Polakowski and Hagemejer, 2018; Szikra, 2018; Velculescu D., 2010.

1.2.1 Timing of the re-reforms

Timing is of critical importance to policy makers – how long will it take? The available experiences show that pension privatization can be reversed quickly. In Hungary, the renationalization of pensions was conceptualised and implemented between April and December of 2010, and in Argentina, from October to December 2008. In Kazakhstan, the re-reform happened in approximately one year between 2012 and 2013 due to a strong initiative on the part of the government and little involvement of stakeholders. In other countries, reversing

pension privatization took longer, as pension reforms operate within a complex political economy framework, often involving the conflicting economic and political interests of different stakeholders, for example, the pension fund administrators and trade unions. In the Plurinational State of Bolivia, the re-reform took around four years between 2006 and 2010, and will be fully implemented only in 2019. Similarly in Poland, pension re-reform elements were introduced in several steps since 2010 up to the conclusion in 2014, with a duration of around four years.

The fastest reversals from pension privatization took only a few months. The re-reform process in Hungary started in April 2010 with the government's plan to reduce its deficit and debt. In October 2010, the Parliament adopted a law to redirect private pension fund contributions to the treasury for 14 months. In late November the same year, the Government introduced and adopted a law to eliminate the private individual account pillar, which took effect in December 2010. In Argentina, the main re-reforms were also fast-tracked in a few months. The government of Argentina started encouraging debates on the future of the pension system in 2002, involving various stakeholders, experts, and national and international institutions. There was a first soft re-reform pension law in April 2007, which imposed caps on private pension administrative fees, enabled members to choose between the private and the public system, and made the public PAYG system the default for new entrants. In October 2008, amid the international financial crisis, the government announced the renationalization of pensions, and a second re-reform law approved by the Senate nationalized individual accounts by transferring the members and assets to the public Guaranteed Fund, marking the end of the private pension system in Argentina (Bertranou et al., 2018).

In Kazakhstan, the pension privatization reversal took place as part of a broader reform (Socio-Economic Modernization – Kazakhstan 2050 strategy). Starting in 2012, the president requested the development of reform proposals; after which the government conducted consultations with various stakeholders, including civil society groups and pension fund administrators. On 23 May 2013, the Parliament adopted the re-reform bill, transferring all pension assets and obligations to the newly created UPF.

Other reversals of pension privatization took longer in terms of the political process, but once approved, implementation was fast. The government of the Plurinational State of Bolivia started the re-reform process in 2006 with public discussions and debates involving ministries, trade unions, employers, civil

society and other relevant national stakeholders, including debates at the National Assembly. In 2009, the new constitution formally banned the private administration of social security schemes, and in December 2010, the re-reform law was approved, creating a public PAYG system for new entrants. In 2015, a public administrator *(Gestora Pública)* was announced to replace the private pension fund administrators marking the end of private management of mandatory individual accounts.

From 2010 to 2013, the government of Poland launched media campaigns exposing the negative aspects of the private pension system. In 2011, its new pension law cut the contribution rate to the private system, and the Polish government requested a review of the pension system. In 2013, the Government allowed workers to divert their contributions from the private to the state-run pension funds. As of January 2014, the individual accounts were no longer mandatory and current members are allowed to transfer to the public scheme (Polakowski and Hagemejer, 2018).

1.2.2 Laws enacted

Pension reforms require passing legislation. In all cases reviewed in this study, laws were enacted, e.g. regarding the termination of privately managed individual accounts and creation of public PAYG pension systems. In some cases, the country had first to approve a law that reduced the private system, then another law to terminate it (Argentina, Hungary, and Poland), while in other cases it only required one law to reverse the privatization (Kazakhstan and the Plurinational State of Bolivia). It is worth noting that in the Plurinational State of Bolivia the pension re-reform was an integrant part of a larger process, which culminated in a new Constitution in 2009.

In Argentina, law 26,222 of April 2007 introduced the possibility of opting for the public system, made it the default for new entrants and improved the benefit adequacy by increasing pension accruals from 0.85 per cent to 1.5 per cent of past earnings per year of contribution. Its cornerstone law 26,425, of December 2008, eliminated individual accounts systems by transferring all members to the public PAYG system, the *Sistema Integrado Provisional Argentino* (SIPA).

In the Plurinational State of Bolivia, the new Constitution that came into effect on 7 February 2009 banned social security privatization and reaffirmed the guarantee of a universal non-contributory pension *(Renta Dignidad)*. The year after, the re-reform law No. 065 of 10 December 2010 replaced the private

system with a new public PAYG defined benefit system for new entrants, the *Sistema Integral de Pensiones* (SIP). In 2015, the *Decreto Supremo 2248* created the public entity *Gestora Pública* to manage remaining individual accounts, with starting date in March 2019, as a result of two decrees in 2016 and 2017.

In Hungary, the Act CI/2010 of October 2010 directed private pension fund contributions to the treasury for 14 months, and the law 1281/2010 of December 2010 established the automatic transfer of workers to the public PAYG system. In Kazakhstan, law No.105-V ZRK of 21 June 2013 on Pensions transferred all members to the public Unified Pension Fund (UPF).

In Poland, the Law of 25 March 2011 introduced the re-reform by reducing the contribution rate to individual accounts from 7.3 to 2.92 per cent, and directing the remaining individual accounts to the public NDC system. In 2013, the Law of 6 December concretized the nationalization of the pension system by withdrawing the obligation to contribute to individual accounts, making it voluntary for all new entrants, and allowing the transfers of current individual accounts to the public NDC scheme.

1.2.3 Basic characteristics of the new public model

Although the re-reforms differ from each other, there are main common elements in the configuration of the new pension systems after the re-reforms. All cases retreat from privatization, downsizing or abolishing mandatory individual accounts and strengthen public social insurance based on the principles of social solidarity and shared responsibility for pension provision among government, employers and employees. We can differentiate between re-reforms that weakened the individual accounts of a pension system and re-reforms that terminated them, presented earlier in Table 5. Among the cases studied, Argentina, the Plurinational State of Bolivia, Hungary and Poland carried out re-reforms in greater depth, either by terminating the mandatory private pillar or closing it to new entrants. Other countries are still re-reforming their pension systems, like Kazakhstan, which at the moment has a transitory first public pensions pillar on PAYG basis while also keeping the individual accounts with the management having been transferred from private to public entities. Countries returned to a public PAYG system as prior to the privatization, in accordance with ILO international social security standards, with defined benefits in Argentina, the Plurinational State of Bolivia, and Hungary; or with notional defined contributions in Poland. They strengthened the redistributive elements of the pension

system, including by new or enhanced non-contributory social pensions, to improve old-age income security.

Most pension systems in the world comprise three or four tiers or pillars, described in Box 1, namely Pillar 0, universal non-contributory social pensions; pillar I, mandatory public social insurance; pillar II, complementary contributory component (voluntary or mandatory); and pillar III voluntary private pensions. The great pension reform debate over the past decades evolved around the design and management of the large contributory pillar I and the smaller complementary pillar II.

The new model in Argentina consists of a three-pillar system, composed of a non-contributory Universal Basic Pension scheme – *"Pensión Universal para Adultos Mayores"* administered by the Ministry of Social Development; a public PAYG defined benefit mandatory scheme – *Sistema Integrado Previsional Argentino* (SIPA) administered by the public entity ANSES; and complemented with an option to contribute to voluntary private pension funds (Bertranou et al., 2018).

The Plurinational State of Bolivia's pension system after the renationalization is comprised of a non-contributory Universal Basic Pension scheme *Renta Dignidad*; a public PAYG defined benefit mandatory scheme; and a semi-contributory scheme, the *"Fondo Solidario"*, aimed at guaranteeing minimum protection for those with low pension levels (Mesa-Lago, 2018).

In Hungary, the pension system has returned to a three-pillar model as prior to privatization. The new model consists primarily of a non-contributory means-tested scheme and a public PAYG DB scheme. Workers have moreover the possibility of voluntary contributions to private pension funds.

In Poland, the system, after the reversal, consists of a public system of a mandatory first pillar NDC pension scheme run by the state. A guaranteed minimum pension is financed from public funds. In addition, a means and pensions-tested benefit is provided. There is an occupational pension for workers in high-risk occupations financed by employers. Private Individual accounts for additional savings are voluntary as of 2014 (Polakowski and Hagemejer, 2018).

Kazakhstan's new pension system has three pillars. The zero pillar provides a floor, a non-contributory basic and solidarity pension. The first pillar has two types of mandatory public pensions, one is a DB scheme running on a pay-as-you-go basis and the other is based on individual accounts managed by a public pension fund. The last pillar is a voluntary private scheme. The government is

considering a new public PAYG NDC scheme financed by employers' contributions to be implemented in 2020 to complement the current system (Maltseva and Janenova, 2018).

1.2.4 New rights and entitlements

Shifting back to a publicly managed PAYG defined benefit pension system requires defining the rights and entitlements under the new scheme, in particular regarding the defined benefit levels and possible solidarity and redistributive elements, as well as the other parameters such as the retirement age, the pension formula, contributory ceilings and floors, eligibility criteria related to the minimum required duration of contributions and contribution rates. The ILO Conventions No.102 and No. 128 envisage the provision of income security to people at pensionable age through defined benefits with periodic payments of at least 40 per cent (Convention No. 102) or 45 per cent (Convention No. 128) of the reference wage after 30 years of contribution or employment. These standards also require that pensions need to be periodically adjusted following substantial changes in the cost of living and/or the general level of earnings (Box 2).

With the reversal of private pension systems, benefit levels improved in most of the countries. In Argentina, the Plurinational State of Bolivia, and Hungary and Kazakhstan, members were granted the right to real pension entitlements based on defined benefits. The pension benefits are guaranteed by law, either as a minimum benefit or as a share of previous earnings. In most of the cases the replacement rates exceed the requirements of ILO Conventions No. 102. In Poland, however, benefit levels have not improved as the public pension continues to be based on a defined contribution system.

Additionally, in accordance with ILO Social Protection Floors Recommendation, 2012 (No. 202), a non-contributory pension is guaranteed by the government of the Plurinational State of Bolivia and Kazakhstan to all the population above pensionable age, while in Argentina, Hungary and Poland it is delivered as a means-tested and/or pension-tested benefit.

In Argentina, men and women with at least 30 years of contributions can benefit from the PAYG pension at the age of 65 and 60 respectively, and a pension-tested benefit provided to persons aged 65 and above not receiving any other pension, and a means-tested benefit is provided to persons aged 70 and above without any other income. The PAYG DB pension replacement rate was estimated at around 71.6 per cent assuming 35 years of contribution based on the average

wage (OECD, 2017b), comprising of a flat-rate pension of USD 194, plus 1.5 per cent of the insured's average monthly earnings multiplied by the number of years of contributions. The pensions-tested non-contributory scheme delivers a monthly benefit of USD 329 – corresponding to 80 per cent of the minimum PAYG pension; and the means-tested scheme pays USD 288 monthly, corresponding to 70 per cent of the minimum PAYG pension

In the Plurinational State of Bolivia, the universal non-contributory pension *Renta Dignidad* is granted to all the population aged 60 and above. Beneficiaries receive approximately USD 563 per year (around USD 47 per month), or USD 469 per year if they are already benefiting from another pension. Pensionable ages were lowered for the new public PAYG DB pension to 55 for men and 50 for women, and a replacement rate of 70 per cent is guaranteed with 30 years or more of contributions. The Solidarity Fund finances any gap to meet the guaranteed level of benefit.

Hungary's contributory PAYG DB scheme grants pensions to both men and women at the retirement age of 63 and 6 months, while means-tested non-contributory benefits are available from the age of 62. For 35 years of contributions, for example, the replacement rate of the PAYG pension is guaranteed at 74 per cent of average earnings. The pension accrual rate is 33 per cent for the first ten years of contributions; 2 per cent annually between 11 and 25 years of contributions; 1 per cent annually between 26 and 36 years of contributions; 1.5 annually between 37 and 40 years of contributions;, and 2 per cent annually above 40 years of contributions. The minimum monthly pension is guaranteed at USD 103 as of 2018, and the non-contributory means-tested benefit is around USD 79 per month as of 2013 (Szikra, 2018).

All citizens in Kazakhstan regardless of employment period are covered by a universal solidarity pension, which provides a benefit in 2018 of between USD 45 and USD 82.5 – corresponding to 54 and 100 per cent of the minimum subsistence level respectively. For the employed, the PAYG pension – with contributions solely from the State- guarantees replacement rates of between 60 and 75 per cent of the previous wage, for men from the age of 63 with 25 years of employment, and women from the age of 58.5 with 20 years of employment respectively. The Individual accounts system managed by public UPF offers annuities with a monthly benefit no lower than USD 98.4 (Maltseva and Janenova, 2018).

In Poland, contributory PAYG NDC pension benefits are available for men and women from the age of 65 and 60 respectively. Pension benefits include a minimum guaranteed monthly pension of approximately USD 240 (as of March

2016), financed by government, and a monthly pension from the NDC system. The NDC system is based on contributions and replacement rates are estimated at 39 per cent for men with 45 years of continuous contribution, and 34 per cent for women with 40 years of contributions which are among the lowest rates in OECD countries (OECD, 2017a) and fail to comply with ILO standards (ILO Conventions No.102 and No. 128). The government also provides a means-tested and pensions-tested benefit of around USD 129 per month as a targeted social assistance (Polakowski and Hagemejer, 2018).

1.2.5 Re-establishing or creating a public pension administrator

With the end of privately managed individual accounts, the fragmented management of pensions by a multiplicity of private administrators collecting contributions and managing smaller funds –a major design problem in most of the privatization reforms– was replaced by a centralised public administrator. This allowed for increased administrative efficiency and thus a reduction of administrative costs; and consequently, the improvement of benefit levels for members in most countries. Reducing the number of funds also increased transparency and allowed for greater risk pooling overall bringing the pension systems more in compliance with the principle of transparent, accountable and sound financial management and administration (ILO Recommendation No. 202).

In some cases, a new entity was created to take over the management of individual accounts, e.g. Kazakhstan, while in others those accounts were transferred to pre-existent public pension administrators. As the public PAYG system was still operational in Argentina, the reversed system administration switched back to ANSES. Similarly, in Hungary, the administration of the system continues under the responsibility of a public entity, the Central Administration of National Pension Insurance (ONYF). Also in Poland, the management of the public PAYG NDC scheme remains with the Polish Social Insurance Institution (ZUS), which was already in operation prior to the re-reform. The Plurinational State of Bolivia and Kazakhstan created new public pension administrators, the *Gestora Pública* and the UPF, respectively. In Kazakhstan, investment management of the UPF's pension assets was transferred to the National Bank of the Republic of Kazakhstan (NBRK) (Mesa-Lago, 2018).

In light of the back and forth between private and public pension fund management, a key issue in the reform countries will be to ensure efficient, sound and transparent administration of the pension scheme to re-establish the trust

of workers and pensioners in the system. Basing the system on sound actuarial valuations to ensure financial sustainability and making the related information publicly available in a factual, user-friendly manner through a non-ideological communication and information strategy is an important step to re-gain the trust of the population.

1.2.6 Transfer of members and funds and recognition of past entitlements

The transfer of members from the private to public system implies the transfer of the assets of pension funds – as recognition of cumulated benefits in the system that is closing. The resources could be transferred to another individual account, a notional account, or a collective fund. In all studied cases, except Kazakhstan, the reversal of private pension systems meant the return of most members and their cumulated assets to a collective public fund.

The funds transferred improved governments' fiscal position, ending the pressures created by privatization transition costs, relieving public debts and deficits. In Argentina, all members and assets from the mandatory private funds –around 9.5 million people and USD 25.5 billion– were transferred to the public system. With the transfer of funds to the public system, there was an increase in the lawsuits of pensioners against the Argentine State, alleging issues of unconstitutionality. Lawsuits against the pension system existed well before the re-reform, a long-standing practice in the country. A number of lawsuits came from the manner in which the initial benefits were fixed and their subsequent adjustment as well as from the methodology for the recognition of rights for the transfer of members between systems (Bertranou, 2011).

In the Plurinational State of Bolivia, all individual accounts and assets –around 0.5 million members and USD 5.4 billion– were transferred from the mandatory private system to the public system in 2010, despite the temporary continuation of private management (Mesa-Lago, 2014). In Hungary, by 2011, almost all members –2.93 million out of 3 million– chose to return to the public PAYG system with their assets totalling USD 11 billion; the benefit calculation for those transferred is based on defined benefit formula (Szikra, 2018).

In Kazakhstan, the management of all individual account pension funds and members was transferred automatically to the public Unified Pension Fund; benefits continue to be paid following the individual account defined contribution formula. In Poland, no transfer of members was required as every individual

account member was also affiliated with the public system. Approximately USD 33 billion of assets from the individual account pension funds were transferred to the individual NDC accounts in the public scheme in 2014. Assets of members that remained in the individual account pension fund will be moreover gradually shifted to the public tier NDC during a 10 year period prior to retirement, the so-called "zipper mechanism" that aims to protect workers from low pension levels (Polakowski and Hagemejer, 2018).

1.2.7 Financing mechanisms: New contribution rates including re-introducing employers' contributions

In a multipillar system, the government general budget typically finances the zero pillar non-contributory component, while workers' and employers' contributions finance the first pillar and in most countries, the government guarantees the pension payments of PAYG schemes in case of a deficit (Cichon et al, 2000). In many of the re-reform studies documented employers' contributions were re-introduced, strengthening the principles of solidarity and participation of all social stakeholders in financing pensions.

In Argentina, the government finances the non-contributory Universal Basic Pension by taxes, while the contributory public PAYG scheme receives contributions from workers at a rate of 11 per cent, and from employers at a rate of 10.17 per cent.[19]

In the Plurinational State of Bolivia, following the re-reform the contributory public PAYG system is financed through contributions from workers at a rate of 12.71 per cent, and from employers at a rate of 3 per cent. The non-contributory Universal Basic Pension (Renta Dignidad) is financed by the government through a tax on hydrocarbons, and revenues from the capitalization of former public enterprises. The semi-contributory (solidarity) scheme is collectively financed by workers at rates of from 0.5 to 10 per cent according to the level of income, and by employers at a rate of 3 per cent.[20]

[19] The 16 per cent rate employers used to pay - reduced to 10.8 per cent due to the 2001 crisis in Argentina (Hohnerlein, 2012) - was not restored.

[20] Worker's contribution rates are 0.5 per cent of monthly declared earnings from 1,656 bolivianos to 13,000 bolivianos; 1 per cent of monthly declared earnings from 13,001 bolivianos to 25,000 bolivianos; 5 per cent of monthly declared earnings from 25,001 bolivianos to 35,000 bolivianos; and 10 per cent of monthly declared earnings above 35,000 bolivianos. The minimum wage is 2,000 bolivianos, approximately USD 289 as values of 2017.

In Hungary, the re-established public PAYG scheme is financed through contributions from workers at a rate of 10 per cent, and from employers at a rate of 24 per cent. The non-contributory pension benefits are tax funded (Szikra, 2018).

In Kazakhstan, the universal solidarity pension is financed by the government through taxes, and the individual accounts scheme is financed by workers with a contribution rate of 10 per cent. Employers contribute at a rate of 5 per cent into the mandatory occupational pension scheme for employees in hazardous and dangerous working conditions – as the result of the re-reform. Employers will finance the NDC scheme at a contribution rate of 5 per cent starting in 2020 (Maltseva and Janenova, 2018).

The public PAYG NDC scheme in Poland is financed through contribution payments totalling a rate of 19.52 per cent equally shared between workers and employers as introduced by the re-reform. Since individual accounts are voluntary as of 2014, contributions go by default to the public NDC. Potential deficits of the system will be covered by the state budget.

1.2.8 Contribution collection and fund management

In private pension systems, the fragmentation of contribution collection was a major problem. With each of the funds establishing in parallel their own system to collect contributions and keep related records, administrative costs are much higher and less efficient not benefiting from economies of scale of a single administrative body to manage the funds. With the reversals, government in all cases centralized the collection of contributions through a public agency, either the tax collector or the public pension administrator, allowing increased efficiency and effectiveness. By also centralising the management of the investment in a public entity, a more diversified portfolio, e.g. in the Plurinational State of Bolivia, and a focus on development projects, such as in Argentina and Kazakhstan.

In Argentina, the Federal Administration of Public Revenue, a central tax collection agency, is now responsible for collecting contribution payments, while the ANSES manages the public pension system. The National Bank of Argentina is responsible for operational procedures and the Investment Committee (with members from ANSES, the Secretary of Finance, the Secretary of Treasury) for defining the investment criteria. In the Plurinational State of Bolivia, the private pension fund administrators continue to be in charge, on a temporary basis, of collecting contributions and managing the fund and investments. The

Gestora Pública will take over these responsibilities once operational in 2019. In Kazakhstan, the Unified Pension Fund is responsible to collect contributions, while the National Bank of Kazakhstan is managing the fund and its investments. In Poland, the public entity ZUS remains in-charge of collecting social insurance contributions, paying out pension benefits, and managing the investment of the public pension fund. In Hungary, contributions are collected by the National Tax and Custom Administration, while the public funds are managed by the Treasury (Szikra, 2018).

1.2.9 Supervisory and regulatory changes

At a minimum, regulation should include the following three elements: (i) accounting standards that provide information enabling an independent auditing process to verify the information and regular reporting of solvency and financial performance data; (ii) regulation to guide the managers' behaviour and (iii) institutions able to enforce the rules and regulations (Gillion et al., 2000). Most privatizations created autonomous bodies for the regulation and supervision of private pensions, for example the superintendencies in Argentina and the Plurinational State of Bolivia, or Financial Supervisory Authorities in Hungary and Poland. In practice, however, the transparency and accountability of the private systems were often questionable, resulting in underperformance of the funds and the administration.

In Kazakhstan, for example, most private pension fund administrators did not publish the list nor the structure of shareholders. Due to scarce regulation, they made decisions regarding investments and administrative expenses. Similarly in Poland administrative fees remained unregulated until 2014, and no regulatory action was ever taken on oligopolistic practices of private pension providers. With the reversal of the privatizations, most supervisory and regulatory agencies were replaced by newly created or reinforced public entities, often part of a broader regulatory structure, therefore increasing the transparency, accountability, and governance of the pension system, at the same time making it less prone to industry capture.

Argentina abolished the Superintendency that previously watched over the private pension funds and introduced as part of the re-reform a congressional committee (with elected members from both chambers) that monitors the public PAYG pension scheme and its evolution, and may give non-binding recommendations. The Plurinational State of Bolivia established a new public and

non-autonomous Pension and Insurance Supervisory and Control Authority to replace the previous Superintendence (supervisory authority of the private individual account system), with the mandate to oversee both pensions and insurance. In Hungary, the supervisory and regulatory functions are now under the Ministry of Human Resources and the Hungarian National Bank. In Kazakhstan, the Agency for Regulation and Supervision of Financial Markets and Financial Organizations (AFN) oversees the National Bank of the Republic of Kazakhstan and its operation, including pension funds management. In Poland, the private individual accounts and public pension funds are regulated by the Financial Supervision Authority (FSA), which is overseeing financial markets, including the banking sector, capital and insurance markets, cooperative savings and credit unions and other payment institutions and services. The Ministry of Family, Labour, and Social Policy provides general supervision of the public schemes under ZUS (Polakowski and Hagemejer, 2018).

1.2.10 Governance of the re-reformed systems

The governance of pension systems ensures adequate policy formulation and related decision-making processes, the institutional arrangements and implementation structures, as well as the administrative operations to actually make the structures work, including supervision (Gillion et al, 2000; Cichon et al, 2000). Pensions were privatized in a number of countries based on hypothetical debates on the improvements that the private sector would bring; however, as presented in earlier sections, the private model did not deliver. As a result, the role of the governments was strengthened.

The re-reforms reinforced the government's role in the administration, regulation and supervision of the pensions systems in all cases. In some cases, the new governance system includes a tripartite structure in accordance with ILO international standards on social security, as in Argentina. Others like the Plurinational State of Bolivia despite the constitutional mandate, have not yet included tripartite representation, which may undermine the political sustainability of these new public pension systems (Mesa-Lago, 2018).

Argentina, for example, created a National Congress Commission and a tripartite advisory council, including representatives from pensioners and banks. In Poland, the participatory character of the governance framework was improved, as representatives of trade unions and employers are members of the supervisory board of the ZUS. ZUS is governed by the Management Board composed

of 2-4 members, who are appointed and dismissed by the Supervisory Board (tripartite) on the recommendation of the President of ZUS. After restoring the public pension system, Hungary created in 2010 the Economic and Social Council, a national tripartite consultation body, which includes the participation of workers', employers' and social civil society representatives; however, no specific tripartite representation took place under the new pension system. Meanwhile in the Plurinational State of Bolivia and Kazakhstan, the government significantly increased its executive powers over the pension systems with no representation of workers and employers in the governance of the schemes. In Kazakhstan, the UPF is managed by the National Bank, while the oversight of the advisory body is placed directly under the president of the Republic of Kazakhstan.

1.2.11 Social Dialogue in the re-reform process

The government, social security institutions, employers and workers as contributors and beneficiaries, retirees/beneficiaries are the key stakeholders in a social security system and thus should be involved to some extent in the governance of that system. In particular, the representation of both workers and employers is enshrined in the ILO international labour standards (Box 2). Involvement can consist in participation in re-reform decisions, monitoring performance and having a role in the administration of the scheme.

The overall weak performance of the private schemes in terms of low benefit levels and generally decreased coverage, and the aggravated burden of the government in terms of the high transition costs and high administrative costs, motivated governments to undertake the re-reform process with eagerness, generally speed was prioritized over social dialogue. While the financial crisis reduced the resistance of private pension administrators against reversal, and the population was in general supportive of the re-reforms switching back to public systems, governments tended to centralise processes, sometimes ignoring complaints from both the private administrators against the re-reforms, and from the trade unions who supported for the reversal of pension privatization but wanted additional changes.

In Argentina, despite the long process to re-reform pensions, the financial crisis of 2008 accelerated the implementation process; As a result, the final pension bill for renationalization of the pension assets was implemented by the government in just a couple of months after it has been announced, providing limited

time to social partners, civil society and pension funds to react to the announcement. While trade unions were generally supportive of the re-reform, employers' organizations and the financial sector were resistant to the process, and a counterproposal was elaborated by private pension administrators (Bertranou et al., 2018).

The government of the Plurinational State of Bolivia consulted the sole trade union federation Central Obrera Boliviana (COB) during the preparation process, and held public and congressional debates – reaching consensus with the workers. However, the government involved employers' organizations to a lesser extent – for example the Confederation of Private Employers was not consulted on employers' contributions to the Solidarity Fund.

In Hungary, the Economic and Social Council was created in 2010 to replace the previous national tripartite consultation body, however with less negotiation power and unable to influence the re-reform process, which was led by the government and implemented at a quick pace avoiding any consultation. Trade unions were against the lack of social dialogue, but supportive of the nationalization, and employers' organisations were mobilized to protest against the nationalization, but without any success. The Government gained back popularity after the pension re-reform.

Similarly, there was also only minimal social dialogue involved in the re-reform formulation in Kazakhstan. The re-reform was strongly led by the President and the Government, with little participation from for civil society, social partners, pension funds and public involvement in the re-reform process and the debate around it. The public was more divided with opposing groups organizing protests against the reforms. Most of the protests addressed issues around increased retirement age and the effect of pension re-reform on women. Overall, actual resistance to the re-reform came in the majority of cases only from members of the financial and private pension fund community (Altiparmakov, 2014).

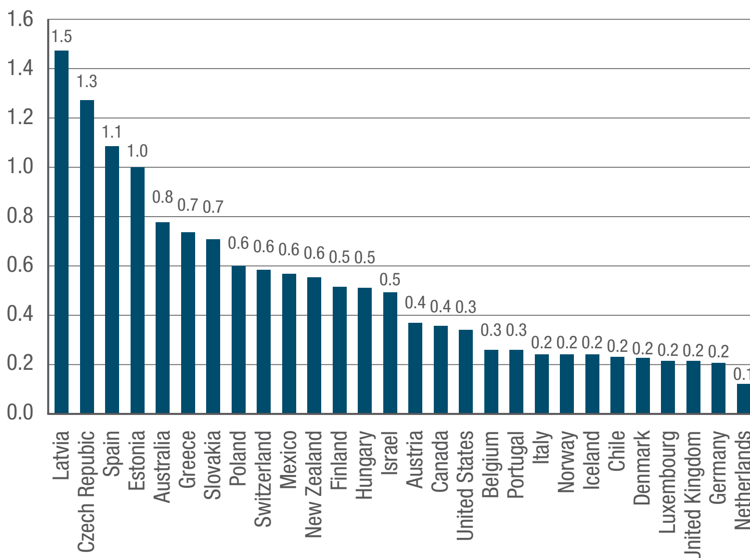
In Poland, the formal consultation body is not yet operating, as the trade unions boycotted the Tripartite Commission in 2013, therefore closing the door to possible discussions on the social security system. The re-reform process in Poland lacked transparency and there was only limited social dialogue or open discussion and communication surrounding the pension re-reform. Nonetheless, the move to transfer private pension assets back to the public fund has been well received (Cohen and Cienski, 2014).

1.2.12 Positive impacts: Reduced administrative costs

High administrative costs, including the various forms of fees and commissions that the private individual account funds were charging their members posed a serious problem and in many cases spurred the re-reform process. The OECD observed that countries with DC systems and a large number of small funds had higher operating costs, including administrative costs and investment expenses, than countries with public PAYG defined benefit and hybrid systems. Operating costs in 2016 (Figure 2) in Latvia accounted for 1.5 per cent of assets under management, 1.3 per cent in the Czech Republic, 1.1 per cent in Spain, 1.0 per cent in Estonia, 0.8 per cent in Australia, 0.7 per cent in Greece and the Slovakia, while in DB schemes in comparison they accounted for 0.3 per cent of total assets in Belgium and Portugal, 0.2 per cent in Denmark, Germany, Iceland, Italy, Luxembourg, Norway and the United Kingdom and 0.1 per cent in the Netherlands (OECD, 2017b).

As a part of the re-reforms, many countries introduced measures to curb administrative costs to ensure that the new pension systems would be less costly. Commissions and premium fees were effectively abolished in Argentina

Figure 2: Operating expenses in selected OECD countries, 2016 (as a percentage of total assets)



Source: OECD, 2017b.

including for the public system. Commissions and fees were also abolished for the remaining individual account funds in Hungary. In Kazakhstan, commission fees and operational costs were halved under UPF. Administrative fees have been decreasing in Poland, even prior to the re-reform and as the funds are now managed by ZUS, costs are likely to decrease further due to economies of scale (Polakowski and Hagemejer, 2018).

1.2.13 Social and economic impacts

Pensions systems have significant social and economic impacts. Social impacts depend largely on pension scheme design regarding the treatment of individuals with irregular work histories, low incomes, family care obligations and others. Defined benefit, PAYG schemes are better able to fulfil the principles solidarity and of non-discrimination, gender equality and responsiveness to special needs (Recommendation No. 202, Woodall and Hagemejer 2009). Public systems can also deliver positive economic impacts by investing people's savings in national public development projects.

The reversal of pension privatization improved the level of benefits due to new rights and entitlements and the solidarity principles that underpin defined benefits schemes. Benefits for women were improved in countries such as Argentina, the Plurinational State of Bolivia, and Hungary. Additionally, most re-reforms also resulted in an increase of coverage, including through the creation or strengthening of social pensions. With the increase in coverage rates, the introduction and extension of non-contributory benefits and higher replacement rates in the reintroduced PAYG schemes, the risk to fall into poverty in old-age has been significantly lowered in all countries.

Governments moreover were able to invest part of the nationalized funds in public development projects, as in Argentina and Kazakhstan. For example, in Argentina, the Government invested a part of the nationalized funds in public investment projects (e.g. nuclear power electricity plants, roads, trains, public housing, etc.) to create public goods which are expected to create positive multiplier effects with regards to public revenues such as taxes and social security contributions (Hujo and Rulli, 2014).

In Argentina, accrual rates increased from 0.85 to 1.5 percent, added to the Universal Basic Pension, that led to an increase in coverage and benefit levels, especially for women and for low income groups. Part of the re-reform in

Argentina involved the introduction of a universal basic pension (PBU) that helped to increase both coverage and adequacy of benefits. The gender gap was also addressed as part of the expansion of contributory pension coverage. For instance, mothers with seven or more children and without means to support themselves are eligible to receive a non-contributory benefit and a universal allowance for each child below age 18 or disabled if they are unemployed or in the informal economy and lack a pension. Additionally, the Argentinian government launched another critically important programme, known as the 'Moratorium,' which allowed workers of retirement age to receive a pension regardless of whether they had completed the full 30 years of required social security contributions through formal employment. The 'Moratorium' had a strong impact on coverage rates, benefitting primarily women and low-income earners. Since the reversal coverage rates for women have increased from 67.57 per cent in 2006 to 92.37 per cent in 2010 and women have, since 2009, higher coverage rates than men (Hujo and Rulli, 2014).

The main positive impact of the reform in the Plurinational State of Bolivia involved the re-introduction of solidarity and redistribution in the new pension system. Official projections indicate substantial increases in benefits for lower income groups, under the new pension system. Non-contributory pension schemes (Renta Dignidad and the Solidarity Pension) were particularly important to provide income protection for older persons not covered under the contributory schemes, including many women. The Plurinational State of Bolivia moreover is addressing the gender gap, as insured mothers with 10 years of contribution can add one year of coverage for each child born (child credit) with a maximum of three years. Alternatively, women can use the child credit to retire sooner, with one year earlier retirement per child (with a maximum of 3 years) (Arza, 2017).

In Hungary, the re-reform led to a decrease in government debt and an increase in social solidarity. Positive effects can be also observed with regards to gender equity with the maternity voucher increasing from 2 to 3 years. Projections conducted by Freudenberg et al. (2016) on the medium and long-term effects of the pension reform reversal on adequacy indicate an improvement with regards to adequacy among female members, especially in the short and medium term. The replacement rate, calculated as a percentage of the average wage in the economy, is projected to be 0.54 and 0.50 for men and women respectively in 2020 under the re-reform scenario, and 0.5 and 0.46 under the most optimistic funded DC scenario, with the rate of return on investment of 4 per cent (which is significantly higher than the rates of return in recent years).

In Kazakhstan, the non-contributory Basic Social Pension and Solidarity Pension improved benefit adequacy for low-income groups in particular, improving overall equity in the system. With public management of investments, the government also gained access to long-term financing for large scale infrastructure projects. On the other hand, the re-reform in Poland is not likely to generate significant socio-economic impacts, since the operational principles were little changed after the nationalization and replacement rates as well as the level of benefits (adequacy) remain low in the NDC system.

1.2.14 Fiscal impacts

The privatization experiment was founded on the conviction that privately managed, fully funded pensions would be sustainable. However, government finances deteriorated significantly as a result of high transition costs of privatizing pensions. The added fiscal burden of rescuing the financial sector as a result of the 2008 financial crisis, reduced the governments' capacity to continue financing the costs of privatization.

Moreover, the global financial crisis had a negative impact on capital markets and significantly affected the private pension funds' performance, creating additional pressure on government finances as pension benefit levels fell far below expectations and thus many governments had to launch publicly-financed supplementary pension top-ups.[21] High public deficit and debt figures posed a considerable problem for EU member states in particular, as they are required, in line with the EU Maastricht criteria, to keep their budget deficit under 3 per cent of GDP and their public debt under 60 per cent of GDP.

Following the nationalization of private pension funds, governments improved their short-term fiscal positions, easing the fiscal deficit and decreasing overall debt. The transfer of accumulated assets as well as contributions from the private to the public system naturally had an overwhelmingly positive impact improving pension finances and fiscal balance.

In the long-term, the fiscal impact of the re-reforms will heavily rely on the ability of countries to adapt their pensions systems to the changing demographic, economic and labour market conditions through timely and properly designed parametric reforms.

[21] For example, between 2001 and 2010, the sovereign debt rate in Hungary increased from 53 per cent to 81 per cent of GDP and in Poland from 40 to 55.5 per cent.

In Argentina, the re-reform had a positive impact on the short-term financial conditions of the pension scheme, with a financial inflow equivalent to about 9.5 per cent of GDP in 2008 (Datz and Dancsi, 2013). The transfer of funds back to the public system of around USD 25.5 billion significantly improved the Governments' fiscal position, easing budgetary pressure in a context of limited access to international financial markets. The government used the pension fund assets partly to pay the foreign debt, to finance family allowances and to invest in government projects. Government gross debt decreased from 53 to 38 per cent of GDP between 2009 and 2011 (Angelaki and Carrera, 2015). In the long term the public system will also have to cover an increasing number of pensioners under the consolidated public fund (SIPA). In the course of the re-reform, the Plurinational State of Bolivia's public debt between 2010 and 2011 decreased from 38.5 to 33.9 per cent of GDP. Renationalization allowed the government to access around USD 5.4 billion and thus significantly expanded its fiscal position. In the long run, however, there is a risk of financial imbalance in the system.

In Hungary, the nationalization of pension assets contributed to an initial decrease of sovereign debt by around 5 percentage points of GDP in the first half of 2011, bringing the budget deficit to a record low. This was a high priority for the government and helped Hungary achieve its removal from the European Unions' list of Excessive Deficit Procedures (Maastricht Criteria on Debt and Fiscal Deficit). Hungary's fiscal deficit dropped following the re-reform averaging 2.75 per cent annually from 2011 – 2016 versus 5.8 per cent from 2005-2010 prior to the re-reform. Public sector debt decreased likewise from 81.8 to 79.0 per cent of GDP between 2010 and 2012. The Hungarian government also used part of the pension funds assets to repay an IMF loan and cover other urgent expenses, a practice not recommended by the ILO given its negative sustainability impacts. While the positive impact can be clearly observed, it must be noted that the nationalization also triggered strong criticism from the IFIs -the IMF, the World Bank- as well as from the EU, the OECD, and various credit-rating agencies. As a result, the Hungarian Forint depreciated, credit default swap spreads increased and government bonds were downgraded (Datz and Dancsi, 2013), negatively affecting the Hungarian economy in the short-term – however medium-term prospects show improvements as a result of the reversal of pension privatization.

Kazakhstan's pension re-reform followed a partly similar pattern, the low investment returns and high transition costs of privatization had negatively affected the governments' fiscal position (Zhandildin, 2015). With the nationalization

Table 6: Reversing pension privatization, rebuilding public pension systems and their results, in Argentina, the Plurinational State of Bolivia, Hungary, Kazakhstan and Poland

Areas	Argentina	Bolivia, Plur. State of	Hungary	Kazakhstan	Poland
Timing of re-reform	October-December 2008	2009-2010	April – December 2010	2012-2013	2013 – 2014
Laws enacted	• Law 26,222 of April 2007 introduced the possibility of opting for the public system and made this the default option for new entrants • Law 26,425 of December 2008 abolished individual accounts and transferred members to the public PAYG scheme.	• The Constitution of 2009 banned social security privatization and guaranteed the right to the universal non-contributory pension *(Renta Dignidad)*. • Law No 065 of December 2010 introduced the new public PAYG system: *Sistema Integral de Pensiones* (SIP).	• Act CI/2010 of October 2010 directed private pension fund contributions to the treasury for 14 months. • Law 1281/2010 of December 2010 ruled the automatic transfer of workers to the public PAYG system.	• Law No.105-V ZRK of 21 June 2013 on Pensions consolidated the 10 private pension funds in to the public Unified Pension Fund (UPF).	• Act Dz. U. 2011 poz. 398, reduced the share of contributions to the individual account schemes from 7.3 per cent to 2.3 per cent. • Act Dz. U. 2013 poz 1717, made contributions to individual accounts voluntary and allowed the transfer of accounts to the public system.
Basic characteristics of the new public model	The system consists of a public PAYG defined benefit (DB) scheme, combined with a non-contributory Universal Basic Pension.	The system is comprised of a public PAYG defined benefit (DB), combined with a non-contributory Universal Basic Pension *(Renta Dignidad)*. A semi-contributory Solidarity Fund guarantees minimum protection to those in the Public scheme.	The system consist of a PAYG defined benefit (DB) scheme is combined with a non-contributory means-tested scheme.	The system consists of a universal solidarity pension for all citizens; and mandatory public pension schemes: one is a DB PAYG scheme and the other is an individual accounts scheme managed by the public Unified Pension Fund (UPF). There is an occupational pension for high-risk occupations financed by employers.	The system consist of a public PAYG NDC scheme, run by the State; a minimum pension level is guaranteed, publicly financed. The government also provides a means- and pension-tested non-contributory pension. Private individual accounts are voluntary as of 2014.

Areas	Argentina	Bolivia, Plur. State of	Hungary	Kazakhstan	Poland
New rights and entitlements	Public PAYG DB pension at the age of 65 for men and 60 women with an expected replacement rate around 71.6 per cent with 35 years of contribution. The pensions-tested non-contributory scheme delivers a benefit to those 65+ and a means-tested benefit to those 70+ without any other income.	Public PAYG DB pension at the age of 55 and 50 for men and women, respectively, with guaranteed replacement rate of 70 per cent with 30 years of contributions. The Solidarity Fund finances any gap to meet the guaranteed level. The universal non-contributory pension (Renta Dignidad) is granted from the age of 60.	Public PAYG DB pension benefit for men and women from the age of 63 and 6 months at a replacement rate of 74 per cent with 35 years of contributions. The means-tested non-contributory pension is available at the age of 62.	Public PAYG pension guarantees replacement rates of 60 and 70 per cent for men from the age of 63 and women at the age of 58.5 respectively. The universal non-contributory solidarity pension is available at the same ages. The individual accounts system managed by public UPF offers monthly benefit.	Public PAYG NDC pension replacement rates are 39 per cent for men with 45 years of contributions and 34 per cent for women with 40 years of contributions. The guaranteed minimum monthly pension is available for men 65+ and women 60+. Means- and pensions-tested non-contributory pensions are granted at the same ages.
Re-establishing or creating the public pension administrator	ANSES took over the resources of the private pension administrators and their members.	A new public pension administrator *(Gestora Pública)* was created in 2015, planned to start operations in March 2019.	Administration of the system continues under the responsibility of the public Central Administration of National Pension Insurance (ONYF).	A new public entity, the Unified Pension Fund (UPF), has taken over the administration of the system. Investment management of the UPF's pension assets was transferred to the National Bank of the Republic of Kazakhstan (NBRK).	The public PAYG NDC scheme is under the management of the Polish Social Insurance Institution (ZUS); those temporarily remaining under private individual accounts continue to be managed by private pension fund administrators.
Transfer of members and funds and recognition of past entitlements	All members, their entitlements and funds were transferred to the public Argentine Integrated Pension System administered by ANSES.	All members, their entitlements and funds were transferred to the public system.	Majority of members opted voluntarily for the public PAYG scheme. The individual accounts funds were transferred to the Treasury.	All individual account pension funds and members were transferred automatically to the UPF. Entitlements under the individual accounts scheme are recognized in the new system under defined contribution formula.	No transfer of members was required as every individual account member was also affiliated with the public system administered by ZUS. Assets from the individual account pension funds were transferred to the individual NDC accounts in the public scheme.

Areas	Argentina	Bolivia, Plur. State of	Hungary	Kazakhstan	Poland
Re-introduction of employers' contributions	Employers paid contributions prior to the re-reform and will continue	Yes	Yes	Yes (occupational pension scheme)	Yes
Financing	The PAYG scheme receives contributions from workers and employers. The non-contributory universal basic pension is financed from the general budget.	The public PAYG system and the solidarity scheme are financed through contributions from workers and employers. The non-contributory Renta Dignidad is mostly financed by tax on hydrocarbons and revenues from the capitalization of former public enterprises.	The PAYG public scheme is financed through contribution from workers and employers. Non-contributory benefits are tax-financed.	The Basic Social Pension and Solidarity Pension are tax-financed. The individual account scheme is financed by workers' contributions. Employers contribute to the mandatory occupational pension scheme for employees in hazardous and dangerous working conditions.	The PAYG NDC scheme is financed by contributions from workers and employers. Potential deficits in the system are financed from the general budget.
New contribution rates	• Workers: 11 per cent • Employers: 10.17 per cent	• Workers: 12.71 per cent (to the solidarity scheme is between 0.5 to 10 per cent based on level of income) • Employers: 3 per cent (to Solidarity scheme 3 per cent)	• Workers: 10 per cent • Employers: 24 per cent	• Workers(individual accounts): 10 per cent • Employers: (mandatory occupational pensions): 5 per cent	• Workers: 9.76 per cent • Employers: 9.76 per cent
Collection of contributions	By the Federal Administration of Public Revenues (centralized tax collection authority)	The public *"Gestora Pública"* shall be in-charge of collecting contributions from 2019.	Contributions are collected by the National Tax and Custom Administration.	UPF is the public pension administrator and operator, including contribution collection.	ZUS social insurance collects contributions and pays out pension benefits.
Fund management and investments	The National Bank of Argentina managing the funds; investment policy defined by an Investment Committee.	Public *"Gestora Pública"* shall be in charge of fund management and investment - private AFPs are temporarily in charge.	Public PAYG funds are managed by the Treasury.	Managed by the National Bank of Kazakhstan.	ZUS social insurance is in charge of the investment management of the public pension funds.

Areas	Argentina	Bolivia, Plur. State of	Hungary	Kazakhstan	Poland
Supervisory and regulatory changes.	Argentina abolished the Pension Superintendency and introduced a congressional committee that monitors the public PAYG scheme.	Pension and Insurance Supervisory and Control Authority replaced the Superintendencia, with the mandate to oversee both pensions and insurances.	Ministry of Human Resources and the Hungarian National Bank carry out the functions	The Agency for Regulation and Supervision of Financial Market and Financial Organizations (AFN) oversees the National Bank and its operations, including the management of pension funds.	Both public and private pension funds are regulated by the Financial Supervision Authority (FSA). The Ministry of Family, Labour, and Social Policy provides general supervision of the public schemes under ZUS.
Governance of the reformed systems	The new Pension System is supervised by a National Congress Commission and a tripartite advisory council, including representatives from pensioners and banks.	The government increased the executive powers over the pension system. The new scheme does not have yet representation of workers and employers.	A tripartite Economic and Social Council was created as a consultative body. No tri-partite representation under the new pension system.	The UPF is managed by the National Bank. The oversight is placed directly under the president of the Republic of Kazakhstan. There is no rep-resentation of workers and employers in the governance of the scheme.	ZUS is governed by the Management Board composed of 2-4 members, appointed/dismissed by the Supervisory Board (tripartite) on the recommendation of the President of ZUS.
Social dialogue in the re-reform process	Limited social dialogue and congressional debate on the re-reform.	Congressional debates were held; trade unions extensively consulted.	There was limited public discussion and congressional debate.	Limited social dialogue, with the government presiding over policy formulation.	Limited social dialogue during the reform process.
Positive impacts: (a) Reduced administrative costs	Commissions and premium fees abolished. The public system cannot charge any fees.	Until the *Gestora Pública* is established, fees are unchanged.	Commissions and fees were abolished for the remaining individual account funds.	Commission fees and operational costs halved under UPF.	No indication, but as the funds are now managed by ZUS, costs are likely lower due to economies of scale.

Areas	Argentina	Bolivia, Plur. State of	Hungary	Kazakhstan	Poland
(b) Social and economic impacts	Accrual rates increased from 0.85 to 1.5 per cent, added to the Universal Basic Pension, led to an increase in coverage and benefit levels, especially for women and for low income groups. Pension reserves invested in infrastructure projects.	Projections indicate substantial benefit increases for lower income groups and women. Insured mothers with 10 years of contribution gain one year for retirement for each child born; the mother's solidarity pension improved gender equity.	The re-reform led to decreased government debt and an increase in social solidarity. Positive effects can be also observed with regards to gender equity with the maternity voucher.	The non-contributory Basic Social Pension and Solidarity Pension improved benefit adequacy for low income groups and equity in the system. With public management of pensions, the government gained access to long-term financing for infrastructure projects.	No major social and economic impacts foreseen as the operating principles changed little for the NDC systems and replacement rate and adequacy levels of the benefits remain low.
(c) Fiscal impacts	USD 25.5 billion were transferred from private funds into the public fund, eliminating the public system's deficit and decreasing the government debt from 53 to 38 per cent between 2009 and 2011.	USD 5.4 billion were transferred from the private to the public system, decreasing the public debt from 38.5 to 33.9 per cent of GDP between 2010 and 2011.	USD 11 billion of the private funds were transferred to the public fund, decreasing the fiscal deficit from 5.8 between 2005-2010 to 2.75 per cent in 2011 and public debt decreased from 81.8 to 79 per cent of GDP between 2010 and 2012.	As individual accounts continued their operation under a public management, it is likely to have had no significant impact on the fiscal position of the Government.	USD 33 billion were transferred to the ZUS, reducing the fiscal deficit from 4.78 per cent (between 2006 and 2011) to 3.72 per cent (between 2012 and 2017), and public debt from 56.2 to 50.2 per cent of GDP between 2011 and 2014.

Main sources: Bertranou et al., 2018; Maltseva and Janenova, 2018; Mesa-Lago, 2018; Polakowski and Hagemejer, 2018; Szikra, 2018.

of the management of the private funds, the government implicitly extended its fiscal space and increased its room to manage its sovereign debt and invest in national development.

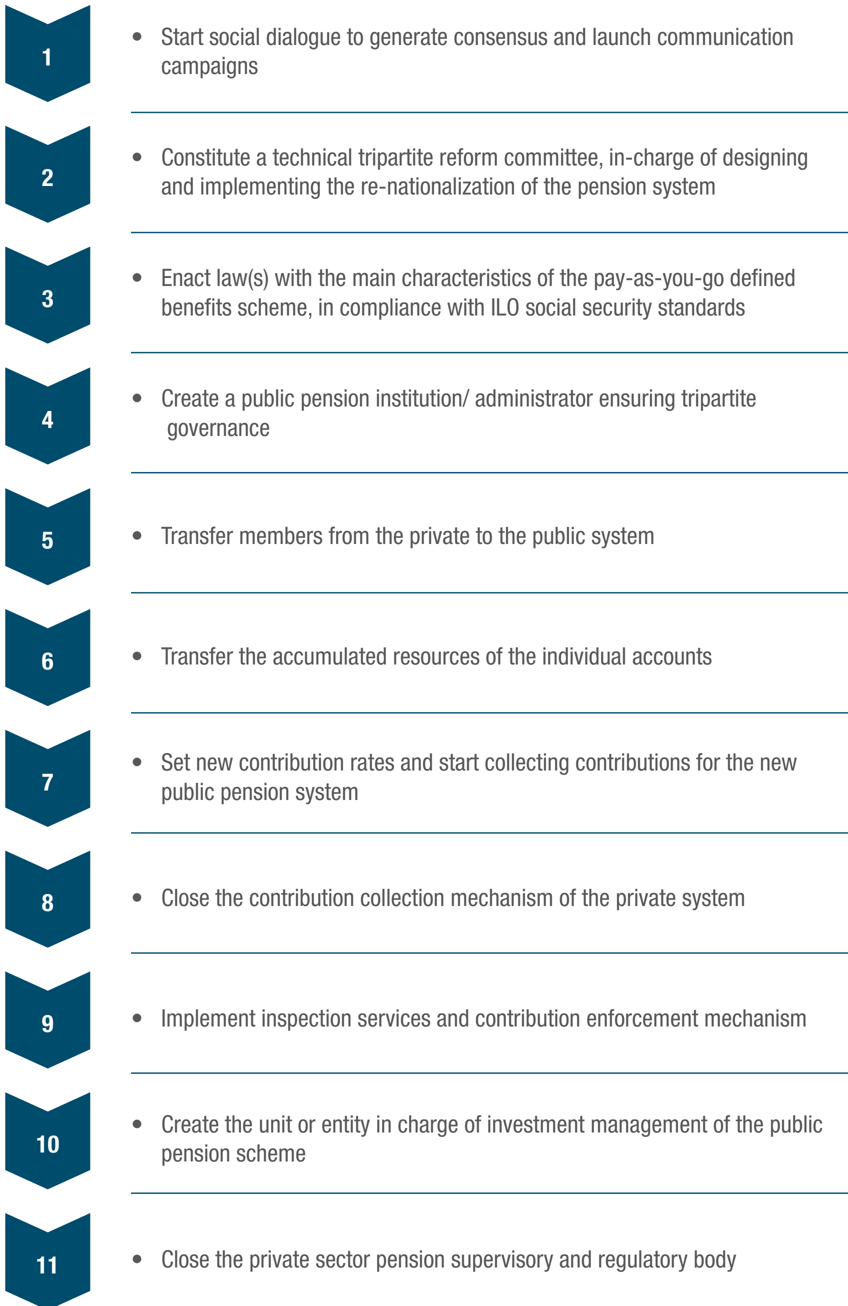
Poland's reform led to a significant shift of both assets and liabilities from the private funds to the government, improving the government's short-term fiscal position. Following the re-reform, the state insurance system (ZUS) decreased its deficit from 3.52 to 2.73 per cent of GDP, and the government's fiscal position improved, dropping its fiscal deficit from an average of 4.78 per cent annually between 2006-2011 to 3.72 per cent between 2012 and 2017. General government debt levels also decreased from 56.2 to 50.2 per cent of GDP between 2011 and 2014 (IMF World Economic Outlook database).

1.3. How to reverse pension privatization: Policy steps

Drawing from ILO's vast experience in providing support to governments across the world to reform pensions and drawing on in-depth analysis of recent country cases, this section provides guidance on how to reverse privatization for those countries that may be interested to return to a national public pension system.

There are eleven main policy steps to reverse pension privatization (Figure 3). They are to: (i) start social dialogue to generate consensus and launch communication campaigns; (ii) constitute a technical tripartite reform committee, in-charge of designing and implementing the re-nationalization of the pension system; (iii) enact law(s) with the main characteristics of the pay-as-you-go defined benefits scheme, in compliance with ILO social security standards; (iv) create a public pension institution/ administrator ensuring tripartite governance; (v) transfer members from the private to the public system; (vi) transfer the accumulated resources of the individual accounts; (vii) set new contribution rates and start collecting contributions for the new public pension system; (viii) close the contribution collection mechanism of the private system; (ix) implement inspection services and contribution enforcement mechanisms; (x) create the unit or entity in charge of investment management of the public pension scheme; (xi) close the private sector pension supervisory and regulatory body.

Figure 3: Main policy steps for reversing pension privatization



Step 1. Start social dialogue to generate consensus and launch communication campaigns

Ideally, any reform of social security, but in particular large-scale reforms, should be implemented in a context of social dialogue and consensus among the main stakeholders, including civil society and in particular advocacy groups for pensioner's rights. The involvement of employers' and workers' organizations is particularly necessary, as they finance the system through their social security contributions. While not all countries engage in social dialogue, the ILO recommends strong national social dialogue that should assist in building public support to reverse pension privatization. Involving stakeholders in the decision-making process and design of reforms will generate ownership and a sense of responsibility for the success of the reform, which enables a smooth implementation process. There is a more than ever pressing need to pursue tripartite social dialogue to secure an appropriate degree of political will and social consensus for more sustainable and adequate reforms with positive social outcomes.

Social dialogue should be combined with communication and education campaigns to inform the public of the benefits of the new public system. Communication campaigns are necessary to ensure that the public is well informed about the advantages of the re-reform process, including the steps that will be taken for the transition to the new system, the new rights and duties, allocation of funds, contributions rates, and options at the individual level. Uncertainty could create unnecessary resistance to change. Best practice from countries shows that it is important to start a public information campaign at the very beginning, to ensure adequate national dialogue and generate consensus, keep it ongoing during all the re-reform process, and extend the communication campaign after completion so all citizens are well-informed.

Step 2. Constitute a technical tripartite reform committee, in-charge of designing and implementing the re-nationalization of the pension system

Given the technical complexities of the pension reform process, the constitution of a technical tripartite pension reform committee, responsible for designing and implementing the renationalization of the pension system, is recommended. The committee should include representatives of employers and workers as well as multidisciplinary experts with demonstrated experience in public social security systems, such as economists, actuaries, lawyers, statisticians, administrators,

investment specialists, among other social security experts. The tripartite reform committee should propose the main characteristic of the public system, conduct a feasibility study or an actuarial valuation to assess the economic and financial sustainability of the new system and make recommendations on the reform options for consideration.

Step 3. Enact law(s) with the main characteristics of the pay-as-you-go defined benefits scheme, in compliance with ILO social security standards

The elaboration of the new law will require legal analysis. This task can be under the responsibility of the tripartite technical reform committee, ideally with the participation of lawyers specialized in social security systems, to ensure functionality and compliance with the ILO's international social security standards.

The good functioning and future sustainability of a pension scheme depend to a large extent on the quality of its design, which normally includes the definition of the benefit profile, pension formula, contribution rates and qualification requirements, as well as implementation arrangements and governance. The design of the new system should consider transitional and gradual measures. The design must also take into account the adequacy of benefits, in particular, to guarantee at least the minimum benefits set out in ILO Conventions No. 102 and No. 128 on social security pensions.[22] Equity and solidarity issues should also be reflected in the law as regards gender and re-distribution among low-income and high-income earners. Adequate solidarity mechanisms should be included in all public pension systems.

Step 4. Create a public pension institution/administrator ensuring tripartite governance

Where no public administrator exists for the general pension scheme, the priority is to proceed with its design and implementation. There is extensive international experience in the design of public pension scheme institutions. The basic functions to be considered in the design of this administrator should be enforcement and collection of contributions, including the registration of

[22] In line with ILO Convention No. 102 pension benefits should provide at least 40 per cent of pre-retirement insured income for 30 years of contribution, and a reduced/adjusted minimum benefit, for those who have contributed for at least 15 years. ILO Convention No. 128 provides higher standards for pensions.

members and the accounting of contributions (maintaining individual records); management of benefits, including the processing of applications and periodic payments; management of investments; and planning and advisory services, including actuarial and legal advice. In line with ILO standards and the ISSA/ILO guidelines for good governance of social security systems (ISSA, 2013a), the new public pension system should have a tripartite governing body (the board or commission), with the participation of employers and workers' organizations (the main funders of the system), which ultimately will be responsible for issuing pension policies as well as supervising the implementation of the scheme and the running of the social security organization that administers the pension scheme, and other general governance issues.

Step 5. Transfer members from the private to the public system

Once the institutional framework has been created, the next step is to transfer the members from the private to the public system. The administrative process includes the migration of databases on members and contribution history, as well as information on the employers, with their respective individual characteristics, to guarantee the continuity of the collection process and contributory records at the company and individual level.

Provisions to transfer the information on individual contribution history and wages, must be taken into account for the future verification of eligibility conditions and calculation of benefits. In the absence of a central register of individual accounts by a public entity, pension fund management companies should be required to provide such information through a properly regulated process.

For those members who were part of the old public pension system operating before privatization, it is also necessary to take measures to recognise their contributions and acquired rights, duly totalling all the periods contributed across the different schemes.

Step 6. Transfer the accumulated resources of the individual accounts

An important decision concerns the destination of the resources accumulated in the individual accounts of the system to be closed. Ideally, these resources should become part of the retirement assets of the new PAYG scheme to leverage its financing. Whatever the decision, the transition must be fair in terms

of actuarial values, so contribution periods to the private system to be closed should be adequately recognized in the new system. In the event that savings in individual accounts are transferred to the new PAYG scheme, contributors must be guaranteed that their pension rights in the new system are equal to or higher (actuarially) than those of the system to be closed. In some national legislations individual accounts are considered private property, so they cannot be transferred to the PAYG scheme, except if members accept the transfer voluntarily. Otherwise, the individual account assets can be transferred to a complementary individual provision, if it exists.

Step 7. Set new contribution rates and start collecting contributions for the new public pension system

Contribution rates are critical to ensure financing of the new public scheme and should follow sound actuarial studies, in order to guarantee long-term sustainability. The vast majority of public pension schemes operate under the concept of defined benefits, which guarantee a benefit level (based on the years of contributions including credited periods and the amount of earnings during the same period), and with a target level of reserves during defined future periods. Some countries opt for a financing system based on partial funding, i.e., partial accumulation of actuarial reserves, which ideally requires a series of future increases in contribution rates (the scaled-premium financing system) in order to adapt the level of contributions as the pension system matures and costs grow. Mechanisms for adjusting other parameters, such as retirement ages in-line with increased longevity and contributory periods, should also be addressed, respecting the principles set out in international social security standards.

Once contribution rates have been defined, the public system can start collecting contributions. To this end, a centralized contribution collection system must be established, ensuring adequate coordination with other public entities, in particular with the taxation authorities in-charge of collecting taxes, taking into account the ISSA guidelines for contribution collection and compliance (ISSA, 2013b). Some countries have opted for a unified contribution system with tax collection, which should ensure the application of specific collection criteria for the social security system. In some countries, despite the establishment of private pension funds, the collection of contributions remained centralized under the responsibility of a public entity. In those cases, much of the transition work towards the public system is already done.

Step 8. Close the contribution collection mechanism of the private system

The beginning of the collection of contributions to the public centralized collection system must be synchronized with the ending of the collection of contributions in the private system that is being closed. The population should be well informed about the changing collection process, including access to the new regulations and procedures.

Step 9. Implement inspection services and contribution enforcement mechanisms

One of the main responsibilities of a social security institution is to establish a strong social security inspection service, accompanied by contribution enforcement mechanisms. The inspection services must have a sufficient number of highly qualified personnel. Contribution control mechanisms should have coordination processes with other public entities, including other social security institutions, in order to share information useful for identifying contributors. Information on employers and self-employed and their scale of operations, such as business records, operating licenses, energy consumption, among others can help generate an adequate business intelligence platform, which can be of critical importance to ensure sound, efficient and effective control.

Step 10. Create the unit or entity in charge of investment management of the public pension scheme

Investment management is another critical function that must be designed and implemented as part of the new institutional framework of the pension system. The ISSA/ILO Guidelines on Investment of Social Security Funds (ISSA, 2013c), provide comprehensive guidance to design and implement a holistic investment framework. Consideration should be given to investment structures (which will be the structures specifically charged with carrying out this function and their respective roles), investment regulations, investment strategies, investment processes (how the function is carried out in practice) and monitoring investment management.

Step 11. Close the private sector pension supervisory and regulatory body

The reversal of the private system is completed by the closure of the supervisory and regulatory body that was created with privatization. Such an entity is no

longer required as private pension fund administrators are no longer required. In countries where voluntary private pensions systems operate, regulatory and supervisory functions may be transferred to an independent financial supervisory body.

It should be noted that while the regulatory functions of private individual account schemes operate within the financial and banking system, the regulatory and supervisory bodies of social security institutions are under the umbrella of the ministries of labour and social security, and optimally interact within a tripartite framework.

1.4. Conclusion

From 1981 to 2014, thirty countries privatized fully or partially their public mandatory pensions. Fourteen countries were in Latin America (by chronological order, Chile, Peru, Argentina, Colombia, Uruguay, the Plurinational State of Bolivia, Mexico, the Bolivarian Republic of Venezuela, El Salvador, Nicaragua, Costa Rica, Ecuador, Dominican Republic and Panama), another fourteen countries in Eastern Europe and the former Soviet Union (Hungary, Kazakhstan, Croatia, Poland, Latvia, Bulgaria, Estonia, the Russian Federation, Lithuania, Romania, Slovakia, Macedonia, Czech Republic and Armenia), and two in Africa (Nigeria and Ghana). Most of the privatizations were supported by the World Bank, the International Monetary Fund, the Organization for Economic Co-operation and Development, USAID and the Asian or Inter-American Development Banks, against the advice of the ILO.

As of 2018, eighteen countries have re-reformed and reversed pension privatization fully or partially: the Bolivarian Republic of Venezuela (2000), Ecuador (2002), Nicaragua (2005), Bulgaria (2007), Argentina (2008), Slovakia (2008), Estonia, Latvia and Lithuania (2009), the Plurinational State of Bolivia (2009), Hungary (2010), Croatia and Macedonia (2011), Poland (2011), the Russian Federation (2012), Kazakhstan (2013), the Czech Republic (2016) and Romania (2017). The large majority of countries turned away from privatization after the 20072008 global financial crisis, when the drawbacks of the private system became evident and had to be redressed.

With sixty per cent of countries that had privatized public mandatory pensions having reversed the privatization, and with the accumulated evidence of negative social and economic impacts, it can be affirmed that the privatization experiment has failed. Pension privatization did not deliver the expected

results. Coverage rates stagnated or decreased, pension benefits deteriorated and gender and income inequality compounded, making privatization very unpopular. The risk of financial market fluctuations was shifted to individuals. Administrative costs increased reducing pension benefits. The high costs of transition –often underestimated– created large fiscal pressures. While private sector administration was supposed to improve governance, it weakened it instead. Workers' participation in management was eliminated. In many cases, the regulatory and supervisory functions were captured by the same economic groups responsible for managing the pension funds, creating a serious conflict of interest; furthermore, the private insurance industry, which ultimately benefits from people's savings, moved towards concentration. Last, but not least, pension reforms had limited effects on capital markets and growth in most developing countries.

The chapter then reviews the main experiences of re-reforming pensions and how countries reversed pension privatization, the laws enacted, basic characteristics of the new public model, new rights and entitlements, re-establishment of a public pension administrator, transfer of members and funds and recognition of past entitlements, financing and new contribution rates, contribution collection and fund management, supervisory and regulatory changes, governance and representation of employers and workers, social dialogue. While the reversals of pension privatization need more years to mature, clear and measurable improvements and positive impacts can already be observed in terms of reduced fiscal pressures, lower administrative costs, higher coverage and pension benefit levels, and reduced gender and income inequalities.

Pension privatization can be reversed quickly, in as a little as a few months. For those countries considering rebuilding their public pension systems, there are eleven main policy steps: They are to: (i) start social dialogue to generate consensus and launch communication campaigns; (ii) constitute a technical tripartite reform committee, in-charge of designing and implementing the re-nationalization of the pension system; (iii) enact law(s) with the main characteristics of the pay-as-you-go defined benefits scheme, in compliance with ILO social security standards; (iv) create a public pension institution/ administrator ensuring tripartite governance; (v) transfer members from the private to the public system; (vi) transfer the accumulated resources of the individual accounts; (vii) set new contribution rates and start collecting contributions for the new public pension system; (viii) close the contribution collection mechanism of the private system; (ix) implement inspection services and contribution enforcement mechanisms; (x) create the unit or entity in charge

of investment management of the public pension scheme; (xi) close the private sector pension supervisory and regulatory body.

This chapter and the country case studies in this book document the underperformance of private mandatory pensions, and abstract lessons for governments intending to improve their national pension systems. Strengthening public social insurance, coupled with non-contributory solidarity pensions, as recommended by ILO standards, have improved the financial sustainability of pension systems, made pension entitlements better and more predictable, allowing people to enjoy a better retirement in their older years. The responsibility of States to guarantee income security in old-age is best achieved by strengthening public pension systems.

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Part 2

Cases studies

1. Argentina

Fabio Bertranou, Oscar Cetrángolo, Carlos Grushka and Luis Casanova

1.1. Summary of reforms related to pension privatization and its reversal

1993	**The pension system following the 1993 privatization:** 1st pillar: defined benefit (DB) pay-as-you-go (PAYG) scheme 2nd pillar: defined contribution (DC), fully funded scheme, private administration
2007	Law 26.222 introduced partial reforms towards a public pension system: 1. Cap on commissions charged by AFJP 2. Raising of the accrual factor of the PAYG scheme from 0.85 per cent to 1.5 per cent for every contribution year; allowing workers to opt out of the private second pillar and return to the PAYG; establishing the PAYG pillar as the default scheme; shifting some contributors from special schemes to the PAYG scheme.
Oct - Dec 2008	**Reversal of the privatization, re-nationalization of the pension system:** Law on Pension Mobility - Law 26.425 **The new model:** The system consists of a public PAYG DB scheme and a non-contributory Universal Basic Pension (PBU). **Rights and entitlements:** PAYG pension at age 65 (men) and 60 (women) with a replacement rate of approximately 74.5 per cent (35 years of contribution). Pension-tested non-contributory pension (~US$ 233) from age 70. **Administration:** By ANSES, the public entity (pre-existing) in charge of administering Argentina's public pension system. **Transfer of entitlements:** All members and their respective accumulated pension rights were transferred to the public Argentinian Integrated Pension System (AIPS) administered by ANSES. Benefit calculations follow the DB formula. **Contributions:** The Federal Public Revenue Administration (centralized tax collection authority) is responsible for collecting contributions. Workers contribute 11 per cent and employers 10.17 per cent respectively.

	Supervision: By a National Congressional Commission and an advisory board consisting of representatives from trade unions, the pensioners' association, employers, the government and banks. The Commission may give non-binding recommendations. With the elimination of the individual accounts, the Superintendence of the AFJP (individual account funds) was closed. **Solidarity, gender and social impacts:** Accrual rates increased from 0.85 to 1.5 percent, which in combination with the Universal Basic Pension led to increased benefit and coverage levels. Gender equity improved, as did the benefits for low-income groups. The government also invested the pension fund in infrastructure projects. **Fiscal impact:** US$ 25.5 billion were transferred from private funds to the public fund, eliminating the public system's deficit and decreasing the government debt from 53 to 38 per cent between 2009 and 2011

1.2. Introduction

Argentina has been one of the pioneering countries regarding pension system development in Latin America, beginning at the turn of the 20th century. After achieving considerable coverage in the 1950s and accumulating high reserves in the 1960s, Argentina had a maturing pension system, with decreasing reserves.[1] Among the many changes to the regulatory framework, the 1968 reform was noteworthy given that it introduced parametric changes and made substantial progress in unifying the system. During the 1980s, the pension system experienced large deficits (Ministerio de Trabajo, Empleo y Seguridad Social, 2003). At the same time, there was growing social discontent with system outcomes given that pensions did not meet the levels promised.

In addition to the parametric changes, the 1993 reform implemented a structural reform by introducing an individual capitalization component, the DB, fully-funded scheme, thereby creating a mixed system. Despite the optimistic expectations generated by the new system, its poor performance within a context of deteriorating economic, labour market and public finance indicators placed heavy pressure to reform it again following the serious economic crisis of 2001-2002. By this time, the low coverage rates and the lack of redistributive elements of the DC individual accounts made it clear that the scheme would be unable to ensure adequate levels of pension benefits following the crisis.

[1] See Figure 1 for more details.

Under these circumstances, it was not surprising that the main reforms of the past decade have aimed to: (a) improve coverage by expanding the contributory financing sources and the contributory and semi-contributory components of the system, and (b) introduce changes in benefit financing and calculation by restoring a DB, PAYG scheme supplemented by tax revenues.

Throughout history, pension policies have followed many paths, with varying priorities linked to the political economy of each period. In the 1990s, the priority was to rescue the system from the perceived long-term financial crisis, an overly-generous design and the consequences of a labour market characterized by informality. By contrast, during the years after the crisis (2001-2002), the macroeconomic environment showed encouraging results regarding growth and employment, enabling priorities to shift toward improving benefit coverage, unfortunately with insufficient attention to benefit adequacy.

This paper explores the circumstances behind the counteracting reforms of the Argentinian pension system during the past two decades. It reviews the main institutional changes in the pension system (from a historical perspective) in relation to their outcomes in terms of coverage, benefits and financing, as well as with regard to the special, changing features of the macroeconomic environment. In view of the considerable advances made in terms of coverage, this paper discusses the challenges of maintaining high coverage and other challenges the system will face over the next few years.

1.3. The variable path of pension reforms in Argentina

1.3.1 The evolution of the pension system prior to the 1993 structural reform: from collective capitalization funds to a PAYG scheme

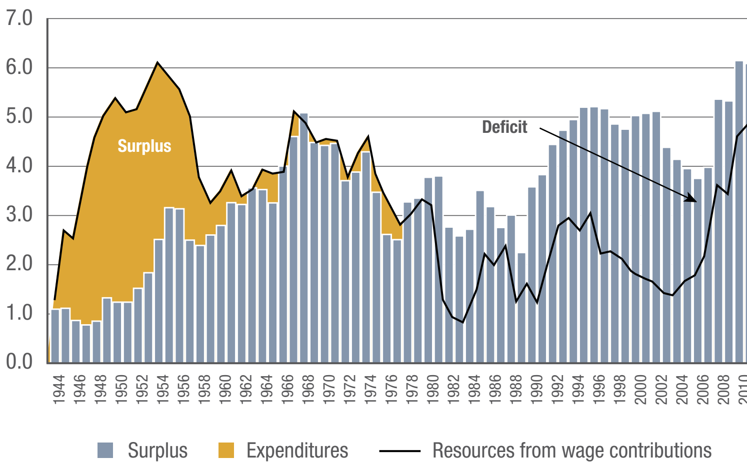
Argentina has a long history of social protection, and it is a pioneer in developing social security in the region (Mesa-Lago, 1978; Arza, 2010). Initially, the pension system was highly fragmented since each pension plan was essentially a private employer-type arrangement that had its own eligibility requirements, contribution rates and benefit rules. These pension plans were collective capitalization schemes. It was not until the late 1960s that an overall reform was carried out, effectively reducing the number of pension funds to two schemes: one for self-employed workers and the other for employees. This reform eventually became a PAYG

approach (introduced in 1954) and nationalized, government-managed pension funds (Isuani and San Martino, 1995; Feldman et al., 1986).[2]

The coverage of the elderly grew steadily until the early 1980s, when the increase in the number of beneficiaries kept pace with the growth of the prospective beneficiary population (Isuani and San Martino, 1995).

The financial position of the public pension system began to deteriorate in the early 1960s, when it struggled to cover accumulated pension liabilities (Dieguez and Petrecolla, 1974; 1977), and as a consequence, the pension funds faced legal claims. When pension reserves were exhausted, pension fund resources were legally declared unseizable in 1966 (Feldman, Golbert, and Isuani, 1986). Later, in the early 1970s, the system was well-balanced (Cetrángolo and Grushka, 2008). By the end of the decade, however, it began to accumulate a financial deficit, which increased during the 1980s (Figure 1) and triggered "the pension system crisis". This justified a structural reform of the public pension system (Ministerio de Trabajo, Empleo y Seguridad Social, 2003).

Figure 1: Expenditure in pension benefits of the Argentinian pension system and its contributory financing, 1944-2013



Source: Bertranou, Cetrángolo, Casanova, Beccaria (2015).

[2] The standardization of the system only partially affected the system because: i) some special schemes remained (judiciary and foreign service, among others); ii) members of the provincial and municipal public administrations were excluded from the employees' scheme; iii) following this reform, in 1973, professional associations were authorized to implement supplementary schemes that were self-financed by their insured members (Feldman et al., 1986).

The pension system crisis resulted from several factors:

- The exhaustion of the pension surplus, which had accumulated during the early years of the system before it gradually moved towards maturity;
- The growing rate of informal workers and the non-payment of pension contributions, which contributed to the deterioration of the system's dependency ratio;
- The ageing of the overall population (falling fertility and increased lifespans);
- Institutional weaknesses (for example, the granting of considerable disability benefits and allowing the proliferation of special regimes); and
- A volatile macroeconomic environment (high inflation) and the misuse of pension policy instruments to support macroeconomic fiscal policy (for example, "fiscal devaluations" through a reduction in employers' contributions to strengthen the international competitiveness of companies).[3]

Additionally, the pension system was losing credibility among the public due to the (relatively) low level of pension benefits (compared with the legal replacement rate, which varied between 70 and 82 per cent).

1.3.2 The structural reform of the 1990s: the mixed scheme[4]

In the early 1990s, the pension system had several problematic characteristics: poor transparency for contributors regarding the level of pension benefits, high evasion (lack of compliance with contribution payments), high annual deficit, non-compliance with the regulatory framework in that pension benefits were below the level determined by law, which resulted in considerable debt with beneficiaries (Cetrángolo and Grushka, 2004; 2008). In this context, there was growing consensus on the need for deeper reforms, albeit with differences regarding their specific nature.

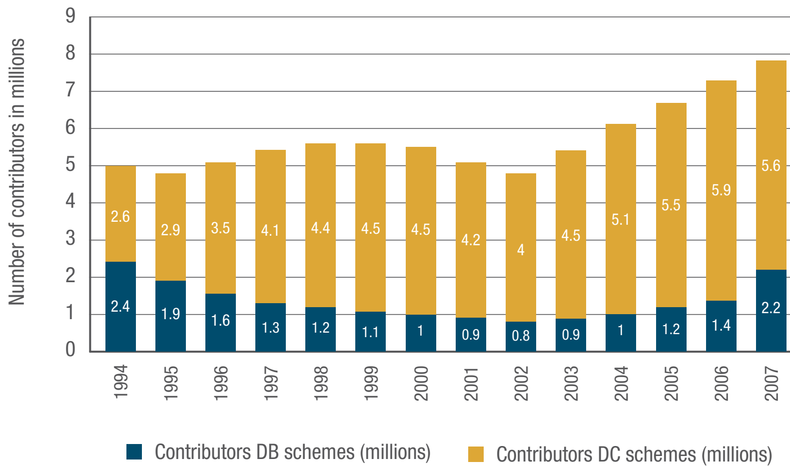
[3] This policy was introduced as part of the anti-inflationary programme based on a fixed exchange rate during the late 1970s. A similar policy was followed during the 1990s "convertibility" programme (currency board).

[4] Mesa-Lago (2008) classifies the pension system reforms implemented in Latin America during the 1990s and defines "mixed schemes" as those whose structure combines a DB component with a DC component. The other two types of reform are substitute and parallel models. The substitute models replaced the PAYG scheme with a DB scheme with individual pension savings accounts, while the parallel models created an individual-account capitalization pension scheme operating simultaneously with a DB scheme.

By mid-1993, influenced by the reform context prevailing in the region and particularly by Chile's 1981 pension reform, a paradigmatic reform bill for a new pension scheme was approved (with amendments) by the Congress after a lengthy legislative debate. The new pension scheme, the Integrated Pension System (AIPS), went into effect in July 1994.

The AIPS consisted of a two-pillar system. The first pillar was a contributory DB pension with 30 years of contributions as the entitlement condition. In the second pillar, the insured could choose between a DB scheme (a reformed PAYG scheme with stricter entitlement conditions) and a DC individual account scheme. If they did not choose, workers were automatically enrolled in the DB scheme (which was the case for most new entrants to the labour market).

Figure 2: Members of the defined benefit (DB) scheme and the defined contribution (DC) scheme, under the second pillar of the Integrated Pension System, 1994-2007.



Source: Basualdo et al. 2009.

It was claimed that this reform would contribute to: a) ensuring the sustainable financing of the pension system (in the long term); b) reducing evasion through individual accounts that create compliance incentives by linking benefits directly to contributions; c) resolving the benefit dilemma (adequacy versus fiscal pressures); and, d) developing and strengthening the capital and insurance market. The reform also modified the main parameters to be eligible for pension benefits and increased the statutory retirement age and the number of contribution years needed to qualify for a full pension.

The transition costs of this reform (greatly underestimated when it was designed) and the fiscal cost of some economic policy measures, such as the absorption of deficits accumulated by the provincial pension funds and the reduction in the level of employers' contributions, put growing pressure on Argentina's fiscal accounts (Bertranou et al., 2003; Cetrángolo and Grushka, 2008). Under these circumstances, an important proportion of Argentinian Pension Fund Administrators' (AFJP) funds were destined to buy public debt bonds. At the same time, growing unemployment and labour informality, together with the changes in pension system parameters, which strengthened its contributory approach, undermined the desired objective of increasing the coverage of contributors and beneficiaries.

1.3.3 The re-reform of the 2000s: the new role of government

In 2002, the change in the macroeconomic context arising from the elimination of the "convertibility" programme (currency board) system[5] caused the real value of benefits to plummet. Likewise, the individual-capitalization pension component was strongly criticized due to the high commissions charged on workers' contributions and the high contribution rates related to the mandatory disability and survivors' insurance.

The public considered the financial sector one of the culprits of the country's socioeconomic debacle at the turn of this century. Public confidence in the banking system and in the DC, fully-funded pension declined. During the crisis, people had witnessed a widespread failure to respect contracts and property rights, accompanied by a political crisis and a weakening of the "social contract".

Thus, at the beginning of the 21st century, the pension system had considerable deficiencies in three key areas that define its performance: financial sustainability, coverage and benefit adequacy. In this context, following the 2001-2002 socioeconomic crisis, improved macroeconomic, fiscal and labour market indicators provided the justifications for the government to once again reform the social security system (Bertranou et al., 2013).[6]

[5] The macroeconomic currency board was in force from 1991 until 2001. Its main action was to establish a fixed exchange rate, which pegged the peso to the US dollar.

[6] Between 2003 and 2008, the annual GDP growth rate was 8.5 per cent and formal wage employment in the private sector grew 70 per cent. The ratio of tax revenue to GDP also rose almost 10 percentage points between 2004 and 2013.

Following the economic crisis, there was a reversal in the negative trends in economic activity and employment. Real annual GDP growth approached 9 per cent between 2003 and 2005. At the same time, the larger pool of workers in formal employment automatically increased the payroll taxation base, but real wages showed an important decline in the first year after the crisis. In 2002-2003, accumulated inflation reached 43 per cent while nominal wages were stagnant. Similar reductions in real benefits led to a better financial position of the social security system. The positive effect on the government budget was also the result of other fiscal measures, including the introduction of new taxes (export duties), the higher tax-collection rates (value-added tax (VAT) and income tax) and measures to limit fiscal expenditure in real terms, attributable to the public debt restructuring and the freezing of some disbursements in a context of higher inflation (particularly between 2002 and 2007). This generated fiscal space, which leveraged economic recovery and growth between 2003 and 2007.

Despite a major debate promoted by the government in 2002-2003 on the future of the pension system, which involved different actors, experts and institutions (national and international), it was not until 2007 that the first significant changes were incorporated into the pension system. Regarding the individual capitalization accounts, in that year (prior to the re-reform), the government implemented measures with the aim of increasing the weight of the PAYG, DB pension scheme. These measures included:

i. Allowing workers to choose between being covered under the *new* PAYG, DB scheme (*with a higher benefit*, see below) or under the individual capitalization DC scheme. Before this reform, contributors in the individual capitalization scheme were not allowed to subsequently switch to the PAYG scheme;

ii. Making the PAYG, DB pension scheme the default scheme for all new labour market entrants who did articulate their choice ("undecided") as well as for soon-to-be-retired persons with limited accumulated funds in the individual account system. Before this reform, the "undecided" new entrants were assigned directly to the individual fully-funded scheme.

iii. The transfer of contributors of some special schemes to the PAYG scheme.[7]

[7] These schemes provide preferential retirement conditions for those affected, including fewer contribution years required for a full pension, lower retirement age and more generous benefits than those granted under the general scheme. Some of these schemes were reinstated beginning in 2005.

This amendment to the 1994 Pension Act included a cap on AFJP commissions, which were considered the highest in Latin America (Ministerio de Trabajo, Empleo y Seguridad Social, 2003).

The 2007 reform also changed the parameters that determine the benefits to be received at the legal retirement age. Initial benefits for those who were covered by the PAYG scheme grew as a result of the increase in the accrual factor from 0.85 per cent to 1.5 per cent for every year of contribution (with a minimum of 30 years and a maximum of 35 years). Additionally, a Universal Basic Benefit (PBU) for all new pensioners was introduced.

In December 2008, in the middle of the international financial crisis, the individual capitalization scheme was eliminated when its members and beneficiaries were all transferred to the PAYG scheme, and the AIPS was established.[8]

The main reasons for abolishing the fully-funded scheme were: a) the financial losses of the pension funds in the context of the 2008 international financial crisis; b) the desire to avoid the future value of benefits from being affected by fluctuations in the financial markets; and, c) the high percentage of pensioners in the individual capitalization accounts system who did not qualify for a minimum pension, meaning that the government would be responsible for paying a large share of the benefits (Danani and Beccaria, 2011).

Moreover, the fully-funded scheme was not "mature" by the time of the reform. By 2004, the pensions paid by the AFJP represented 3.8 per cent of the total benefits paid by the whole system. These pensions from the funded scheme thus represented only a small fraction of the total pension benefits of those enrolled in the fully-funded scheme. The main components of the total pension benefit were the basic pension (PBU) and the "compensatory" benefit (the accrued benefits under the former PAYG).

How was the pension reform reversal possible? It is important to keep in mind the specific political climate of the country following the crisis. The deep discontent of citizens with the pro-market reforms of the previous decade also extended to the individual-capitalization accounts component of the pension system. In addition, there was growing awareness that this component would be unable to achieve the benefits promised to future pensioners.

[8] When it eliminated the individual capitalization pension scheme component, the government committed itself to guaranteeing that all members would receive equal or better benefits than those they were entitled to prior to the reform; however, this was nearly impossible to define, since the individual capitalization scheme did not guarantee any defined benefit (Mesa-Lago, 2009).

From another perspective, the financial sector (closely linked to the AFJP) was viewed as the major party responsible for the crisis, for which reason it had little leeway to oppose the reform. It is also possible that many of these financial institutions felt relieved that they would no longer have to justify low levels of future benefits to contributors. The government also had a large majority in Congress, enabling the rapid adoption of the reform.

Like other reforms (such as the moratoriums and the 2007 reform), this pension bill was discussed, passed by Congress and implemented within a short period. The government project to re-nationalize the pension system was announced at the end of October 2008 and the new Pension Act was passed without major changes and approved by both houses of Congress only a month later (Hujo and Rulli, 2014).

The main actors affected by the reform –such as the AFJP and trade unions– had no time to react because they did not expect the measure and there was no opportunity for formal participation in the process (Hujo and Rulli, 2014). On the one hand, the reform was supported by trade unions. Both the General Labour Confederation and the Argentinian Workers' Central Union –the two leading trade union federations in Argentina– expressed their full support for this policy initiative. Furthermore, the reform initially had overwhelming public approval –Latinobarómetro reported that there was 89.5 per cent support for government control of pensions in late 2008 (Carnes and Mares, 2013). On the other hand, the AFJP association,[9] which was against the reform, prepared a counterproposal to the nationalization of the AFJP bill. The main points of this proposal were: a) it allowed members to enrol in either of the two systems: the PAYG or the fully-funded schemes; b) it agreed to pay a minimum pension after five years of contributions instead of the original 30 years; c) it created a second AFJP fund to lower risks; d) it eliminated commissions when funds generate negative returns; e) it increased contributions to 11 per cent of gross wages; and, f) it created a voluntary savings scheme.

[9] The president of this institution learned about the reform from the newspapers (Hujo and Rulli, 2014).

1.4. Impact of the re-reform on coverage, pension adequacy and sustainability

The re-reform implied a strengthening of government management of the system (through the elimination of the privately-managed individual account DC scheme). The new Pension Act did not include any provisions regarding coverage and benefit adequacy, however. These two issues were addressed by other legal instruments (laws and decrees) implemented beginning in 2005 to: (a) solve the problem of low population coverage of the pension system, and (b) restore the real value of benefits by ensuring their automatic, flexible adjustment, in accordance with the financial performance of the overall pension system.

The re-reform did have an impact in terms of improving short-term funding, yet the impact on the long-term sustainability is unclear. Section 3.3 discusses some of the factors unrelated to the re-reform that may influence the financial sustainability of the new system (AIPS).

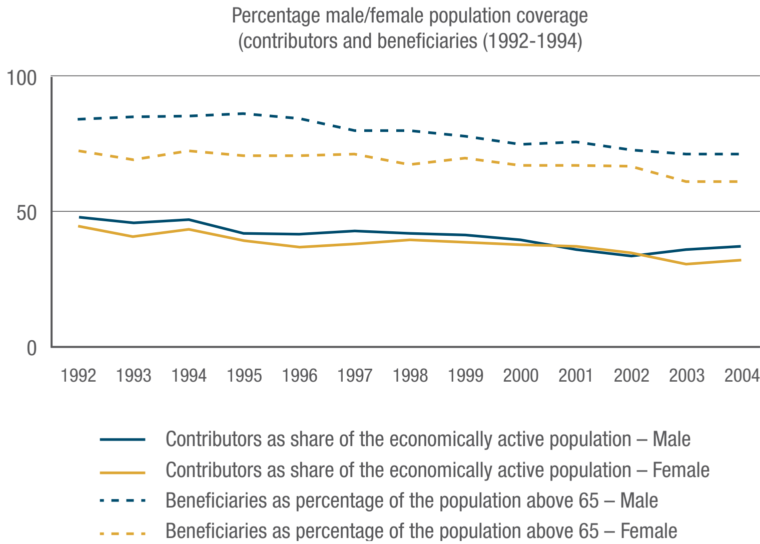
1.4.1 Coverage extension through wide-ranging but short-term policies: the moratoriums

From 1992 through 2004, coverage rates of the population had fallen by more than 10 per cent. In response to this decline, the government introduced several ad hoc measures to increase coverage. The figure below illustrates coverage rates of contributors and the share of the population over age 65 receiving a pension, disaggregated by sex.

Due to the employment difficulties encountered by adults approaching the legal retirement age, a benefit called Early Retirement was created through Law 25865 in 2004, aimed at benefitting individuals who had completed the number of contribution years required to access a pension benefit (30 years) but had not yet reached legal retirement age (60 for women; 65 for men). Few old-age pensions were granted under this scheme: between 2005 and 2010 (when it was discontinued), only 47,184 people in this category received pensions.

In early 2005, the eligibility requirements for benefits were temporarily eased (until April 2007) thanks to the creation of a "pension moratorium," which allowed workers and their beneficiaries to become eligible for pension benefits despite not having accumulated the minimum number of contribution years. The pension moratorium, later named the Pension Inclusion Plan (Plan de Inclusión Previsional), was based on amendments to a law that had been enacted in 1993

Figure 3: Declining population coverage, 1992-2004



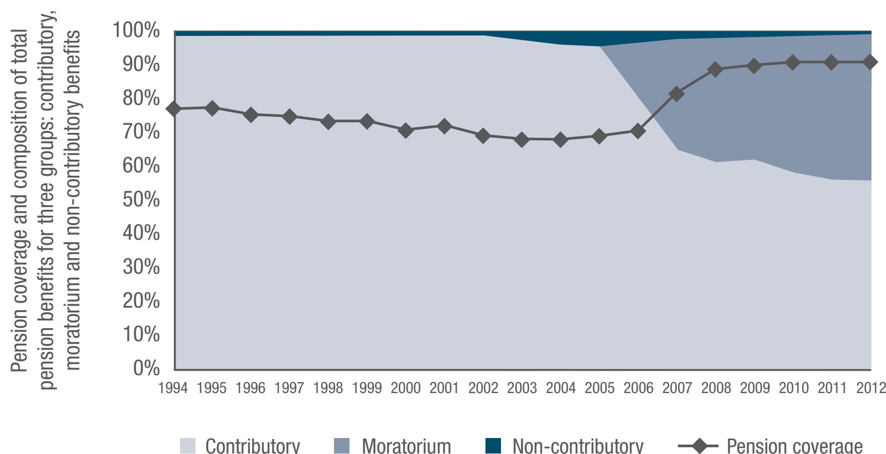
Source: Based on data in Basualdo et al., 2009.

and which made it easier for workers to enrol in a voluntary scheme for debt regularization through contributions for self-employed workers. This special scheme enabled workers with incomplete or non-existent employment records to become eligible to receive a pension benefit (Arza, 2012a). Once this benefit has been granted, beneficiaries may request their outstanding monthly payments of the debt regularization scheme to be discounted. This moratorium serves as a transitional measure: it helps only the current cohorts of people born before 1945, those with no employment history, and those born between the 1950s and mid-1970s (with incomplete employment records). In the future, younger cohorts will not be able to declare contribution years through a plan designed to recognize the debt generated prior to September 1993.

Through these special moratorium programmes, the number of pensions paid grew by 2.6 million from 2005 to 2012, representing over 44 per cent of the current total of pension-related benefits. This increase in the number of benefits increased the system's pension coverage performance to over 90 per cent. Coverage rates had been deteriorating steadily between 1994 and 2004. Pension coverage in Argentina is among the highest in Latin America (Rofman and Oliveri, 2012).

The provisions effectively contributed to extending coverage, especially to the most vulnerable adult population: women and people with limited education,

Figure 4: Pension coverage and composition of total pension benefits for three groups: contributory, moratorium and non-contributory benefits



Source: Bertranou, Cetrángolo, Casanova, Beccaria (2015).

who are more likely to have precarious jobs and periods of unemployment (Bertranou et al., 2011). The redistribution function of social protection had thus been significantly strengthened (Trujillo and Villafañe, 2012; ILO, 2012; Gasparini and Cruces, 2008). In 2012, payments associated with the new benefits of the moratorium represented 2.1 per cent of GDP while the moratorium payments collected amounted to around 0.1 per cent of GDP, resulting in a net cost of 2 per cent of GDP. In addition to the moratorium plans, coverage of non-contributory pensions rose significantly beginning in 2004. The number of beneficiaries increased from 0.3 million in 2003 to 1.4 million in 2013, mainly due to the increase in non-contributory disability pensions (from 82,000 to 900,000) and non-contributory benefits for mothers of 7 or more children (from 59,000 to 330,000).

In August 2014, Congress passed a new Moratorium Law. This law enables the recognition of unpaid contributions from 1993 to 2003. This new measure includes a means test to prevent those who already have a survivors' pension from receiving another benefit.[10]

[10] Around 30 per cent of the new beneficiaries under the 2005 moratorium were already receiving another pension benefit. Initially, the legislation governing the moratorium plans did not restrict eligibility only to the elderly without pension benefits.

In contrast to other experiences in the region, the expansion of pension coverage was mainly based on ad-hoc and transitory measures as well as a positive economic context. This allowed these measures to have an immediate impact.

Today (in 2017), with the entitlement conditions in force, the 30 contribution years needed for benefit eligibility can be reduced by registering in the pension moratorium. Thanks to this policy, individuals who have reached legal retirement age but have not contributed to the system may be eligible for the minimum pension benefit. However, this is a temporary measure. In less than 10 years' time, people who are close to retirement will need to have made contributions for approximately 10 years; in 20 years, only 10 contribution years will be recognized in this moratorium; and in 30 years' time, this measure will concede no benefit.[11]

If no further ad-hoc measures are implemented (such as the moratorium) and no substantial changes are made to the regulatory provisions, it is unlikely that the pension coverage level can be sustained in the current labour market environment, characterized by high informality. To resolve this structural problem, a permanent solidarity component must be incorporated to guarantee pension coverage, not only for the sake of equity and predictability, but also to ensure universal coverage in the future. The benefits of this component should be financed with general government revenues (Bertranou, et al., 2011).

1.4.2 Restoring the benefit replacement rate: from discretionary to institutional benefit adjustments

Beginning in 2002, measures were implemented to restore the purchasing power of pension benefits, which had been affected by the devaluation of the peso. This policy was carried out in steps until 2008, prioritizing the increase in the real value of the minimum pension benefit. During this period, benefits above the minimum were not automatically indexed to inflation but rather increased ad hoc on two occasions, which caused them to lose their purchasing power.

These discretionary benefit adjustments led to a flattening of the benefit pyramid. While the minimum increased and largely recovered from the shock of the 2002 crisis, the mean benefit did not (Arza, 2012; Bertranou et al., 2011).[12]

[11] There are gender differences with respect to retirement age requirements (65 for men, 60 for women).

[12] Between mid-2002 and mid-2008, the minimum benefit increased by 360 per cent, while the highest level of pensions grew between 63 per cent and 79 per cent.

The 2008 Law on Pension Mobility stipulated that all benefits should be adjusted every six months based on a predetermined formula using parameters linked to the change in the wages of all active workers and in the contributory and tax resources allocated to the pension system.

In 2007, the accrual rate of the PAYG scheme that recognized contributions made after 1994 was increased from 0.85 per cent to 1.5 per cent. This provision was included in the 2007 Reform Act to create incentives for workers to transfer from the fully-funded scheme to the PAYG scheme.

As per the reforms introduced in 1994 and 2007, the replacement rate of the initial benefit is equal to the PBU[13] plus the additional benefit linked to wages and contribution years, equal to 45 per cent of the average wage of the last 10 years for a worker who has completed 30 contribution years (up to 52.5 per cent with 35 contribution years).[14] Both components of the benefit are indexed in accordance with the Law on Pension Mobility; however, the PBU has lagged behind compared with the minimum pension increases granted during 2002-2006. Thus, the PBU has lost ground in terms of the average wage, which has affected replacement rates of medium- and high-income workers more than those of low-income workers, who stand a better chance of being included in the minimum benefit.

The table below summarizes the benefit formula under the different schemes discussed above.

Table 1: Pension benefit formula under the different schemes of 1994, 2007 and 2008

Scheme	1994 (Law N° 24.241)	2007 (Law N° 26.222)	2008- Re-reform (Law N° 26.425)
Both schemes	Universal Basic Benefit (PBU) + 1.5 per cent*N1*wage		PBU
Pay as You Go	0.85 per cent*N2 * wage	1.5 per cent * N2* wage	1.5 per cent * wage * N
Individual Capitalization Accounts	Individual capitalization accounts		

Notes: N: years of contribution (30 to 35 years). N1: years of contribution to the old system (before 1994) (30 years <= N1+N2 <= 35 years). N2: years of contribution to the PAYG scheme after 1994 (30 years <= N1+N2 <= 35 years). Wage: average salary of the last 10 years of contributions.

[13] Originally, in 1994, the value of the PBU was approximately 25 per cent of the mean wage of formal workers. By December 2011, this figure had dropped to 13 per cent.

[14] Prior to the re-reform, there was a compensatory benefit for the contribution made before 1994. This benefit was equal to 1.5 per cent of the average wage of the last 10 years of employment for every year of contribution for a worker who had completed 30 contribution years (with a maximum of 35 years).

1.4.3 Financial sustainability: improvements in the short-term financial position, but long-term sustainability remains a challenge

The elimination of the individual capitalization component implied the transfer of accrued funds from the individual accounts to the Social Security Administration (ANSES).

The Capitalization Pension Fund (the stock of resources accrued in all individual accounts of the AFJP) was also transferred and incorporated, together with ANSES financial surpluses, to a reserve fund known as the Sustainability Guarantee Fund (SGF). The SGF has the explicit mandate to help preserve the financial stability of the AIPS and to foster economic development. In 2013, the SGF portfolio represented 10 per cent of GDP and its net annual investment return represented around 8 per cent of ANSES' total income.

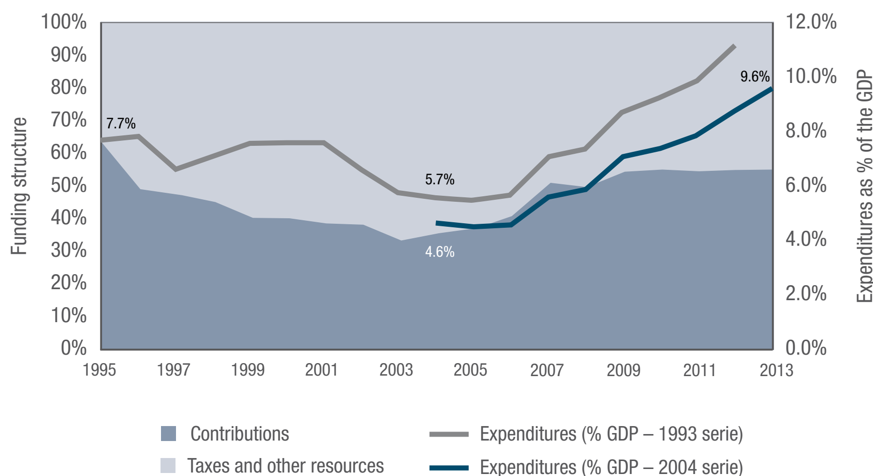
The personal contribution flows that were formerly destined to the individual capitalization accounts increased the contributory resources managed by the ANSES to around 1.2 per cent of GDP. Nevertheless, the main factors behind the increase in resources from contributions were employment formalization and a real wage increase (Bertranou et al., 2015).

The financial strengthening of ANSES also heavily depended on the allocation of a significant proportion of general taxes (mainly VAT, corporate and personal income taxes) during the 1990s to finance the introduction of individual capitalization accounts. A large share of these resources (over 50 per cent) should have been transferred to the provinces. After reversal of this reform, the central government kept those resources. This, together with the increased taxes on wages, has improved the current financial situation of ANSES. As the figure below shows, this continued even in 2010, after pension system coverage and non-contributory pensions had been extended and a Universal Child Allowance had been implemented.[15]

However, new future social protection spending entitlements have been granted. Their fiscal cost is unclear as no actuarial study has been conducted to assess their long-term financial sustainability. Some projections made before and after the 2008 reform (Cetrángolo and Grushka, 2008; Auditoría General de la Nación, 2010; Grushka, 2014; Rofman and Apella, 2015) reveal the persistence of a "pure" deficit when counting contributions from wages and salaries as the

[15] For further information on the characteristics of this social protection policy, see Bertranou and Maurizio (2012).

Figure 5: Expenditures and funding composition of the National Social Security Administration (ANSES), 1995-2013[1]



Note: (1) In 2013, Argentina changed the base year for its GDP calculation from 1993 to 2004. It is not possible to merge the two GDP series.

Source: Bertranou et al. (2015).

only source of income. This excludes the other sources from investment of contributions and tax allocations. These projections underscore the critical importance of maintaining tax allocations to finance the AIPS.

The high litigation rate is another aspect hindering the assessment of the system's financial sustainability. While this litigation is not new (Schulthess and Demarco, 1993), it has recently become a key issue. Legal actions have focused on the mobility (adjustment) of current benefits, particularly regarding benefit indexation during 2002-2006, when only the minimum benefit part of each payable pension was adjusted due to severe fiscal constraints at the time. Another pension calculation formula was based on the determination of the initial benefit at the time of retirement and the indexation of past insured wages.

In 2011, there were over 400,000 outstanding legal actions (Bertranou et al., 2011). According to Bossio (2012), the application of the Supreme Court rulings to update benefits and determine initial benefits would represent an annual expenditure of 2.0 per cent of GDP.[16]

[16] The breakdown for this figure is 0.8 per cent for the updating of benefits exceeding the minimum amount in 2002-2008, and 1.2 per cent for the determination of the initial benefit.

Finally, another consideration when assessing the financial sustainability of the system is the demographic transition of the population. Argentina is currently undergoing a transition process, also known as a demographic window, where the proportion of the working-age population is growing relative to the population of children, adolescents and elderly adults. Argentina is estimated to be at an intermediate stage with respect to the ageing of the population. In 2010, the percentage of the overall population ages 65 and over was 11 per cent, which is expected to reach 19 per cent by 2050. This increase will be matched by the rate of adult dependency,[17] which is expected to rise from 19 per cent to 34 per cent in the same period (Grushka, 2015).

Policymakers should consider social protection needs given that the country is inevitably becoming an ageing society. In addition to income security in old age, social health protection, public social services and long-term care need to be assessed and factored into government plans. At the same time, actual years of employment in relation to the statutory retirement age(s) should be closely monitored to ensure a balance between the duration of employment and the duration of retirement. Future employment protection laws could encourage older workers to remain active in the labour market. Employment and social protection policies need to be carefully integrated (ILO, 2013).

1.5. Final remarks on the politics of recent reforms and challenges ahead

The reversal of the privatization had created an overall positive effect, with increased coverage, improved adequacy and financial sustainability. As a whole, income protection in old-age has been improved and meaningfully contributed to the well-being of people in old-age, including spill over effects to the rest of the population. Yet, the continuous reforms of the pension system have not yet achieved a stable design that would ensure the long term sustainability of the scheme with regards to benefit adequacy, coverage and financial balance. Based on the discussion above, some conclusions can be drawn regarding the performance of the current system in terms of financing and coverage. The rise in formal employment has succeeded in increasing pension system resources. At the same time, the favourable performance of the economy since the 2001-2002 crisis and the additional income from general taxation specifically allocated to

[17] Ratio between the population ages 65 and over and the population between the ages of 20 and 64.

the pension system have provided the necessary fiscal space for the government to improve the social protection of citizens. Old-age coverage has expanded to over 90 per cent, an unprecedented achievement.

This paper discussed the circumstances behind the reforms of the Argentinian pension system during the past two decades and how these reforms have affected the three main areas crucial for the performance of any pension system: coverage, benefit adequacy and financial sustainability. The magnitude of these changes in such a short period (especially considering that these reforms are designed to have long-term impact) and the lack of solutions for many existing problems require explanations that go beyond the arguments of the current literature on pensions.

Certainly, the shift in prevailing views regarding the role of government in the economy, the participation of multilateral credit organizations, the magnitude of the macroeconomic crisis (hyperinflation, economic stagnation and recession) and the political power the government had gained before reforming the pension system in the early 1990s and in 2008, are key factors explaining the reforms. Only by considering these circumstances can the agreement of trade unions and provincial governments to finance the transition with tax revenues, or the absence of strong opposition from the financial system and AFJP contributors regarding the return to the PAYG, be understood.

Although the re-reform did not include policy definitions regarding coverage and benefit adequacy, other policy measures significantly increased coverage and restored the real value of benefits. Nevertheless, the re-reform improved the short-term financial position of the social security system, which recorded a surplus despite an increase in expenditures of 3.6 per cent of GDP between 2008 and 2013 due to the extension of social protection coverage (pension benefits, non-contributory disability benefits and non-contributory child allowances). However, neither the re-reform nor other policy measures implemented since 2005 have resolved the sustainability and coverage issues that the system will face in the future.

As in every pension system, there are still numerous pending challenges: a) to preserve the system's sustainability by adopting predictable parameters for administrators and insured parties to reduce litigation rates (lawsuits brought against the ANSES by beneficiaries); b) to attain universal coverage without the need for emergency measures; and, c) to improve equity in both its horizontal dimension, by closing coverage gaps (mainly in terms of contributions during employment), and in its vertical dimension, by improving replacement rates

(benefit adequacy). Equity across groups (system fragmentation) and across genders (Arza, 2012b; Bertranou et al., 2011; Mesa-Lago, 2009) must also be improved.

In conclusion, while measure to secure the long-term sustainability of the pension system are still required, the fundamental changes that have been introduced with the return to the public PAYG pension system, put Argentina back on track, generating an overall positive effect, with increased coverage, improved benefit adequacy and providing the basis for achieving sustainable financing.

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2. Bolivia

Carmelo Mesa-Lago

2.1. Summary of reforms related to pension privatization and its reversal

1996	**The pension system following the 1996 privatization:** • Non-contributory pension for individuals ages 65 and over. • Mandatory defined contribution private pillar.
2006-2010	President Morales launches four years of discussions and consultations to reverse the pension privatization. The Workers' Federation, COB, plays a key role in this effort.
2008	Call for re-reform proposals, explicitly rejecting advice from international financial organizations. The non-contributory pension *(Bonosol/Bonavida)* becomes *Renta Dignidad*, a universal benefit for all older persons aged 60 and over. RD is reduced by 25 per cent for those receiving a pension from the contributory scheme.
2009	Constitutional ban on private administration of social security schemes. Creation of a public administrator (*Gestora Pública*, not yet operational). In the meantime, the two pension funds continued to manage the reformed scheme. Introduction of strict sanctions for evasion or fraud with respect to social security system and benefits.
Dec. 2010	**Reversal of the privatization and rebuilding a public pension system:** Law No 065 replaced the private system with a new public PAYG system: *Sistema Integral de Pensiones* (SIP). **The new model:** The new three-tier mixed system consists of a public non-contributory universal pension for all individuals ages 60 and over, a contributory, PAYG DB providing old-age pensions, and a semi-contributory (solidarity) scheme financed by contributions and a solidarity fund. The shares of the private system are transferred to the solidarity fund. **Entitlements:** PAYG DB pension from the age of 55 and 50 for men and women, respectively with guaranteed replacement rate of 70 per cent assuming 30 years or more of contributions. Universal non-contributory pension is granted from the age of 60 with a benefit up to approximately US$ 47 per month. **Administration:** A new public pension administrator *(Gestora Pública)*, created (Supreme Decree 2248) in 2015, is expected to begin operations in March 2019.

	Transfer of Entitlements: All affiliates and funds were transferred to the public system. Individual accounts continue to operate temporarily, under the management of the AFPs until the new *Gestora Pública* starts its operation.
	Supervision: Pension and Insurance Supervisory Authority replaced the Superintendency, with the mandate to oversee both pensions and insurances.
	Contributions: Workers contribute 12.71 percent and employers, 3 per cent. High-income individuals pay an additional contribution to the Solidary Fund.
	Solidarity, gender and social impacts: Projections indicate substantial benefit increases for lower-income groups and women. Additionally, the maternal solidarity pension led to improved gender equity.
	Fiscal impact: US$ 5.41 billion were transferred from the private to the public system, decreasing public debt from 38.5 to 33.9 per cent of GDP between 2010 and 2011.

2.2. Introduction

In many senses, Bolivia is a unique case in Latin America and the Caribbean (LAC). The Human Development Index ranks Bolivia as the sixth least socio-economically developed nation among 35 countries in Latin America (UNDP, 2014). Most of the labour force is in the informal sector (a total of 60 per cent, 67 per cent among women,[1] and steady wage employment is low, which makes the expansion of contributory pension coverage difficult. Bolivia's poverty and extreme poverty rates were the second highest in the region in 2005 (rural poverty is double the urban rate) but improved to fourth place in 2013 (ECLAC, 2014a, 2014b). The decline in poverty mainly resulted from virtually universal coverage of the elderly population by a non-contributory flat pension scheme, the only one of its kind in LAC, and one of just 27 out of 178 countries worldwide (ILO, 2014/15; ECLAC-ILO, 2015). By contrast, Bolivia has the lowest contributory coverage of its labour force. The re-reform created new institutions and benefits but kept individual member accounts, which are still managed by the AFP given that the public administrative body (Gestora Pública de Seguridad Social de Largo Plazo, henceforth Gestora) has not yet been established (as stipulated by the re-reform law). A serious concern is the long-run financial-actuarial ability of the system to deliver on the promise of adequate income security for all workers and their families. This chapter examines the rever-

[1] Seventy-five per cent of non-agricultural employment in Bolivia is informal, a percentage that increases to 78.5 per cent for women. Both figures are the highest in Latin America (ILO-WIEGO, 2013).

sal of pension privatization in Bolivia through the 2010 pension re-reform, with an emphasis on its political economy and impacts on social security principles.

2.3. Why the government re-reformed pensions and abandoned privatization

2.3.1 Privatization model

Three major types of pension structural reforms have been implemented in LAC: a) substitutive reforms, which entirely replaced the PAYG, defined benefit and publicly-managed system with a fully-funded (individual-account), defined contribution and privately-managed (AFP) system; b) mixed reforms that maintained the public system and added a mandatory private tier; and c) parallel reforms that maintained the public system and created a private system competing with the public one (Mesa-Lago, 2008). Bolivia followed the substitutive model pioneered by Chile without adequately consulting workers and employers, as mandated by ILO Conventions and Recommendations. All insured in the public system were forced to enrol in the new private system. In Chile, those insured at the time of the reform were given a short period to decide either to stay in the public system or to shift to the private one. As in Chile, enrolment in the private system was mandatory for new entrants in the labour force entitled to coverage. Bolivia's labour force and socioeconomic features, however, were quite different to Chile's, hence making it difficult to replicate the latter's reform model. Bolivia's scheme also had important design flaws and introduced post-reform changes that generated significant problems.

2.3.2 The main justifications/arguments for the 1996 pension privatization did not occur

Several flaws of the public pension system were used to justify the privatization law in 1996: a) a high level of fragmentation, with a single basic programme but 38 supplementary funds with significant differences among them; b) low coverage of the labour force and the elderly, especially women; c) low retirement ages (50 women/55 men) and high replacement rates (70-100 per cent); d) high administrative costs (17-20 per cent of contributions, on average); e) substantial evasion, payment delays and under-declaration of wages; f) depletion of the pension fund (partly due to hyperinflation in the 1980s) and low or negative rates

of return; and, g) financial imbalances that steadily increased fiscal transfers to finance a growing deficit (US$ 780 million in 2012 alone), a severe actuarial imbalance and an active/passive ratio averaging 2.7 to 1 in the basic programme but below 1 in several supplementary funds (Gersdorff, 1997; Picado and Durán Valverde, 2009; Mesa-Lago and Ossio, 2012; MEFP, 2013b).

The structural reform had the support of international financial organizations but strong opposition from the ministries of labour and health, as well as trade unions. The draft legislation linked the reform with the privatization of half of all public enterprises, made politically feasible by assigning 50 per cent of the stocks to finance an annual non-contributory flat benefit for the elderly (Bonosol). This garnered support from the major workers' federation. The draft legislation also established a pension authority to oversee the private system and remove power from social ministries. A public relations campaign launched in 1995 led to a limited social dialogue but did not prevent opposition forces from organizing public protests. Despite the opposition, the government coalition, which had a strong majority in Congress, passed the reform law in 1996. It was implemented on 1 May 1997 (Mesa-Lago and Müller, 2003).

Several expected outcomes of the privatization did not materialize, and insufficient evidence was provided to support the arguments in favour of the reform (Escobar, 2014). Among the promises made were: increased labour force coverage; improved benefits; reduced government role through the private system; introduction of competition to reduce management costs; higher capital accumulation and returns; and, elimination of the pension deficit in the long run. An assessment of those promises appears below, including the elimination of some previous gains and the few positive effects achieved.

Coverage. The labour force contributory coverage failed to increase as promised and was stagnant: 12 per cent in both 1997 and 2010, the lowest among privatized systems in the region. Old-age contributory coverage was just 0.7 per cent and 4.2 per cent in 1997 and 2010, respectively, but non-contributory coverage by Bonosol rose from virtually zero to 77 per cent in 2007 when it was made universal through RD. The retirement age was raised to 65 for both genders,[2] an increase of 15 years for women and 10 years for men, both of which were quite high for Bolivia given the country's relatively short life expectancy at retirement.

[2] The law allowed for earlier retirement based on the amount accumulated in the individual account.

Benefits declined. Unlike other structural reforms, Bolivia's did not guarantee a minimum pension to the insured in the contributory system in the event that they did not accumulate enough in their individual accounts. The certificate for compensation of previous contributions (CC) paid to the public system until 30 April 1997, before the reform law was enacted, began to be awarded in 2003 but was restricted by ceilings of 20 times the minimum wage and US$ 1,137. Just 17 percent of contributors received a CC in 1998, a percentage that rose to just24 per cent in 2010, hence only a fraction of the eligible population received the CC (Mesa-Lago and Ossio, 2012).

The role of government increased. The private system reform intended to modify the government's role from a central to a "subsidiary" one. However, reformers underestimated the public financial implications and related fiscal transition costs. Consequently, the government's role increased as it had to step in to: a) cover the transitional deficit resulting from the rapid closure of the public system, which left it without contributors (a much more critical situation than in other countries, where part of the insured remained in the public system/tier) but was entrusted with all current and future obligations; b) finance the CC from the basic and supplementary pension funds beginning in 2003; c) manage and partly finance Bonosol through the Ministry of Finance; and, d) finance the Pension, Securities and Insurance Regulatory Agency (SPVS).[3]

Competition did not occur. The low number of insured in Bolivia led to a virtual duopoly of two AFP (BBVA Previsión AFP S.A. and Futuro de Bolivia AFP S.A.).[4] The government distributed the insured population between the two AFP based on geographic areas. It also and banned changes for five years, for which reason competition did not exist, and marketing costs were insignificant. Nevertheless, these costs accounted for 20 per cent of the total deduction on taxable wages, including the 10 per cent deposited in the individual account. Since 2003, when changes were approved until 2010, only 0.3 per cent to 0.4 per cent of members switched to a different AFP. There is no competition among

[3] The autonomous Agency regulated and oversaw the private system whereas the Ministry of Finance supervised the remainder of the public system.

[4] Banco de Bilbao y Vizcaya Argentaria (BBVA S.A.) and Zurich Group were and are the major two investors in AFP. In 2014, BBVA held 75 per cent of total stocks, and the remaining shareholders held from 3 per cent to 5 per cent: BBVA Pensiones S.A., Vistaur Inc. S.A., Ferpac Holding Co., Parezco Enterprises Inc., Stocel Corp. and Gisborne Enterprises. In 2013, Zurich South America Invest A.B. held 72 per cent of total stocks and the remaining shareholders held from 3.5 per cent to 13 per cent: SIDESA, Zurich Boliviana Seguros Personales S.A., Alianza Vida de Seguros y Reaseguros S.A., and Fortaleza Investment (Mendizábal, 2015, based on Memorias Institucionales).

commercial insurance firms, which for a period covered disability-survivors' risks since bidding was eliminated in 2006. Due to the lack of competition, private-system administrative costs were the lowest in the region.

Financial troubles and transition costs were higher than expected. The percentage of members who regularly contributed fell from 92 per cent in 1998 to 30 per cent in 2010. The lack of compliance and evasion of contributions remained an issue despite legal obligations. The investment portfolio was heavily concentrated in two instruments. First, the funds were invested in public debt, peaking at 81 per cent in 2007 and decreasing to 62 per cent in 2010. The investment in public debt covered the high fiscal costs of the transition. Second, the funds were invested in bank deposits, increasing from 11 per cent to 25 per cent, with low rates of return. Investment in domestic private issuances and stocks were limited and practically non-existent in foreign issuances.

Transition costs were 2.5 times higher than the initial estimate – excluding CC and additional pensions granted following the reform (Gamboa, 2005).[5] Relative to GDP, these costs were initially estimated at 0.2 per cent for the first year of the reform, to peak at 2.2 per cent in 2000 and decline thereafter (Gersdoff, 1997). However, the World Bank increased the cost estimate to 3.5 per cent in 2001. Reasons for the difference were flaws in the initial projections that overestimated GDP growth; added benefits in the public and private systems; the government's failure to recover assets from the supplementary funds of the armed forces,[6] the police and the judiciary; and, unabated non-compliance (Picado and Durán Valverde, 2009). The number of Bonosol beneficiaries was much larger than expected and a steady deficit resulted in the collective fund. A 2005 projection revealed that financing the non-contributory pension at the legal level would require a two-fold increase of the collective fund or a reduction in benefits (Mesa-Lago and Ossio, 2012).

The employer contribution was abolished. The employer contribution of 5.8 per cent of the payroll was eliminated whereas the employee contribution was increased from 8.9 per cent to 12 per cent. This was an infringement of the fundamental principle of ILO Convention 102 that the worker should not pay more than 50 per cent of the total contribution and that social security coverage is part of the remuneration package of employees.

5 Costs were first projected in 1996 at US$ 2.36 billion for 1997-2060, but in 2004 were raised to US$ 5.79 billion for 2004-2060.

6 All active members with 35 years of service receive a pension of no less than 100 per cent of the average salary of the last five years of service, indexed with the US dollar.

Social solidarity vanished. Ownership of the individual accounts precludes any transfer between generations, sexes or income groups that is typical of a public system. Consequently, the only solidarity was outside of the private system, through government financing of the non-contributory pension, the minimum pension and the CC.

Gender inequality worsened. The percentage of female workers covered in the labour force was significantly lower than that of men, declining from 11.6 per cent to 10.6 per cent, the lowest in the region. The average monthly income gap between women and men rose by 91 per cent. Depending on the type of pension, average pensions for female workers ranged from 39 per cent to 86 per cent of the average pension for male workers. The lower wages and longer life expectancy of women, as well as differentiated mortality tables by sex contributed to that difference. The proportion of elderly women receiving any type of pension fell from 23.7 per cent to 12.8 per cent, but women accounted for 54 per cent of the total receiving the non-contributory pension in 2008 (Picado and Durán Valverde, 2009; Mesa-Lago and Ossio, 2012).

Constituent participation in pension administration was eliminated. The public system had tripartite representation: workers, employers and the government. The reform eliminated this participation in the AFP, including the collective fund for the non-contributory pension.

Some positive effects of the reform. Bonosol was a unique social-solidarity component of the reform: an old-age annual flat transfer for life to the resident population aged 65 and over who were at least 21 years old by the end of 1995, regardless of income.[7] Nevertheless, the benefit was not universal because it was limited to a specific population cohort. Neither did it target the poor given that it was granted to contributory pensioners. The structural reform also integrated all prior pension schemes (including that of the military, but with a special regime that offers more flexible entitlement conditions and more generous pensions). It also indexed pensions to a unit related to inflation (the Housing Development Unit, UFV). The pension fund as a percentage of GDP rose from 4 per cent to 26 per cent during the period 1998-2009 while the real gross rate of return (without deducting management costs) averaged 9.7 per cent.

[7] In 1998-2001, Bonosol was replaced by Bolivida, which reduced the benefit but increased the eligible age (established in 1995) from 21 to 50 years. In 2002, Bonosol was restored at its original amount.

In summary, Bolivia's structural reform mimicked the Chilean model yet there was no adequate prior assessment of socioeconomic pre-conditions. Consequently, it did not fulfil most of the promises made, as discussed in the previous sections.

In a perception survey of pension members, contributors, non-members and pensioners conducted in 2008 before the re-reform, only 38 per cent wanted to keep the private system (because of individual savings) while 61 per cent were in favour of a new system (Arze, 2008). The average replacement rate in the individual accounts was estimated at 20 per cent of the average wage during active employment life, 23.9 per cent for men and 19.7 per cent for women (Durán Valverde and Pena, 2011). Finally, there was widespread discontent with the AFP due to the low pension paid, the substantial investment in enterprises that later went bankrupt, triggering heavy losses in the capital fund, and high evasion and retaining of contributions by employers, which prompted thousands of legal claims.

2.4. Policies of the pension re-reform

Bolivia's 2009 Constitution banned social security privatization or delegation of its management and guaranteed the universal right to a non-contributory pension. Re-reform Law No. 065 of 10 December 2010 reinforced the role of the government, replacing the previous private system with a new public PAYG system: The Comprehensive Pension System (Sistema Integral de Pensiones, SIP).[8]

2.4.1 A new model

The re-reform transformed Bolivia's substitutive system of a fully-funded, privately- managed DC into a three-tier mixed system.[9] The existing contributory scheme for old-age pensions retains the individual accounts (for those already enrolled but not for new entrants) and is still managed by the two AFP. The AFP also manage disability-survivors' pensions. The key innovation of the re-reform – the semi-contributory scheme – covers the same risks as the contrib-

[8] Additional regulations were enacted on contributions and collections (Decree 778, 26 January 2011); on benefits (Decree 822, 16 March 2011); and increasing the RD amount (Law 37, 16 May 2013). Investment regulations were still pending in mid-July 2015 given that the public administrative entity had yet to be established.

[9] Officially, there is no mixed system because the private component is banned by the Constitution (MEFP, 2010b).

utory system. It is financed by contributions and a new solidarity fund and is publicly managed. In 2008, 11 years after the structural reform and prior to the re-reform, the Morales administration changed the non-contributory pension Bonosol/Bonavida to Renta Dignidad (RD) and made it truly universal. All Bolivian residents ages 60 and over (five years less than before) receive it, regardless of income. Recipients of a contributory pension also receive the pension, but with a 20 per cent reduction.[10] The RD is financed by the Solidarity Fund and temporarily managed by Unión Safi S.A., an investment fund administrator, in coordination with the APS. In addition, the minimum pension was finally established in 2008 (Mesa-Lago and Ossio, 2012; Ossio, 2013).

When the initial proposal for the re-reform was being prepared, both public and private administrations were initially considered; however, the 2009 Constitution banned any type of private administration of social security and stipulated that the government would manage the funds (Ferrufino, 2015; Mendizábal, 2015a). The re-reform stipulated that, 18 months after its enactment, a public administrative entity (Gestora pública) would be established to manage the entire SIP and make improvements such as using a national, centralized system of member registration, citizen information, collection of contributions and payments of benefits to simplify collection and delivery processes; the application of more efficient measures for detecting evasion and recovering late payments, including the inclusion in the Penal Code of new crimes such as retention of contributions by employers and false declaration of payrolls; elimination of future excessive profits by AFP by requiring them to invest in the national economy and eventually in the Solidarity Fund (MEFP, 2008; Villareal, n/d; Ferrufino, 2015). The regulations of the administrative entity were not enacted until early 2015 and were postponed for another 15 months in mid-2016, six years after the re-reform. In the meantime, the two original AFPs continue to manage individual accounts and investments and to pay contributory pensions.

2.4.2 Institutional arrangements

The 2009 Constitution stipulates that the government is responsible for the social security administration, with social control and participation. The current system is quite complex, as new institutions and benefits were created while

10 Reasons for the universal benefit were: widespread poverty, especially in rural areas, high administrative costs of targeting recipients and the stigma associated with the means test, particularly among indigenous peoples.

some previous institutions remain. The re-reform law and the regulations of the public administrative entity enacted in 2015 (Supreme Decree, 2015) stipulate that the entity is an autonomous national public body but that it reports to the MEFP. The MEFP establishes pension policies and evaluates the performance of the public administrative entity, which is also regulated and supervised by the APS, for which reason its autonomy is unclear. Once the entity begins operations, it will manage five funds.

In the contributory branch, capital transferred from individual accounts finances the Insurance Savings Fund. The Old-Age Fund is financed by the accumulated balance from contributions and capital returns. The Collective Risks Fund receives contributions for disability and survivors' risks, both common and occupational. In the semi-contributory branch, the Solidarity Fund is financed with 20 per cent of the employment injury insurance premium, a solidarity contribution of 0.5 per cent of all insured taxable income, with a ceiling of 60 minimum wages plus an additional insured solidarity contribution, a miner/metallurgic workers' contribution of 2 per cent, an employers' solidarity contribution of 3 per cent, capital returns and 20 per cent of the interest accrued for payment delays.

In the non-contributory branch, the RD Fund has been financed with 30 per cent of the revenue from the tax on hydrocarbons (this sector was nationalized in 2006 and 82 per cent of profits go to the government) since 2008, as well as the stocks and dividends of capitalized enterprises that were in the Collective Capitalization Fund at the end of 2010. The insurance savings fund is based on individual capitalization and the four other funds are PAYG.

Table 1: Overview of the five funds to be managed by the public administrative entity

Insurance Savings Fund	Old Age Fund	Collective Risk Fund (Disability and Survivors benefits)	Solidarity Fund (Employment Injury)	Renta Dignidad
Transferred funds from private system (individual accounts) – closed for new entrants	Individual accounts PAYG financed through contributions and capital returns	Financed through contributions	Financed through contributions Solidarity contributions (0.5 per cent tax on income)	Universal old-age pension financed through a tax on hydrocarbons

During the transition, the two AFP will manage all of these funds and the RD will be administered by the current insurance company. The Old-Age Fund guarantees the private ownership of individual accounts, which continue under the SIP. The latter is also responsible for paying ongoing pensions from the closed private system. Payments for RD are made as follows: 51 per cent by banks, 24 per cent by cooperatives, 22 per cent by financing entities and 2.4 per cent by mobile units of the armed forces (UDAPE et al, 2013a). The public administrative entity will also collect contributions and manage individual accounts and investment funds. Additionally, it will assume the functions of the private companies responsible for RD and disability/survivors' risks.

The RD faced challenges due to significant differences between urban and rural zones. Rural areas are home to indigenous peoples, who face language barriers, lack of or irregular identity documents and limited access to banking services. In addition, there were irregularities in the reception of the RD (Müller, 2009). The RD database was supposed to be updated by the public administrative entity, but it has yet to be established. To address these problems, data in the registry of RD beneficiaries were updated.[11] In 2003, better controls identified beneficiaries fraudulently collecting RD. Twenty per cent of the identity cards were forged. A total of Bs. 445,800 (US$ 64,608) was paid in fraudulent benefits. The 2009 Constitution called for the punishment of individuals who falsify social security documents, and the Penal Code established prison terms from one to eight years (Ferrufino, 2015). Regulations enacted in 2007 stipulated that RD benefits would be terminated if the pension was collected more than once or before the age of 60 (Law No. 3791, 2007). In addition, the implementation of the biometric register in 2009 introduced more controls through finger-print identification and facial recognition (Ticona, 2015). In 2011, 79 per cent of RD beneficiaries were fingerprinted and fraud was reduced by 26 per cent (VMPSF, January 2012). A household survey of the elderly conducted that year found that 7.5 per cent had never collected RD (8.2 per cent in rural areas) while 1.5 per cent had collected it only once. Reasons for not collecting RD included administrative problems (45 per cent), lack of identity documents (16 per cent), payment location too far away (14 per cent) and either was unaware of the existence of RD or where to register for it (2 per cent) (UDAPE et al, 2013a).[12] No data on fraud were found for 2013 and 2014. By 2014, all but 3 per cent of the elderly population was receiving RD.

[11] The distribution of RD beneficiaries in 2014 was 85 per cent without a pension and 15 per cent with a pension. The number receiving a pension had risen two percentage points since 2011.

[12] Transportation costs to collect RD are 13 per cent higher in rural than in urban areas.

In 2009, the SPVS ceased to oversee SIP and the APS assumed all its functions, along with RD and the public administrative entity. This action resulted from the re-structuring of the executive branch, replacing all superintendence offices with "authorities" (Mendizábal, 2015a) to better guarantee the interests and rights of users (Ferrufino, 2015). The APS could play a more active role in informing self-employed workers on the advantages of enrolling in SIP and could more effectively recover employers' debts by cross referencing data from government agencies that handle tax, labour and health information. Currently, the AFP cannot do this directly, but only through APS. When the public administrative entity (Gestora) is created, it may better be able to address this problem (Ticona, 2015). The autonomy of APS with respect to the executive branch could not be assessed.

Employment injury or common disability/survivors' pensions were initially managed and paid by the two AFP. From November 2001 to October 2006, these functions were assumed by two life insurance companies (Seguros Provida S.A. and Vitalicia de Seguros y Reaseguros de Visa S.A.). In November 2006, the two AFP began making new payments of these pensions so there are currently four operators. Reasons for these changes are unclear.

The re-reform maintained the special regime for the armed forces.[13] Workers in mining, metallurgy and other industries with unhealthy working conditions that contributed to the closed public system can retire at age 56. One year of contribution is reduced (up to five years) for each year of employment, allowing retirement at 51. The re-reform also harmonized the previously different ceilings of pensioners of the closed public system (14 minimum wages) and those of the private system (60 minimum wages).

2.4.3 Entitlements and rights

The re-reform created a right to the non-contributory pension (RD), maintained individual accounts for current members, made previous entitlement conditions more flexible and added new benefits. It also changed eligibility criteria, setting a lower retirement age and reducing the years of contribution required for old-age pensions; introduced the semi-contributory system and solidarity pensions; added a minimum pension for the self-employed; continued pension indexation with some modifications; improved disability and survivors' pensions; and set a

[13] The re-reform law of 2010 did not mention this special regime hence it continues.

lower RD benefit amount for those who already have a pension. There is a high concentration of pensioners in the lowest brackets (57 per cent to 66 per cent of pensions are below average) and the reduction of the retirement age may reduce replacement rates.

2.4.4 Mechanisms to improve solidarity

The re-reform improved solidarity as follows: the universalization and age reduction of the non-contributory pension, the creation of the semi-contributory branch, the Solidarity Fund (which redistributes its assets favouring lower-income contributors, who are expected to receive a low pension), the solidarity pension and the solidarity contribution charged to the employer, as well as to the insured after a certain threshold is reached and which increases with rising income (with progressive effects on distribution).[14] Conversely, elements against solidarity include the continuous low contributory coverage of the labour force, the maintenance of a special liberal regime for the military and the excessive contribution burden on workers compared with employers (especially in the contributory system).

2.4.5 Fund and new investment framework

The re-reform law set limits on several instruments but excluded government bonds.[15] A legal draft regulating SIP investments stipulated that the public administrative entity must continue investing with no limits in government bonds of the Treasury and Bolivia's Central Bank. In the first six years of the structural reform, the MEFP imposed an annual obligation on the two AFP to increasingly invest in public debt (used to finance the fiscal deficit in those years), which peaked in 2007. Since 2008, the government has not emitted new domestic bonds (replaced by international bonds) and has eliminated the mandatory investment of AFP in government bonds. This modification led to important changes in the portfolio composition and capital returns. The investment regulations have not

[14] The amendment to the re-reform law mandates the payment of the solidarity contribution to all those who have income in addition to wages from: rental properties, fees for consultancy work or membership on corporate boards, profits from enterprises owned, interests and dividends on bank accounts or stocks, and income exceeding US$ 1,853 monthly.

[15] The law also mandated specialized entities to conduct risk assessments but excluded investment in small and medium-sized enterprises.

yet been enacted at the time of this writing because the public administrative entity has yet to be established.

2.4.6 Governance, instruments for social dialogue and tripartite participation

The Constitution stipulates that the government oversees and administers the social security system, with social control and participation. Nevertheless, the re-reform law did not mention any type of representation of workers, nor did the public entity regulations enacted in 2015. Enabling direct workers' representation is difficult due to the technical nature of the functions of the public entity. Nevertheless, workers' advisory councils could be organized such as those introduced by the Chilean re-reform of 2008. The President of the Republic will select the five members of the public administrative entity (its president and four directors) from candidates approved by two-thirds of the Chamber of Deputies.[16] The Constitution mandates that public agencies defend legal rights to all benefits, and enforce "social control" through public hearings with representatives of social organizations, for example, to follow up court procedures to recover unpaid contributions. In 2013, pensioners organized protests to demand the holiday bonus (double benefits in December), which was granted by the government after negotiations (MEFP, 2013a). The Ombudsman's Office hears citizens' claims, including for pensions, but is not listed among the public institutions that had most claims. The military scheme (COSSMIL) is administered by a five-member board with representatives from the active military, pensioners, widows/widowers, orphans and the Ministry of Defence. The board's chairperson is appointed by the defence minister (Mesa-Lago and Ossio, 2012).

2.5. The political economy of the re-reform

In 2006, Evo Morales was elected President of Bolivia with his party Movement to Socialism and the support of the sole workers' federation, *Central Obrera Boliviana* (COB). Four years of discussions ensued, including workers' protests to demand the replacement of the private system with a PAYG system (MEFP,

[16] Workers demonstrated in 2013 to demand that three COB delegates be appointed to the Public Administrator Board and that roundtable discussions be held with workers on future investment regulations (CEDLA, 2013). It is not clear what the outcome of this effort was.

2010d). Reasons given for the re-reform were: a) entitlement conditions to access the old-age pension were too stringent: the retirement age of 65 for both sexes was very high given the life expectancy at retirement and the difficulty in contributing for a full 20 years; b) members could retire before that age if they had enough accumulated in their individual accounts, but few insured attained the required sum; b) many insured lacked the needed contributions in the PAYG required to receive the CC; c) among those who met the entitlement conditions, most received a very low pension; d) the PAYG system arguably paid better pensions; e) women had lower coverage and received much lower benefits than men, homemakers were excluded and women's time devoted to child raising was not taken into account; f) there was a need to extend coverage to excluded groups, particularly the self-employed; g) employers did not contribute to old-age pensions; h) miners' dangerous and strenuous work was not taken into account when establishing the retirement age; i) there was a need to diversify investment in the capital market and increase rates of return; and j) AFP misused the workers' funds and there was a call to eliminate commissions (Jornadanet, 2008; MEFP, 2010e; Ferrufino, 2015; Mendizábal, 2015a).

At the request of the Ministry of Labour, in 2008 the ILO submitted a proposal for a comprehensive pension re-reform with a mixed system (ILO, 2008).[17] Attempts to explain to the COB the difficulties involved in returning to a PAYG system and the advantages of the mixed system were unsuccessful (Durán Valverde, 2015). As mentioned, Bolivia's 2009 Constitution banned the private administration of social security schemes. Three days before the ILO document was submitted, the government opened bidding for re-reform proposals, rejecting all advise from international financial organizations, particularly the IMF (MEFP, 2010d). The government purportedly carried out a study prior to the re-reform that confirmed the financial sustainability of SIP, including a seven-year reduction in the retirement age (MEFP, 2010b) but this study was never published.

Since 2006, the government has proposed that COB prepare a draft to re-reform the existing law on pensions and begin negotiations. The MEFP circulated the draft legislation throughout the country through the Internet, publications and presentations in public fairs and with civil society organizations. COB

[17] The proposal created a unified mixed-pension system with two schemes of mandatory coverage for all workers: contributory and non-contributory; the contributory had two mandatory tiers: a solidary one that paid a basic pension and a supplementary one of individual accounts, The RD guaranteed a minimum pension for all resident citizens ages 60 and over, except for those who received pensions or income above two minimum wages.

also asked workers throughout the country to give their opinions and approval of the bill. There was a debate in the National Assembly, public hearings and amendments were incorporated (Tufiño, 2009; MEFP 2010a; Ferrufino, 2015; Mendizábal, 2015a; Ticona, 2015).

Some workers apparently criticized the bill because they believed it continued the individualistic, financially-oriented previous system. The COB wanted a PAYG system, more flexible entitlement conditions and increased benefits, and in 2008 submitted a proposal, including a replacement rate of 70 per cent of the last two years of salary and the annual adjustment of benefits based on salary increases (Escobar, 2014).[18] A consensus was reached with the government and an agreement incorporating key demands from both sides was signed: lower retirement ages, a new semi-contributory PAYG scheme, the temporary administration of the funds by the AFP, to later be replaced with the public administrative entity, a review every three years of the workers' 0.5 per cent commission to be paid to the entity, and the joint reception of old-age and disability pensions (La Razón, 2010). Only a few trade unions and associations (manufacturing, physicians) were not consulted (Quintanilla, 2010b).

The Confederation of Private Employers was not consulted on the payroll contribution to finance the Solidarity Fund, which it opposed (Tufiño, 2012). Executives of the AFP argued that they had indefinite contracts signed with the government and that if they were shut down and their assets were seized by the public administrator, the foreign stakeholders BBVA and Zurich Group could press legal charges.. The president of the Finance Commission in the National Assembly responded that a law could annul those contracts retroactively. The government offered to purchase AFP assets but there were significant overdue payments that had to be recovered through the judicial system and the public administrative entity would inherit them, for which reason the offer was withdrawn.[19] Representatives of the Bolivian Stock Exchange expressed their concern about the creation of a public entity that would invest the funds (Jornadanet, 2008).

The bill was approved by the government with a two-thirds majority. On 10 December 2010, the new law was signed at COB headquarters by Executive Secretary Pedro Montes and President Morales, who hailed the "burial of the neoliberal individualist private system and the birth of a new public system with

[18] The re-reform set lower replacement rates and indexed pensions to inflation (UFV).

[19] The regulations stipulate that the AFP will be responsible for the pending legal cases and any resulting obligations.

solidarity and redistribution." Official projections indicated substantial pension increases under SIP for teachers, police officers, factory workers and others (MEFP, 2011). The law complied with ILO social security principles of universal coverage, comprehensive benefits, solidarity, gender equality, unified management, administrative efficiency and financial sustainability. It also included an intercultural approach. Section 5 discusses the impact of the re-reform on these principles.

2.6. Follow-up and potential replication in other countries

Unlike in other countries, Bolivia has no institutional mechanisms to follow up the implementation of the re-reform through commissions of users, pensioners or Congress. The public administrative entity will report annually on the status of SIP to the President and the National Assembly, and will publish performance reports and six-month bulletins with information and statistics.

In 2013, the COB prepared a legal bill amending the re-reform law to raise the solidarity pension. The COB declared a national strike and settled with the government to increase the minimum and the maximum pension, the latter from Bs. 2,600 to Bs. 3,200, and even higher for miners (MEFP, 2013d, 2013e).[20] In addition, the government agreed to raise the replacement rate on the salary from 60 per cent to 70 per cent, as it had been before 2010. Responding to COB concerns on SIP financial/actuarial sustainability, it also offered to contract the ILO to conduct an actuarial study but eventually decided to call for bids to hire an "internationally-known" actuarial firm to implement the study (Fundación Milenio," 2013)

The re-reform has had positive components, such as the universalization of the non-contributory pension, which is unique in the region and which could be adapted for replication in other countries. However, it is not feasible at this point to determine whether Bolivia's entire re-reform is replicable in other countries, for the following reasons: the model is quite complex and would have to be simplified and adapted; key elements are not yet operational, such as the public administrative entity and the regulation of investment; a technical actuarial risk assessment is needed to evaluate the model's financial sustainability.

[20] Nevertheless, maximum levels were less than half of the average wage increase in 2010-2013 (CEDLA, 2013).

2.7. Major impacts of the re-reform

The impact of the re-reform on social security principles is assessed in this section. This evaluation is limited by the lack of an integrated, comprehensive and systematic statistical data series. MEFP and VMPSF publish monthly bulletins with selected data and graphs, for example, the number of beneficiaries and payments for some but not all benefits, the distribution of some beneficiaries and payments by departments, collection of the capitalized fund by departments, the evolution of the capitalized fund and its nominal rates of return. These data are not always comparable given that some series are eliminated and others are added, and thus there are contradictions. The UDAPE releases data on the number of pensioners and average pensions. The APS also publishes a statistical bulletin, which includes the number of insured registered, annual collections, distribution of investment by instrument and so forth. What is missing is an integrated statistical series on SIP income, expenditures (the latter is provided only sporadically, and some key schemes are not included) and global balance, expenditures of the former capitalization system, benefits by gender (except for disability and survivors') and average pensions disaggregated by scheme and type. All agencies publishing statistics should be integrated and an annual report should be published to systematically report the results of the re-reform, supported by a complete statistical series on all key components.

2.7.1 Coverage of the labour force and the elderly

The MEFP (2010b) predicted that the creation of the semi-contributory pension would expand the contributory coverage of the labour force to all workers, including the self-employed, because it would provide an incentive for enrolment. However, the main obstacles to the contributory coverage remain: 89 per cent of the labour force is not covered, a minority is covered in the public sector and large urban formal enterprises, and evasion occurs in the formal private sector.

Labour force coverage is estimated based on members and contributors. The former greatly overestimates coverage, increasing from 30.7 per cent to 35.4 per cent in 2011-2014. Based more accurately on contributors, it fell from 13.3 per cent to 11.1 per cent in 2011-2013. This percentage has been declining since 2008. In 2013, contributory coverage continued to be the lowest in Latin America (ECLAC, 2013; Bosch et al, 2013). The percentage of members that made regular contributions declined from 42.2 per cent in 2010 to 32.8 per cent in 2013, when it was 49 percentage points below the 1997 level (Table 2).

Table 2: Coverage of the labour force by social insurance pensions, 1997-2013

Years	Labour force (thousands)	Members (thousands)	Contributors (thousands)	Contributors/ Members (per cent)	Coverage of labour force (per cent)	
					Members	Contributors
1997	3,291	329	400	82.0	10.0	12.2
1998	3,371	461	423	91.8	13.6	12.6
1999	3,451	527	423	80.3	15.2	12.2
2000	3,529	633	414	65.4	17.9	11.7
2001	3,626	676	421	62.2	18.6	11.6
2002	3,721	763	425	55.7	20.5	11.4
2003	3,815	846	433	51.1	22.2	11.4
2004	3,913	878	446	50.8	22.4	11.4
2005	4,015	934	468	50.1	23.3	11.7
2006	4,118	989	505	51.0	24.8	12.3
2007	4,236	1,078	552	51.2	25.4	13.0
2008	4,349	1,167	563	48.1	26.9	13.0
2009	4,468	1,262	538	42.5	28.3	12.0
2010	4,585	1,361	572	42.2	29.5	12.5
2011	4,703	1,450	627	43.4	30.7	13.3
2012	4,819[a]	1,552	514	33.2	32.0	10.7
2013	4,936	1,670	548	32.8	33.8	11.1
2014	5,055	1,794			35.4	

[a] The 2012 population census reported a slightly smaller labour force (4,739,203), thereby increasing contributory coverage by 0.1 points.

Sources: ILO STAT, 2015, Labour force; members, contributors and coverage based on contributors from MEFP, 2013b; UDAPE, 2014a; APS, 2015a; other percentages estimated by the author.

The share of self-employed workers in the total of enrolled workers was the same in 2007 and 2010: 4.3 per cent compared with a rate of 95.7 per cent for salaried employees. However, the self-employed comprise 36 per cent of the labour force. Additionally, the self-employed as a share of total contributors was

about half of the members' share (Mesa-Lago and Ossio, 2012). In 2010, the re-reform mandated that self-employed consultants must pay all pension contributions and their employers must obtain a payment certificate before disbursing their fees. No figures were available on the number of these consultants but they probably account for only a small proportion of the total self-employed. Consequently, although positive, this measure probably has little impact on overall coverage. The re-reform also stipulated that seasonal agricultural workers can decide whether they want to enrol as self-employed or wages earners. Drivers, bread makers, artisans and others self-employed individuals also should be included with special provisions (Ferrufino, 2015). MEFP predicted that in 2011, the first year of SIP, 100,000 self-employed would voluntarily enrol. Enrolment increased from 59,000 in 2010 to 80,000 in 2011, and finally reached 108,000 in 2013, or 6.7 per cent of total members, an increase of 2.4 percentage points compared with 2010 (MEFP, 2010d, 2013b). The voluntary enrolment of the self-employed (except for consultants) and other informal workers is discouraged by a total contribution rate of 14.42 per cent of their base income,[21] including the premium for occupational risks. The public administrative entity will open offices in mid-size cities and small towns to help the self-employed enrol in the SIP. They will be able to pay a full year of contributions at one time (MEFP, 2010d).

Table 3 shows that coverage of the population ages 60 and over by the contributory scheme rose from 4.2 per cent in 2010 to 8.8 per cent in 2014, which is still very low, and which results from the poor contributory coverage of the labour force. However, coverage of the non-contributory RD, based on an adjusted population age of 60 and over, rose from 68 per cent in 2005 (before becoming universal) to 97 per cent in 2014,[22] the highest in LAC.

[21] The law allowed the self-employed to select the base salary, which is the minimum wage for those with low income (MEFP, 2010b).

[22] RD coverage was around 114 per cent in 2014 due to the underestimation of the population ages 60 and over in the 2001 census, which was corrected in the 2012 census (Table 3).

Table 3: Coverage of the elderly population by contributory and non-contributory pensions, 2005-2014

Years	In thousands			Coverage by pensions of Population >60 years (per cent)	
	Population >60 years[a]	Contributory Pensioners	Assistance Pensioners[b]	Contributory	Assistance[c]
2005	687	4.5	467	0.7	68
2006	714	8.7	456	1.4	64
2007	741	12.9	493	2.0	77
2008	768	20.2	753	3.0	98
2009	795	24.9	780	3.6	98
2010	823	29.7	802	4.2	98
2011	850	40.2	824	5.6	97
2012	878	51.0	849	6.8	97
2013	905	60.1	834	7.8	92
2014	932	70.4	903	8.8	97

[a] Own adjusted series based on data from the 2012 population census and projections for 2001-2012. [b] RD. [c] Own calculations based on the projected population <60.

Sources: Own based on the adjusted population >60 from INE, 2012; assistance pensioners from UDAPE, 2014a, 2014b; beneficiaries of contributory pensions from VMPSF, *Boletín Mensual del Sistema de Pensiones*, 9:101, August, 2014.

Table 4 estimates that 15.1 per cent of the total population was covered by all pensions (beneficiaries) and contributors (active) in 2013. Therefore, even if virtually all the elderly are covered by RD, the low contributory coverage of the labour force (with a higher weight than the elderly segment) reduces the average. The media have confused non-contributory with total population coverage, misinterpreting a report of the Inter-American Development Bank (Bosch et al, 2013).[23]

[23] BBC Mundo reported that "according to the IADB, Bolivia's social security pension coverage embraces 97 per cent of its *population*, above countries like Argentina, Brazil and Chile, all with a much higher GDP… The IADB cites Bolivia as an example for Latin America." Bosch, co-author of the IADB study, clarified the difference between contributory and non-contributory coverage (BBC Mundo, 2013).

Table 4: Coverage of the total population by pension beneficiaries and contributors, 2013 (thousands)

Beneficiaries	
PAYG	114.4
COSSMIL	5.7
Disability/survivors'	16.0
Minimum and solidarity pensions	26.8
Old-age pensions	27.1
Renta Dignidad	834.0
Active	
Contributors	548.0
Total covered	1,572.1
Total population	10,410.0
Covered (per cent)	15.1 [a]

[a] In May 2015, combined coverage by old-age pensions, solidarity pensions and RD had risen by 58,777, that would have increased coverage by 0.6 points.

Sources: Beneficiaries from VMPSF, 2013; UDAPE, 2014b, 2014b; contributors from Table 1; total population from INE, 2013; percentage by author.

2.7.2 Gender equality

The share of women receiving a pension has increased only slightly or remains stagnant, except for RD.[24] In 2013, the share of women receiving an old-age pension was 45.6 per cent; in individual accounts, it was 17.5 per cent; and in pensions overall (except for RD), the share was 24.5 per cent. About 60 per cent of women received a pension below the average (Escobar, 2014; VMPSF, 9: 101, August 2014). By contrast, women represented 55 per cent of RD pensioners in 2011 (the same as in 2008). Among those who received a contributory pension, the percentage declined to 29 per cent (due to lower female enrolment) whereas among those who did not have a contributory pension, the proportion rose to 59 per cent (APS, 2012). No data were available on all average pension amounts by gender. To compensate for the time women devoted to raising their children, mothers with old-age pension coverage with 10 years of contributions (to either the old

[24] In 2012, women represented 35.9 per cent of total contributors and men 64.1 per cent.

public system, the former private system or the re-reform system) were allowed to deduct one year from the retirement age for each child born alive, for a maximum of three years. The number of women receiving these pensions jumped 12-fold in 2010-2013 (APS, 2013). Additionally, widows/widowers could continue to receive pensions even if they remarried or had a common-law partner.

2.7.3 Benefit adequacy and replacement rates

As in the previous system, the re-reform provides contributory pensions for old age, disability/survivors' and employment injury. It also added the solidarity pension and made some prior entitlement conditions more flexible.[25] The general minimum age for retirement is 58 years for men and women, a reduction of seven years for both genders compared with the previous retirement age of 65, plus 10 years of contributions as opposed to the previous requirement of 15 years.[26] The old-age contributory pension is determined by two figures: the balance in the individual account and the compensation for contributions (CC) -- only for those who had made 60 contributions to the PAYG system in 1997.[27] This pension finances the survivors' pension and funeral expenses. The pension is granted regardless of age if the balance finances at least 60 per cent of the average salary in the last two years. However, if the insured have a CC, retirement age declines to age 50 for women and age 55 for men, providing they reach the 60 per cent minimum. The semi-contributory (solidarity) pension has three components: contributions, CC (when eligible) and the solidarity pension. The latter is granted only if the established amount of that pension exceeds the amount of the contributory old-age pension. The RD is provided to all residents at age 60 regardless of income. Self-employed workers receive a minimum monthly pension if they have 10 years of contributions. They may also withdraw the accumulated funds plus the returns in five years (MEFP, 2010d).[28] All pensioners are entitled to funeral expenses. Contributory pensioners have health care coverage and receive a double pension in December.

[25] Law 3285 of 2007 improved some benefits through a parametric reform negotiated by Morales with COB.

[26] MEFP (2013a) praised the reduction in Bolivia's retirement age, comparing it with much higher ages in developed countries such as Belgium, the Czech Republic, France, Italy, Portugal, South Korea, Spain and United States, some of which have recently increased the retirement age.

[27] For those with less than 60 contributions, a lump sum is calculated and deposited in the individual account.

[28] Employees may also withdraw from their account based on additional contributions, but this withdrawal may negatively affect the fund (Gamboa, 2014).

Table 5 compares average monthly pensions in US dollars in 2013 and ratios among them, based first on the solidarity pension and second on the COSSMIL pension. All contributory pensions are much higher than PAYG pensions (contradicting one of the justifications for the re-reform) and even more so in the case of the solidarity pension. The COSSMIL pension is almost four times more than the solidarity pension and 57 per cent higher than the contributory pension, reflecting the privileged nature of the military scheme. The RD monthly average is 18 per cent of the solidarity pension, 10 per cent of the PAYG pension and 8 per cent of the contributory pension, which suggests that RD does not generate significant disincentives to contribute. Although low, the RD significantly helps the poor and is the only source of income for 50 per cent of the target population. The self-employed pension is also quite low, about twice that of the RD.

Table 5: Average monthly pensions in US dollars and ratios based on solidarity and COSSMIL pensions, 2013

Type of Pension	Average monthly pension (US$)	Ratios Solidarity=1	Ratios COSSMIL=1
RD	40	0.18	0.05
Self-employed minimum	70	0.32	0.09
Minimum AFP or Ins. Co.	114	0.53	0.14
Solidarity	213	1.00	0.27
PAYG	401	1.88	0.52
Contributory[a]	492	2.31	0.64
COSSMIL	775	3.63	1.00

[a] Average of three pensions: variable annuity with AFP, programmed pension with AFP, and annuity with insurance company.

Sources: Own calculation based on UDAPE, 2014b, 2014c; MEFP, 2015b; ratios by author.

The RD pays Bs. 3,250 annually (US$ 467) to a beneficiary who lacks another pension and Bs. 2,600 (US$ 374) to a beneficiary who receives another pension, 20 per cent less (Ferrufino, 2015).[29] The pension may be paid monthly,

[29] A law in May 2013 increased RD to the level cited in the text.

bi-monthly, quarterly or annually.[30] Contributory-system pensioners protested that they only received 80 per cent of the RD while those without another pension received 100 per cent (Quintanilla, 2010a), but the difference was maintained. This was appropriate because scarce fiscal resources should target individuals without pensions to ameliorate regressive effects. Despite the low RD pension, the fact that it is universal reduced poverty from 54 per cent in 2007 (the year before it was implemented) to 36.3 per cent in 2011, and extreme poverty from 37.1 per cent to 18.7 per cent (ECLAC, 2011, 2014a). More recent data are unavailable.

With respect to replacement rates, a minimum rate of 60 per cent of the average salary was established for the contributory system. This rate increases with the amount in the individual account. In the semi-contributory system (solidarity pension), replacement rates are calculated in a table of contributions between 10 and 35 years and above, setting minimum and maximum rates after 15 years, with the rate increasing from 56 per cent with 15 years of contributions to 70 per cent with 35 or more years.[31] The seven-year reduction in the retirement age (men and women) affects the replacement rate and financial sustainability. Projections of average replacement rates are contradictory.[32]

It is difficult to assess the distribution of pensioners by pension to determine the proportion that is below average due to the lack of disaggregated data by type of pension. Two pensioner groups are combined: a) in all types of contributory pensions, including CC by itself, 66 per cent of all pensioners were below average in 2013; b) in the solidarity pension combined with the minimum pension, 65 per cent of pensioners were below average in 2012, a figure that declined to 57 per cent in 2013 (APS, 2012, 2013).[33] In the contributory pension, 84 per cent originated from the CC, and only 16 per cent from the individual account. Accordingly, when the CC declines and disappears in the future, the pension based only on

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[30] In 2011, 68 per cent collected monthly, 20 per cent every two months and only 12 per cent the other periods mentioned (UDAPE et al, 2013a).

[31] The minimums and maximums increase with years of contribution: Bs. 950 and B. 1,660 (US$ 137 and US$ 240) with 20 years, respectively, up to Bs. 1,400 and Bs. 3,200 (US$ 203 and US$ 464) with 35 years.

[32] Bosch et al (2013) projects replacement rates of the contributory system at about 30 per cent of the last salary by 2050; CEDLA (2013) estimates a rate of 22 per cent under optimistic assumptions or 40 per cent of the last salary when receiving CC; IADB (2014) gives an average replacement rate of 44 per cent.

[33] Escobar (2014) estimated in 2013 that 80 per cent of pensioners in the PAYG scheme received a pension below the average, whereas the proportion declined to 60 per cent in the former private system, and 62 per cent in the solidarity pension scheme.

individual accounts will diminish. More than 40 per cent of SIP pensioners received the solidarity pension. This percentage will continue to increase, as will costs, thus affecting the sustainability of the Solidarity Fund (Escobar, 2014).

There have been several improvements in disability and survivors' pensions: a) a common partial disability pension with 50 per cent incapacity; b) in the case of dismissal, 60 periods counted as covered toward common disability-survivors' pensions; c) an increase from six to 12 additional months for employment injury after the beneficiary no longer contributes; d) an additional payment in the case of 80 per cent disability; e) accumulation of old-age and disability pensions; and f) widows/widowers continue to receive a pension even if they remarry or have a common-law partner.

Pension indexation, as before the re-reform, is based mainly on inflation (UFV) set by the Central Bank using the Consumer Price Index, but with the following differences: a) the fraction of the contributory old-age pension from individual accounts is indexed by the variation in the UFV, the pensioners mortality rate and capital returns of the Old-Age Fund; b) the CC and the solidarity contribution for the semi-contributory pension are indexed by the UFV annually; c) the minimum pension is equal to the minimum wage annually adjusted to the UFV; and d) the RD non-contributory pension is set by the government.

2.7.4 Administrative costs and contributions

The re-reform mandated the creation of the public administrative entity to collect contributions, recover late payments, manage individual accounts, invest the pension fund and pay benefits. Nevertheless, six years after the re-reform, the entity had not yet been established although its regulations were enacted in early 2015. Reasons for the delay were: pending debt recovery by AFP, numerous norms that the APS had to define and implement, technical complexities, training of personnel and delays in the creation of a centrally computerized system to perform all AFP functions. Until the entity begins operations, the two AFP manage the system.[34] In 2012, the two AFP earned profits of US$ 6.7 million from workers' commissions and had administrative expenses of US$ 21 million (CEDLA, 2013). Commissions have not increased; the 0.5 per cent for AFP administrative expenses is the lowest among private systems in the re-

[34] Both AFP had similar membership percentages: 46 per cent and 54 per cent, whereas the distribution of the Fund was 52.8 per cent and 47.2 per cent (MEFP, 2013b).

gion (FIAP, 2014). This should be shifted to the administrative entity, which would allegedly reduce commissions since the entity would not be for-profit and any surpluses must be transferred to the Treasury. The entity will have its own funds: Bs. 80 million from the government as initial capital and Bs. 120 million from the 2015 budget for operations, a total of US$ 28 million (Supreme Decree 2248, 2015).

The absolute value of collected contributions rose 2.4 times between 2010 and 2014 but evasion and payment delays increased (APS, 2015a). The re-reform law made employers' payment delays (mora) a crime. The AFP should identify employers who fail to pay their contributions and initiate the collecting process either via administrative or judicial proceedings. Payment delays increased 288 per cent in 2002-2012 whereas recovery rates rose 142 per cent. The percentage of late payments recovered fell by 37.7 per cent over that period. In 2011, the recovery rate rose, only to decline again in 2012 back to the 2006 level (Table 6).

Table 6: Payment delays and recovery in SIP, 2002-2012

Years	Thousand Bs.		Recovered (per cent)
	Payment delays	Recovery	
2002	188	170	90.4
2003	237	217	91.7
2004	215	208	88.4
2005	295	169	59.2
2006	304	171	56.2
2007	318	176	55.3
2008	330	181	54.8
2009	377	215	57.0
2010	531	235	44.3
2011	630	346	59.9
2012	728	411	56.3
Change (per cent)[a]	288	142	-37.7

[a] Change in 2012/2002.

Sources: Own calculations based on MEFP, 2013b.

In the individual accounts system, contributions are the same as before the re-reform except for the additional solidarity contributions. The total contribution rate in Bolivia is 17.42 per cent but could reach 18.42 per cent, 22.42 per cent and 27.42 per cent, higher than in the old public and private systems and about equal to the rate in Latin American countries at a similar level of development. The worker pays 12.71 per cent: 10 per cent is deposited in the account, 0.5 per cent is for administration of old-age pensions, a 1.71 per cent premium for common disability-survivors' insurance and a 0.5 per cent solidarity contribution, plus the additional solidarity contribution of the high-income insured (1 per cent, 5 per cent and 10 per cent, depending on income). The employer pays 4.71 per cent: the new 3 per cent solidarity contribution and the previous 1.71 per cent occupational-risk premium. The worker pays from 73 per cent (basic) of the total contribution to 83 per cent (top solidarity contribution), which is still in violation of the ILO minimum standard on this issue (Table 7). The self-employed that opt to enrol in the system pay 13.21 per cent (old-age, occupational risks and solidarity contribution) and may voluntarily raise the

Table 7: Contributions to pensions (contributory and semi-contributory) as a percentage of taxable income by employers, workers and total, 2015

Type of scheme	Employer	Worker[b]	Total	Worker's share (per cent)
Contributory[a] (individual accounts)	4.71	12.71	17.42	73
	4.71	13.71	18.42	74
	4.71	17.71	22.42	79
	4.71	22.71	27.42	83
Semi-contributory (solidarity fund)	3.00	0.50	3.50	14
	3.00	1.50	4.50	33
	3.00	5.50	8.50	64
	3.00	10.50	13.50	78

[a] For old-age, disability/survivors' and solidarity. [b] The contribution rises in tandem with income levels that exceed the threshold (Bs. 13,000, 25,000 and 35,000: US$ 1,897, US$ 3,623 and US$ 5,072), with 1 per cent, 5 per cent and 10 per cent paid over the difference.

Sources: Own calculations based on Law 065, 2010.

contribution to 14.92 per cent. Both of these percentages are quite high.[35] The government makes no contribution and can establish other sources of revenue without using Treasury resources.

In the semi-contributory system (for the Solidarity Fund), the employer pays 3 per cent and the worker pays a minimum of 0.5 per cent, incremental increases (1 per cent, 5 per cent and 10 per cent) when incomes exceed the threshold, up to 10.5 per cent. Thus, in the basic and first level, the worker's contribution share is 14 per cent and 33 per cent of the total whereas in the top two levels it is 64 per cent and 78 per cent. These last two cases violate the ILO minimum standard. Nevertheless, the percentage of insured in high-income brackets is small, for which reason most contribution revenues originate from employers in the semi-contributory scheme.

2.7.5 Fund, capital return and portfolio composition

The individual account Old-Age Fund almost doubled, from US$ 5.37 to US$ 10.09 billion in 2010-2014. Relative to GDP, it increased from 27.5 per cent to 30.2 per cent in 2010-2013 but declined to 29.7 per cent in 2014. It and has continued to rise since the re-reform. MEFP (2010b) stated that the re-reform would have adequate capital returns because the projections had been conservative and based on the worst-case scenario (3 per cent nominal return). The goal was to exceed the 7 to 8 per cent nominal return generated at the time. However, based on real rates of return (adjusted for inflation), following the re-reform, the rate fell -1.4 per cent in 2012, was stagnant in 2013 and rose to 2.3 per cent in 2014. The arithmetic average annual real return was 6.8 per cent in 2000-2010 whereas it declined to 0.45 per cent in 2010-2014 (Table 8). The real rate of return from the inception of the individual accounts in 1997 to 2013 was 5.4 per cent, the second-lowest among private systems and below the average of 7.7 per cent (SIAP, 2014).

The high rates of return in the first six years of the structural reform were due to the annual obligation of the two AFP to invest in public debt (helping to cover the fiscal deficit during the economic crisis), which paid interest rates ranging from 6 per cent to 18 per cent. This investment peaked in 2007 with 81 per cent of the portfolio. Private issuances fell from 13 per cent to 1 per cent and bank

[35] Since 2012, contributions of the self-employed contributions are based on the national minimum wage.

Table 8: Accumulated Capitalization Fund (in Bs and US$) in individual accounts and rates of return in nominal and real terms, 1998-2014

Years	Accumulated Fund (millions)		GDP (million Bs)	Fund/GDP (per cent)	Rates of return (per cent)		
	Bs[a]	US$[b]			Nominal	Inflation	Real[c]
1998	1,876	358.7	46,822	4.0	13.6	4.4	9.2
1999	3,358	578.0	48,156	7.0	16.7	3.1	13.6
2000	5,295	856.4	51,928	10.2	14.9	3.4	11.5
2001	6,372	966.2	53,790	11.8	17.0	0.9	10.6
2002	8,556	1,193.3	56,682	15.1	18.6	2.4	16.1
2003	11,677	1,524.4	61,904	18.9	12.1	3.9	8.2
2004	13,798	1,737.7	69,626	19.8	10.2	4.6	5.6
2005	16,476	2,034.0	77,024	21.4	8.6	4.9	3.7
2006	18,228	2,261.5	91,748	19.9	7.9	3.0	4.9
2007	22,031	2,771.2	103,009	21.3	8.5	11.7	-3.2
2008	27,081	3,750.8	120,694	22.4	9.7	11.8	-2.1
2009	32,246	4,561.8	121,727	26.4	10.0	0.3	9.7
2010	37,946	5,367.2	137,876	27.5	8.0	7.2	0.8
2011	45,666	6,542.4	166,131	27.4	7.6	6.9	0.7
2012	54,025	7,854.3	187,035	28.9	5.9	4.5	-1.4
2013	64,069	9,205.3	211,454	30.2	6.7	6.5	0.2
2014	70,204	10,086.7	236,155	29.7	7.5	5.2	2.3

[a] In 1998-2010, accumulated capital rose at an average annual rate adjusted for inflation of 25.8 per cent whereas in 2010-2014, the average annual rate was 10.4 per cent. [b] An MEFP series shows lower sums but does not specify the exchange rates. [c] A divergent series published in the same first six-month *Boletín* (2013) gave much lower real returns.

Sources: Own calculations based on accumulated capital fund and nominal returns for 2013-2014 from VMPSF, *Boletín Mensual*, 9: 101 (August, 2015); exchange rates Bs to US$ from BCB, 2015; GDP in current prices from INE, 2015; nominal rates for 1998-2012 from MEFP, 2013b and for 2013-2014 from VMPSF, 2013, 2014; inflation rates from INE, 2015; conversions and percentages by the author.

Table 9: Percentage distribution of SIP portfolio by instruments, 2001-2013

Distribution (per cent)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Public debt[a]	73	70	65	68	71	75	81	79	68	62	54	40	34
Bank deposits[b]	11	15	7	6	7	11	15	16	20	25	28	38	43
Private issuances[c]	13	13	16	16	13	9	1	2	9	12	17	19	19
Domestic stocks[d]	0	0	9	7	6	0	0	0	0	0	0	0	0
Foreign issuances	0	1	2	1	3	3	2	0	0	0	0	2	3
High liquid funds	3	2	2	1	1	2	1	4	4	1	1	2	2
Total	100	100	100	100	100	100	100	100	100	100	100	100	100

[a] TGN bonds and coupons, Treasury notes, BCB bonds, securitized bonds, municipal bonds. [b] Banking and non-banking deposits, BCB deposit certificates. [c] Bank bonds, market promissory notes, shares of closed funds and long-term bonds. [d] Shares of privatized enterprises and of commercial corporations.

Source: Own calculation based on UDAPE, 2014a.

deposits were stagnant (Table 9). In 2008, the government lifted the AFP obligation to invest in public debt and interest sharply declined (3 per cent nominal, -3.5 per cent real), for which reason the public-debt share steadily diminished, from 81 per cent to 34 per cent in 2007-2014.

Bolivia's capital market is not developed and few instruments are traded, for which reason the share of domestic stock fell to zero after stocks of capitalized enterprises were exhausted. By contrast, private issuances (bank bonds, market promissory notes, shares of closed funds and long-term bonds) rose from 1 per cent to 19 per cent. Lacking other alternatives, the AFP concentrated investments in bank deposits, which increased from 15 per cent to 43 per cent during the period. Certificates of deposit pay low interest (mostly negative when adjusted for inflation), however. Investment in foreign issuances is again permitted, but the share of these investments in the portfolio was only 3 per cent in 2014. The decrease in real rates of return will seriously affect pension values because these values are mainly determined by returns rather than contributions. The public administrative entity will have broader investment margins (a more diversified portfolio) than the AFP to provide higher rates of return and improve pensions.

2.7.6 Financial-actuarial sustainability

The Solidarity Fund has had annual surpluses since it was created. Accumulated capital rose 11-fold, from US$ 96 million in 2010 to US$ 1.09 billion in 2014.[36] The real rate of return was negative throughout 2008-2012, except in 2009. During the period, the real rate averaged -0.38 per cent annually (Table 10).

The author could not find an official consolidated table of all SIP revenue and expenses for obligations of the former PAYG, structural reform and re-reform systems. Table 11 estimates the annual fiscal deficit from the following obligations: PAYG,[37] military (COSSMIL), early retirement (PRA), minimum pension (PMM), sole payment (PU), compensation for contributions (CC), non-contributory pension (RD), premium for employment injury (PRP) and the government solidarity contribution as an employer. Excluded are solidarity

[36] Financing sources of the RD as a percentage of GDP decreased from 2.1 per cent to 1.9 per cent in 2009-2012 while payments also declined, from 1.4 per cent to 1 per cent (UDAPE et el, 2003a).

[37] The PAYG system following privatization demonstrated growing negative balances in 2004-2010 because all contributions were shifted to the private system. The cumulative deficit in the period was Bs. 12.57 billion (nearly $ 1.8billion).

Table 10: Solidarity Fund: financial balance and capital returns, 2008-2012

Years	Financial balance (million Bs)				Capital million US$	Returns million Bs	Capital returns (per cent)		
	Income	Expenses	Balance	Capital[a]			Nominal	Inflation	Real
2008	206	0	206	206	29.1	10.6	5.2	11.8	-6.6
2009	237	4	233	439	62.1	38.3	8.7	0.3	8.4
2010	235	7	228	667	95.5	43.1	6.4	7.2	-0.8
2011	1,412	44	1,368	2,035	292.4	83.1	4.1	6.9	-2.8
2012	1,722	121	1,600	3,635	522.3	158.8	4.4	4.5	-0.1
2013[b]				5,512	791.9			6.5	
2014				7,606	1,092.8			5.2	

[a] Cumulative. [b] No further data have been published in the *Boletín*.

Sources: Own calculation. Financial balance from VMPSF, *Boletín Mensual del Sistema de Pensiones*, 7:82 (January 2013); inflation from INE, 2015; capital nominal and real returns are own calculations. Data for 2013-2014 are unavailable.

Table 11: Fiscal cost of government obligations from previous systems, 2004–2013 (in million Bs. and per cent of GDP)

Years	Fiscal Cost[a]	GDP	(per cent)
2004	2,773	69,626	3.9
2005	2,875	77,024	3.7
2006	3,425	91,748	3.7
2007	3,656	103,009	3.5
2008	5,301	120,694	4.4
2009	6,243	121,727	5.1
2010	6,551	137,876	4.8
2011	7,033	166,131	4.2
2012	7,723	187,035	4.1
2013	8,353	211,454	4.0
2014		236,155	

[a] Government payment obligations from PAYG, structural reform and re-reform systems (see text).

Sources: Own calculation based on fiscal costs from MEFP, 2013b, 2013c, 2014a, UDAPE, 2014a; GDP from INE, 2015. Data on 2014 fiscal costs are unavailable.

pensions (paid by the Solidarity Fund) and contributory pensions for old age, disability and survivors' benefits (paid by AFP and insurance companies). As a percentage of GDP, the fiscal cost rose from 3.9 per cent in 2004 to 5.1 per cent in 2009 and then fell again to 4 per cent in 2013. These estimates exclude the revenue side due to the difficulties in separating fiscal income from income that is paid into separate funds, such as the Solidarity Fund. An adequate assessment should include those data, but they could not be found. A major concern is that in 2020, the government will have to start paying the capital from public debt bonds. The total cumulative debt is unknown.

According to MEFP (2010b), the government conducted a study prior to the re-reform that guaranteed SIP financial sustainability (including a seven-year reduction in the retirement age) for at least 40 years. However, the study was never published, making it impossible to assess sustainability. The re-reform law did not include an obligation to conduct periodic actuarial valuations. In September 2014, MEFP (2014b) issued a press release reporting that as a result of an agreement with COB, Vice-Minister of Pension and Financial Services Mario Guillén had issued a tender to seven international companies to conduct an actuarial study. The winner was Melinsky, Pellegrinelli and Associates. Minister Luis Arce stated that the study should include transparent projections of SIP sustainability, including the Solidarity Fund, the PAYG scheme, the disability/survivors' premium, the CC and the RD. Melinsky promised that the study would be closely coordinated with COB. The contract, signed on 17 September 2014, stipulated that the study should be completed and delivered on 17 March 2015. At the time of the writing of this chapter (31 May 2015), it had not yet been made public.

Private projections of the fiscal cost show that it increased 3.8 times from the initial US$ 2.36 billion for 1997-2060 to US$ 8.93 billion for 2007-2060 due to the reduction in the retirement age, fewer years of contribution required, increase of benefits in COSSMIL and underestimation of CC value. A new study done for 2013-2060 of the total fiscal cost of all components estimates an increase from US$ 846 million in 2013 to a peak of US$ 1.11 billion in 2024, followed by a decline to US$ 215 million in 2060. With respect to GDP, the cost is expected to peak at 3 per cent in 2016 and fall to 0.1 per cent in 2060. The current value of all obligations in PAYG in 2013-2060, under two scenarios, is US$ 8.8 billion and US$ 9.03 billion, the equivalent of 4.2 per cent and 4.3 per cent of GDP, respectively, raising serious concerns about current and future threats to fiscal equilibrium, particularly over the next nine years (Gamboa, 2014).

The re-reform law established an active/passive ratio of 10 to 1. A cumulative total of all SIP pensioners is unavailable. The author calculated a series for 2010-2013 combining PAYG, COSSMIL, disability-survivors', solidarity and old-age pensions that includes the individual account scheme. Only the RD is excluded given that it is a non-contributory scheme. Contributors rather than members were used for the calculation. Table 12 shows that the ratio decreased from 3.4:1 in 2010 to 2.8:1 in 2013, similar to the rate in the old PAYG, and one-third of the 10:1 established by law, which may lead to a potential financial/actuarial imbalance in the long term.

Table 12: Active/ passive ratio in SIP, 2010-2013

	2010	2011	2012	2013
Contributors	571,693	626,755	514,421	548,292
Pension beneficiaries	170,282	178,999	188,420	197,287
Active/passive ratio	3.4	3.5	2.7	2.8

Sources: MEFP, 2014c, 2015a; VMPSF, *Boletín Mensual*, 5: 59, 2010, 6: 69, 2012, 7: 82, 2012, 8: 94, 2013; APS, 2014, 2015a; UDAPE, 2014c; contributors from Table 1.

2.7.7 Macroeconomic impact

Mamani and Vasquez (2013) have assessed the impact of the re-reform on macroeconomic variables based on the long-run, overlapping generations model (OLG) developed by Paul Samuelson in 1958 and Peter Diamond in 1965 and adapted to Bolivia. It is assumed that individuals have two lifecycles: During the first, the young are expected to reduce consumption to save for old age (consumption smoothing). They found that there is excessive consumption in the first stage that leads to lower consumption in old age, resulting in lower savings and capital stock, contributions insufficient to pay expenses, financial imbalances that cannot sustain the pension system and economic contraction (decline in GDP and wages). Alternatives to reverse these effects in the long run would be a higher rate of population growth, greater capital accumulation and increased technological progress.

Macroeconomic statistics for 2011-2014 in Bolivia demonstrate mixed results: GDP grew at an annual average of 5.7 per cent higher than the 2.8 per cent average in LAC. Gross fixed capital formation averaged 19.6 per cent, slightly

less than the 20.2 per cent for the region, and real wages decreased slightly in the period. These statistics are for only five years after the re-reform, whose effects should be measured over a longer period. Moreover, Bolivia's macroeconomic results may reflect variables other than the re-reform. Data on employment and income distribution (Gini coefficient) are only available for 2011 (ECLAC, 2014a, 2014c). No econometric study on the impact of the re-reform on the capital market has been carried out. Bosch et al (2013) argue that solidarity and RD pensions are potential disincentives for enrolment in contributory schemes, but there is no evidence to support this claim.

The impact of the RD on the elderly and those approaching age 60 was measured in a 2011 household survey with three variables using several models (only the most significant models and results are reported here): a) per capita income rose 16.4 per cent over the average income and 20.7 per cent in urban areas; b) household consumption augmented 15.4 per cent in total and 22.7 per cent in urban areas; and c) monetary poverty decreased 13.5 percentage points overall and 18.7 per cent in urban areas.[38] All effects in rural areas were insignificant (UDAPE et al, 2013b).

2.7.8 Summary of progress and challenges of the re-reform

Achievements of the re-reform are: a) consolidation and expansion of the RD to all elderly residents, unique in Latin America, reducing poverty among the elderly by 14 per cent and increasing consumption and per capita income of that group; the benefit is reduced by 20 per cent for those who receive another pension; b) creation of a semi-contributory tier and a solidarity pension, financed by a solidarity contribution partly paid by employers (who previously only contributed the employment-injury premium) and partly by the insured (particularly those with higher incomes), which strengthened social solidarity and should have progressive effects on distribution; c) mandatory coverage of self-employed consultants and a slight increase in enrolment of the self-employed; d) improved gender equity with a reduction (of up to three years) in mothers' retirement age for each child born alive, and a larger female share in the non-contributory pension; e) since the RD is only 8 per cent of the average contributory pension, it is unlikely to create disincentives for enrolment in the contributory programme; f) tougher sanctions

[38] In 2011, the overall poverty rate among the elderly averaged 52.2 per cent (higher than the rate for the total population) and 59.2 per cent in rural areas (UDAPE et al, 2013a).

to collect employers' debts, evasion of contributions and other violations; g) increase of accumulated capital both in absolute terms and as percentage of GDP; and, h) reduced concentration of the portfolio in public debt.

Challenges of the re-reform are: a) contributory coverage remains low and stagnant (the lowest in the region) due to a large informal sector and formal-sector evasion; b) total population coverage is estimated at 15 per cent, also very low; c) generous conditions and benefits for the armed forces continue, which should be financed by the insured and the government employer without fiscal subsidies; d) the total contribution is higher than the previous one and, in the contributory system, workers pay from 2.7 to 4.8 times the employers' contribution, in violation of the ILO minimum standard (in the semi-contributory system, the workers' share in the two lowest levels is lower than the employers' share, while the opposite is true in the top two levels); e) administrative cost is still relatively low but its adequacy for a PAYG system should be assessed; f) workers and employers do not participate in SIP administration. They should participate through advisory committees; g) APS' and the public administrative entity's autonomy should be ensured; h) Forty-three per cent of the portfolio is still concentrated in bank deposits that pay low or negative real interest and the average real rate of return continues to fall, which necessitates portfolio diversification; and, i) SIP financial-actuarial sustainability is questionable (its active/passive ratio declined from 3.4 to 2.8 in three years).Actuarial studies reportedly conducted prior to the re-reform and in 2015 should be released to assess sustainability.

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3. Hungary

Dorottya Szikra

3.1. Summary of reforms related to pension privatization and its reversal

1997	**The pension system following the 1997 privatization:** • Pillar 0: Basic pension financed through contributions and taxes • Pillar 1: Mandatory public PAYG DB scheme • Pillar 2: Mandatory private individual accounts savings scheme • Pillar 3: A voluntary private pillar
Oct 2010	**Reversal of the privatization, re-nationalization of the pension system** Act CI/2010 and C/2010: Adoption of the act on diverting 14 months of contributions and the act eliminating compulsory enrolment in private pension funds New entrants to the labour market cannot enrol in the private pillar. Appropriation of most individual account funds.
Nov 2010	Governments announcement on details of pension nationalization: • Private fund members lose rights to public pensions (75 per cent) if they remain in the private system
Dec 2010	**Parliament adopts Pension Reform and Debt Reduction Fund Law (Law 128/2010).** **The new model:** Return to the pre-1998 mandatory pension system. A public PAYG defined benefit scheme is combined with a non-contributory means-tested pension. **Rights and entitlements:** Contributory PAYG pension benefit for men and women beginning at age 63 ½ at a replacement rate of 70 per cent assuming 35 years of contributions. Means-tested non-contributory pension is available beginning at age 62 with a monthly benefit of US$ 79. **Administration:** As the public (PAYG) system was still operational, no new entitiy was created. Central Administration of National Pension Insurance (ONYF) is the unique administrator.

	Transfer of entitlements: Most affiliates transferred voluntarily to the public PAYG scheme. Benefits are calculated according to the DB formula. Funds of those switching to the public scheme were transferred to the Treasury. **Contributions:** Contributions are collected by the National Tax and Custom Administration. Workers and employers contributions are 10 and 24 per cent respectively. **Supervision:** Functions under the Ministry of Human Resources and the Hungarian National Bank. **Solidarty, gender and social impact:** The re-reform led to increased social solidarity. Gender equity also improved with the extension of the maternity voucher from two to three years. **Fiscal impact:** US$ 11,000 million of the private funds were transferred to the public fund, decreasing the fiscal deficit from 5.8 to 2.75 per cent in 2011 and public debt from 81.8 to 79 per cent of the GDP between 2010 and 2012.
Feb 2011	Prime Minister Orbán announced the two-tier system (compulsory public PAYG and voluntary 3rd pillar).
June 2011	Elimination of the mandatory second private pillar. Private pension assets transferred to the government.

3.2. The Hungarian pension system in transition

The Hungarian pension system was based on a Bismarckian public pension system, financed on a pay-as-you-go basis since the end of the Second World War. The pension system, which was financed through compulsory contributions by employees and employers, remained largely intact despite social and economic changes in the early 1990s. The system remained fully contributory, along with tax-financed poverty elimination programmes. Pension coverage during the socialist era was nearly universal. The pension reform in the early 1990s included the introduction of a voluntary private savings scheme in 1992 and the establishment of a tripartite self-governing body in 1993. Table 1 shows the structure and financing of the pension system prior to the 1996 and 1997 reforms.

The pension system of the 1990s posed several challenges. First, a relatively complex, non-transparent pension formula resulted in some cohorts' receiving much lower pensions than others.[1] Second, nearly a quarter of all jobs, some 1.2 million, were lost during the early 1990s, resulting in a sharp rise in the unemploy-

[1] For example, those who retired in 1993 recieved pensions 6 per cent lower than the average, while those retired in 1990 received pensions 13 per cent above the average (Simonovits, 2009:9).

Table 1: The Hungarian pension system prior to the 1996 and 1997 reforms

Tiers/Pillars	Institutions	Finance
Tier 1. Old-age poverty elimination	Pension fund + local municipalities	Compulsory contributions + general taxes
Tier 2. Mandatory public PAYG	Pension fund	Compulsory contributions
Tier 3. Voluntary private pension savings	Private non-profit funds	Voluntary private savings

ment rate. Consequently, a large percentage of people chose early retirement and disability pensions. Approximately 300,000 workers received disability pensions (Fazekas and Scharle, 2012). The number of disability pensioners under retirement age increased from 100,000 in 1990 to 200,000 in 1995 and to 350,000 in 2006 (Monostori, 2008:40). This drove the increase in the system dependency ratio, from 51.4 per cent in 1989 to 83.9 per cent in 1996.[2] Pension spending rose to over 10 per cent of GDP in 1992, while the pension fund deficit was around 0.4 per cent of GDP between 1992 and 1996 (Orbán and Szalay, 2005:8-9).

Parliament established a detailed reform agenda in the early 1990s to address the problems of the pension system. Experts of the Public Pension Authority argued that a parametric reform of the public system would be sufficient to overcome immediate and long-term problems of the pension system (Augusztinovics and Martos, 1996). The IMF and the World Bank (WB) recommended a pension privatization and structural reform agenda and soon dominated discussions on the pension reform (Müller, 1995; Orenstein, 1998). The country's high level of debt with international institutions contributed to its exposure to the privatization agenda promoted by the IMF and the WB.

Trade unions and some civil society organizations were consulted; in general, however, there was no wide-reaching public debate on the reforms (Müller, 2001). The government financed a market-based public relations campaign. It emphasized the problems of the old PAYG pension system and called for "self-reliance" as opposed to inter-generational solidarity (Kósa, 2002).[3] Social policy

[2] The system dependency ratio is defined as the ratio of pensioners to contributors.

[3] One of the ads, for example, depicted a grandfather with his grandchild. The narrator said "You do not want her to take care of you in your old age, do you?" (Kósa. 2002).

experts pointed out the possible drawbacks of privatization, including decreased inter-generational solidarity (Ferge, 2000), a wider gender gap in the pension system resulting from individual accounts and the lack of solidarity components in a private pillar. However, the pro-privatization stance of the Socialist Party prevented further discussions on improving the social insurance pension system.

Proponents of the structural pension reform argued that:

- **Individual savings** should be promoted instead of a social insurance pension system based on solidarity to strengthen the linkage between contributions and pension levels, and to increase transparency of the pension system.
- **The financial sustainability** of the public system was believed to be at risk. Low employment rates threatened the financial sustainability of the PAYG system (Simonovits, 2009: 10-11). It was also suggested that contributions were too high and that they could be substantially reduced only through the introduction of a privatized system (ibid: 11).
- **Economic growth:** Pension privatization was assumed to generate additional revenues through employment increases and higher economic output. Private funds were also expected to channel savings into more productive segments of the economy (Drahokoupil and Domokos, 2012:288-289).
- **Reducing the informal economy:** It was assumed that privatization and the creation of individual accounts would automatically reduce informal employment and tax evasion.
- **Demographic concerns** such as increasing longevity and decreasing fertility would pose problems. Privatization would decrease the "burden" of the working population to finance pensions of older generations (Simonovits, 2009:10). A retirement age increase and flexible retirement programmes were planned to overcome these issues.
- **Privatization would diversify the pension market** and offer the possibility of choosing between funds.
- **Private pension systems would produce better returns**, thereby strengthening the domestic financial market. Proponents of privatization assumed unrealistically high rates of return and tended to downplay the risks and costs of the reform (Simonovits, 2009: 11, quoting Feldstein, 1996).
- **Macroeconomic reasons:** Privatization would attract foreign investment and help maintain favourable relations with international financial institutions such as the IMF and the WB.

- **Political reasons:** The Communist legacy would be eliminated.
- **Privatization would "educate"** the public on self-reliance and financial responsibility.

Hungary adopted the Argentinian, "mixed" model rather than a fully-privatized pension system, partly in response to government negotiations with trade unions (Müller, 1999; 2001). The 1997 reform package also contained important parametric elements. The private pension pillar was based on the structural features of the previously-established voluntary private pension system. In administrative terms, this meant the creation of non-profit associations led by self-governing bodies of insured employees. Although some genuine, locally organized insurance associations were created, most of these non-profit entities were simply branches of large insurance companies and banks, including international ones. While it was emphasized throughout the reform process that privatization would benefit the Hungarian economy, no limits were set on the number of multinational companies (including AXA, ING, AEGON, Allianz and Erste) entering the Hungarian private pension market (see below).

New entrants to the labour market were obliged to choose a private pension fund and enter the mixed system, while this remained an option for other employees.[4] The private pension tier was financed from employees' contributions deducted from their gross wages and usually paid directly by employers. Of the total 31 per cent of contributions, 6 per cent (employees' contribution) were paid into the private funds initially (gradually increasing to 8.5 per cent in 2003) and 25 per cent (employers' contribution) to the PAYG system (decreasing to 18 per cent in 2002). This meant that the public pillar remained dominant. Rather than adding an extra tier to the public pension, the private pension scheme was "carved out" of the public tier (Simonovits, 2011).

It was envisaged that future pensioners would receive 75 per cent of their annuities from the PAYG pillar and 25 per cent from their individual private accounts. Employees voluntarily entering the mixed system thus lost 25 per cent of their earlier contributions to the public system as this share was not included in the calculation of their overall contributions. It was hoped that this loss would be compensated by the high returns of the private pillar when entering retire-

4 Originally, employees above age 47 were not allowed to enter the mixed system. This was quite logical given that beginning at that age, pension levels within the mixed system would have been lower than those promised by the public system.

ment.[5] The compulsory public and private pillars were supplemented with the existing voluntary pillar, while prevention of old-age poverty through minimum pensions and the previous means-tested scheme also remained in place.

Table 2: The Hungarian pension system after the 1997 reform

Tiers/Pillars	Institutions	Financing
Tier 1. Old-age poverty elimination	Pension fund + local municipalities	Compulsory contributions + general taxes
Tier 2. Mandatory public PAYG scheme	Pension fund	Compulsory contributions
Tier 3. Compulsory private pension savings	Private non-profit insurance funds	Compulsory contributions
Tier 4. Voluntary private pension savings	Private non-profit insurance funds	Voluntary private savings

The parametric components of the 1997 pension reform included changes in the retirement age, benefit formula and contribution rates: The official pension age was gradually raised from 60 to 62 years for men and from 57 to 62 for women between 1998 and 2009. The effective pension age remained lower, however, given that the possibility of early retirement (at age 55 for women and 60 for men) remained in effect, with some reduction in pension levels.[6] The Swiss pension indexation formula was adopted.[7]

Employer contributions (directed to the PAYG pillar) were reduced from 24 per cent in 1997 to 20 per cent in 2001 and to 18 per cent in 2002, with a planned further decrease to 16 per cent until 2009 (which did not occur). Employee contributions to the private pillar were supposed to increase to 9 per cent gradually but

[5] This elimination of social security rights was ruled unconstitutional by Augusztinovics (2000).

[6] The minimum years of contribution was raised to 38 years, but workers could effectively retire with 35 years of contributions. Every "extra" year retirees received pensions was sanctioned with a 1.2 per cent loss of benefit amounts. Longer employment was rewarded with an extra 0.5 per cent monthly.

[7] Between 1992 and 1997, pensions were indexed according to the increase in net wages. This led to the decline of the real value of pensions as real wages fell throughout the transition crisis. Swiss indexation beginning in 1997 matched the real increase of pensions with the median of the nominal wage increase and expected annual price increases.

in fact only rose to 8 per cent in 1999 and to 8.5 per cent in 2003. The share of employee contributions to private pension funds fluctuated depending on the political commitment of the government to the private pension system (see discussion below). Overall contribution rates decreased from 30 per cent to 25.5 per cent of gross wages between 1997 and 2007, which threatened the system's sustainability.

The mixed system became surprisingly popular, with around 2.4 million members in 2004 and three million in 2010, or about 75 per cent of the total labour force. Most employees entered voluntarily. Some employees, especially older ones, did not benefit from entering the mixed system. When asked to choose, they were not sufficiently informed about the drawbacks of the private system while its merits were exaggerated. The following issues probably fostered people's enrolment in private funds (even when it did not benefit them):

- Employers typically chose a pension fund for their employees, which led to mass enrolment in some of the largest funds.[8] Employers would enter into a contract with a fund (for a service "package") and would strongly recommend that employees enrol when establishing or modifying labour contracts. This created pressure on employees to enter that specific fund and contributed to a high number of enrolees in the funds.
- Annuities would have been inheritable in the private system. While survivors' pensions existed in the PAYG system, the possibility of choice was successfully advertised by private pension proponents.
- High-earners found the private pension system attractive because it did not include components of social solidarity and redistribution.
- Individual accounts were established in the private pillar but not in the public pillar.
- Proponents of the reform stressed the low credibility and lack of transparency of the public pension system. The public pension fund and its leading experts and officials were slow to defend the PAYG system.
- Government propaganda and information provided by sales agents overemphasized potential returns while downplaying the risks of the private scheme.
- A minimum pension guarantee existed until 2001 for those entering the mixed system in the event the pension funds failed to achieve expected annuities. In 2001, this guarantee was eliminated.

[8] Employers arranged for the direct payment of private contributions. This transfer method "has allowed employers to influence their employees in their choice of funds"(Simonovits, 2009:16).

3.3. The government decision to move away from individual accounts and the mandatory second-pension pillar

Drahokoupil and Domonkos (2012) concluded that re-reforms in the countries of Central and Eastern Europe were a reaction both to the legacies of past choices and to the exceptional fiscal circumstances resulting from the crisis, as well as the belief that the new political economy "would no longer allow the deferral of costs to the future". The lack of extensive public debate and consensus on pension privatization increased political risks and the divide between left and right.

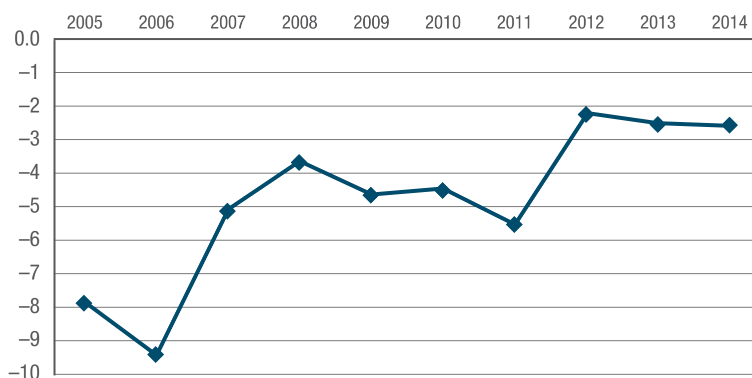
Fiscal costs

The pension privatization reform and the parametric reform in 1997 sought to increase the financial sustainability of the Hungarian pension system. Privatization had high, increasing transition costs and thus placed a fiscal burden on the government. These costs rose from 0.3 per cent of GDP in 1998 to 1.2 per cent of GDP in 2010. Decreasing shares of contributions along with increasing contributory and non-contributory pension payments have increased financial burdens (Mesa-Lago, 2014: 10).

Parametric reforms, especially the increase in the retirement age, initially contributed to the financial sustainability of the system (Benczúr, 1999), but positive effects were eroded by subsequent reforms, including the introduction of the 13th-month pension in 2002, and the gradual decrease of social insurance contributions between 1999 and 2007 (Orbán and Palotai, 2005: 10).

The Hungarian government had to face a tough choice of increasing taxes to finance additional costs or allowing government debt to increase. This challenge was a key issue in the debates concerning the modification of the European Stability and Growth Pact when Hungary joined the European Union in 2004. The European Commission finally allowed the new member states with recently privatized pension systems to temporarily deduct a decreasing share of transition costs from government deficit, which was taken into consideration in the Excessive Deficit Procedure. The budget deficit reached 9.4 per cent of GDP in 2006 and was a critical issue for the succeeding socialist-liberal government administrations in Hungary between 2004 and 2009.

Figure 1: Budget deficit as a percentage of GDP



Source: Eurostat, 2015.

When this deduction ended, the full amount of transition costs was added to the budget deficit in 2010. This was a key external factor triggering the Orbán administration's reversal of pension privatization in 2011.

Coverage

It is important to differentiate between legal and effective coverage of insured persons, where the former refers to coverage based on the law while the latter refers to the real percentage of those insured by the pension system in the active labour force and the share of retired individuals who receive a pension of the total population above the retirement age. Both before and after pension privatization, the legal coverage of the economically active population was 100 per cent in Hungary given that the pension system has remained mandatory for all workers throughout the (re)reform processes. While there has been no substantial difference in the overall legal coverage rates, the 2011 reform changed the internal structure of the pension system. These changes were defined as "cleansing of the profile" of the pension system: Only those above age 62 could remain in the old-age pension scheme (besides survivors' pensioners). The disability pension was replaced by a "disability benefit" and a "rehabilitation benefit". Disabled pensioners above age 62 were switched to the old-age pension scheme. The number of beneficiaries receiving the new "disability benefit" decreased following the strict re-examination of former disability pensioners. The impact of the changes is described later in this report.

Effective coverage rates are much lower than the legal coverage rate. The informal economy employs approximately 22 per cent of the labour force and tax evasion is estimated at 25 per cent (Schneider, 2013). An estimated 10 per cent of the *officially* registered employed population do not pay regular social security contributions, either because they work in the "grey" economy, moving in and out of official employment, or because they are registered as so-called farm labourers [őstermelő], who are exempt from pension contributions (Augusztinovics and Köllő, 2007:556). Czajlik and Szalay (2005:3) mentioned that no payments were made to 12 to13 per cent of private pension fund accounts, most likely because of long-term unemployment or illegal employment of the accountholders, or the failure of employers to pay contributions. Based on these estimates, the effective coverage rate was approximately 75 per cent. Furthermore, self-employed persons and many employees of small enterprises (with fewer than five employees in Hungary) covered under the mandatory pension system tend to underreport their salaries and therefore can expect benefits with lower replacement rates. Increasing emigration from the country since 2010 may also have contributed to a slight decrease in effective coverage rates. Between 400,000 and 500,000 people, or 10 per cent of the labour force, left the country between 2011 and 2014. While no official data are available on this issue, the Hungarian Statistical Office has suggested that migrants tend to pay social contributions only irregularly (KSH, 2014:3).[9]

Given that current pensioners began working during the socialist government system, the problem of unstable employment and social insurance coverage, as well as lower pensions, will gradually become apparent over the next few years. Augusztinovics and Köllő (2007) modelled future pensions based on employment rates in the mid-2000s. They indicated that over the next 15 years, between 250,000 and 500,000 people will not reach the minimum of 20 years of contributions to the pension system needed to receive a public pension. Workers with a primary school education or no schooling are the most affected by the problem of irregular employment records and low social insurance coverage.

In Hungary, pension coverage of the female population has been relatively higher than that of Latin American countries. This is mainly due to two factors. First, while the female employment rate of 56 per cent is currently lower than the EU 27-country average of 62 per cent in 2012, most women still work

[9] It was mainly middle-aged men with tertiary education who lost their jobs during the financial crisis. This group was also hard-hit by the sharp cut in the unemployment insurance period (the maximum time for receiving the insurance decreased from nine to three months).

full-time, resulting in higher coverage. Second, years spent on maternity and parental leaves were counted as contributory years for pension calculations of the social insurance scheme since the paid parental leave system was established in the late 1960s. Those leaves were not counted as contributory years for the compulsory private tier between 1998 and 2011. Had the private pillar remained in place, women would have received lower pensions than men. The current public PAYG system counts the maternity and parental leaves as contributory periods for pension calculations. Despite these compensatory mechanisms, women's average pensions are still about 13.3 per cent[10] lower than those of men due to their lower average wages and longer absence from gainful employment (KSH, 2013; 2014:14). The gross replacement level of Hungarian pensions has been better than that of many other European countries, but it is among the worst if purchasing power parity (PPP) is considered (see below).

Investment performance of the funds

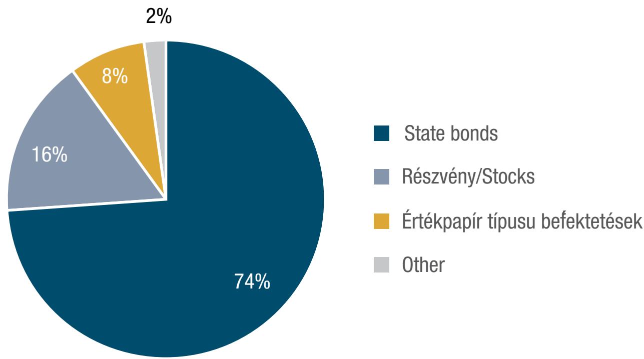
In early 2005, 950 billion HUF were accumulated in private pension funds, equal to 5.4 per cent of the gross savings rate of the Hungarian population (Czajlik and Szalay, 2005:36). After increasing by more than 100 per cent in 1998-1999, the funds grew by 40 per cent annually and equalled 10.7 per cent of GDP in 2010.

Due to high administrative costs, however, the real average rate of return of private pension funds was zero between 1998-2005, with significant variations among funds (Matits, 2008; Simonovits, 2009:19). In a context of a declining, volatile Hungarian stock market and a high budget deficit resulting in high interest rates, pension fund assets were concentrated in government bonds (Simonovits, 2009:20).

Czajlik and Szalay (2005:37, 52) also point out the low diversity of pension fund portfolios. They estimated that 75 per cent of the assets were invested in government bonds and the share of stocks was around 15 per cent in 2004. Besides limited investment opportunities in the domestic market, the authors mention the lack of incentives to acquire foreign investments, risk-avoidance strategies by all pension funds, and the lack of a long-term investment strategy for pension savings. They argue that banks and insurance companies opted for short-term and low-risk investments.

[10] Average old-age pensions were 122,828 HUF for men and 106,451 HUF for women (ONYF, 2013).

Figure 2: Investment portfolio of private pension funds in Hungary, 2005



Source: Czajlik and Szalay, 2006:37.

Mesa-Lago (2014:10) confirms these calculations and states that 70 per cent of private funds were invested in government bonds with below-inflation interest rates and that the real average annual rate of return was negative during the 13-year reform period. The real rate of return fell well below even the conservative rates estimated at the beginning of the privatization process. The author questioned whether the originally planned minimum-pension levels could have been achieved by the time the first pensions would have been paid out. The investment performance of pension funds was much lower than expected, except for in 2004 and 2005, the years when Hungary joined the European Union.

Drahokoupil and Domonkos (2012:290) concluded that investing in government bonds was, a "circuitous way to return funds to the government" so that it could cover the costs of pension privatization.

Administrative expenditures and organizational problems of pension funds

Hungarian pension funds were legally managed by mutual savings associations. In theory, this arrangement assured oversight by members. However, members did not receive sufficient information about the real costs of fund administration. Several studies found that the level and structure of the operational costs of private pension funds were not well communicated to members (Czajlik and Szalay, 2005: 52; Simonovits, 2009).

The internal organization and administration of funds was fraught with problems. While major decisions were taken by "assemblies" [közgyűlés], members

were typically represented only indirectly, through representatives elected for five years (Czajlik and Szalay, 2005:29). In the case of funds established by large banks and insurance funds, officials of the parent companies served on the boards of directors and oversight committees. Representatives employed by the respective banks and insurance companies were in the majority, including the chief executive officers of these firms (Czajlik and Szalay, 2005:30).

Given that the funds were non-profit, parent companies contracted out several administrative procedures to their own firms to earn income. No open tenders for administrative services were issued and funds "automatically" contracted services of their parent companies, resulting in higher administrative costs. These costs were hidden within the budget of the parent company and were not revealed in the pension fund accounts (Czajlik and Szalay, 2005:33).[11] The overall volume and structure of administrative costs could only be identified through the careful investigation of the spending structure of the banks and insurance companies.

It is evident from the minutes of general assemblies of pension funds that there was no opposition to the decisions made and no pressure was put on the board of directors of the funds to reduce operational costs. On average, just two-thirds of all members were represented by elected representatives, a figure that varied significantly among funds. The limited number of fund members present at the assemblies suggests that members were inactive, partly due to the lack of information on the structure of expenses and rates of return (ibid: 29-20).

While ordinary members of funds were the legal owners of funds, parent companies were the real owners yet they were not legally obliged to fulfil their commitments (Czajlik and Szalay, 2005).

Private pension funds had high administrative costs resulting from the lack of effective oversight of the funds and their administrative organization, and the lack of a central office to collect and administer contributions, among others.

Parent companies of mutual savings associations did not charge trusteeship fees [vagyonkezelési költségek] in accordance with market prices. Rather, they focused on achieving a high rate of return on the initial investment as soon as possible (Czajlik and Szalay, 2005).

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[11] The authors compared administrative costs of Polish and Hungarian private pension funds and found that while in the former country the largest costs arose from agents' fees, at approximately 30-40 per cent, these costs were extremely low in the Hungarian case (5 per cent) because parent companies carried them out (Czajlik and Szalay, 2005:33).

Operational costs were supposed to be approximately 4 to 5 per cent of contributions (Simonovits, 2009:17) but in fact these costs amounted to more than 10 per cent of contributions. According to Mesa Lago (2014:9), administrative costs totalled 14.5 per cent of contributions in 2010 and 12.3 per cent in 2014, or 3.4 and 1.2 per cent of the funds, respectively. So-called "membership fees" amounted to approximately 5 per cent of annual contributions (Simonovits, 2009:19). Czajlik and Szalay (2005) estimate that some 60 per cent of the membership fees earmarked to cover administrative costs were transferred from the funds to parent or insurance companies. Orbán and Palotai (2005:14) estimated a charge ratio of 25 per cent, calculated as the expected decrease in the future value of pensions, due to fees and levies paid by members. Membership fees did not decline despite the decreasing costs of administering the funds.

Adequacy

Given that 75 per cent of pensions would have been covered by the public pillar in the mixed system, the impact of the fluctuations in the privatized pension schemes on overall replacement rates are limited. However, several authors point out that, due to the low rates of return, estimated future replacement rates fell below even conservative estimates. Orbán and Palotai (2005) suggest that the high administrative costs would mean that a large share of new members of the mixed system would get lower pensions than those who remained in the single-tier public system. Older employees who chose to switch to the mixed system seemed to be the main losers of privatization. Assuming a real average net rate of return of 2.1 per cent, the future average pension of the mixed system would be substantially lower than that of pensions in the single-tier system (ibid. 27, Figure 9). Even with an unrealistic rate of return of 3.4 per cent, new members of the mixed system would receive only slightly better pensions than those who remained in the single-tier public system.

In addition to the average lower pensions of the mixed system, Orbán and Palotai (2005:30) argue that pension levels of the different private pension funds may vary substantially. Different pension levels for workers with the same employment record and contributions, which would have resulted from different investment returns would have led to social tensions. The question was whether subsequent governments would be willing to pay for the losses of pensioners of the mixed system.

Simonovits estimated gains and losses of the mixed system and calculated that those who paid into the mixed system for 20 years would receive pensions

that were from 9.8 to 12.5 per cent lower than the pensions of those who remained in the public single-tier system. Losses would increase with years of service, reaching more than 18 per cent for pensioners paying into the system for 30 years (Simonovits, 2009:19). It is not clear whether those who chose to enter the mixed pillar were aware of this loss as this information was not widely communicated.[12]

A large percentage of older cohorts joined private funds given that the benefits they would have obtained from the mixed pension system were lower than those from the public one. About half of employees between the ages of 40 and 49 enrolled in the mixed system following the successful pro-private pension campaign of the government and pension fund administrators, which tended to downplay the deficiencies of the mixed pension system. The fact that employers often made the choice was another reason many people ended up in the mixed system.

Issues and problems of regulation and supervisory frameworks

The government supervised and regulated the privatization process through the Financial Supervisory Authority [Pénzügyi Szervezetek Állami Felügyelet – PSZÁF], which oversaw capital markets and insurance firms in Hungary. Most of the organizational and administrative problems could have been handled through a change of regulations, with adequate planning for implementation. Czajlik and Szalay (2005) recommended strengthening the self-governance of pension funds. The rights of fund members would have been strengthened if profit-oriented funds had complied with stricter rules on capital fund transparency.

Implicit pension debt and sustainability indicators

Based on the long-term modelling of the sustainability of the Hungarian pension system, Orbán and Palotai (2005) concluded that pension system sustainability did not improve with the introduction of the private pillar. Net implicit pension liability increased substantially, from 60 per cent of GDP in 1998 to 237 per cent in 2004. This increase was due to the transition costs of privatization but

[12] Taking away the gain insocial security rights was ruled unconstitutional by Augusztinovics (2000).

also to parametric reforms, including decreased contributions and increased pensions such as 13th-month payment in 2002. The deficit of the mixed system of the public pension scheme is estimated to be significantly higher than that of a hypothetical single pillar system until 2050 (Orbán and Palotai, 2005:20). The authors claim that financing pension system costs with government debt, as occurred in the second half of the 2000s, turned implicit net liabilities into explicit liabilities. In the long run, increasing real net rates of return of the pension funds could have compensated for the losses of the public system. However, there was no guarantee this increase would occur, and expectations were lowered when the global financial crisis hit in 2008.

Minimum benefit guarantees and minimum investment return guarantees

A Pension Guarantee Fund [Pénztárak Garanciaalapja] was established by the 1997 legislation that provided a minimum benefit guarantee. In the event a private pension fund was unable to fulfil its obligations, the Guarantee Fund would supplement the annuity up to 25 per cent of the pension, which would be calculated by following the public system formula (Szalay and Czajlik, 2005:26). The conservative Fidesz government eliminated the minimum benefit guarantee in 2002, when enrolment in private funds was made optional for new employees. When the Socialist-Liberal coalition again rose to power in 2002 and re-established mandatory membership, it "forgot" to re-introduce the minimum benefit guarantee (Simonovits, 2009:21).

Gender considerations

The calculation method for the private pension system was clearly disadvantageous for women in term of benefit amounts because of women's longevity, interrupted employment periods, low compensation for maternal leave and lower wages. The 1997 legislation stipulates that only one year of childcare leave is counted as a contributory year. Hungarian women spend an average of five years on maternity and parental leaves, which were not counted in the private tier. Years in higher education were not counted as contributory years, which negatively affected women given that they outnumber men Hungarian universities. The fact that annuities of the private pension fund would have been inheritable might have discriminated against women as their husbands could have chosen someone other than their spouses as heirs, as in the case of survivor's pensions in the public system.

Concentration of the pension industry

Within two years of the initial diversification of pension funds, a concentration of the funds created an oligopolistic environment, with six major pension funds linked to banks and international insurance companies. Choices were severely limited (Czajlik and Szalay, 2005). The rise in the share of funds backed by multinational banks and insurance companies was striking in the early 2000s. The share of occupation-based mutual savings associations as well as other mutual savings associations declined from nearly 20 per cent of all members in 1998 to 8 per cent in 2004 despite a continuous increase in total members (Czajlik and Szalay, 2005:27). This was mainly due to the marketing capacities of banks and insurance companies that financed and launched intensive sales campaigns in parent companies and affiliates throughout the country (ibid: 26).[13] By the end of 2004, when membership reached 2.4 million, six companies had more than 100,000 members.

The number of pension funds decreased from 60 to 21 and the largest six companies concentrated 90 per cent of all members in 2010 (Mesa Lago, 2014:8). Another assessment estimated that 80 per cent of the capital was concentrated in five large funds (Simonovits, 2009:17). High costs of establishing and operating funds that were partly hidden within the accounts of parent companies prevented the establishment of new funds in the 2000s. The oligopolistic situation contributed to rising operational costs. The funds were further concentrated when a small percentage of members, estimated at 1 to2 per cent in 2004, switched funds. This low share was due to the lack of transparent information regarding the costs and rates of return of funds, and to the agreement among the largest pension funds, in force until the end of 2003, not to pay brokerage fees to agents when clients switched between these funds (Czajlik and Szalay, 2005:30).

3.4. The re-reform of the pension system in 2011

3.4.1 The process of re-nationalizing private pensions

The re-reform was initiated by the conservative Fidesz administration, whose party won an overwhelming majority in the Parliament in the 2010 elections. Fidesz had opposed privatization from the start and had severely limited the role

[13] The biggest funds were affiliated with the following banks (B) and insurance companies (I), in order of their share: OTP (B); ING (I); AEGON (I); ALLIANCE (I).

of private pension funds during his first term (1998- 2002). In 2010, constrained by internal and external economic crises, the second Fidesz administration decided to radically modify the pension system and eliminate the private pension pillar. Drahokoupil and Domonkos (2012:290) claimed that the financial crisis exposed drawbacks of the private pension system and especially the "funding gap" problem; however, this by itself was insufficient for the re-reform. Rather, a combination of internal and external economic and political factors contributed to the reversal of pension privatization.

Hungary, like other new EU members, had experienced a series of crises following its incorporation into the European Union in 2004. Cumulative problems, also known as "post-incorporation crises", (Ágh, 2013; Bohle and Greskovits, 2012) included economic decline, high government debt and budget deficits, and internal political tensions, coupled with weakening administrative capacities and increased corruption and social instability (see, for example, Rupnik and Zielonka, 2013). Hungary was particularly vulnerable to the 2008 crisis. The country's GDP fell 9 percentage points between 2008 and 2009. A decline in revenues was followed by increased budget deficits. This severe fiscal constraint put the re-reform of the private pension pillar on the political agenda. Hungary's socialist government also turned to the IMF and the European Central Bank for financial assistance in 2008. The Fidesz administration had wanted to repay its debt to the international agencies to end external control over its economic and social policies.

Strict EU requirements on macroeconomic stability left little manoeuvrability for reforms. The new member states that partially privatized their pension systems had the opportunity to gradually deduct transition costs from their budget deficit (which were covered under the excessive deficit procedure) until 2010.

The Fidesz administration wanted to balance the budget to eliminate foreign economic and political scrutiny. The conservative government sought to end the agreement with the IMF and stop the EU excessive deficit procedure to be able to make independent economic and social policy decisions. Fidesz's programme included the introduction of a flat tax of 16 per cent and a nominal reduction of social security benefits. The IMF was strongly opposed to both measures.[14]

In October 2010, despite the protests of opposition parties, the Parliament passed legislation to redirect private pension fund contributions to the Treasury

[14] As Appel and Orenstein (2012) correctly point out, the IMF was generally against flat taxes and had tried to impede the spread of this practice among post-Communist countries.

for 14 months (Act CI/2010). It also gave workers the possibility of returning to the public pillar (Act C/2010). Re-directing resources from private funds was thus associated with the tax reform and the EU's strict budget deficit requirements. In late November, the economics minister proposed to Parliament the more radical plan of eliminating the private pillar. By 13 December, this measure was adopted without public debate or consultation with the opposition.

Instead of directly confiscating private pension assets, the new legislation proposed extremely unfavourable conditions for those who opted to continue in the private pillar. Workers who remained in a private pension fund would be ineligible for the future accrual of a government pension (75 per cent of an individuals' total pensions) even though it was mandatory for employers to pay into the public scheme. To avoid scrutiny by the Constitutional Court for violating social insurance rights, contributions paid by employers were re-named "social taxes" to which no future claims could be attached (Act CLVI/2011). The justification for this bill was that "those who do not return to the public pension scheme will 'opt out' of the national social security system" (Bill T/1817:12). Members of private pension funds had just one month to decide. Ultimately, 97 percent chose the public scheme. A year later, private fund members regained their rights to accruals in government pensions. By this time, however, only a small fraction of the former members remained in the private pillar.

Another important aspect of the pension reform was the separation of disability pensions from the old-age pension system beginning in January 2012 (Act CXCI/2011). The government intended to 'cleanse' the pension system from disability-related benefits.

Early retirement pensions were also eliminated (Act CLXVII/2011). The basic rule was that no one under age 62 could receive old-age pensions after 2012. Civil servants were obliged to retire at the age of 62. However, the law stipulated that women with 40 years of contributions could retire earlier. Years spent in higher education did not count as contributory years, whereas time spent on maternity and parental leave did (for eight years), reflecting the government's prioritization of women's caretaking roles.

The Fidesz administration managed to quickly implement its reform agenda through the use of procedures that were unorthodox in a parliamentary democracy. First, the government did not reveal its plans and did not consult opposition parties, trade unions, private pension funds or experts. Second, Fidesz used the method of "individual member's bill" (formerly used only in the event of

catastrophe) to avoid the rule of compulsory consultation.[15] Third, the government left little time for (legal, social and insurance) experts to follow its measures and, let alone to analyse and react to them.

Within the government, Prime Minister Orbán and the Minister of National Economy, György Matolcsy (who subsequently became the president of the Central Bank), were the strongest proponents of the re-reform. When it became clear that the government would nationalize private pension fund assets de facto, the Socialist Party communicated its objection and argued that "the coercive nationalization carried out by the government is another milestone of the dictatorship".[16] The small leftist Green party, LMP (Lehet Más a Politika -- Politics Can Be Different), compared the way the government implemented the reform with the political culture of Belarus. The extreme right-wing party, Jobbik (Jobbik Magyarországért Mozgalom), was the only political force in Parliament agreeing with the nationalization. However, it also opposed the elimination of individual accounts of former fund members.[17]

The rapid completion of the legislative process[18], the lack of transparency and the practical absence of public debate meant that potential opponents, including employers' organizations and trade unions, were unable to influence the reform process in 2010 and 2011. Trade unions unanimously opposed the way in which the re-reform was carried out.[19] Several trade union confederations joined forces, but they did not mobilize against the nationalization of private pension funds. They were more effective in organizing demonstrations against the Labour Code and the elimination of early pensions in the Spring of 2011. Their main achievement was collective bargaining with the Ministry of Interior to reduce working hours for people above age 60 but failed to persuade the government to eliminate mandatory retirement at age 62. Leading employers' organizations were actively involved in negotiations concerning the Labour Code but were silent with respect to the 2011 pension reform.

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15 Later, Fidesz used this method for nearly all important parliamentary decisions, including the enactment of the new Constitution.

16 "A nyugdíjpénztárak államosítása. Brüsszel is aggódik" [The nationalization of pension funds. Brussels is concerned.] 25th November 2010.)

17 Ibid.

18 The Hungarian parliament passed more than 700 laws between 2010 and 2014, including the new Constitution and over 10 "core resolutions" that required only a two-thirds majority to modify.

19 "A szakszervezetek és a nyugdíj." [Trade Unions and Pensions.] http://hvg.hu/itthon/20101117_szakszervezetek_nyugdij.

A civil movement of private pension fund members organized a demonstration of approximately 3,000 people in December 2010, as well as another smaller demonstration to encourage resistance to switching to the public system in January 2011.[20] The harshest critic of the re-reform was the association of private pension funds (Stabilitás Pénztárszövetség), headed by the private fund unit of Hungary's largest bank, OTP, which also had the largest share in the private pension fund business.

Private pension fund members also tried to bring the nationalization process before the European Court of Human Rights. The Court refused to take the case because it stated that the situation had resulted from members "own choice" and that the members were "in any case entitled to future pension payments in accordance with the amendment to the act". Judges and civil servants successfully filed a case with the European Court of Justice referring to the mandatory retirement age of 62. The Court ruled that Hungary's decision to lower the mandatory retirement age violated the equal treatment rules of the EU. Nevertheless, a government order in the last days of 2012 declared that all civil servants must retire at 62 and public employees must still retire at age 62 with no possibility of remaining employed.[21]

The approval rating of the governing party fell sharply following the pension privatization, from 40 per cent among eligible voters when the party assumed power in April 2010 to 15 per cent by late 2011. However, given the lack of strong opposition and the re-writing of election law just before the 2014 elections, the conservative coalition managed to regain a stable majority in Parliament.

3.4.2 The new national public pension system

In 2011, the Fidesz administration nationalized private pension assets and virtually eliminated the second, private tier (Simonovits, 2011). This section presents the basic characteristics of the new model in terms of mixed and PAYG financing mechanisms, institutional arrangements, linkages among schemes/inter-institutional coordination, previous individual account funds and new collective/solidary

[20] Details are available at http://azennyugdijam.blog.hu/.

[21] As young professionals increasingly migrate to Northern and Western Europe, a serious shortage of doctors and nurses is likely to occur when older professionals retire. Hungary became one of the leading countries providing doctors to Western and Northern Europe due to inadequate working conditions in the country, including low salaries, even when compared to other Central and Eastern European countries.

funds, individual fund entitlements, pension right entitlements and mechanisms to improve solidarity, governance and instruments for social dialogue.

Basic characteristics of the new model in terms of mixed and PAYG financing mechanisms

Hungary re-built its public pension system, returning to its pre-1998 mandatory pension system, consisting of a sole PAYG public scheme, originally developed after the Second World War (Inglot, 2008; Szikra, 2009). The tax-financed poverty elimination tier and the voluntary tier, introduced in 1993, remained intact.

Within the same reform package, the government implemented parametric and paradigmatic reforms in the public tier as well, including the elimination of early retirement benefits (Act CLXVII/2011) and the separation of disability benefits from the old-age pension scheme (Act CXCI/2011). The latter two reforms were part of the neo-liberal austerity package of the Structural Reform Programme.

The reformed pension system has two contributory tiers as per the pre-1997 scheme. The public tier is a PAYG scheme in which current pensions are financed with current contributions and redistributions are included in the calculation of pensions. The current third tier, or the previous fourth tier, is a voluntary private pension scheme with substantial tax breaks.

Table 3: The Hungarian pension system following the 2011 re-reforms

Tiers/Pillars	Institution responsible	Financing
Tier 1. Old-age poverty elimination	Pension fund + local municipalities	Compulsory contributions + general taxes
Tier 2. Mandatory public PAYG	Pension fund	Compulsory contributions
Tier 3. Voluntary private pension savings	Private non-profit funds	Voluntary private savings

Institutional arrangements/reorganization

The self-government of the pension fund, eliminated in 1998, was not re-established during the re-reform. The pension fund has remained autonomous

despite having received government subsidies before and after the re-reform and having contributed to the national treasury after the re-reform. The financial and administrative roles of the pension fund and of the government budget are unclear.

The supervision of the pension system is divided among three entities: The Ministry of the Economy (Nemzetgazdasági Minisztérium, NGM), the Ministry of Human Affairs (Emberi Erőforrások Minisztériuma, EMMI), and the Central Administration of National Pension Insurance (Országos Nyugdíjbiztosítási Főigazgatóság, ONYF). The administrative tasks of the public pension system remained with ONYF as they had before the re-reform. The ONYF is controlled and supervised by the Ministry of Human Affairs, which is responsible for supervising the implementation and development of core pension legislation (Act LXXXI of 1997 on Social Insurance Pensions – Pension Act).

The Ministry of the Economy is responsible for planning and monitoring the pension fund budget. The fund is part of the national government budget and is included in the Government Budget Act (Költségvetési törvény) every year. The national Treasury manages all pension fund revenues. No other institutions are involved in managing funds of the national pension system.

Contributions are collected by the National Tax Authority (Nemzeti Adóhivatal, NAV). The elimination of self-governance of the pension fund (1998), the shifting of the responsibility for the collection of contributions to NAV (1999) and the re-naming of employers' contributions as "social taxes" (2011) have more closely associated the pension fund in Hungary with the government budget.

Both before and during the re-reform, the regulatory agency of private pension funds was the Hungarian Financial Supervisory Authority (Pénzügyi Szervezetek Állami Felügyelete, PSZÁF). This organization was merged with the Hungarian National Bank (Magyar Nemzeti Bank, MNB) in 2013.

The highest legal authority of the Hungarian social insurance system was the Hungarian Constitution until 2011. The conservative government first changed the Constitution in 2010 and a new Basic Law (Alaptörvény) was enacted by a two-thirds majority[22] of Parliament in 2011. While the 1989 Constitution included a reference to social insurance as a means of fulfilling social rights of

[22] The Basic Law of 2011 was enacted quickly (in just three months), without public debate and with only limited political debate. The opposition does not encourage acceptance of the Basic Law.

Hungarian citizens, there is no mention of social insurance in the new Basic Law, and social rights were more limited compared with the previous Constitution (Szikra, 2014). However, paragraph XIX (4) of the Basic Law establishes the basic principles of the pension system "based on social solidarity", including increased protection for women".[23]

The Pension Act (Act LXXXI of 1997), modified several times since its adoption, is the core legislation of the Hungarian public pension system. It defines the government responsibility to "operate and develop" the compulsory public pension system. The pension system administers old-age and survivors' benefits following the exclusion of disability benefits. The pension system is primarily financed from contributions, but the government plays a substantial role, defined in the act as follows: "The Hungarian government secures the payment of pension benefits from the central government budget, even in the event that pension fund expenses exceed income".

Linkages among schemes/inter-institutional coordination

Besides the nationalization of the private tier, substantial structural changes to the PAYG public tier were adopted in 2011. The most important paradigmatic and parametric modifications of the public pension system and their rationales are summarized below:

- **Exclusion of disability pensions** from the pension system ("cleansing the pension system profile"): Disability pensions had been part of the public pension system since 1928. The disability component of the public pension system was shifted to the general government budget. Since 2012, the Hungarian pension system has provided old-age and survivors' pensions. The government claimed that this action was designed to "cleanse" the pension system, namely to eliminate fraud in the disability pension scheme.
- **Elimination of early retirement pensions:** Early retirement pensions were ended in 2012. No one can receive old-age pensions under the statutory retirement age of 62. The government said it implemented this measure to eliminate fraud and privileges in the old-age pension scheme and to uphold promises of the Structural Reform Programme to cut spending.

[23] "Hungary shall contribute to ensuring livelihoods of the elderly by maintaining a general government pension system based on social solidarity and by allowing for the operation of voluntarily established social institutions. The conditions of entitlement to a government pension may be established in a law, which must ensure stronger protection for women."

- **Compulsory retirement of civil servants:** Civil servants and judges must retire at age 62 according to the 2011 pension reforms. Although no official explanation has been given, political analysts it responds to Fidesz's anti-Communist ideology to dismantle 'clotted structures', that is, to replace the "old" elites with ones loyal to conservatives. Another explanation is that it enabled the hiring of more young professionals at lower salaries than older ones to contain budget expenditures.
- **Benefits for women** with more than 40 years of contributions: Women may receive old-age pensions below age 62 if they had 40 years of contributions by 2012. Up to eight years of maternity and parental leave periods are counted as contributory years although higher education is not included. Reasons given for this change included the financial recognition of motherhood and the increased opportunity for grandmothers to care for grandchildren while their mothers work.
- **Employers' contributions are re-named"social taxes"** [szociális hozzájárulási adó] to which no future claims could be attached (Act CLVI/2011). The aim of the government was to avoid scrutiny by the Constitutional Court for threatening social insurance rights (see below).

Previous individual account funds and new collective/solidary funds

When the government decided to persuade private fund members to switch to the government-run pension system in November 2010, it promised that their assets would be held in individual accounts of the public pension system. It was also stated that the private pension annuity, transferred from the private to the public system, would be inheritable. Following the transfer of most private fund members and their annuities to the public pillar, Prime Minister Orbán declared that individual accounts would be established during 2011. These promises have not been fulfilled and the public pension scheme still has no individual accounts.

New investment framework

The public pension fund forms part of the national government budget and is included in the annual Government Budget Act (Költségvetési törvény) every year.[24] Since the elimination of the compulsory private pension tier, no other

[24] Part 72 of the Government Budget Act refersto the pension fund.

for-profit or non-profit entity, national or international has administered the compulsory pension system.

Domestic and foreign insurance funds in the voluntary pension system currently benefit from a 20 per cent income tax reduction. The largest and most successful funds are the international insurance companies Aegon and Allianz, while ING, Generali and Erste also have a considerable share of the market. The investment of voluntary pension funds is strictly regulated by law. All funds invest mainly in government bonds.

Individual fund entitlements, pension right entitlements

Apart from voluntary pension funds, there have been no individual fund entitlements in Hungary since 2011. Pension right entitlements of the compulsory public PAYG pension scheme are discussed below.

The official retirement age was raised and there have been limited early- and late-retirement options in some cases, such as for civil servants in the case of early retirement options, since 2011. The retirement age is being raised by six months annually, from 62 in 2015 to 65 in 2022. The table below shows the retirement age increase by year of birth:

Year of birth	Retirement age
1952	62
1953, 1954	63
1955, 1956	64
1957	65

Source: Act LXXXI of 1997, §18.

Pensions are calculated based on average gross wages earned since 1988, adjusted for inflation in the year of retirement. Workers need to make contributions for at least 20 years to receive full pensions. Replacement rates increase in line with the number of contributory years. An 80 per cent replacement rate is reached after 40 years of contributions. An annual 2 per cent increase of the replacement rate is provided for additional contribution years. Workers may receive up to 100 per cent of their previous average wage with 50 or more contributory years. In the event of retirement above the official retirement age, an additional 0.5 per

cent is added to the original monthly pension amount. Civil servants cannot work above the statutory retirement age.[25]

The following table shows the increasing replacement rates with increased contributory years:

Contributory years	Replacement rate (per cent of average monthly wage)
15	43
20	53
25	63
30	68
35	73
40	80
45	90
50 or more	100

Source: Act LXXXI of 1997, Appendix 2.

Special regulations apply to benefit levels of former second-tier members. If they chose to join the public pension fund in 2011, as most did, their pensions are calculated as if they had always been members of the single-tier public system. If workers remained in their pension fund, as only 3 per cent of all private pension fund members did, their pension, received for the contributory years prior to 2010, was multiplied by 0.75. These members had to pay full contributions to the public pension fund beginning in 2011.

There was also an option for those who remained in the private tier to transfer their annuities to the public pension system when they retired. In that case, their pension level was calculated in the same manner as for workers who have always been members of the public scheme, for which reason the 0.75 multiplier did not apply. This was an opportunity for people who believed that their pensions from the mixed system would be lower than what they would have received from the public pillar, had they remained there.

[25] This includes all civil servants, including judges, doctors, nurses, teachers at all levels of education, municipal and ministerial employees, etc.

Mechanisms to increase solidarity

The reform included conflicting elements in terms of social solidarity. As the private pension tier was based strictly on actuarial calculations, it limited social solidarity among members of the mixed pension system. Elements of social solidarity were present in the public pension system. Eliminating compulsory private pension fund membership and returning to the pre-1998 PAYG public pension system therefore increased social solidarity. The opportunity for women to retire before reaching the official retirement age with a full pension if they had contributed for 40 years provided more retirement options for women.

Other reform elements, however, decreased social solidarity, weakened social rights and contributed to rising inequality among pensioners. The first issue was the renaming of employer's contributions as "social taxes". This may lead to arbitrary changes in pension rights.

The exclusion of disability pensions from the pension system ("profile cleansing") decreased social rights of disability pensioners. While those above age 62 are included in the old-age pension system, the health status of people below the official pension age was re-examined and they were referred either to the unemployment scheme, which is primarily based on social assistance and public works ("rehabilitation track") or to a tax-financed benefit scheme outside of social insurance.

Minimum pensions have remained in place throughout the re-reform process. The level of the minimum pension was frozen in 2008, however. This has weakened social solidarity. The minimum pension is 28,500 HUF, or approximately 200 USD, one-third of the net average wage.

An important though less visible change has been the gradual increase and finally, the elimination of the ceiling on pension contributions and pension levels, which contributes to increasing inequality among old-age pensioners. The ceiling was introduced in 1992; initially, it was set at 300 per cent of the gross average wage. In the decades that followed, the ceiling has oscillated between 161 per cent in 2002 and 311 per cent in 2009 of the gross average wage. In recent years, the ceiling has remained at approximately 300 per cent. When calculating pensions, each annual ceiling was applied to the annual average wage of the employee. Fluctuating ceilings created inequalities between the level of pensions defined in different years, even among people with the same number of contributory years and the same wage level. Low ceilings restricted generous old-age pensions whereas high ceilings nearly eliminated their limiting effect.

In 2013, the ceiling was eliminated and a 10 per cent contribution rate was applied to the gross wage. Beginning in 2013, pension levels were set according to the total wage whereas prior to 2013, they were calculated by applying different ceilings. A gradual increase of the highest pensions is expected over the next few years. Given that the minimum pension has not been indexed since 2008, and a growing number of people will have low pensions due to interrupted employment records, it is likely that income inequality among pensioners will increase. Men are overrepresented among high earners and women among low earners given their interrupted employment record and lower wages, indicating that gender inequality among pensioners will also probably rise.

Another method to increase solidarity within the Hungarian pension system was the degressive calculation of net income bases. Degressive accrual was substantial in the early 1990s as it included lower incomes, but it was gradually reduced to the point of virtual elimination. Only 0.5 per cent of pensions were determined with degressive accrual in 2013 due to the high level of net wages above which degressive calculation is required.

To summarize, the re-reform has mixed outcomes in terms of social solidarity. While returning to the (solely) public pension system increased solidarity, other paradigmatic and parametric reforms typically decreased solidarity.

Governance and instruments for social dialogue

A relatively stable system of tripartite consultation was established in the early 1990s, although the legitimacy of both workers' and employers' organizations was weak (Neumann and Váradi, 2012). The tripartite body, the National Council for the Reconciliation of Interests (Országos Érdekegyeztető Tanács, OÉT), played a key role in setting the minimum wage and led collective bargaining efforts on social insurance rights. In 1998, the Fidesz administration eliminated the tripartite self-governing body of the social insurance system (Társadalombiztosítási Önkormányzat) established in 1993. Currently, no official entity exists for collective bargaining on pension system development, level of pensions and contributions.

The Fidesz administration replaced the OET with the Economic and Social Council (NGTT) in 2010. This new institution does not have the same bargaining power as the previous council. Participation is not limited to workers' and employers' representatives; it is also extended to selected civil society representatives and the church (Scharle and Szikra, 2015). Declining tripartite

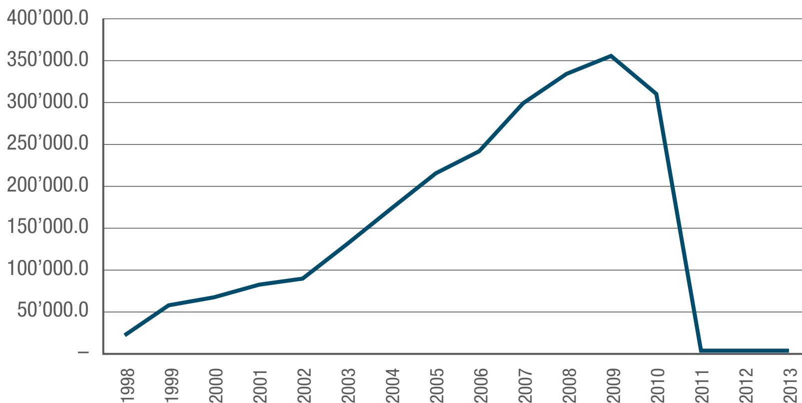
bargaining, the hurried legislative process and the rapid adoption of a new Labour Code in 2011 contributed to the inability of opposition members, including employers' organizations and trade unions, to influence the re-reform process.

3.4.3 The impact of the 2011 re-reforms

Macroeconomic and fiscal impacts

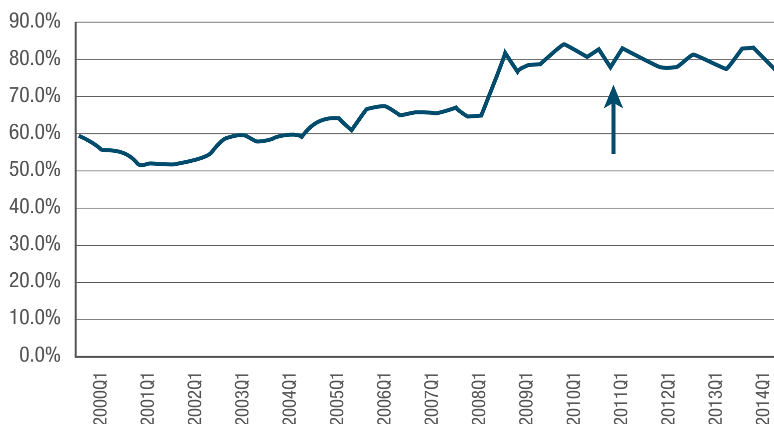
As mentioned, budgetary support sharply increased following pension fund privatization in 1997 due to transition costs and declining pension contributions at the same time pension benefits increased (from 2002) until 2009. In that year, the 13th-month pension was eliminated, immediately decreasing government support to the pension system. In 2010, private pension contributions were channelled to the public pension system for 14 months, which further eased the burden on the budget. The nationalization of private pension assets in 2011, together with the elimination of early retirement schemes and disability pension schemes (the "profile cleansing" of the pension system) helped the pension fund shift from a large deficit to a surplus, which has contributed to the government budget since 2013.

Figure 3: Nominal value of central government financing of the costs of transition to the mixed pension system in Hungary, 1998-2013 (millions of HUF)



Source: Eurostat, 2015.

Figure 4: Quarterly debt levels of the Hungarian government, 2000-2014, (percentage of GDP)



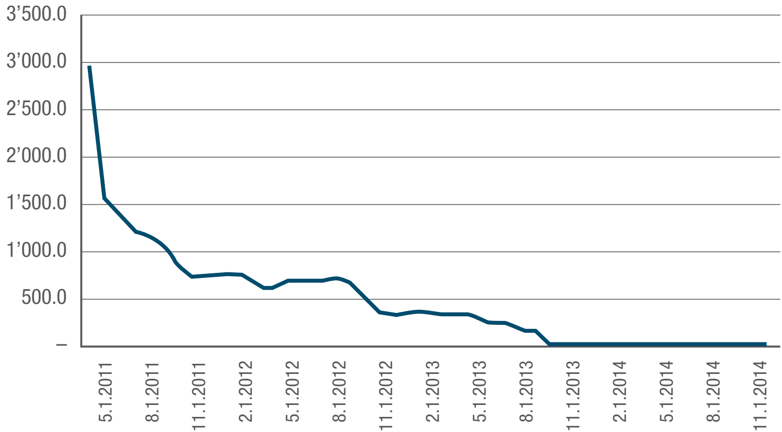
Source: Own calculation based on Government Debt Management Agency [ÁKK] data, various years.

The nationalization of private pension assets helped reduce government debt by 5 per cent between the first and the second quarters of 2011 (Figure 4). It is estimated that about half of that amount was spent on decreasing the budget deficit, which fell to a record low of 1.9 per cent in 2012, as compared with an average of 4 per cent for the EU27 countries. Nevertheless, several transactions[26] and economic processes (including the devaluation of the Hungarian Forint) have impeded the successful reduction of the explicit debt of the Hungarian government, which reached 82.4 per cent of GDP in 2013, the same rate as in 2010 (Eurostat, 2013).

Assets of the Pension Reform and Debt Reduction Fund, which the government established to manage incoming assets of private pension funds, decreased sharply following the nationalization of pension funds due to the withdrawal of government bonds transferred from private funds to the government (Figure 5). Half of all assets kept in government bonds were immediately withdrawn once they were transferred to the Hungarian government. The Fund used most of its assets to decrease government debt, while 243 billion HUF were used to repay the IMF loan, and a further 81.3 billion HUF were utilized to cover local government debt. In 2011, the Fund paid 95.6 billion HUF directly to the Treasury and 363.4 billion

[26] The government, among others, bought shares in the Hungarian oil company MOL to counter the majority Russian ownership.

Figure 5: Nominal value of assets of the Pension Reform and Debt Reduction Fund in Hungary (billions of HUF)



Source: Own calculation based on Government Debt Management Agency [ÁKK] data, various years.

HUF to the public pension fund. It also bought shares in the Hungarian oil company MOL to acquire majority shares from Russian shareholders.

Coverage, replacement rates, adequacy and equity

The reversal of pension privatization did not have any discernible effect on **coverage rates.** There was a substantial shift *within* the pension system, however, in light of the elimination of disability pensions. By removing disability pensions from the system and eliminating early retirement options, the overall number of pensioners decreased from 2.8 million in 2011 to 2.2 million in 2012, an 18 per cent reduction within a year (KSH, 2014). Meanwhile, the number of beneficiaries receiving non-insurance-based benefits tripled. The value of benefits did not change but social rights were threatened by the shift from insurance- to tax-financed benefits as there is no enforceable right attached to the latter. Some 100,000 people were removed from the two systems and transferred to the unemployment benefit system and public works programmes (with much stricter eligibility requirements).[27]

[27] For example, in 2013, 25.3 per cent of revised disability pensioners were sent to a rehabilitation programme (for a few months), after which they were eligible only for means-tested social assistance if they agreed to accept public employment.

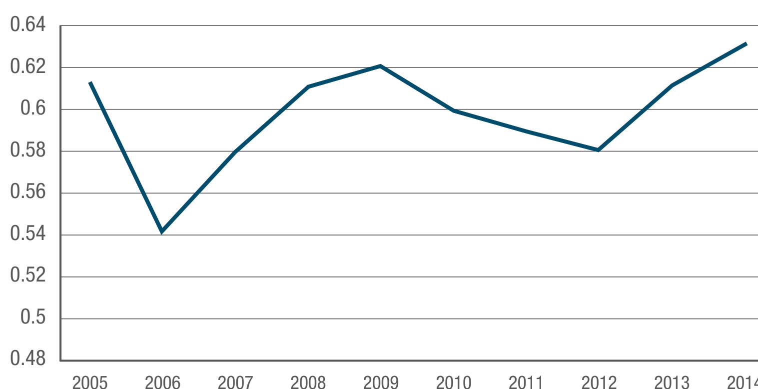
Replacement rates have increased since the 2011 re-reform (Figure 6). However, this increase cannot be considered as an effect of nationalization; rather, the changes are due mainly to paradigmatic and parametric reforms (elimination of disability pensions, decreased degressive accruals in calculating pensions, elimination of contribution and pension ceilings and the introduction of favourable retirement conditions for women).

Compared with other Central and Eastern European countries and EU member states (Figure 7), the adequacy level of pensions has been relatively beneficial in Hungary, if calculated as aggregate replacement rates. Recently, the relatively high replacement rates have led decision-makers to consider reducing them.

However, when calculated on PPP (Figure 8), Hungary is in the lowest group of 25 EU member states, which supports the arguments of those who oppose reducing replacement rates.

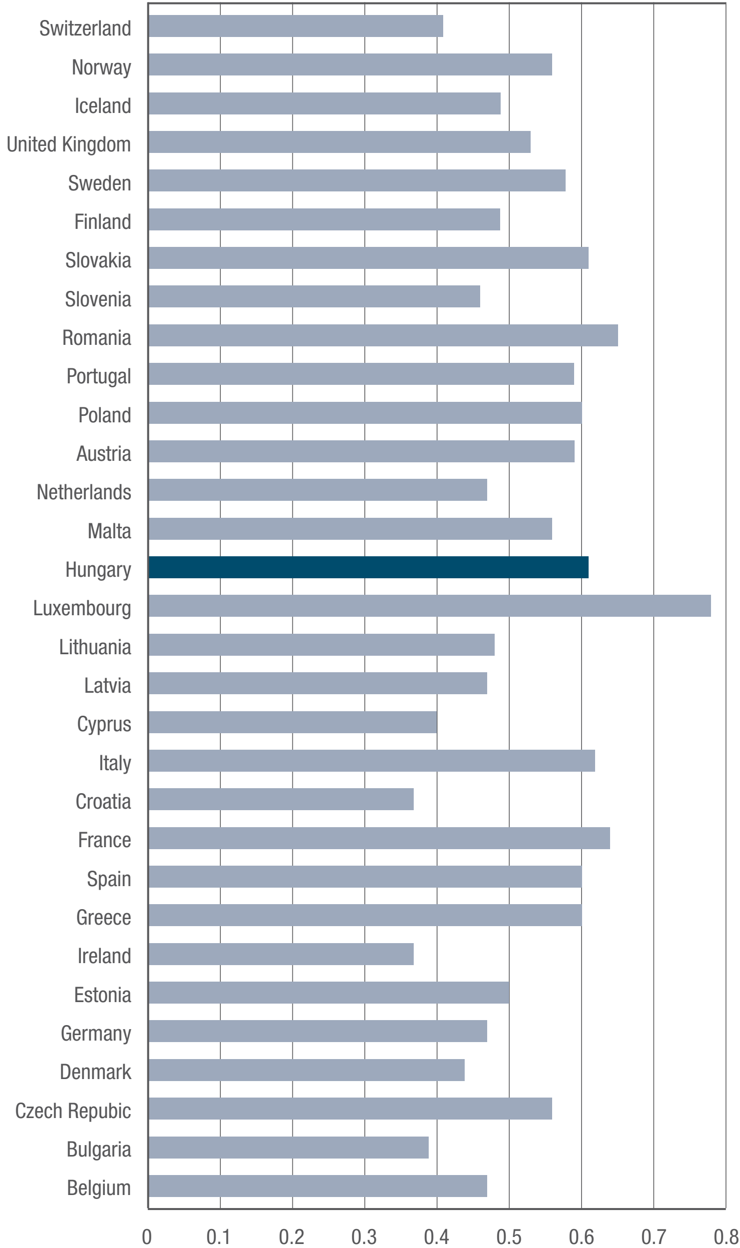
Average pension levels have declined following the global financial crisis, but have exceeded the minimum consumption basket for the elderly even during the crisis. Currently, the average pension is 135 per cent of the minimum level, which has gradually increased since 2012 (Figure 9).

Figure 6: Aggregate replacement ratio in Hungary, 2005-2014



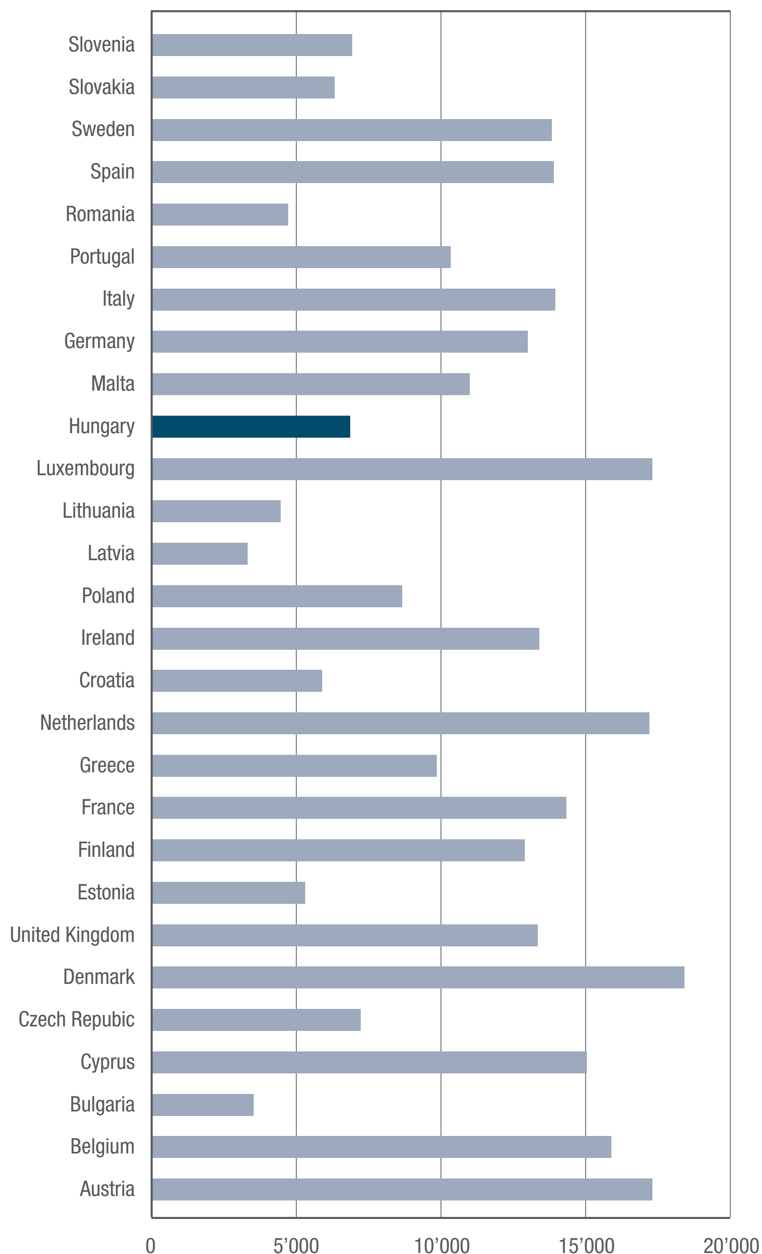
Source: HCSO, 2014.

Figure 7: Aggregate replacement ratio of old-age pensions in Hungary and in Europe, 2013



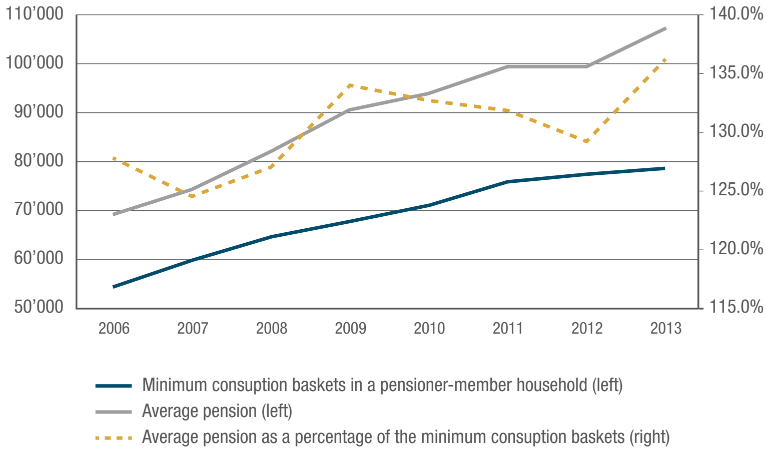
Source: HCSO 2014.

Figure 8: The annual amount of old-age pension per pensioner, as measured by purchasing power parity (PPS/person)



Source: HCSO, 2014.

Figure 9: Minimum consumption basket and average pensions in Hungary, 2006 – 2013



Source: Own calculation based on HCSO and ONYF, various years.

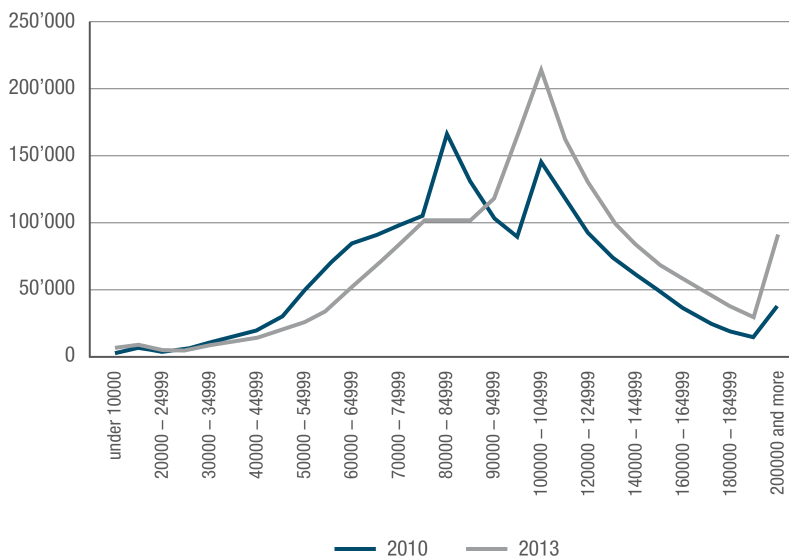
Another important change was the gradual increase and elimination of the ceiling on pension contributions and levels. The ceiling, introduced in 1992, was set at 300 per cent of the gross average wage. The ceiling ranged from 161 per cent (in 2002) to 311 per cent (in 2009) of the gross average wage.[28] Since 2013, pension levels have been set according to the total wage without a ceiling. As the minimum pension has not been indexed since 2008, and as an increasing number of people will have low pensions due to interrupted employment records, income inequality among pensioners is expected to increase. Given that men are overrepresented among high earners and women among low earners, gender inequality among pensioners will also most likely rise. Figure 10 demonstrates the sharp increase in the number of pensioners who received pensions above the average in 2013.

The **minimum pension** level has been frozen since 2008.[29] The level of the minimum pension is 28,500 HUF (approximately 200 USD), one-third of the net average wage. Figure 11 shows that while average pensions have been adjusted for inflation, the minimum pension has not been indexed.

[28] Recently, the ceiling has remained around 300 per cent. Each annual ceiling was used to calculate pensions (every year, a different ceiling was applied to the yearly average wage of the employee).

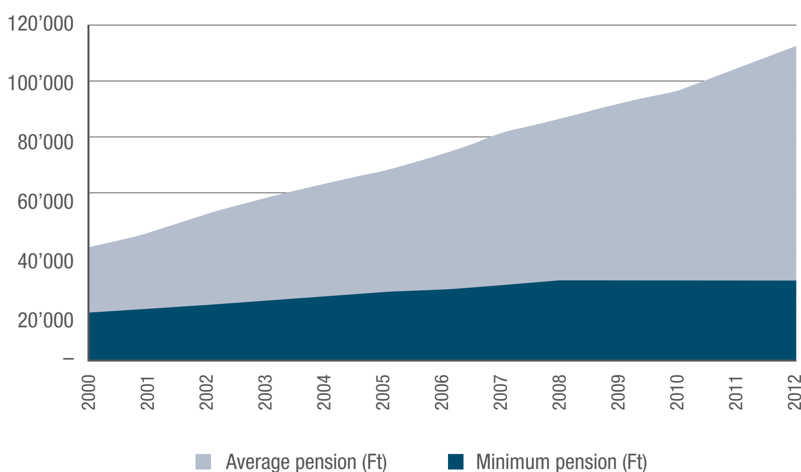
[29] The reason for this is that all social assistance levels are calculated as a percentage of the minimum pension in Hungary, including unemployment benefits.

Figure 10: Number of old-age pensioners by benefit level in Hungary, 2010 and 2013



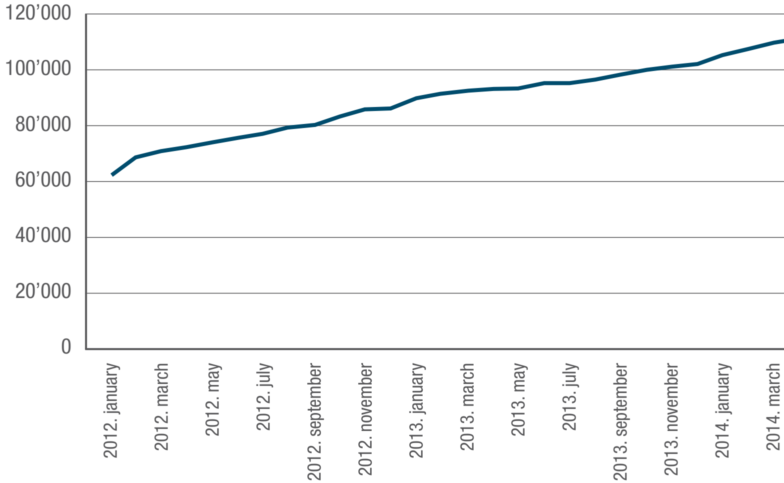
Source: Own calculations based on ONYF, 2015.

Figure 11: The nominal value of the average pension and the minimum pension in Hungary, 2000-2012



Source: Own calculations based on Országos Nyugdíjfolyósító F igazgatóság, 2015.

Figure 12: Number of women who retired after contributing for 40 years



Source: ONYF 2014.

Due to high coverage rates and relatively high replacement rates, only a small share of Hungary's elderly population lives in poverty. According to Eurostat, 4 per cent of people over age 65 lived in relative income poverty in Hungary (below 60 per cent of the median income), as compared with 14 per cent of middle-aged individuals (between the ages of 25 and 54). Currently, the most pressing social problem in Hungary is the high percentage of children living in poverty: 23 per cent of individuals under age 18 lived in relative income poverty in 2013 and over one-third lived in severely deprived circumstances. This percentage is extremely high, even compared with other countries of Central and Eastern Europe (Eurostat, 2015).

The positive discrimination of women (who can retire before the official retirement age with a full pension provided that they have contributed for 40 years) had a beneficial effect on women's pensions and thus contributed to gender equality in old age. The number of women who took this opportunity rose from 60,000 in 2012 to 110,000 in 2014 (Figure 12).

3.5. Final remarks

Hungary partially privatized its pension system in 1997, making it compulsory for young people to enter the mixed pension scheme and optional for other employees. The designers of the mixed pension system overestimated its possible positive effects and at the same time downplayed drawbacks. The greatest problem arose from the increasing cost of the transition from the public PAYG to a mixed pension system. External pressures, including the global financial crisis, strict macroeconomic conditions of the EU, and Hungary's lending from the IMF, as well as the internal political and economic conditions led to the conservative Fidesz-cabinet to introduce the re-reform in 2011 and to reverse pension privatization. The most important driver behind the reform was the cabinet's intention to reduce budget deficit and public debt while getting rid of international control of the IMF and the EU to fulfil its political and economic aims.

While the reform and re-reform process was somewhat abrupt and involved only limited transparency and social dialogue, its outcomes and the overall impact of the re-reform has been positive. Most importantly, reversing pension privatization has led to improved financial sustainability, increased pension adequacy, and with the positive discrimination of women in retirement age improved solidarity and gender equality. As a result, Hungarian pensioners enjoy rather favourable conditions with regards to coverage and pension benefit levels and are much less exposed to poverty than younger generations. Yet, the pension system in the long run raises some concerns that need to be addressed in future reforms. Reserves for future pensions were used for other purposes during the past years and the demographic transition and low employment rates indicate future challenges with regards to the sustainability of the system, challenges that will have to be addressed in order to guarantee sufficient income protection in old-age.

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4. Kazakhstan

Elena Maltseva and Saltanat Janenova

4.1. Summary of reforms related to pension privatization and its reversal

<table>
<tr><td>1998</td><td>The pension system following the 1998 privatization:
1st Pillar: mandatory funded and privately-managed, defined-contribution pension system based on individual accounts
2nd supplementary occupational pension plans.
3nd Pillar: voluntary pension system (also funded and privately managed) to provide for additional savings and insurance.
The solidarity pension (0 Pillar) was phased out as people in the pre-1998 pension system retire.</td></tr>
<tr><td>2004</td><td>Introduction of the social security rate.
It is charged to companies and covers social programs including pension, healthcare, and many other benefits. The rate averaged 26.6 per cent since 2004 and is now at 11 per cent (July 2018).</td></tr>
<tr><td>2005</td><td>Introduction of the unconditional, universal Basic Social Pension (BPP).
(Reformed in 2017).</td></tr>
<tr><td>2013</td><td>Reversal of the privatization and rebuilding a public pension system:
Law No. 105-V ZRK of 21 June 2013 “On Pensions in the Republic of Kazakhstan”
The new model:
0 Pillar: Basic Social Pension (BPP) (unconditional, universal pension payment)
1st Pillar: Fully-funded, individual-account, defined-contribution pension (mandatory – managed by the new public Unified Pension Fund (UPF);
2nd Pillar Occupational pension (high-risk employment). Plus a Solidarity pension PAYG paid by the government to citizens employed no less than six months before January 1998.
3rd Pillar: Voluntary pension scheme of the UPF.
Rights and ntitlements: Universal non-contributory pension is available from the age of 63 (men) and 58.5 (women) with a monthly benefit of up to US$ 82.50. Individual-account pension is available for citizens of the above pensionable ages or with sufficient funds accumulated.</td></tr>
</table>

	Administration: The BPP and solidarity pensions are managed by the government. Creation of the Unified National Pension Fund (UPF) for the administration of individual accounts. The UPF is jointly managed by the National Bank and the Council for Pension Assets Management under the President of the Republic of Kazakhstan. **Transfer of entitlements:** All individual-account funds and members were transferred automatically to the new public administrator, the UPF. Entitlements under the individual-account scheme are recognized under the defined-contribution formula. **Contributions:** The UPF is the public administrator and operator of financial and information flows, including contribution collection. Workers contribute 10 er cent to the individual account scheme. Employers contribute 5 per cent to the occupational pension scheme. **Supervision:** The Agency for the Regulation and Supervision of Financial Market and Financial Institutions (AFN) oversees the National Bank and its operations, including pension-fund management. **Solidarity and social impact:** The non-contributory Basic Social Pension and Solidarity Pension improved benefit adequacy for low income groups in particular, improving overall equity in the system. The government further gained access to long-term financing for public projects. **Fiscal impact:** As the individual-account scheme is still in operation, it is unlikely to have a significant impact on the fiscal position of the government.
May 2014	Announcement of the reform of the unconditional, universal BPP to a scheme where benefits are also linked to contributory records.

4.2. Introduction: Kazakhstan's pension system in transition

Following a decade of painful economic and social reforms, Kazakhstan is emerging as a dynamic economic and political actor in Central Asia (Dave, 2007). During the past decade, the country has undergone significant policy reforms, progressing towards a rules-driven fiscal framework, a more solid public management and business climate, and allocated resources for improving social services and infrastructure that support sustainable growth (OECD, 2014). Since 2000, Kazakhstan has been one of the fastest-growing economies in the world, performing well even during the 2008 financial crisis.

Kazakhstan made significant gains in social development, with the country's Gender Inequality Index improving by more than 30 per cent between 2000 and 2012. In 2013, Kazakhstan ranked 70th on the Human Development Index, 10 places higher than its 2005 ranking (UNDP, 2014). Sixty-eight per

cent of Kazakh women over age 15 were economically active in 2013 (World Bank, 2015). With a female-to-male ratio of 0.91 in 2014, Kazakhstan ranks 24th among 142 countries in terms of female participation in the labour force (World Economic Forum, 2014).

Yet despite such a remarkable transformation, Kazakhstan is still facing several challenges that threaten to undermine its sustainability and economic growth. These challenges include growing regional disparities in wealth distribution, persistently high poverty rates, particularly in rural areas and single-industry towns, and a significant gap between male and female life expectancy (62.3 for men and 71.7 for women). In addition, despite women's active participation in the labour force, the level of female political empowerment remains low (World Economic Forum, 2014). Corruption, limited human capital and a lack of active citizen participation in political processes also give serious cause for concern (see, for example, Amagoh and Bhuiyan, 2010; Bakenova, 2008; Duvanova, 2008; Emrich-Bakenova, 2009; Janenova, 2010; Perlman and Gleason, 2007; and, Knox, 2008).

The dramatic economic transition from the former Soviet Union led to concerns regarding the sustainability of the Soviet pay-as-you-go (PAYG) system to provide pension benefits to an increasing number of pensioners. In response, the government proposed a pension reform in the 1990s. On the advice of the World Bank (WB), the Asian Development Bank (ADB) and the United States Agency for International Development (USAID), the Kazakhstani government agreed to a radical pension reform. The Pension Law, passed by Parliament in July 1997, went into effect on 1 January 1998, providing the basis for the replacement of the PAYG system with a new fully-funded pension system based on individual accounts. Critics of this radical privatization at the time suggested that its emphasis on the technocratic elements of pension reform, without taking into consideration social issues and the adequacy of pension benefits, could lead to protests and declining levels of old-age social security – thus undermining the system's overall sustainability. This view was also shared by the International Labour Organization (ILO).

By 2012, the radical new pension system displayed several institutional and economic deficiencies. As a result, in 2013, Kazakhstan introduced the Unified Pension Fund (UPF)[1], practically reversing the privatization that was initiated 15 years earlier. The reform introduced a new pension tax on employers

[1] "UPF" is the Russian abbreviation of the "Unified National Pension Fund" (Edinyi Natsional'nyi Pensionnyi Fond).

and raised the retirement age for women from 58 to 63 to make the retirement age equal for both sexes. While the principal argument of the Labour Ministry and the National Bank was that the reform would create the necessary conditions for ensuring the pension system's financial stability and transparency, and that several European economies had already resorted to similar measures to reduce their budget deficits, the pension reform quickly led to heated debates and a wave of protests. Public debates and protests generally focused on women's increased retirement age, although the merging of all private pension funds into a single UPF was also discussed, albeit to a lesser extent by fewer actors.

In response to the barrage of criticism, the president of Kazakhstan signed the Law on Pension Provision in the Republic of Kazakhstan, as well as amendments to some legislative acts on pension provision, which provided for the gradual increase in women's retirement age from January 2018 forward, enabling the Kazakhstani authorities to implement the reform.

This study of the pension system reform is based on the analysis of primary and secondary data, including Kazakhstan's pension legislation, books, scholarly articles, reports and conference proceedings. To confirm the findings, the authors contacted 10 experts and civil society activists familiar with the pension reform, six of whom agreed to be interviewed. The collected interviews were based on a questionnaire developed by the authors, although the respondents had the opportunity to share additional information with the interviewers. The authors also observed how the system operates on the ground by visiting eight offices of the UPF in the Kazakhstani capital, Astana, as well as in Almaty and Atyrau.

4.3. Kazakhstan's pension system before 2013

Key characteristics of the Soviet pension system

Following the collapse of the Soviet Union, Kazakhstan underwent a dramatic economic transition that put great strain on the Soviet PAYG pension system. The key features of the Soviet PAYG system were:

1. Nearly universal coverage on pensions calculated based on earnings, and taking into account years of service and child caretaking;[2]

[2] Special rights were given to people working in listed occupations such as milkmaids, bus drivers, aviation employees, the police, the military, theatre performers, wind instrument players, etc.; dwarfs; persons working in hazardous conditions – for example, in the chemical, metallurgical and mining industries; and persons working in extreme weather conditions.

2. Pensions were financed through contributions and paid by employers and through budget transfers;
3. Relatively low retirement age (60 for men and 55 for women), with the possibility of early retirement for selected groups, such as people working in arduous and hazardous conditions;[3]
4. Replacement rates at 60 per cent of the highest past wages averaged over 12 months for workers with a full employment record, with 1 per cent extra for each year of service over 25 years for men and 20 years for women;
5. High average replacement rate that often exceeded two-thirds of the workers' previous highest wages; and
6. A generous system of non-contributory social pensions for those with insufficient employment histories, set at the minimum-wage level (Falkingham and Vlachantoni, 2012; Matthews et al., 1989).

Ultimately, the generosity of the Soviet pension system caused it to experience fiscal difficulties even before the breakup of the Soviet Union (Falkingham and Vlachantoni, 2012).

The Soviet pension system during the 1990s

The fiscal pressures on the Soviet PAYG system increased during the economic transition in the 1990s. The generous Soviet-era pension law that allowed for early retirement (53 for women, 58 for men) with at least 25 years of service for men and 20 years for women if they were unable to find new employment after layoffs or closures, as well as the deteriorating economic outlook during the early 1990s led to significant levels of early retirement (Seitenova and Becker, 2004). According to a 1996 household survey, 32 per cent of pensioners were under 60 years of age (Palmer, 2007).

The economic collapse during the transition years contributed to the sharp rise in unemployment and informal and underemployment, thus affecting the number of formal-sector workers whose contributions were essential for the financial stability of the PAYG pension system. By 1995, formal-sector employment had fallen by more than 30 per cent relative to 1991, and by 1997, the decline was

3 For example, milkmaids, goat herders, miners, mothers of more than three children, and several other categories.

already at 50 per cent. As a result, the pension system's dependency ratio, defined as the ratio of pension benefit recipients to the number of social insurance contributors, had increased significantly. In 1980, there were 30 pensioners per 100 workers; in 1997 and 1998, this number had risen to 73 and 83, respectively (Seitenova and Becker, 2004).

The growing number of pension recipients and the deteriorating dependency ratio contributed to rising government pension expenditures, from 5.45 per cent of GDP in 1989 to 7.87 per cent in 1996. Inflation and the decision not to index pension payments for inflation somewhat minimized the fiscal pressure, but also resulted in the overall decline of the minimum pension level and in growing poverty (Seitenova and Becker, 2004). In sum, these developments undermined the government's capacity to manage and finance its welfare system and greatly affected the well-being of Kazakhstani pensioners.

Social and demographic processes in Kazakhstan during the 1990s

The overall demographic situation in Kazakhstan changed significantly during the transition. Fertility rates declined from an average of 2.8 children per woman in 1989 to 2.3 in 2009. The economic situation contributed to a much steeper decline in birth rates than a typical trend would have suggested, as many families adjusted their family planning in response to the economic constraints (Falkingham and Vlachantoni, 2012). The deterioration in life expectancy at birth during the 1990s was staggering, falling from 63.9 in 1989 to 58.0 in 1996 for men, and from 73.1 in 1989 to 71.5 in 2009 for women (Falkingham and Vlachantoni, 2012). The 1990s were also characterized by the significant emigration of the working-age population from Kazakhstan to other countries, particularly the Russian Federation. An estimated 1.5 million people left the country during this period. The decline in fertility rates, outward migration and a gradual increase in the over-60 population explain the significant shift in the age composition of the Kazakhstani population.

To summarize, the key factors that contributed to the implementation of the 1998 pension reform were high unemployment, weak economic performance, the ageing population, negative trends in the pension system's dependency ratio, the evasion of tax payments and pension contributions owing to a large informal sector, and the gap between the size of contributions and pension benefits.

The Kazakhstani 1998 pension reform in the context of the post-Soviet economic transition

By the mid-1990s, the problems of pension sustainability and provision had become especially pressing. The changes in Kazakhstan's pension system shortly before and after its independence, coupled with the demographic trend, the fall in GDP, high inflation and growing levels of unemployment, underemployment and informal employment, contributed to an acute budget deficit, leading to pension debt and the government's inability to ensure minimal levels of social security. In late March 1997, pension arrears stood at 26 billion tenge (equivalent to three months of payments) (World Bank, 1998). Responding to widespread public discontent with delays in the payment of pensions and wages, the government increased its deficit and attempted to clear all pension and wage arrears in 1997.[4]

At this point, there was a growing realization that the existing pension system required reform. The question was whether the PAYG system could be maintained by making parametric adjustments as recommended by the ILO, or whether a completely new pension system should be adopted. During this time, calls for radical pension reform became more popular among local politicians and international policy actors such as the World Bank (WB), the International Monetary Fund (IMF), the Asian Development Bank (ADB) and the United States Agency for International Development (USAID), which argued that the old Soviet solidarity pension system caused growing socioeconomic instability (BBC Monitoring Service: Former USSR, 25 April 1997; Kazakhstanskaia Pravda, 10 April 1997). In this context, the Kazakhstani government, led by Prime Minister Akezhan Kazhegeldin, with technical and financial support from the ADB and the WB, designed a private pension-fund system that resembled the Chilean pension model. The goals of the new pension system were to promote self-sufficiency instead of government dependence, reduce government expenditures, encourage saving and develop the capital market (Seitenova and Becker, 2004).[5]

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4 Resolution of the Government of the Republic of Kazakhstan No. 186a, 10 February 1997; Resolution of the Government of the Republic of Kazakhstan No. 1022, 26 June 1997; Order of the Prime Minister of the Republic of Kazakhstan No. 106, 18 April 1997. Access to these documents is available at *Yurist – Kompleks Pravovoi Informatsii* [Lawyer – Database of Legal Information]. Link: http://online.zakon.kz. See also Aubakirov, 1997; Bul'dekbaev, 1997; *Reuters*, 16 June 1997.

5 See also: Bird, 1997; Kokovinets, 1998; and Andrews, 2001.

The basic model of the proposed 1997 Kazakhstani pension reform relied on a concept introduced by the WB in its report *Averting the Old Age Crisis* (World Bank, 1994). The report advocated for the implementation of a multi-pillar pension system, which consisted of a mandatory PAYG public pension system designed to provide an income floor for all elderly persons (Pillar 0); a mandatory funded and privately-managed, defined-contribution pension system based on individual accounts (the Latin American approach) or occupational plans (the OECD approach), (Pillars 1 and 2); and a voluntary system (also funded and privately-managed, to provide for additional savings (Pillar 3) (World Bank, 1994).

The draft of the new pension reform was presented in October 1996. The proposed pension reform formed part of a broader package of socioeconomic transformation, comprising three components: the privatization of public enterprises (SOE), the development of a securities market and the establishment of private pension funds (Becker et al., 2009). It was hoped that public offerings of SOE shares would help jump-start Kazakhstan's capital market, while revenue from the privatization of SOE would help finance the transition from a PAYG system to a fully-funded pension system (Becker et al., 2009; Khakimzhanov, 2015, personal communication, 8-9 June).

Kazakhstan's new Pension Law No. 136-I was passed on 20 June 1997 and went into effect on 1 January 1998. The reform transformed Kazakhstan's pension system from a solidarity-based system to the one based on individual accounts to be maintained either with the newly established Public Accumulation Pension Fund (SAPF) or with non-governmental (privately owned) pension funds (NSAPF). It also raised the retirement age from 60 to 63 for men, and from 55 to 58 for women (Kazakhstanskaia Pravda, 8 April 1997 and 20 March 1998; Solov'iev, 1997; Andrews, 2001; *The Economist*, 29 May 2003).

The Kazakhstani government went even further than the Chilean system toward a fully privatized system and the elimination of solidary old-age pension security, freezing all accruals under the old redistributive solidarity system and immediately transferring workers of all ages to the new system of mandatory individual accounts. The reform enabled retirees who had accrued benefits prior to 1998 to retain the right to receive their benefits under the old solidarity pension system but terminated the solidarity pension benefits for all other population groups. In other words, the mandatory, publicly funded pre-1998 pension would exist only for as long as there were workers with accrued rights. Essentially, it meant that the two systems operated in parallel. However, because

workers with pension benefits accrued under the old solidarity pension system retire, the public pension scheme is meant to be phased out within the next 30 years (Hinz et al., 2005).

Assessment of the structure and performance of the Kazakhstani privatized pension system

The government expected the development of a fully privatized pension system and the privatization process to strengthen the capital market, believing that citizens' active participation in the new system and the higher returns of private pension funds would facilitate the payment of adequate pension benefits in the future. However, none of these expectations fully materialized (Khakimzhanov, 2015, personal communication, 8-9 June). Concerned about the volatility of the international markets and possible exchange and liquidity risks if investments were made in foreign securities, but also restrained by government investment regulations and encouraged by the government to contribute to the development of the local capital market, Kazakhstan's Private Pension Fund Administrators (PPFA) chose to invest primarily in government securities. Few other quality assets were available on the domestic market. As of January 2013, most of the investment portfolio of pension funds was concentrated in the country: in national government securities (50.5 per cent), corporate securities (25.9 per cent) and bank deposits (10.4 per cent). Only 7.2 per cent of the investment portfolio was invested in public and private securities of foreign issuers (National Bank of the Republic of Kazakhstan, 2013). Overall, due to the strict capital requirements and government restrictions on investment, pension funds failed to develop the capital market or support the economy and the performance of the pension system (Gorst, 2013).

Given the weak rule of law and underdeveloped financial markets, the introduction of a fully privatized pension system came at a price, in the form of non-transparent deals, weak governance in the private sector and high service fees and operational costs (Zhandildin, 2015, personal communication, 4 July; Yesirkepov, 2013). Compared with 2010, in 2011 revenues of PPFA fell by 6 per cent, whereas expenditures increased by 16 per cent, and general and administrative expenses, in other words, non-production costs that are spent on PPFA staff, rose by 17 per cent and payroll by 18 per cent. Despite the catastrophically low levels of profitability, Kazakhstan's PPFA continued to spend more than they earned (Yesirkepov, 2013).

In addition, during the 2007-2008 financial crisis, the PPFA pension funds were used to rescue banks and other financial institutions, whose shareholders were

also PPFA shareholders. For example, before the crisis, the country was literally booming with corporate issuers, which largely focused on the pension money. During the crisis, a significant portion of bond issuers defaulted, resulting in billions of dollars in losses suffered by the PPFA (Yesirkepov, 2013). In 2011, in response to this situation, the government limited the use of pension funds in financial operations to no more than 8 per cent for PPFA whose pension assets exceeded 130 billion tenge. In 2012, the government stipulated that no single shareholder could own more than 25 per cent of PPFA funds (Yesirkepov, 2013).

Transparency has been an issue for PPFA as most did not reveal the structure of their share capital, and in some instances no shareholders were listed at all (Yesirkepov, 2013). Moreover, some PPFA did not even have official websites. For Kazakhstan's fully-funded, privately-managed pension funds to operate effectively, a dynamic domestic financial market, greater system transparency, a solid rule of law and the adequate regulation and supervision of pension funds, asset managers and other financial intermediaries were all essential. In practice, none of these conditions were fully met.

The 1998 pension reform also failed to achieve high replacement rates, or to enhance pension coverage and compliance as expected. The low returns on investments, which averaged 3-4 per cent, made the goal of attaining the 60 per cent replacement rate the government had promised at the beginning of the reform largely unattainable. As the director of the Centre for Macroeconomic Research, Olzhas Khudaibergenov, said in 2013: "Currently, half of the savings are invested in government securities, for which the average rate of return is 6 per cent annually. This year, the pension system showed a rate of return of 3 per cent. This means that the other half of the assets did not generate revenue. The government runs the risk of eventually failing to achieve its own guarantee" (Yesirkepov, 2013). The insufficient performance by the first pillar (individual accounts) and the limited presence of the 0 pillar (being phased out) contributed to the low replacement rates, which were 27.36 per cent in 2010 and 29.27 per cent in 2013 (Zhandildin, 2015).

The situation in terms of pension coverage and adequacy was no better. According to official statistics, in 2013, the new pension scheme covered 8.5 million people, representing 80 per cent of the economically active population (News-Kazakhstan, 8 August 2013). However, the WB's 2011 World Development Indicators stated that 65 per cent of the labour force in Kazakhstan did not contribute to a retirement pension scheme (Abdih and Medina, 2013). This

especially concerned the self-employed workers in the informal sector or/and the unemployed, who remained on the socioeconomic margins of society.

Likewise, the new system failed to provide adequate old-age income security to a significant number of people with low earnings, shorter, fragmented careers, and/or a lack of official employment records, all of which especially affected women. This problem was particularly serious for women born between 1948-1950 who retired before 1998 during the economic stagnation. Because of the negative economic effects of the transition period during the 1990s, these women were unable to provide proof of their most recent employment and average salary. Because of the interruptions in their employment record and low earnings, many of them received a minimum pension only. The weakly-developed labour market also prevented pensioners from accessing well-paid jobs at older ages. In response, in June 2005, the government introduced a universal basic social pension[6] that was not conditioned on contributions and employment history.

The new basic pension was set at 3,000 tenge per month, about 40 per cent of a subsistence income, and it was scheduled to be adjusted on a yearly basis, reaching a target of 75 per cent of subsistence sometime in the future. Since January 2015, the government basic pension has increased to 11,182 tenge (US$ 60), with the minimum pension set at 23,692 tenge (US$ 127), and the minimum subsistence level for the calculation of basic social payments rates was fixed at 21,364 tenge (US$ 114) (Government of the Republic of Kazakhstan, n.d., Size of Pension Payments in 2015). Individuals receive the basic pension in addition to the one earned under the residual former solidarity system and the fully-funded accounts.

To finance the existing pension and welfare obligations, the government introduced the Social Security Rate, a tax related to labour income charged to companies and collected to pay for many social programmes, including welfare, healthcare and several other benefits. The Social Security Rate in Kazakhstan averaged 26.60 per cent from 2004 until 2018, reaching an all-time high of 33 per cent in 2005 and a record low of 11 per cent in 2017. Currently, it stands at 11 per cent (July 2018) (Kazakhstan Social Security Rate 2004-2018, n.d.). The introduction of the basic social pension in 2005 guaranteed minimum income security to all citizens in old age. Following its introduction, the minimum level of pensions rose immediately by nearly half – from 620 tenge in 2005 to 1,0270 tenge in 2009, and the average pension has also increased significant-

6 *Базовая пенсия* in Russian.

ly since 2005 (Kurmanov, 2011). All other issues related to the performance and quality of the Kazakhstani pension system discussed earlier remained unaddressed.

4.4. The 2013 reform: Key characteristics

Basic characteristics of the new pension system

Kazakhstan currently has a multi-pillar pension system, which consists mainly of universal, mandatory and voluntary pillars (Table 1).

Table 1: Kazakhstan's pension system

Pillar 0	• Basic Social Pension (BSP) (universal and unconditional pension payment)
Pillar I	• Fully-funded, individual-account, defined-contribution pension (mandatory – managed by UPF) (10 per cent contribution rate for workers)
Pillar II	• Occupational pension (for high-risk professions) (5 per cent contribution rate for employers) • Solidarity pension: the pre-1998 government PAYG pension is being phased out, but as long as there are still workers or pensioners with at least six months of employment before January 1998, the PAYG pensions will continue to be paid.
Pillar III	• Voluntary pension scheme of the UPF

The zero pillar consists of the basic social pension (BSP). All citizens who have reached retirement age receive a BSP. The BSP is an equal amount for all, regardless of work experience and salaries. In 2018, the minimum base pension is 15,274 tenge or US$ 45, corresponding to 54 per cent of the minimum subsistence level (MSL). Since 1 July 2018, the BSP also increases with years of employment, for a maximum of 100 per cent of the MSL (Government of Kazakhstan, 2018).

The first pillar is based mainly on a mandatory individual-account pension scheme with a fixed 10 per cent contribution rate paid by workers. The ceiling is 75 times the minimum wage or 2,121,300 tenge in 2018 (equivalent to US$ 6,184.50) and the minimum cannot be less than the minimum wage (28,284 tenge in 2018, equivalent to US$ 82.50).

The second pillar consists of the occupational pension scheme with mandatory contributions for workers employed in high-risk professions (for example, natural resource extraction), with a contribution rate of 5 per cent paid by employers (Ministry of Health and Social Development of the Republic of Kazakhstan, 2012).[7] Corporate tax deductions were supposed to ease this additional burden on employers and it was claimed that this new regulation would create incentives to improve working conditions. Employers can obtain a certificate confirming that their employees' working conditions are not hazardous, exempting them from the occupational pension contributions (Telemtayev and Adjivefayev, 2014).

Pension savings in the UPF are placed in individual accounts belonging to each member. In the event of a contributor's death, his or her pension savings are transferred to his or her heirs. The minimum guaranteed pension is 54 per cent of MSL. The second pillar also includes the solidarity pension PAYG system inherited from the Soviet Union. The solidarity pension is financed through the government budget, paid to every employee with at least a six-month employment period prior to January 1998. With full employment periods of 25 years for men and 20 years for women, the replacement rate is 60 per cent, which increases 1 per cent for every additional year up to 75 per cent (Government of Kazakhstan, 2018).

The implementation of an additional notional defined-contribution pension financed through a contribution rate of 5 per cent paid by employers (which was set forth in the concept paper on the continued modernization of the pension system until 2030, published 18 June 2014) was postponed until 2020. Pension savings in a notional account do not belong to beneficiaries and therefore cannot be inherited by their heirs.

The third pillar is a private, voluntary pension scheme. It aims to increase individual savings and thus to secure a higher income upon retirement. Contributions of up to US$ 50 are tax-exempt. Rates and terms of payments of voluntary pension contributions are established in the contract agreement negotiated by the UPF and a voluntary payment contributor. Pension payments from voluntary pension savings are paid out when the worker reaches age 50 under the terms set in the agreement.

[7] In January 2012, 346,600 people were engaged in hazardous employment or worked under other adverse conditions.

Legislative and institutional changes and coordination mechanisms

The Law on Pension Provision in the Republic of Kazakhstan (21 June 2013), prepared by the Ministry of Labour and Social Protection and the NBRK, introduced the following changes to the 1998 fully- funded pension system:

1. Creation of a single pension fund, the UPF;
2. Transfer of all pension assets and obligations of the operating PPFA to the UPF;
3. Assignment of the management function of pension assets held by the UPF to the NBRK, and creation of the advisory board under the president of the Republic of Kazakhstan, the Council for Management of Pension Assets of the UPF;
4. Introduction of a mandatory 5 per cent contribution paid by employers on behalf of their workers in high-risk professions; and
5. Increase in the retirement age for women from 58 to 63.

A non-profit organization in the form of a joint stock company, the UPF was established in 2013, taking over all pension assets from the PPFA (Government of the Republic of Kazakhstan, 2013b). By 2014, the UPF had assumed responsibility for the management of all mandatory and voluntary occupational pension contributions (Kuandyk, 2014).

In other words, following the 2013 pension reform, the government became the UPF's sole shareholder, whereas the NBRK provided custody and accounting of the UPF's pension assets. The investment management of the UPF's pension assets was also transferred to the NBRK (UPF, n.d., History). The new fund will focus on investments in infrastructure projects; consequently, it is expected that it will invest less in private securities.

Following the reform, the quality of the UPF's customer services noticeably improved. It opened several new offices in Astana that were organized based on the example of the Kazakhstani One-Stop Shops (Tsentry obsluzhivaniia naseleniia). The UPF has 18 regional branches –one in each regional centre and in the cities of Astana, Almaty, Zhezkazgan and Semey. In total, the UPF currently operates 236 regional offices, with plans to open six additional service offices in Almaty, Astana, Karaganda and Pavlodar.

The second important change in the pension system concerned women's retirement age, which triggered heated debates and protests, with the active

involvement of civil society and women's rights groups. Initially, the government suggested raising the retirement age for women from 58 to 63 starting in 2014. Later, however, the massive protests against the reform persuaded the government to postpone the implementation date to 1 January 2018 and suggested a phase-in period of 10 years (increasing retirement age by six months every year). Some groups retained the right to early retirement at age 53, including women with five or more children who had a total employment record of 20+ years, and women who lived and/or are still living in emergency zones for at least 10 years and who were exposed to high radiation risk between 1949 and 1963.

While many people criticized the decision to raise the retirement age despite the increase in life expectancy, others pointed to several positive developments in this regard. Some experts argued that raising the retirement age would empower women to engage in productive employment. Critics claimed that many people approached retirement with several different, often serious, health conditions and would not live long enough to receive their pensions. Opponents of the pension reform also warned that an increase in the retirement age for women would inevitably lead to a shortage of jobs.

Responding to this criticism, the government stated that more than 500,000 jobs would be created by 2020 to keep the unemployment rate at 5 per cent (Government of the Republic of Kazakhstan, n.d., Business Roadmap for Employment – 2020). It promised to address the structural problems of the labour market and to introduce measures to improve the skills of women workers through on-the-job training; engage self-employed women in the Employment Programme 2020; and, improve access to microcredit for women working in a business or willing to start their own business. Additionally, the Initiative 50+ programme was implemented to facilitate the employment of people over age 50, and the Labour Code was amended to eliminate discrimination during employment and to guarantee continued employment for employees over age 55.

In short, the 2013 pension reform purportedly sought to address several demographic, socioeconomic and organizational weaknesses of the pension system since the introduction of the 1998 pension reform. Officially, the modernization of the pension system in 2013 was designed to provide an adequate standard of living at retirement age by enhancing the contributory capacities of citizens and improving the effective management of pension assets through greater transparency and accountability (UPF, 2014). At the same time, the government hoped to use the pension funds to invest in the national economy, thus suggesting that

the government's economic strategy was focused on government-led development. The new pension reform did not change the contributory nature of the Kazakhstani pension system as it maintained the individual pension accounts as the primary instrument of pension provision.

In May 2014, the health and social development minister announced plans to modify the BSP (Khabar.kz, 17 February 2015; Zakon.kz, 14 May 2014). Beginning on 1 July 2018, every citizen regardless of employment period (career and length of service) is entitled to a BSP at the minimum rate of 54 per cent of the MSL, which is 15,274 tenge today or US$ 45.00. This base pension is increased by 2 per cent for every year beyond a 10-year contribution period in the public pension system. For an employment period of 33 years or longer, the BSP will reach the maximum rate of 100 per cent of MSL (28,284 tenge, equivalent to US$ 82.50). The MSL is indexed for inflation annually, so the BSP rises with inflation.

The government also proposed the introduction of new employer contributions. By 2020, employers will make additional contributions of 5 per cent, in addition to the existing 5 per cent they pay in certain professions (occupational pensions for high-risk professions). These contributions will not be deposited into individual pension accounts but rather will be used by the government to pay pensions under the PAYG system.

According to Duisenova (2008), the new system will allow for a replacement rate of 40 per cent and above. However, critical observers have suggested that the introduction of a new employer contribution may promote the informal economy. According to a senior analyst of ROI Analysis: "To meet the new requirements, employers will have to either cut the incomes of their workers so as to avoid cost overruns or start paying so-called 'grey wages'" (Urazova, 2014). The government should consider ways to address current and anticipated weaknesses of the Kazakhstani pension system to ensure that it is effective, transparent and fair.

4.5. The 2013 reform: How was it done?

Sequence of reforms and critical details of the implementation process

To address the causes of social instability in the 2010s, the government launched several institutional, political and socioeconomic reforms. The pension reforms took place as part of a broader reform agenda that entailed several

law-enforcement and anti-corruption initiatives; steps to support employment in small, economically-depressed towns throughout the country (known as Employment Provision-2020); development of a comprehensive youth policy; establishment of a microcredit system; incentivization of internal migration from economically-depressed to rapidly-developing regions; and the implementation of several infrastructure and housing projects (Ministry of Education and Science of the Republic of Kazakhstan, n.d.; BNews, 31 January 2013).[8]

The socioeconomic modernization programme, which was part of the Kazakhstan 2050 strategy and which focused on administrative, social and economic reforms, among others, posited the idea that dependency on the government during one's most productive years was unacceptable.

The strategy prioritized poverty prevention and the establishment of basic social standards and guarantees, with the process directly dependent on the economy and budget growth (Nazarbayev, 2014). The government also promised to pay more attention to infrastructure development, natural resource management, industrialization, the modernization of the agricultural sector and support of entrepreneurship. Further investments in Kazakhstan's education, research, training and retraining systems were also announced.

As part of these broad reforms in 2012, the government began to develop a new concept for the pension system (Mozharova, 2013). At the request of the government, the WB prepared a report analysing the effectiveness of Kazakhstan's pension system and offering recommendations. The report attributed the existing deficiencies of the Kazakhstani pension system to market failures and advocated for the merging of all pension funds and their placement under the management of a foreign company for investment of those funds on the international stock market (in foreign bonds) (Khakimzhanov, 2015, personal communication, 8-9 June). The NBRK, the Ministry of Labour and Social Protection and the Association of Financiers also submitted proposals on behalf of several pension funds (Bozov, 2012).

The final draft of the law incorporated several suggestions made by the WB and the NBRK. The draft followed the WB recommendation of establishing the UPF to merge all pension assets and liabilities previously held by private pension funds. At the same time, the government rejected the WB's recommendation of placing the combined pension funds under the management of a foreign

[8] See also MetaKZ, 6 January 2012; Novosti-Kazakhstan, 7 February 2012; ARNA Press, 8 October 2012; Kazakhstan.kz, 27 January 2012.

company, instead reiterating the government's adherence to the idea of government-led economic development and entrusting the management of the UPF to the NBRK. The head of the National Bank, Grigorii Marchenko, also defended the reform, highlighting the potential loss of US$ 19.6 billion in tax revenues by 2023 should the proposed pension reform not be adopted (Voloshin, 2013; Vestifinance.ru, 26 February 2013).

From the outset, the executive branch and the NBRK led the pension-reform. The representatives of the labour ministry travelled to the regions for community meetings, campaigning in support of the pension reform. Civil society, pension fund members and other stakeholders had minimal participation in policy consultations. Likewise, the role of the Parliament in the development of the reform was nominal and limited to the organization of a formal discussion and enactment of the law. The bill was adopted by the lower (Mazhilis) and upper (Senate) houses of Parliament on 23 May 2013. A swift, negative reaction from citizens followed, which resulted in public and parliamentary discussions of the controversial bill.

Developed without broad public consensus, the new law "On Pensions in the Republic of Kazakhstan" was heavily criticized by civil society, women's groups and private pension funds. The public perception of the reform was negative. According to some surveys, 70 per cent of Kazakhs did not support the government initiative, believing that the proposed changes to the pension system would not contribute to solving existing pension problems (Savchenko, 2013). The plan to increase the retirement age for women coincided with the government's ratification of the Maternity Protection Convention (Convention No. 183). Many women felt that the government had only ratified the Maternity Convention to please the international community while distracting the public from the government's lack of interest in enforcing the fundamental principles of the Convention. Such a perception was reinforced following the government decision to establish a cap on maternity benefits (Harkova, 2015, personal communication, 10 June). In response to these two government initiatives, the Unity of Women and the Association of Businesswomen were formed, which organized peaceful demonstrations articulating women's concerns and demanding an adequate assessment of the possible consequences of the proposed changes (Del'masheva, 2015, personal communication, 9 July).

As some women's groups and NGOs argued, the introduction of changes to the women's retirement age should have been accompanied by comprehensive reforms of Kazakhstan's labour market and healthcare systems (Harkova, 2015,

personal communication, 10 June; A. Del'masheva, 2015, personal communication, 9 July). Research has shown that even though Kazakhstani women live longer than men, many women have numerous health problems that undermine their ability to work effectively after age 58, and that they are disproportionately affected by the deficiencies of the Kazakhstani labour market. Moreover, as some women argued, the introduction of a higher retirement age would dramatically affect the economic well-being and social fabric of many Kazakhstani families. Given the shortage of public childcare facilities, many young families rely on their mothers for childcare. In the absence of childcare facilities, these families would find it extremely difficult to balance their work and family obligations (A. Del'masheva, 2015, personal communication, 9 July). In short, Kazakhstan needed more jobs, economic diversification to accommodate more female workers, better employment policies and their stricter enforcement, and significant improvements in the healthcare and education systems if the government wanted to move ahead with increasing the retirement age for women (Harkova, 2015, personal communication, 10 June; Del'masheva, 2015, personal communication, 9 July).

The reaction of government authorities was mixed. Some officials expressed a willingness to discuss the policy proposals developed by the initiative. However, in other instances, such as in the City of Ural'sk (Western Kazakhstan) on 27 April 2013, local authorities banned anti-reform protests (Savchenko, 2013). In response to this criticism, Nazarbayev finally addressed the nation on 7 June. Although he criticized the Labour Ministry for its poor performance and returned the draft law to Parliament for additional discussion and voting on the timing of the retirement age increase, Nazarbayev defended the reform, stating that it was designed to better manage the eventual budget deficit problems resulting from reduced tax revenues in the coming years. He proposed to begin a gradual increase of the retirement age for women beginning 1 January 2018. The president also requested additional social protection measures, especially for women of pre-retirement age, before the new law on the retirement system goes into effect (Kazybay, 2013). The law "On Pension Provision in the Republic of Kazakhstan" was finally signed by the president on 21 June 2013.

Experts pointed to many negative aspects of the proposed "nationalization of pension funds," as some critics called it. The following problems were identified: the violation of the rights of members, lack of competition, restriction of private enterprise, violation of the rights of private businesses, the ineffectiveness of public management, and the loss of 12,000 to 20,000 jobs in private-pension sectors. The 2013 pension reform was said to create an environment conducive

to corrupt transactions, the monopolization of the market and the deterioration of market conditions for investors. This could adversely affect the profitability of pension savings and competition in the securities market (Savchenko, 2013). An open letter to the president signed by the president of the Pension Fund Association, the chairman of the Council for Pension Fund Association and the president of the Independent Association of Entrepreneurs explained the negative consequences of abolishing a competitive system of pension funds (Lukicheva, 2013). Some observers also pointed out the high risks of corruption and abuse by the UPF as the flow of funds would be controlled solely by the government, creating a monopoly.

In conclusion, the 2013 pension reform was driven more by the imperfections of the 1998 pension system, domestic political considerations and the desire to make the existing pension system an important element in the country's modernization process (Khakimzhanov, 2015, personal communication, 8-9 June). No real policy dialogue existed, with the government (as the centre of policy design and decision-making) presiding over the process of policy formulation. Other actors –Parliament, political parties, business actors, trade unions and civil society groups – either did not demonstrate sufficient proficiency to participate equally and independently in the dialogue or were not consulted on the matter at all. Given the lack of an effective public discussion of the reform, the dialogue was replaced by attempts to communicate the reform through public information/education campaigns.

4.6. The 2013 pension reform: Major impacts

Fiscal and socioeconomic results of the reform after implementation

The transformation of the Kazakhstani pension system, which began in 1998 and continued with the introduction of the BSP in 2005 and the 2013 pension reform, is an ongoing process. In 2018, the government plans to link the size of the BSP to the length of service/employment and introduce new employers' contributions equivalent to 5 per cent of employees' earnings. This pension payment will be available to all citizens with an employment record of no less than five years (Atabaev, 2014). It is still too early to draw any conclusions on the sustainability of the new pension system.

The UPF is currently the only organization responsible for managing pension funds. Although private pension funds are permitted to attract voluntary pension

contributions, no licenses to manage voluntary pension funds have been issued to date (National Bank of the Republic of Kazakhstan, 2015). As of September 2015, the UPF reported a slight increase in the number of contributory pension accounts (54,127 accounts or 0.6 per cent) while mandatory occupational pension accounts increased by 32,172 accounts (or 9.8 per cent) (Table 2) (National Bank of the Republic of Kazakhstan, 2015a). Between January and September 2015, the amount in pension funds increased by 656.7 billion tenge (14.6 per cent) in the case of mandatory pension contributions, and 24 billion tenge (91.3 per cent) in the case of mandatory occupational pension contributions. In the case of voluntary pension contributions, the amount of pension funds increased by 0.1 billion tenge (6.7 per cent, Table 3) (National Bank of the Republic of Kazakhstan, 2015a). The pension savings of contributors has increased since the beginning of the year by 680.7 billion tenge (15.1 per cent) and amounted to 5,198.5 billion tenge. Table 4 demonstrates the composition of pension funds. Pension payments also increased by 92.7 billion tenge (17.5 per cent) and amounted to 622.3 billion tenge as of September 1, 2015, up from 529.6 billion tenge in January 2015 (National Bank of the Republic of Kazakhstan, 2015a).

Table 2: Number of accumulative pension fund accounts

	1 January 2015	1 September 2015	Rate of change (per cent)
Mandatory pension	9,377,563	9,431,690	0.6
Voluntary pension	39,934	39,416	- 1.3
Mandatory occupational pension	328,105	360,277	9.8

Source: National Bank of the Republic of Kazakhstan, 2015a.

Table 3: The size of pension funds (in billions of tenge), as of 1 September 2015

Pension funds, in billions of tenge	1 January 2015	1 September 2015	Increase (per cent)
Mandatory pension accounts	4490,0	5146,7	14.6
Voluntary pension accounts	1,5	1,6	6.7
Mandatory occupational pension accounts	26,3	50,3	91.3

Source: National Bank of the Republic of Kazakhstan, 2015a.

Table 4: Composition of pension funds

The amount o f pension savings	1 January 2015	1 September 2015	Increase (per cent)
Pension funds, in billions of tenge	4517.8	5198.5	15..1
Pension contributions, in billions of tenge	3686.3	4138.2	12.3
Net investment income, in billions of tenge	990.5	1311.2	32.4
The share of net investment income in the amount of pension savings, per cent	21.9	25.2	3.3

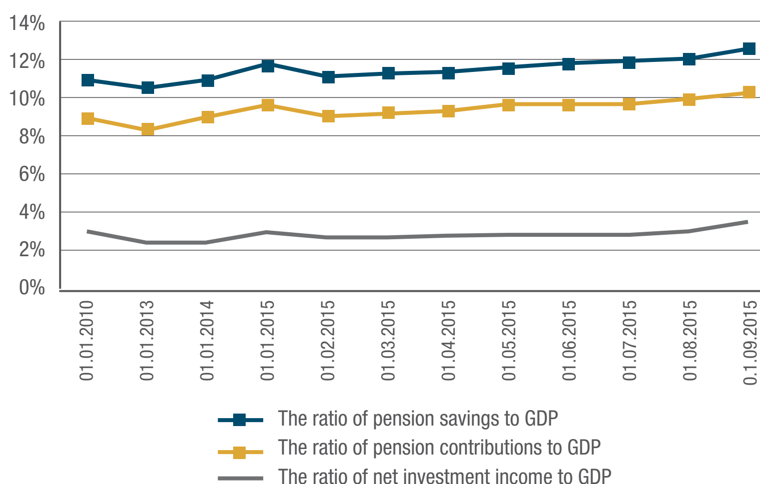
Source: National Bank of the Republic of Kazakhstan, 2015a.

With respect to the performance of the new pension system and its role in the national economy, a recent government report claimed a positive dynamic, although it is still too early to draw final conclusions. Figure 1 shows that since January 2015, the ratio of pension savings to GDP increased from 11.7 to 12.6 per cent, pension contributions to GDP from 9.5 to 10 per cent, and net investment income from 2.6 to 3.2 per cent (National Bank of the Republic of Kazakhstan, 2015a).

As of 1 September 2015, the major share of the total investment portfolio of the UPF was composed of government securities and corporate securities of the Republic of Kazakhstan: 44.1 per cent and 39.1 per cent, respectively. Foreign bond investments total 317.2 billion tenge (6.4 per cent), including corporate bonds of foreign issuers, securities of international financial organizations and government securities of foreign issuers. Table 5 provides an overview of the investment portfolio of UPF as of September 2015.

As is evident from this brief overview, the investment portfolio of the new pension system has remained conservative and is limited by the underdeveloped domestic stock market. Accordingly, most pension funds are invested in low-risk government securities. However, a closer analysis reveals a slight decline in investments in government securities and an increase in corporate bonds (Shakenova, 2015). As of June 2018, the portfolio distribution was 46 per cent in government securities, 27 per cent in domestic corporate securities, 16 per cent in foreign securities, 10 per cent in bank deposits - and 1 per cent in cash and other receivables.

Figure 1: Impact of the pension sector on Kazakhstan's economic performance



Source: National Bank of the Republic of Kazakhstan, 2015a.

Table 5: Structure of the UPF investment portfolio as of September 2015

Financial instruments	Current cost in billion tenge	Per cent share
Government securities of the Republic of Kazakhstan	2196.7 (1967.3 in Jan 2015)	44.1 (45..3 in Jan 2015)
Government securities of foreign issuers	61.6 (74.3 in Jan 2015)	1.2 (1..7 in Jan 2015)
Securities of international financial organizations	83.6 (82.5 in Jan 2015)	1.7 (1.9 in Jan 2015)
Corporate bonds of issuers of the Republic of Kazakhstan	1947.0 (1364.9 in Jan 2015)	39.1 (31.4 in Jan 2015)
Corporate bonds of foreign issuers	172.0 (151.3 in Jan 2015)	3.5 (3.5 in Jan 2015)
Refined gold	0.0 (0.0 in Jan 2015)	0.0 (0.0 in Jan 2015)
Deposits in second-level banks	519.8 (710.2 in Jan 2015)	10.4 (16.3 in Jan 2015)
Derivatives	0.0 (-4.5 in Jan 2015)	0.0 (-0.1 in Jan 2015)
Total	4980.7 (4346.0 in Jan 2015)	100.0 (100.0 in Jan 2015)

Source: National Bank of the Republic of Kazakhstan, 2015a.
Link: http://www.afn.kz/index.cfm?docid=781&switch=russian.

The centralization of pension funds helped reduce commission fees and operational costs by almost half and is contributing to the greater transparency and accountability of the UPF to its contributors. Prior to the 2013 pension reform, commission fees charged by private PPFA often exceeded 15 per cent of their investment income and 0.05 per cent of pension assets monthly. Following the centralization of pension funds, the government ruled that the UPF could not charge more than 7.5 per cent of the investment income and 0.025 per cent of pension assets monthly. Beginning in 2016, commission fees were further reduced to 5.25 per cent of investment income, and 0.0225 per cent of pension assets monthly (Kursiv.kz, 2013; Association of Financiers of Kazakhstan, 2015a).

Furthermore, besides the underdeveloped stock market, the poor diversification of investment portfolios and contributors' limited control over their pension funds, other issues of concern include the low coverage of the population in the case of the contributory pension system. Although recent trends suggest a slight increase in the number of accountholders, the situation is viewed with concern, especially in light of the forthcoming changes to the BSP in 2017 and 2018. These changes could have a significant impact on the well-being and old-age security of several vulnerable population groups. Low levels of voluntary pension contributions are also worrisome.

Currently, about 66 per cent of the economically active population participates in the contributory pension system, including 98 per cent of formal-sector employees. However, as the Kazakhstani labour market is weakly developed and has a large informal sector, many people are self-employed and/or employed unofficially, and therefore do not contribute to the pension system. According to several sources, more than 30 per cent of the population is not covered by the contributory pension system. This is especially problematic for women, who are more likely to be employed in the agricultural sector or in domestic service.

High levels of self-employment and unemployment explain the low coverage rate. Even many formally-employed workers are contributing minimal amounts, and thus will receive low pensions. By failing to address the problems of workers employed in the informal sector, low-income workers and workers with interrupted employment records, the government is creating a significant problem for itself in the future.

The government has proposed some steps to address the problems facing the current pension system. To increase the participation rate of the self-employed population, especially women, in the contributory pension system, the government is currently working on a new Labour Code, with the goal of formalizing

the employment relationship in the informal market and attracting self-employed people to the contributory pension system. The government plans to clarify the status of self-employed workers and to make participation in the pension system mandatory. The order of pension contributions will also be changed to enable self-employed people to disclose information on their real wages and make adequate pension contributions. The forthcoming changes to the BSP are also meant to encourage workers to enter into formal employment relationships with employers since this benefit will soon be available to citizens with an employment record of no less than five years (Atabaev, 2014).

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5. Poland

Michał Polakowski and Krzysztof Hagemejer

5.1. Summary of reforms related to pension privatization and its reversal

1998	**The pension system following the 1998 privatization:** 1st pillar: Mandatory, publicly managed, PAYG, Notional DC (contributions: 12.22 per cent) 2nd Mandatory, privately managed, fully funded DC (contributions: 7.3 per cent)
2010	MoL and MoF launch media campaigns informing on different aspects of the private system (e.g.: high transition costs; high administrative costs, poor investment returns).
May 2011	**Reversal of the privatization and rebuilding a public pension system:** New pension law Dz.U. 2011 nr 75 poz. 398 (partial reversal) : • Contribution rate paid to the second-tier pension funds was reduced by more than half (initially to 2.3 per cent; later it rose to 2.92% in 2014) and directed to a special subaccount in the public notional DC tier. • Ban on pension fund marketing, to reduce high administrative costs. • More aggressive investment strategy of the pension funds was allowed. • As of 2012, the retirement age was gradually raised from 60 to 67 for women (by 2040) and 65 to 67 for men (by 2020). • Stricter retirement rules for the military, police and similar institutions.
Sept 2013	Act Dz. U. 2013 poz 1717 (full reversal), made contributions to the individual account scheme voluntary and allowed the transfer of current accounts to the public notional defined contribution (NDC) scheme. **The new model:** The system consist of a public PAYG NDC scheme. A guaranteed minimum pension is financed from public funds. The government also provides a means- and pension-tested non-contributory pension. **Rights and entitlements:** Contributory PAYG ension and a guaranteed minimum monthly pension of around US$240 is available for men (65) and women (60). The replacement rates are 39 (men) and 34 (women) per cent with 45 (men) and 40 (women) years of contributions. In addition means/pensions-tested non-contributory pension benefits of US$129 approximately are available to both men (65) and women (60).

	Administration: The public PAYG NDC scheme is under the management of the Polish Social Insurance Institution (ZUS); The remaining private individual accounts (optative) continue to be managed by private pension fund administrators. **Transfer of entitlements:** No transfer of members was required as every individual account member was also affiliated with the public system administered by ZUS. Assets from the individual account pension funds were transferred and written to the individual NDC sub-accounts in the public scheme. **Contributions:** Workers contribution: 9.76 per cent Employers contribution: 9.76 per cent **Supervision:** The private and public pension funds are regulated by the Financial Supervision Authority (FSA). **Fiscal impact:** PLN 120 billion (~EUR 30 billion) were transferred to the state insurance system (ZUS), decreasing its deficit from 3.52 to 2.73 per cent of GDP, while reducing the fiscal deficit from 4.78 to 3.72 per cent, and the public debt from 56.2 to 50.2 per cent of GDP between 2011 and 2014.
Jan 2014	**Transfer of 51.5 per cent of pension fund assets** that had been invested in government bonds based on their value on 3. September 2013
2018/2019	The government plans to transfer a quarter of remaining individual account balances to ZUS and credit them to the NDC subaccount. The remaining three-quarters will be transferred to new occupational savings accounts to which both employers and workers contribute, incentivized by state matching funds and automatic enrolment. Workers will be members of such schemes by default but will have the right to opt out.

5.2. Introduction

Poland belongs to the first wave of pension reformers in Central and Eastern Europe. The Polish pension reform of the late 1990s can serve as a case study for the challenges faced when implementing a radical paradigmatic pension reform towards a privatized DC scheme. This report analyses the background of the original reform, discusses its political, social and economic impact and explains the reasons for later reform reversals. The report stresses that the two re-reform waves, which took place in 2011 and 2013, were mainly driven by fiscal considerations. Since the current system maintains the DC scheme applied to both public and private tiers, the recent reversal of privatization will not improve benefit levels.

The original design of the Polish pension reform was finalized at the end of 1998 and implemented in early 1999, after three years of preparations, debates

and intensive legislative negotiations. It aimed to introduce a multi-tiered pension system. The reform was one of the most radical pension reforms in Europe due to its shift to a DC scheme and individual accounts in all tiers of the pension system. While the first, mandatory tier remained financed through a PAYG scheme and was publicly managed (by the social insurance institution, Zakład Ubezpieczeń Społecznych, ZUS), the calculation of pension benefits follows DC rules. It is thus a "notional" DC or "non-financial" DC scheme (NDC) as opposed to a fully funded "financial" DC scheme (FDC). All contributions paid by or on behalf of insured persons adjusted periodically with the "notional" rate of return are recorded in an individual account and pension upon retirement is calculated by dividing the amount accumulated over the working life by life expectancy at the age the person retires. The second tier was originally introduced as a mandatory fully funded FDC tier, which was privately managed by open pension funds (Otwarte Fundusze Emerytalne, OFE), and operated by private pension fund companies (Powszechne Towarzystwa Emerytalne). The two mandatory tiers are complemented by a third, voluntary tier. This tier is also based on a FDC scheme, with members benefiting from certain tax incentives. At the time of the reform, only occupational plans were available.

In the (partial) privatization of the Polish pension system in 1999, of the total mandatory contributions of 19.52 per cent of the gross salary for old age pensions, 7.3 percentage points were transferred from the public system to private pension funds of the second tier, while 12.22 percentage points remained in the first, public tier.

Table 1: Key characteristics of the three-tier Polish pension system after the 1998 reform

	1st tier	2nd tier	3rd tier
Administration	Publicly managed	Private (open pension funds)	Private (mainly occupational plans)
Financing method	Pay-as-you-go (PAYG)	Notional Defined Contribution (NDC)	Defined contribution (DC)
Mandatory/ voluntary	Mandatory	Mandatory	Voluntary
Contributions	12.22 per cent of gross salary	7.3 per cent of gross salary	

Membership in the second tier was mandatory for individuals under age 30 when the reform was introduced (and all new entrants to the labour market). Those between 30 and 50 years of age had until 31 December 1999 to decide whether they wanted to join the second private tier, thus directing a part of their old-age pension contribution to a selected private pension fund, or to keep all the contributions in the reformed (NDC) public tier. Those over age 50 at the time of the reform were not affected and remained in the pre-reform DB system. Approximately 60 per cent of those who could opt for channelling part of their contribution to the private funds decided to do so. The main determinant was age – the younger a person was, the more likely he or she would join the private tier. In the younger cohorts of this group, women outnumbered men; in the older ones, the reverse was true.

5.2.1 Features and circumstances of the pre-reform pension system

The Polish pension system, as shaped by the pre-1989 Communist regime, was characterized by strong redistributive elements and a relatively generous benefit formula, as well as by many provisions for early retirement. The statutory retirement age was 60 for women and 65 for men, but the actual average age of retirement was about 55 for women and about 60 for men. Only employers paid contributions and there was one contribution rate set to cover all the risks insured by social insurance – old age, survivorship, disability, sickness, maternity and employment injury. Combined with many non-contributory benefits paid by the same institution and the significant participation of central budget financing, the social insurance financing system was confusing.

Poland's transition towards a market economy beginning in 1990 was marked by an extremely difficult macroeconomic context, notably hyperinflation and soaring unemployment and external public debt rates. At that time, early retirement was still incentivized to ease pressure on the labour market and to facilitate the restructuring of enterprises and whole branches of the economy. With the influx of early retirees as well as increases in benefits to compensate for the withdrawal of subsidies, pension costs rose substantially. There was clearly a need for reforms, particularly towards increasing the effective retirement age (Cichon, Hagemejer and Ruck, 1997; Hagemejer, 1999).

Several parametric changes were introduced in the early 1990s. These included:

Lengthening the reference period used for calculating pension benefits from 12 months to 10 years. These could be selected out of 20 years preceding retirement;

A reduction of the so-called non-contributory periods that could be considered when calculating the pension to the maximum of one-third of the total insurance history;

A 50 per cent reduction in the accrual rate applied to non-contributory periods. Previously, an accrual rate of 1.3 was applied equally to contributory and non-contributory periods; and

The so-called branch “privileges” in calculating pensions were phased out. The contribution base used to calculate pensions was capped to 250 per cent of an average salary.

However, consecutive governments were either unwilling or unable to resolve the issue of early retirement age and to introduce the necessary changes to incentivize later retirement. The major reason for this stagnation was political: During times of major structural adjustment and high unemployment rates, the possibility of early retirement had an important cushioning role and any reforms of these provisions would have been highly unpopular.

At the same time, during the mid-1990s, a number of more radical pension reform proposals were discussed – ranging from the introduction of deeper parametric changes, which would reduce the scope of redistribution and/or strengthen the link between contributions paid during the years of employment and future benefits by shifting from the point system based on the French or German models to full privatization based directly on the Chilean model.

5.2.2 The Polish pension reform of 1998 – objectives, expectations and results

During the period 1996-1998, a broader political consensus was gradually reached around the final shape of the reform, with its two main features: the move to (N/F)DC schemes in calculating benefits (the major expectation was that it would provide incentives to make people work much longer, without the need for any government to undertake the political risk of increasing the statutory retirement age); and partial privatization (with the argument of reducing alleged political risks associated with public systems, of stimulating savings as well as supporting the development of capital markets and thus promoting growth).

As in many other countries, the main actors in the debate were officials, advisers and experts of two ministries: The Ministry of Finance and the Ministry of Labour and Social Policy. Initially, the Ministry of Labour and Social Policy ar-

gued for a rationalization of the existing system with a voluntary funded pillar, while the Ministry of Finance was in favour of a radical reform with a significant portion of mandatory funding. Trade unions, as well as some think tanks and academic centres, also developed proposals. For example, a proposal of the Solidarność trade union supported mandatory funding but emphasized the participatory governance of the pension funds and use of government bonds to finance the transition. Ultimately, however, the most important challenge was to reach consensus among the different political parties in Parliament. The Government Plenipotentiary for the Pension Reform, which also had support from the Tripartite Commission, played an instrumental role in this consensus.

The World Bank's blueprint of a three-pillar pension system laid out in its flagship report (World Bank, 1994) was broadly accepted across the political spectrum. While the reform was initiated by the centre-left coalition led by the post-Communist party, it was finalized by the centre-right coalition linked to the "Solidarność" trade union confederation. Trade union leadership across the political spectrum hoped for benefits to the trade union movement resulting from pension privatization. Some unions entered into joint ventures with financial service companies (one example is the open pension fund established by the "Solidarność" trade union with a Swiss insurance company, which lasted only a few years since the trade union sold its shares). A World Bank official of Polish nationality was released temporarily from the World Bank to become the director of the Office of the Government Plenipotentiary for the Pension Reform.

5.2.3 Promoting later retirement without increasing statutory retirement age

The main objective of the proposed reform was to introduce aggressive incentives to work and contribute much longer in all tiers of the pension system, as the alternative would be very low benefits. However, the scale of the potential benefit cut was never spelled out explicitly in the public and parliamentary presentations of the proposal. Warnings by the small group of experts opposing the reform were ignored. Instead, the strategic reform document prepared by the Office of the Plenipotentiary for the Pension Reform insisted that the replacement rate for the reformed system would be higher than in the existing system, assuming that workers would remain in the labour market much longer. For example, it estimated that the replacement rate of both mandatory tiers (first employed at age 20, average salary, contribution of 18 per cent or 24 per cent,

payroll increase of 1.5 per cent annually, second pillar rate of return of 2.5 per cent annually, inflation 0 per cent) would reach either 71 per cent or 80 per cent when retiring after contributing continuously for 47 years, compared with an average of 67 per cent for the old system (Office of the Plenipotentiary for the Pension Reform, 1997, p. 15). However, actual average contribution periods at that time were closer to 30 years for women and 35 years for men. None of the documents presented at that time showed what the replacement rates would be if people were unable to work and contribute longer due to labour market conditions or other constraints. Only a few years after the reform was adopted, other official reports listed future replacement rates under more realistic assumptions. The estimates published by the pension market regulator (UNFE) in 2001 and by the Supreme Audit Office (NIK) criticized previous simulations for their unrealistic assumptions (for example, not taking into account the actual impact of the private pension administrators' fees and charges on future benefits) and indicated that for women who had contributed for 35 years, expected replacement rates would range from 38 per cent to 39 per cent, while men contributing for 40 years could expect replacement rates ranging from 56 to 60 per cent(UNFE, 2000; NIK 2002).

The phasing out of early retirement provisions was delayed until very recently, for which reason the incentives to contribute longer could not be implemented. Although the share of benefits granted under pre-reform conditions (that is, where they are not based on individual accounts) is decreasing[1], persons retiring now and in the near future will not yet feel the full impact of the reform on benefit levels given that, as part of their notional contribution, these cohorts have capital amounts accumulated through the relatively generous pre-reform DB scheme, which compensate for the acquired pension rights. Only those entering the labour market after 1 January 1999 have pensions that reflect the new DC scheme – but these cohorts will start retiring well after 2040. Policymakers apparently no longer believed that these incentives were strong enough, for which reason they introduced a gradual increase in statutory retirement age in 2012, from 65 to 67 for men until 2020 and from 60 to 67 for women until 2040 (the original reform assumed that actually there was no need to increase the retirement age and a minimum retirement age of 62 for both sexes would suffice). The recent increase in retirement age occurred despite opposition from trade unions. There is continuing political pressure from trade unions and opposition political

[1] In 2012, 33 per cent of benefits were granted under pre-reform conditions; in 2013, the figure was 31 per cent, which declined to just 16 per cent in 2014.

parties to re-introduce early retirement provisions or even reverse the retirement age increase. Most contributors, trade unionists and policymakers do not fully understand the logic of pension calculation based on (N/F)DC models.

Similarly, the reform did not have a major impact on coverage. Due to changes in labour legislation aimed at increasing labour market flexibility, the share of employees with contracts not covered by social insurance has significantly increased over the past decade. The mandatory DC pension insurance does not seem to provide effective incentives to formalize employment and to prevent employers from lowering labour costs through precarious forms of employment. The total number of persons covered is mainly a function of overall employment levels. In 1999, nearly 13.3 million individuals were paying old-age pension insurance, which declined to 12.7 million in 2003 due to rising unemployment rates. This was followed by a continuous increase until 2011 (when it reached almost 14.7 million insured), and then a slight decrease. The most recent available data indicate that 14.5 million people were covered in 2013.

Another argument in favour of the reform was risk diversification, especially in the context of an ageing society. According to the reformers, public systems are prone mainly to political risks of shifting pension promises while private systems are only exposed to economic risks. This argument was false from the beginning since the NDC pension model shifts a large share of demographic, labour market and economic uncertainty onto contributors and beneficiaries. Recent de-privatization has shown that private schemes are not immune to political risks. The losers are the contributors to the schemes because regardless of the diversification, the guarantees of minimum income security in old age were dramatically lowered by the reform.

5.2.4 Shifting from implicit to explicit pension debt in an ageing society

Reform promoters referred to the need to transform the implicit pension debt into an explicit debt. They argued that this would reduce the propensity to go beyond actuarially fair equity. They also viewed the reform as an answer to the alleged all-encompassing 'bankruptcy' of the PAYG model for financing pensions. This reform combined the existing DB formula, which used a relatively short reference period to calculate benefits and gave preferential treatment to some occupational groups (which could have been changed through parametric reforms) with general features of the PAYG system.

As reformers argued in 1997-1998, the overall shift to NDC combined with partial privatization was supposed to reduce gross public pension liabilities from 462 per cent to 198 per cent of GDP. The actual reduction was lower than predicted as many planned measures were delayed or never introduced due to the opposition from groups benefiting from the privileged entitlement conditions.

All available projections (like those of the EU Commission in 2015) demonstrated that old-age pension expenditure as a proportion of GDP will decline slightly over the next 50 years despite the ageing of the population. This expected decline is due mainly to benefit cuts (effect of both dramatically reduced replacement rates under the DC scheme and an indexation of benefits at a significantly lower level than wage growth), and to the likely later retirement of workers to a lesser extent. Although EU projections do not consider future costs of minimum pension guarantees and social assistance for the elderly living in poverty (ZUS recently estimated that in 40 years, the public budget would have to finance minimum pension top-ups of more than 0.5 per cent of GDP), it could be argued that the Polish reform went too far in terms of benefit level reductions.

The 2011-2013 re-reform once again revealed the inconsistencies of policymakers. Before the reform was enacted, policymakers reiterated their readiness to allocate the resources needed to cover the transition costs of privatization (and thus agreed to transfer the "implicit" public debt into an explicit one). A decade later, they changed their minds and prioritized medium-term fiscal concerns.

Poland has one of the fastest ageing populations in the European Union. The table below lists some indicators based on the European Commission's Ageing Report (European Commission, 2015).

Three systemic tools were included in the public tier of the pension system to reduce the risks involved for an ageing society. First was the NDC formula itself, which affects the level of newly-granted benefits in the case of increased longevity (the pension is calculated by dividing the value of accumulated contributions to the individual account by life expectancy at the age of retirement).

Second, a mechanism is in place to adjust the value of the notional individual account by the notional rate of return, which follows the annual increase in the value of the sum of wages of all insured persons. This solution was originally proposed by the designers of the Swedish pension reform. In Sweden, however, the proposal was rejected and individual accounts in that country are adjusted annually to reflect the increase in average earnings per insured person (corrected periodically using the automatic balancing mechanism). In Poland, the adjustment

Table 2: Demographic trends – Poland and the EU

Year	Old-age dependency ratio		Life expectancy at 65				Support ratio (contributors/100 pensioners)
	Poland	EU 28	Poland		EU 28		Poland
			men	women	men	women	
2013	32,70	41,47	15,40	19,60	17,64	21,02	173,4
2020	40,39	45,29	16,30	20,50	18,42	21,76	171,5
2025	47,14	48,68	17,00	21,10	18,95	22,28	163,0
2030	51,14	53,06	17,70	21,70	19,48	22,80	157,3
2035	53,60	57,59	18,30	22,20	20,00	23,30	154,3
2040	57,15	61,04	18,90	22,80	20,52	23,80	150,4
2045	63,55	63,75	19,50	23,40	21,01	24,27	139,6
2050	72,61	65,55	20,10	23,90	21,49	24,74	126,9
2055	81,03	66,51	20,70	24,40	21,95	25,18	116,4
2060	86,74	66,47	21,30	24,90	22,42	25,64	110,6

Source: European Commission, 2015.

coefficient was initially adopted at the level of 75 per cent of the amount of wage increases and only later changed (also retroactively) to 100 per cent. In the future, when demographic ageing reduces the working age population and consequently, the numbers of contributors, accumulated pension credits for individual accounts will grow at a slower pace than average earnings – with potentially disastrous effects for future replacement rates (see above).

The third tool is the Demographic Reserve Fund, to which 1 percentage point of the 19.52 per cent is channelled. The ZUS administers the Fund, which has a relatively high rate of return. However, in recent years, resources from the Demographic Reserve Fund have been used faster than predicted given the growing deficit in the ZUS pension fund, as well as pressure from the European Union's EDP.

No systemic tools for adjusting other parameters of the pension system, especially retirement age, are included to respond to demographic shifts. Recently (2013) the system introduced gradual gender equalization and the gradual in-

crease of the retirement age: until 2020, men's retirement age will gradually increase to 67 years, while that of women will increase to 67 years by 2040.

5.2.5 Promoting voluntary pension savings

The report "Security through diversity" (Office of the Plenipotentiary for the Pension Reform, 1997) stated that the introduction of a contribution ceiling of 250 per cent of an average salary would enable additional, voluntary savings. A further reduction of the contribution for the mandatory old-age insurance scheme was planned, so that individuals could prioritize voluntary saving for old age. The goal was to reduce public old-age pension expenditures. However, given the delays in phasing-out early retirement and other special pension provisions for political reasons, the deficit of the public pension tier continues to grow and thus there is no space for reducing contributions. Third-tier, voluntary pensions, despite the number of new solutions introduced over the past 15 years, still effectively cover only a small percentage of the employed. One explanation is the ban on establishing occupational pension schemes by public sector employers, which was introduced by the Ministry of Finance to control public deficits.

5.2.6 Promoting competition

The argument that competition between pension funds promotes efficiency (rate of return) was also presented to support the introduction of a model based on private fund administrators. However, the structure of the fund portfolios, rates of return and fees levels (see below), as well as the growing concentration of funds, points to a lack of competition. Instead, many cases of transfers from one fund to another were identified. This strategy, based on extensive and costly canvassing, sought to attract individuals with accumulated contributions rather than new labour market entrants. A 1999 survey found that less than one third of Poles knew that fees are charged for transferring between funds.

5.3. Reasons for re-reform and reversal of privatization

Subsequent government administrations were primarily concerned with financing the transition costs of the 1999 reform. The reform blueprint had already mentioned the risk to the public sector of financing the transition costs using fiscal resources. However, in the public discussion, this issue was (and is still)

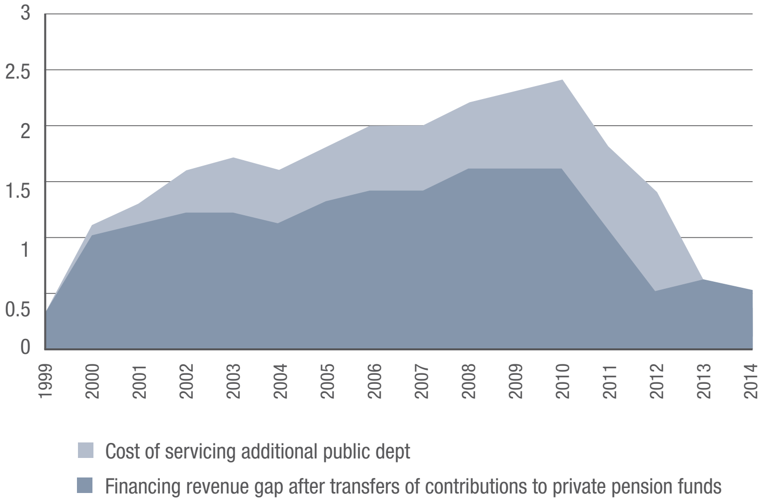
unclear. Privatization was presented as a way to ensure long-term financial sustainability of pensions in an ageing society. The resulting transition costs were not considered an additional burden but rather as necessary to make pension accounting sound – converting implicit pension debt into explicit debt. The financial stability of the reform was supposed to be guaranteed by two major sources: revenues from the privatization of state-owned enterprises and reduced public pension expenditures resulting from various cost-cutting measures, including elimination of early retirement provisions and other special-benefit provisions for selected categories of workers or limited indexation of benefits. Privatization revenues were presented to the public as the main source of funding of transition costs. However, actual proceeds from privatization resources were limited; they only exceeded the gap in the public pension tier during the first two years.

The designers of the reform viewed the expected savings from the 'rationalization of the first pillar' as the main source of financing transition costs in the long run. Due to the successful pressure from various occupational groups that protested the reduction in their pension entitlements, many planned cost-saving measures were delayed, modified or abandoned. Consequently, pension expenditures increased significantly more than expected (indexation of pensions well below wage increases proved insufficient for controlling rising expenditures). Transition costs had to be financed through public debt issues. Therefore, estimates of the total costs of privatization should include the funding gap in the public tier caused by privatization as well as the cost of servicing additional public debt (Figure 1).

In the period 1999-2012, the accumulated costs of transfers to the second pillar were estimated at 14.4 per cent of 2012 GDP, as well as approximately 6.8 per cent of GDP consumed by servicing additional public debt. By contrast, the accumulated privatization revenues over the same period amounted to 5.24 per cent of 2012 GDP.

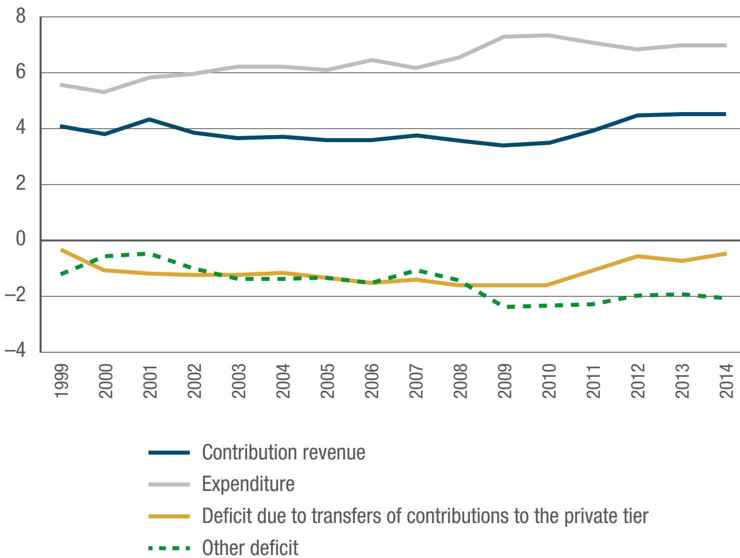
The pension fund of the public first tier administered by ZUS also has a growing deficit (Figure 2). Part of this deficit can be attributed to the implications of the reform. In addition to the cost of pension privatization (more than 1.5 per cent of GDP), the ceiling on contributions introduced by the 1999 reform resulted in an additional deficit in the ZUS Pension Fund (estimated at 0.5 per cent of GDP). Special government subsidies covered those deficits. Through a general budgetary subsidy to ZUS, the government covers most of the remaining deficit. In addition, the government supports ZUS with interest-free loans. Other sources of revenue include commercial loans and the special Demographic

Figure 1: Costs of pension privatization (per cent of GDP), 1999-2014.



Source: Own calculations based on data from the Polish Ministry of Finance and ZUS.

Figure 2: Financial situation of the ZUS pension fund, 1999-2014, per cent of GDP



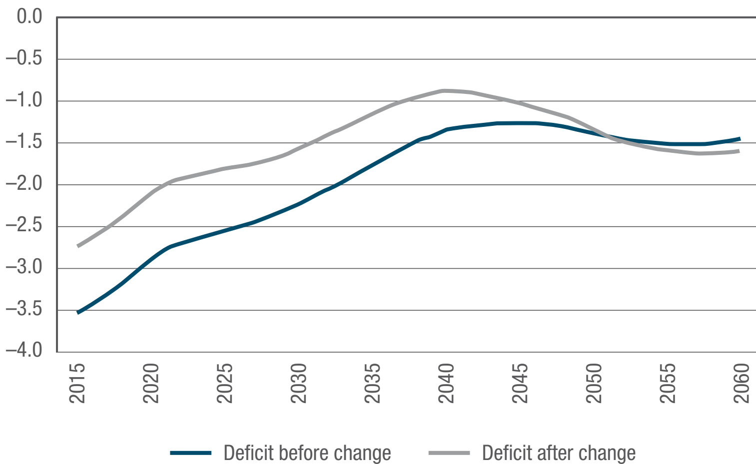
Source: Own calculations based on data from the Polish Ministry of Finance and ZUS.

Reserve Fund financed by 1 percentage point of pension contributions (in 2011, the equivalent of 0.3 per cent of GDP was used, an amount that was reduced in subsequent years).

When Poland joined the EU, the European Commission pressured the country to meet the Maastricht criteria and subjected it to the EDP. This was the main reason for the decisions to reduce the size of the privately managed tier in 2011 and then nationalize part of its assets (those held in government bonds) and make it voluntary. This policy seemed to have the desired effect given that the Commission announced that it would remove Poland from the EDP in July 2015.

The significant decrease in contributions channelled to private pension funds since 2011 was designed to halve the ZUS pension fund deficit. The 2013 change rectified the previous modification but went much further in significantly reducing the number of participants in the second tier and transferring a substantial portion of assets accumulated in private pension funds back to the ZUS and the public-financed system. This measure resulted in the further reduction of the ZUS deficit – at least in the medium term (Figure 3) – and the reduction of public debt by approximately 10-11 per cent of GDP, depending on the calculation method used.

Figure 3: Projections of the ZUS pension fund deficit (per cent of GDP) before and after re-reform



Source: Own calculations based on ZUS pension fund projections.

5.3.1 Other arguments for re-reform: Mixed assessment of the performance in terms of the investment portfolio and administrative charges, and high vulnerability to economic shocks

A notable feature of Polish private pension funds is the extensive investment in Polish government bonds, as well as investments in the Polish economy. This profile reflected the investment regulations in force until recently, according to which no more than 40 per cent of assets could be invested in equities and no more than 5 per cent of assets could be invested abroad.

The short-term performance of the pension funds early in the financial crisis (2008-2009), when the Warsaw Stock Exchange was affected by the outflow of investors, led the Ministry of Labour and Social Policy to severely criticize the system. The Ministry contrasted the poor performance of the funds with the high fees (see discussion below) and low levels of expected replacement rates (the latter resulting from the shift from DB to DC schemes in calculating pensions rather than from advanced funding or private management).

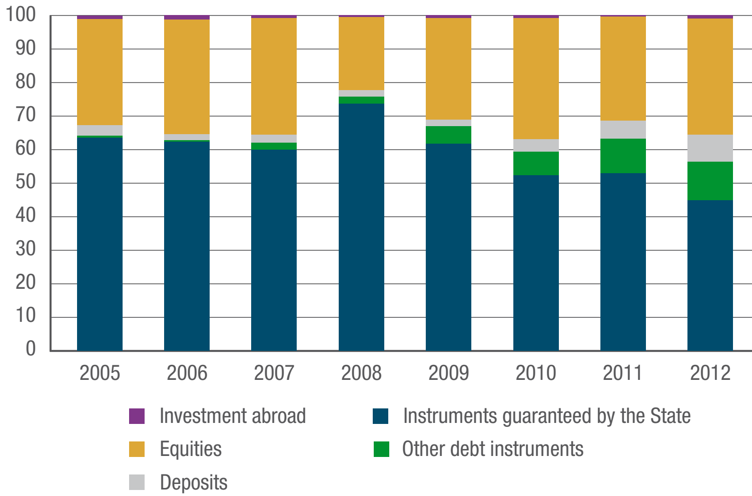
These arguments also reflected concerns of the Ministry of Finance related to deficit-financed transition costs and sparked the debate on reducing the size of the funded pillar (initially in terms of contributions). This unique coalition of two ministries led to the two waves of reforms in the pension system.

The statistics of the pension funds' market regulator clearly show that since the enactment of the reform, government-guaranteed bonds have accounted for more than half of the portfolio (Figure 4).

Assessing the rate of return of private pension funds always poses methodological problems regarding the impact of fees and charges. Table 3 presents the gross rate of returns of pension funds and the net rate of the estimated impact of fees and charges. The data clearly show that the net values for the period 2000-2012 are more than 2 percentage points lower, which is a significant difference given that the net average rate of return was estimated at 6.3 per cent. By contrast, notional rates of return in the first public NDC tier were on average 7 per cent on the main account and 8.5 per cent on the subaccount during the same period.

In the second tier, three types of fees affect members of pension funds. The first, the so-called distribution/sales fee, is a front-loaded fee, the second is the management fee and the third, a premium fee. There was also a transfer fee, abolished in 2010, which was charged when a pension fund member switched to another fund when membership lasted less than 24 months.

Figure 4: Pension fund portfolio (per cent of assets), 2005-2012



Source: Ministry of Finance (2013).

Table 3: Rates of return of second-tier pension funds

	Rate of return	
	Gross	**Net**
2000	13,1	2,8
2001	7,3	-0,6
2002	13,6	3,9
2003	10,9	8,6
2004	14,0	12,5
2005	14,6	13,5
2006	16,3	15,1
2007	6,2	5,3
2008	-14,3	-14,9
2009	13,7	12,6
2010	11,2	10,7
2011	-4,6	-4,9
2012	16,4	16,2
Arithmetic average	9,1	6,7
Geometric average	8,8	6,3

Source: Ministry of Finance.

In a 1999 survey, 84.7 per cent of respondents did not know how much participation costs were in the second pillar. The pension industry regulator argued that this situation was due to the marketing strategy of PTEs, which focuses on the advantages of membership rather than on the accompanying costs. Crucially, awareness of the costs of participation in the second pillar did not differ significantly between those for whom participation was mandatory and those for whom it was voluntary (78 per cent and 79 per cent, respectively).

Both PTEs and ZUS benefit from the distribution fee (though the latter to a significantly lesser extent). Until 2004, the distribution fees charged remained unregulated and some PTEs charged as much as 10 per cent of the contribution value. Since then, maximum fee rates have been gradually reduced: to 7 per cent of a contribution between 1999 and 2009 and to 3.5 per cent until 2010. Currently, fees cannot exceed 1.75 per cent of contributions. In most cases, PTEs were charging maximum fee rates.

The management fee is charged monthly. Until 2004, the maximum fee was 0.05 per cent of the net value of assets. The fee was reduced to 0.045 per cent in 2004 and capped at 15.5 million PLN monthly when assets exceed 45 billion PLN.

The premium fee was introduced in 2004. This fee is based on a premium account, where a maximum rate of 0.005 per cent of a fund's assets are transferred by each PTE. This fee serves to reward PTE investments. Accordingly, a PTE administering the highest-yielding fund, as measured by the three-year rate of return, may transfer assets to the premium account, while the worst-performing fund must return the assets to a fund. The remaining funds share the premium in accordance with their performance.

The other issue related to the costs of second-tier pensions, which has been debated since the original pension reform was adopted in late 1998, was the cost of the pay-out phase, and the role of the annuity market and annuity providers. Many economists and representatives of the financial services industry argued in favour of private provision in the pay-out phase through annuity markets. Nevertheless, the financial services sector wanted guarantees to reduce the level of risk associated with the provision of annuities. Parliament passed this bill in 2008 after extensive lobbying of the financial services sector. The president successfully vetoed this bill, however. The 2013 re-reform of the pension resolved the problem by stipulating that assets accumulated in private pension funds must be transferred to ZUS at retirement and that the pension amount is calculated the same way as are public NDC pensions.

The overall administrative costs of public pension provision as designed by the 1998-1999 reforms were high. It is difficult to compare these expenses with the cost of public provision by ZUS previously because while this institution collects contributions and pays benefits related to old-age contingency, it also administers other branches of social insurance – disability and survivors' pensions, employment injury, sickness and maternity insurance. The administrative cost of ZUS is less than 2 per cent of its total social insurance benefit expenditure.

5.3.2 Progressive adjustment of the regulatory framework and concentration of pension funds

While entry in the pension fund market was heavily regulated, there were few investment rules. This led to adverse patterns of pension fund investments such as the herd effect. While the regulator identified oligopolistic practices (similar investment portfolios, similar rates of return, similar fees), it took no action. Additionally, regulation of the Polish pension fund market weakened when the former pension regulatory authority was merged with the general financial markets regulatory authority. The regulatory authority established at the beginning of the reform (UNFE) dealt solely with the functioning of the second- and third-tier pensions. Its governance structure included the Advisory Committee, where social partners actively participated, in compliance with ILO Convention No. 102, which requires stakeholder participation in supervision, especially when social security functions are commissioned to the private sector. In 2002, however, UNFE was merged with the institution supervising the insurance market and a new regulatory body was established: the Insurance and Pension Funds Supervisory Authority (KNUiFE). – In 2006, this body was integrated into the Financial Supervision Committee (KNF). These administrative changes eliminated direct involvement of social partners in oversight of private pension funds.

An example of relatively poor governance, especially in the early phase of the reform, was the extensive marketing and associated activity of PTE sales representatives. This activity led to overly optimistic perceptions concerning second-tier pensions (especially given the initial problems with ZUS). Also, the phenomenon of so-called 'dormant accounts' was noted. In 1999, an estimated 5 to 15 per cent of accounts were dormant, that is, the received no contributions. These accounts existed because brokers aggressively marketed the funds, creating accounts even for people who were not eligible, or creating 'double' accounts. They also resulted, initially, from ZUS's limited capacity to properly identify individual accounts when transferring contributions to the second tier.

The concentration of the pension industry became apparent soon after the reformed pension system was implemented. Initially, there were 21 funds, but after a series of mergers and acquisitions, the sector was consolidated into the 12 funds that exist today. Most mergers and acquisitions took place in the 2000s – four in 2001, and one each in 2002, 2004, 2008, 2013 and 2014, resulting in a high concentration of the market. In the mid-2000s, there were 15 funds, with the four largest funds covering 65 per cent of the market. These were PTE ING N-N Polska, PTE Commercial Union, PTE AIG and PTE PZU Złota Jesień. Foreign investors (with some Polish shareholders) owned all but the last one. This concentration was subsequently reduced somewhat. In early 2015, the three largest funds (ING, Aviva BZ WBK and PZU Złota Jesień) held 48 per cent of the market in the second pillar. The "pension fund lottery", which assigned a pension fund to new labour market entrants who did not explicitly choose a fund, favoured the largest funds and exacerbated the problem.

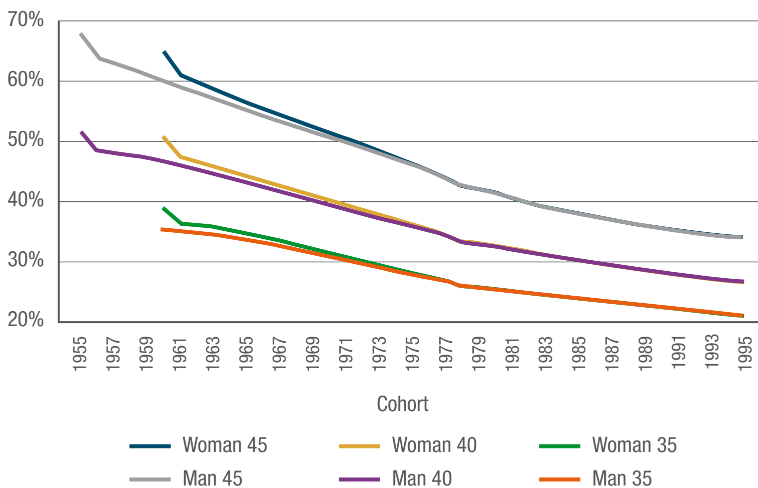
As mentioned, throughout the existence of the second tier, most PTEs charged the maximum fees permitted. Hence, the regulations, which aimed to reduce the maximum allowed fees, including the distribution fee (front-loaded), and the fee on profits, did not achieve their objectives. Additionally, regulatory gaps (the minimum rate of return, which is industry-specific) encouraged herding behaviour with respect to investment portfolios (and consequently, rates of return).

Most firms administering open pension funds were foreign-owned financial companies. This was due to the interest of the international financial sector, which also occurred in the pension industry in other countries, as well as to the strict requirements. The most important ones were the considerable own capital required to establish open pension funds and the inflexible legislation that required a joint-stock company. Large international firms purchased many of Poland's banking, insurance and other financial service companies following the post-Communist transition. Consequently, while in late 1999, 61 per cent of PTE shareholders were Polish, actual ownership by Poles was significantly lower. After the exclusion of intermediaries (foreign-owned companies operating in Poland), the share of PTE assets owned by domestic shareholders declined to 16 per cent, 8 per cent of which were indirectly associated with the government (through state-owned financial service companies). Major players included Allianz, AXA, ING, Commercial Union, Generali, Nationale Nederlanded, Norwich Union and others. Aviva BZ WBK's majority shareholder (90 per cent) is Aviva International Holdings Ltd; ING's majority shareholder is NN Continental Europe Holdings B.V. (80 per cent); and PZU Złota Jesień's majority shareholder is PZU S.A. (58 per cent of shares owned by the state).

5.3.3 Low future benefits, regardless of the financing method

The decline of future replacement rates will result not from privatization itself but from the shift from DB to DC schemes for calculating pensions in both tiers. The expected decline in the working-age population and possible economic trends will result in a situation where rates of return in the NDC tier will be lower in real terms than real growth of average earnings. This, in addition to (N) DC schemes for calculating pensions, will dramatically reduce replacement rates for future pensioners compared with cohorts that are currently retiring. Unless minimum pension guarantees are significantly strengthened (or a basic universal pension is introduced as a zero tier), achieving the 40 per cent replacement rate required by the Social Security Minimum Standards Convention No. 102 (1952) (ratified by Poland) will require contribution periods much longer than the 30 years foreseen by the Convention (Figure 5). When the reform proposal was being discussed, the ILO Office in Budapest warned the Office of the Government Plenipotentiary for the Pension Reform in Poland that the proposal fell short of the requirements set forth in ILO Convention No. 102. For the cohorts currently entering the labour market, achieving a 40 per cent replacement rate will be impossible, even if the individuals retire at 67 after 47 years of continuous contributions. Figure 5 illustrates the steep decline in replacement rates for future pensioners for different contribution periods by gender.

Figure 5: Expected replacement rates for both tiers for men and women from different cohorts and different contribution periods



Source: Own calculations (macroeconomic assumptions based on ZUS long-term projections).

The DC system does not allow for redistribution, for which reason there is no protection for low-earners as required by Convention No. 102. Low replacement rates for those with low earnings will mean that the contributory part of the pension system will not protect low-earners against poverty.

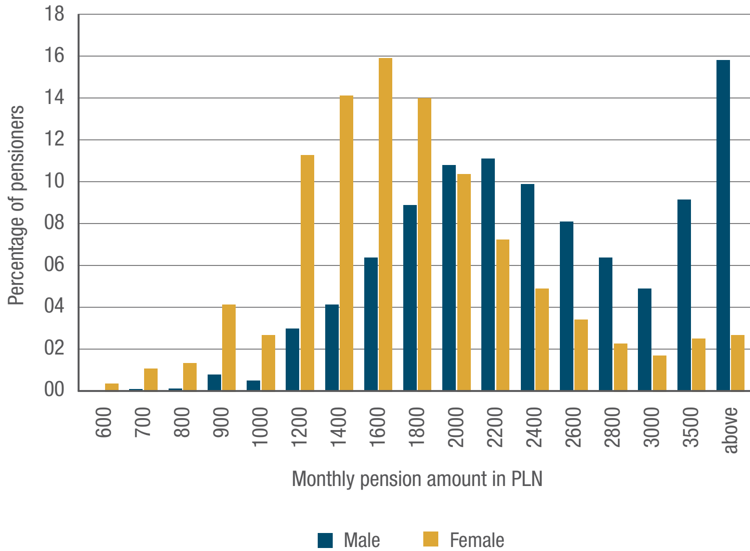
Achieving long contribution periods will be particularly difficult for women and workers with fragmented employment histories due to periods of unemployment or other reasons. Currently, women who retire have made contributions for far less than 35 years, on average. Despite efforts to reduce gender discrimination in the labour market and to promote sharing of family responsibilities, it will be difficult to increase contributory periods enough to ensure reasonable replacement rates.

Previous DB systems had a redistributive benefit formula, which provided higher replacement rates for those with lower earnings and shorter contribution periods. This protected women in particular and compensated for their fewer years in the labour market. The 1999 reform budgeted government resources to pay the contributions of individuals, in practice mainly women, to enable them to devote themselves to childcare. The main issue has been the amount of contributions that by the government pays for childcare leave (up to 36 months), which is quite low and for a short period. In recent years, legislation improved the conditions of childcare leave.

In addition, the current minimum pension provisions may prove to be insufficient (at 880.45 PLN gross in 2015). First, only workers who have contributed for 25 years have a right to the minimum pension. Second, under the current indexation rules (CPI plus 20 per cent of real wage growth), minimum pension levels will be significantly lower than average incomes and fall below relative poverty benchmarks.

Given that current pensioners have their benefits calculated according to the pre-reform rules, the amount of current benefits remains relatively high. The average gross old-age pension in 2014 was 2043.11 PLN. Figure 6 presents the distribution of gross old-age benefits in Poland as of December 2014. The share of individuals at risk of poverty among the population aged 65 and over is 19.7 per cent, lower than that of the population aged 25-54 (24.3 per cent, 2014 figures). The gender gap is apparent in the level of pension benefits and old-age poverty – while 15.2 per cent of men were at risk of poverty, the percentage for women reached 22.5 per cent. The gross minimum benefit in 2014 was significantly lower (844.45 PLN) than the social minimum wage, calculated as the cost of a basket of goods (1070.65 PLN). Approximately 4 per cent of pensioners receive benefits below the stipulated minimum, the overwhelming majority of whom are female.

Figure 6: The distribution of gross old-age pensions, December 2014



Source: ZUS database.

5.3.4 Regulations regarding minimum benefits

The reformed pension system included both the minimum benefit and the minimum rate-of-return guarantee for the second pillar. Pension eligibility before the increase of the retirement age required payment of premiums for at least 25 years for men and 20 for women (by 2040, it will be 25 years for both sexes). In the event that individuals meet these criteria but their pension from both tiers would be lower than the minimum guaranteed benefit, public budget resources will cover the difference to ensure the minimum pension amount. Currently, the role of the minimum pension guarantee is marginal, as individuals retiring now still have significant pension entitlements acquired through the previous DB system and reflected in their contribution capital. In the future, however, depending on which mechanism of minimum pension indexation is applied, the share of pensioners covered by the minimum pension guarantee is expected to rise sharply.

The minimum rate of return was an internal pension-sector benchmark. It was published twice a year based on the previous 36 months (initially, 24 months). First, a weighted average (that is, considering the assets of a given fund as a share of total pension-fund assets, but no more than 15 per cent) was used to calculate

the rate of return and served as the basis for calculating the minimum required rate of return. In the case of an average rate of return over 8 per cent, the minimum rate of return is half of the average. When the average is lower than 8 per cent, the minimum rate is 4 percentage points lower. When a fund has a rate of return lower than the minimum, it needs to transfer assets from a reserve fund to cover the gap to reach the minimum rate. If this is insufficient, the reserve from the Guarantee Fund is used. If this measure is also insufficient, the PTE needs to use its own assets to complement the fund's assets. As a last resort, the main resources of the Guarantee Fund are used. The minimum return guarantee was abolished following the 2013 reform.

The KNF raised the issue of an irregularity implied by the mechanism of the internal benchmark. The insufficient regulation of PTE capitalization meant that it would not be possible to cover the loss of funds with large market shares.

5.4 The schedule and politics of the re-reform

Originally, in the late 1990s, privatization was widely supported, even by trade union movements. The level of public trust in public social insurance institutions was very low and there was the equally widespread belief that the private-sector provision of pension funds would result in better returns and higher service quality. The media played an important role both in promoting a negative image of public social insurance and a positive one of private-sector systems. Like in many other countries, national and international financial service companies made intensive, effective lobbying efforts (see discussion in Hagemejer, 2005). Also, people favoured the idea of individual accounts and the principle that the pension amount would be directly linked to individual contributions. Official documents presented overly optimistic estimates of future pension levels partially based on unrealistic or flawed parameters, such as not considering private pension administrators' fees and charges. In this context, the warnings of some experts that the reality might be otherwise did not affect the overall optimism of the main actors involved.

A few years after the reform, reports were prepared (when social partners still actively participated in pension fund oversight) and published by UNFE (2002, 2003) and its successor (KNUiFE 2003) and the Supreme Audit Office (NIK 2002). The reports presented more realistic simulations regarding future replacement rates as well as a critical performance assessment of the private pension funds, both in terms of administrative charges and investment policies.

These reports raised some doubts about the social and economic effectiveness of pension privatization yet failed to make these issues a priority on the political agenda. At the same time, social partners were more concerned about shorter-term problems like indexation of pensions or the phasing-out of early retirement provisions.

Concerns about the performance of the reformed pension system and its second pillar started receiving political attention only after the onset of the global financial and economic crisis, the growing fiscal deficit and mounting pressure from the European Commission to reduce the deficit (public debt). Poland, like other new EU members, has a much weaker bargaining position regarding compliance with the Maastricht criteria compared with older EU members. Moreover, Poland's constitutional rules on maximum public debt levels forced action as the debt was moving dangerously close to the limit of 50 per cent of GDP.

The Ministry of Labour and Social Policy and the Ministry of Finance were the driving forces behind the design and adoption of the waves of re-reforms in 2011 and 2013.

In May 2011, the contribution rate paid to the second-tier pension funds was reduced by more than half (initially to 2.3 per cent with a gradual increase to 3.5 per cent by 2016). The remainder of the former second-tier contribution was directed to a special subaccount in the public NDC tier with an individual account for each insured person.

The initial re-reform provisions also included a ban on pension fund marketing as it was believed to lead to higher pension funds costs and unnecessary transfers between funds, which were costly to members. Another provision promoted more aggressive pension fund investments by raising the maximum share of equities permitted in an investment portfolio. These changes were motivated by the high transition costs and related public debt increase. They were also in response to a study by the Ministry of Finance, which reported that debt refinancing would be a major burden for the budget and debt servicing a major expense. The 2011 law stipulated that the pension system should be reviewed before 31 December 2013. Publication of assessment reports every three years was mandatory.

On 27 September 2013, the ministerial cabinet submitted the assessment report, which recommended transferring part of the assets, equal to the share of government bonds, from the second to the first tier. It also called for regulating pay-out of benefits, determining the share of the contribution distributed to the second pillar, with the possibility of choosing between contributing exclusively

to the first or to a mixed first-second pillar system. Additionally, it recommended eliminating the minimum rate of return, reviewing the fees in the second pillar and promoting participation in the third pillar.

Between 2010 and 2013, the ministries of Finance and Labour and Social Policy launched media campaigns focussed on different negative effects of the private tier on public finances (high transition costs) and on contributors and future pensioners (high administrative costs, reduced future pensions and poor investment returns). The Ministry of Finance argued that transition costs would be fiscally unsustainable and that PTEs were taking advantage of the situation. The ministry pointed out the socially wasteful circular flow of resources (the government issues bonds to cover the costs of transferring contributions to private pension funds, while contributions are used to buy government bonds), where the only winners are PTEs, which earn revenue from fees and other charges. The Ministry of Labour and Social Policy highlighted the more stable rates of return of the first pillar and promoted expansion of the voluntary, third tier (expansion was a part of the 2013 reform package but had negligible effects). The Minister of Labour and Social Policy was convinced that the contributory DC pension system was useless given the increase in precarious forms of employment in the labour market. In several interviews, the minister argued in favour of replacing it with a non-contributory flat-rate pension.

The debate grew heated and deeply divided the experts and politicians involved. The split ran evenly through the ruling party (Civic Platform) and there was strong opposition to changes among a group of senior government officials and advisors. This group insisted that the reduction of contributions to private pension funds introduced in 2011 should be only temporary. They opposed most of the changes introduced in 2013. Instead, they argued for reforms to improve the performance of the private pension funds while maintaining the mandatory nature of the second tier. This group, along other groups and organizations, advocated for the introduction of multi-portfolio pension funds, adapted to the lifecycle (riskier investment strategies for younger members and safer ones for those closer to retirement) and new regulations to reduce fees and other administrative charges to lower the administrative costs of private pension funds.

Jacek Rostowski, the Deputy Prime Minister and Minister of Finance, eventually persuaded the Prime Minister and the government majority to adopt his position. Several economists who formally supported pension privatization changed their minds. However, most “mainstream” economists, led by the author of the Polish radical economic transition of the early 1990s, former Deputy Prime

Minister and Minister of Finance Leszek Balcerowicz, strongly rejected reversing privatization. An umbrella organization of pension funds, IGTE (Chamber of Pension Funds, a member of the FIAP, the International Federation of Pension Administrators) played an important role in defending the interests of the pension industry. This organization, along with employers' organizations and the civic development forum Obywatelskiego Rozwoju (FOR), an organization founded by Leszek Balcerowicz, launched intensive media campaigns against the government proposals, targeting both politicians and the public. A group of influential experts formed an organization to defend mandatory private pensions. Their position was very strong given their access to the media and use of 'common sense' arguments, which were hard to discredit in the media debate. Re-reform opponents stated that the modification would lead to lower pensions, slower economic growth and higher taxes due to the increase in the implicit pension debt. Interestingly, the World Bank, which substantially contributed to the original reform, made no public pronouncements on the issue.

Projections by ZUS (Figure 3) demonstrated that the scaling down of the private pension tier would result in an improved balance of the pension fund until at least 2050. Others argued that in the long run, the re-reform would raise net public pension liabilities. Longer-term projections never confirmed this assertion, however.

The pension oversight agency also opposed changes. It focused on developing solutions to improve the performance of private pension funds, for example, by introducing multi-portfolio fund solutions and more sophisticated performance benchmarks.

The role of the unions was rather ambiguous given that they protested the planned gradual increase in retirement age and demanded the right of people with long contribution histories to retire before the statutory retirement age. However, two major trade union confederations clashed on these issues. One (Solidarność) had previously designed a pension system with a privately-managed tier and had defended the multi-tier solution during 2011-2013, while the other (OPZZ) criticized the second pillar, mainly on the basis of the high fees and other administrative charges, which several assessments of the funds' performance had reported.

Property rights proved to be one of the most controversial issues in the debate. Re-reform opponents argued that pension fund reserves were privately owned even though they were paid from government-mandated pension contributions. To support this argument, they pointed out that savings in the pension funds

– as opposed to main NDC accounts – could be inherited under certain conditions. Additionally, the popular perception of the concepts of 'private' and 'individual accounts' was strongly associated with the notion of private ownership.

This issue triggered a legal debate, although the Supreme Court had previously confirmed the public nature of mandatory pension contributions. The pending issue was how to proceed with private assets in the portfolios. To resolve the problem, the government decided to move only pension fund assets that had been invested in government bonds or other state-guaranteed papers to the public tier (and the pension entitlements linked to them).

Eventually, the need to improve the country's fiscal position proved to be the most important argument and the pro-modification camp won as the ruling coalition gained enough votes in the Parliament. However, the aggressive tone of the discussion and the radicalization of arguments divided society. Many people still believe that shifting assets from the pension funds to ZUS was illegal, that it was an unconstitutional nationalization of their private savings. Several organizations took legal action: Initially, an employers' organization submitted a case to the Constitutional Tribunal, arguing that shifting assets from the second to the first pillar was a violation of property rights. The Tribunal rejected the case, however. Additionally, while the President of Poland signed the bill (despite intense pressure from re-reform opponents), he also submitted the case to the Constitutional Tribunal. These legal proceedings did not address asset transfer but rather other minor issues. The Polish Ombudsman also submitted the case to the Tribunal, arguing that the default switch to the first pillar was unconstitutional. The Tribunal was expected to rule on these cases in 2015.

Technical aspects of the operation included transferring government bonds and similar instruments to an account, where they were immediately written off. The Demographic Reserve Fund was responsible for other papers, bank deposits, equities and cash. The decision on the operation was announced on 4 September 2013, while the actual transfer took place in January 2014 (51.5 per cent of pension fund assets were transferred at their face value on 3 September 2013).

The period for declaring continued participation in the second pillar was 1 April to 1 July 2014. During this period, pension funds could not be advertised. Approximately 15.1 per cent of members of the private pension funds decided to continue to pay into the first and second tier. All other members had their contributions automatically transferred to the public tier. In the future, every four years, the insured will have the option of deciding where their contributions

are distributed while new labour market entrants need to submit a statement agreeing to have part of their contributions going to the private fund.

An important part of the reform was introducing the so-called zipper mechanism (gradual, monthly transfer of savings from individual accounts in the second pillar to the subaccount in the first pillar within 10 years before retirement). In 2014, 4.7 billion PLN (out of 145 billion PLN in total assets) were transferred from the second to the first pillar through this mechanism. In 2015, 3.8 billion PLN were expected to be transferred.

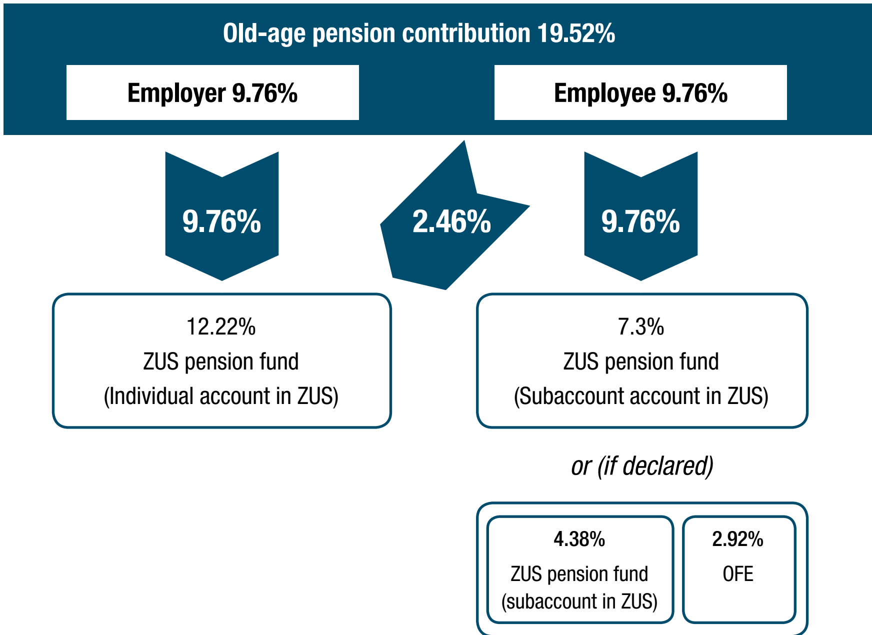
The 2011-2013 reforms were accompanied by a series of measures to promote fiscal stability. In 2012, the retirement age started to be gradually raised from 60 to 67 for women and 65 to 67 for men. Some contributions (namely for disability and survivors' pensions) and taxes (valued-added tax) have been increased and stricter retirement rules for the military, police and similar institutions were introduced.

5.5. The Polish pension system following the 2013 re-reform

The Polish pension system following the additional changes in 2014 is still based on individual accounts. Thus, the DC formula remains the same, and as such, a low level of redistribution is expected. The main difference is that contributions (7.3 per cent of gross salary), formerly channelled to the second tier, are now transferred to a special subaccount in the NDC scheme administered by ZUS, with a rate of return equal to the five-year nominal average of GDP growth (as opposed to the main NDC account, where the rate of return is equal to the annual wage sum increase). The pension funds' rate of return was equal to the actual investment return of PTEs, which affected the level of pension savings on individual accounts in OFEs.

The re-reform model continues to operate with mixed systems: PAYG/NDC in the first tier and privately-managed FDC in the second tier. What has dramatically changed is the size of the second tier and the fact that it is no longer mandatory. The contribution, which can be channelled to private pension funds, is now just 2.92 per cent of the gross salary, compared with the 7.3 per cent stipulated in the 1999 pension reform. For new entrants to the labour market, the default option is that all contributions go to the first public tier. The insured must complete specific procedures to opt for channelling part of the contribution to the second tier. Consequently, less than 2 per cent of new entrants to the labour

Figure 7: Mandatory part of the Polish pension system



Source: Rutecka 2014.

market opt for the second pillar. Figure 7 demonstrates the logic of the pension system in Poland after the most recent modifications.

The 2013 re-reform changed the regulatory framework of second private-tier pensions. First, the investment in government bonds has been banned. Additionally, all assets owned by pension funds and invested in government bonds (51.5 per cent of all assets there) were transferred to the public-tier pension fund and credited to the individual NDC sub-account. The minimum return guarantee was also eliminated. Additionally, starting 10 years before an insured person reaches the minimum retirement age, his or her assets in the private pension fund are gradually transferred to the public tier and credited to the NDC subaccount (the so-called 'zipper' mechanism designed to prevent losses when retiring during a period when stock markets are down). Also, new contributions during the last 10 years before retirement are transferred only to the public tier. Finally, ZUS calculates and pays out the benefits from both pillars.

Until 31 January 2014, participation in OFEs was compulsory for those born after 1968. Since 2014, those entering the workforce for the first time may choose

whether they want to contribute to a private fund (OFE) or solely to ZUS. In 2014 and 2016, from 1 April until 31 July, private fund members could choose whether they wished to remain in an OFE. They are expected to be given the opportunity to decide again in 2020.

The new investment framework is shaped by the ban on investment in any state-guaranteed financial instrument. Also, the law stipulates minimum shares of equities in the funds' portfolios: 75 per cent in 2014, 55 per cent until the end of 2015, and 15 per cent until the end of 2017. The decision to force funds to invest in shares was meant to ensure that the Warsaw Stock Exchange would not be affected by the reduced flow of contributions to private funds, which are key institutional investors in the stock market.

The NDC subaccount to which former second-tier contributions and part of the assets were directed has a notional nominal rate of return, which equals the average nominal GDP growth rate of the previous five years. This rate cannot be negative, however. It thus guarantees that the level of pension entitlements is not reduced in absolute terms – a positive change for the insured compared with the degree of volatility of market rates of return. Main NDC accounts have a notional nominal rate of return equal to the nominal increase in the sum of wages of insured persons, but it cannot be lower than inflation as measured by CPI. This guarantees the maintenance of the real value of pension entitlements. In the long run, if the share of labour income in GDP remains stable, the two rates of return should be relatively equal.

The 2013 reform removed the minimum rate of return as a benchmark in the second pillar. The government has justified this by arguing that banning investment in government bonds increases the likelihood of more volatile financial results, making a required minimum unnecessary.

An important result of the 2011 and 2013 re-reforms was the introduction of the inheritance of contributions (pension rights) accumulated in the first subaccount, where former second-tier contributions and assets were transferred in the event that the insured person died within three years of retirement.

Between 1999 and 2013, with subsequent changes to the private pension funds regulatory framework, social partners played a lesser role in the governance of the second tier and thus the overall pension system. The significant increase in the size of the public tier in the pension system may increase the participatory nature of the governance framework, as representatives of the trade unions and employers are members of the ZUS oversight board. However, social dialogue

in Poland has been negatively affected by the trade union walkout and boycott of the Tripartite Commission in September 2013. The Commission also deals with issues regarding the functioning of the social security system. Although discussions began in 2015 regarding the future of social dialogue in Poland, no final agreement has yet been reached.

The re-reforms did not address future benefit adequacy in light of falling replacement rates. There is a pending discussion of the characteristics of minimum income guarantee mechanisms that could prevent the elderly from falling into poverty at retirement.

In the Polish pension system, future pension levels in the public tier are determined by future GDP growth rates and growth of the wage share. Assuming that the share of labour income in GDP will remain constant in the future (this share is already very low in Poland and there are no signs of subsequent reductions or increases), in the long run, the rates will be the same and declining. At the same time, with falling employment, average productivity growth will outpace GDP growth. If average growth follows productivity growth, rates of return in the NDC tier will be smaller than wage growth and will also drive replacement rates down. This means that an increasing number of pensions will fall below relative poverty levels. At the same time, if the minimum pension continues to be indexed well below real wage growth, it will eventually become meaningless in terms of its relation to average benefits and to relative poverty thresholds.

One way to improve future pension levels would be to increase contributions paid into the pension system. Draft legislation (under consultation with social partners and other stakeholders during 2017-2018) introduces quasi-obligatory (all employees are enrolled by default but can request to be withdrawn) retirement savings scheme. Gradually, all employers (including those in the public sector) will be obligated to offer a pension plan (through a contract with a licensed private fund manager), where employers will contribute at least 1.5 per cent (up to a maximum of 4 per cent) and employees at least 2 per cent (up to a maximum of 4 per cent). Annually, the government will contribute a fixed amount to each individual account. Currently, this amount is equivalent to about 1 per cent of the annual minimum wage.

It is impossible to assess how popular this new saving arrangement will be. It is equally difficult to predict its future impact on incomes of the elderly. The proposed legislation allows the insured to withdraw the saved amount at age 60 in the form of scheduled withdrawals over a 10-year period (25 per cent can be withdrawn as a lump sum). There is an option to convert savings into a life annu-

ity, but this must be arranged through an individual contract with the insurance company so it may be an expensive option.

One problem identified in the 2011-2013 debates was the lack of an independent, trusted entity responsible for monitoring the pension system's financial stability and benefit adequacy. Different sides used many arguments supported by different estimates concerning the fiscal consequences of the changes and impacts on benefit adequacy. None of the institutions presenting these projections and estimates enjoyed enough public confidence and there were many accusations with respect to the manipulation of information to produce more plausible results. For that reason, the President's office, with support from the ILO, proposed the creation of a government actuary based on the UK model. The Ministry of Finance blocked this initiative, however.

Poland has several institutions that have developed and implemented adequate quantitative tools. The Ministry of Labour and Social Policy created the social budget model in the late 1990s, with support from the ILO. That model and expertise were subsequently transferred to the Ministry of Finance and used to develop the model for the EU's Ageing Working Group projections. The ZUS probably has the highest quality tools. It uses an actuarial cohort projection model to make periodic, long-term projections of pension fund finances and recently developed a dynamic micro-simulation model. The problem is that none of these institutions have garnered enough public confidence to be trusted when results are presented in policy debates.

5.6. Lessons from the Polish experience and other conclusions

The original pension reform, which shifted the Polish pension system to the DC scheme and channelled a significant portion of social security contributions to private pension funds, was developed and debated by a relatively small group of experts. They managed to successfully sell the reform to politicians (as a product that would make the country a European leader in developing a modern, financially sustainable pension system). They were equally successfully in convincing the public to support the reforms, promising a system that simply and transparently built pension entitlements with high replacement rates and pension amounts that reflected an individual's contribution effort in a fair way, rather than distorted by redistribution. They also claimed that competitive

private-sector providers would at least partially free the system from government bureaucracy.

Another attractive promise – especially for politicians and trade unions – was that there was no need to take the unpopular decision to increase the statutory retirement age. It was argued that the DC scheme would persuade people to work longer to increase their pensions.

Although appealing, these ideas, principles and promises were not accompanied by a full understanding of transition costs and the impact on future benefit levels – which the reform promoters presented using over-optimistic assumptions and manipulated results. Promoters never explained the realistic trade-offs to stakeholders.

That is why the 2011-2013 re-reforms were less popular than the original reform. Many earlier promises associated with the original reform appeared to be unrealistic and several ideas and beliefs were debunked. Nevertheless, the accompanying debate had some positive and hopefully long-lasting consequences. Perhaps for the first time since the transition began, the pension debate expanded beyond a narrow circle of experts to reach the wider public. The process of learning about actual trade-offs and realistic implications and of understanding diverse points of views has only just begun. It is a painful process as politicians, trade union representatives and citizens are finally learning about the actual costs of the reform; about realistic assessments of the performance of public and private providers; about realistic benefit levels; and about trade-offs with respect to retirement age.

This learning process is ongoing. The current political debate on reversing the increase in the statutory retirement age and allowing retirement at any age for people who have contributed for long periods reveals that many people still do not understand the functioning of the Polish pension system based on the DC scheme. There is also good news, however: For the first time in many years, pension system reforms, broader social policies and questions regarding taxation are being discussed in the pre-election political debate.

When analysing the Polish correction of the pension reform in terms of possible lessons for other countries, the specific characteristics of the Polish case should be considered. In comparison with other European countries, the Polish second-tier system was relatively large. Also, the prevailing negative image of the public social insurance institution further increased support for the private tier. Additionally, the possibility of inheritance of contributions accumulated in the

second tier helped to create the widespread belief that contributions saved there belong to insured individuals. Finally, given that PTEs are joint-stock companies with links to major, often international financial institutions, their impact has been extensive.

Certain aspects of the way in which the government managed the 2011-2013 re-reforms risked undermining public trust in the sustainability of pension promises. This may be detrimental to the continuing efforts to expand voluntary supplementary pension savings to complement shrinking public pensions and may have implications for future attempts to improve the pension system.

However, if the goal of the reform is to effectively scale down the extent of the previous pension privatization and channel contributions and assets back into the public social security system, the following steps are recommended:

- Establish a monitoring system of pensions and regularly publish quality reports assessing the past, current and future performance of the pension system;
- Disseminate the results of these pension system evaluations and make them user-friendly for politicians, experts, social partners and other stakeholders such as pensioners' organizations;
- Organize information campaigns explaining the reasons for the changes, targeting all stakeholders and public opinion;
- Build a broad coalition of key actors, including those responsible for public finances (the Ministry of Finance, Central Bank, etc.) and for social policy (the Ministry of Labour and Social Policy), as well as social partners, influential experts and journalists;

Design laws related to:

- The new regulatory framework for private pension funds, including a ban on pension-fund investment in government-guaranteed instruments;
- Making participation in the second tier voluntary;
- The gradual transfer of second-tier members' assets to the public tier within a given period before retirement;
- Plan enough time for consultation of draft legislation to enable a real debate, making all arguments and explanations public; and
- Ensure that all draft legislation is constitutional and meets international standards and other international agreements.

The purpose of this paper was to present the major arguments and actions regarding the recent re-reform of the Polish old-age pension system. In this context, it was also necessary to discuss the original reform, which took place 20 years ago. Special attention has been paid to the fiscal underpinnings and the costs of privatizing social security, given that they were the most important factors driving recent actions. While the original shift from DB to DC schemes in both pillars has major implications for benefit adequacy, the recent re-reform, which shifted financing from a mixed method (NDC+FDC) to NDC, will change relatively little in this respect.

Therefore, further corrections to the system or even major re-reforms can be expected to address benefit adequacy of contributory pensions and minimum income guarantees in old age. This will ensure that the system meets both social demands and international standards adopted by Poland, including ILO Convention No. 102 and Recommendation No. 202.

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6. Ecuador

Francisco Peña-Jarrín

6.1. Summary of reforms related to pension privatization and its reversal

1993	Law of Government Modernization, Privatizations and Public Service Delivery, promoting increased efficiency, flexibility and productivity and calling for decentralization of adminstrative functions and resources of the public sector, including the privatization of public services.
1994	The President established a Social Security Commission of the National Council for State Modernization (CONAM).
Jan 1995	Social Security Council adopted the proposal for Social Security Reform for Pensions and Health, prepared in collaboration with CONAM officials and international advisors (IDB, USAID). The CONAM study recommended a mixed – three pillar – system. 1. Basic pension provided through the Ecuadorian Pension Institute 2. Mandatory defined-contribution, individual-account pension system, administered by pension fund administrators (AFJP). 3. Complementary voluntary individual-account, old-age pension, administered by AFJP. The proposal further included a retirement age increase from 55 to 65.
Nov 1995	In a referendum, Ecuadorians voted against the proposal and thus rejected the privatization and overall reform of the pension system.
2001	The National Congress drafted Social Security Law 2001-55. The law established a mixed pension system like the Uruguayan pension system. The system was never applied, however.
2002	The Constitutional Tribunal declared sub-sections of the Social Security Law unconstitutional, two of which referred to the fund or social security savings administrator. The Tribunal also ruled that the article that defined the financing of the mixed system was unconstitutional.
2008	The new Constitution that went into effect in October 2008,declared that the social security system is public and universal, and cannot be privatized.

6.2. The reversal of pension privatization in Ecuador[1]

The law on the Ecuadorian social security system dates back to 1928, formally covering workers of the public sector, teachers and the banking sector, and since 1935, private-sector workers.

Since its establishment, the Ecuadorian defined-benefit pension system has had tripartite participation with contributions from workers, employers and the government. The Mandatory Social Security Law of 1942 established that the government would contribute 40 per cent of the pensions paid, while workers and employers would finance the remaining 60 per cent.

Ecuador was not immune to the economic crises affecting the region in the 1980s. In response to the crisis and in light of the difficult fiscal conditions, Ecuador considered the application of neoliberal policies and a radical social security reform, which included its privatization and the implementation of the system of individual accounts, which had been applied in Chile since 1980.

The legal framework of the structural reforms proposed by the pro-business, conservative government (in power from 1992 to 1996) was supported by the Law of Government Modernization, Privatizations and Public Service Delivery, published in Official Registry 349 on 31 December 1993. The law sought to increase the efficiency, flexibility and productivity of the public administration and to promote, facilitate and strengthen the participation of the private and community sectors and simplify the public administration and economic structures. Furthermore, it called for the decentralization and de-concentration of administrative functions and resources of the public sector. This included the breakup of monopolistic structures and the privatization of public services and other economic activities assumed b3y the government or other public sector agencies.

The National Government Modernization Council (CONAM), an administrative agency of the executive branch, was created to implement the modernization process.

This was how the privatization of social security and the de-monopolization of the Ecuadorian Social Security Institute (IESS) began. According to the Constitution of 15 January 1978 and the Mandatory Social Security Law,

[1] This document has been translated into English from its original version in Spanish. We apologise for any discrepancy due to translation error and for any possible deterioration in the style of language.

autonomous institutions were responsible for providing social security in Ecuador as an inalienable right of workers to protection in the event of illness, maternity, unemployment, disability, old age and death, financed with equal contributions from government, employers and workers.

In May 1994, the President signed an executive decree to establish a Social Security Commission of the National Council for State Modernization, which in January 1995 formally adopted the Proposal for Social Security Reform in Pensions and Health, prepared with the participation of CONAM officials and national and international advisors. The Inter-American Development Bank (IDB) and the US Agency for International Development (USAID) also contributed to this proposal.

The CONAM study "Ecuador, Proposal for Social Security Reform," argued that the pension system in Ecuador had become unsustainable due to the administrative, technical and financial crisis. The social security system struggled with limited coverage, high evasion rates (in 1993, estimated coverage was just 18.37 per cent of the total population and 38 per cent of the economically active population), underreporting of earnings (the contribution wage represented between 50 and 60 per cent of total earnings), delays in employer and government contributions, inefficient management of investments, high administrative costs, unequal government subsidies to insured pensioners and the depletion of financial reserves. The collective capitalization system, it was argued, reduced the capacity for savings of the country's economy, affecting investments and their multiplier effects, such as growth and development. For this reason, there were calls to design a new pension system. Several alternatives were analysed, such as the possibility of reforming the existing system, generating a parallel system that would compete with the IESS or creating a mixed system.

The CONAM study recommended a mixed pension system for Ecuador, structured around three pillars:

One: Assign responsibility for the basic pension and the Social Security System for Rural Workers to the Ecuadorian Pension Institute, a decentralized government agency.

Two: Establish a mandatory defined-contribution system for the old-age pension, with individual accounts and with a decentralized, competitive administration, under the responsibility of retirement and pension fund administrators (AFJP).

Three: Establish a complementary old-age pension, voluntary for individual accounts, also under the responsibility of the AFJP, which offers accountholders the possibility of early retirement or higher pensions of Pillar 2.

This proposal changed the retirement age from 55 to 65; redistributed contribution percentages; regulated the contribution on total earnings; called for the independent administration of funds; and, mandated insurance companies to transfer pension payments under the annuity plans.

While the CONAM proposal was supported by the financial and business sector, especially that of Guayaquil region, several groups, including trade unions, public servants, members of the Social Security System for Rural Workers and social security workers, rejected the proposal with protests, strikes and roadblocks. Members of Congress even voiced complaints and offered counterproposals.

As the executive branch did not have majority congressional support for its initiatives, the modernization and privatization process promoted by the executive branch would have been obstructed, even more so in the case of privatization, which would require a Constitutional reform. In response, the government organized a public referendum containing 11 questions associated with decentralization; the equitable distribution of resources; the cessation of public services; the constitutional dissolution of Congress; changes to the electoral, judicial and constitutional oversight systems; and, elimination of public-sector privileges, the second of which was:

"2. The right to choose a social security system. Should the Constitution incorporate a provision that reads: "All individuals have the right to freely and voluntarily choose the social security system as well as their benefits and services under the responsibility of the Ecuadorian Social Security Institute or other public or private institution? The social security system shall be founded on the principles of solidarity and free competition." YES-NO."

After the government and the economic powers launched an excessive, impersonal campaign for "yes", the referendum was held on 26 November 1995. Citizens voted against the referendum. In the case of Question 2, the results were:

Yes: 31.11 per cent

No: 47.29 per cent

Blank: 10.33 per cent

Invalid: 11.24 per cent

Academics and politicians who analysed the results attributed the “No” victory to a rejection of the government, resistance to change, the excessive, overwhelming propaganda for “Yes,” and to the poorly designed, ambiguous referendum texts. In some cases, such as the social security question, initial acceptance was 80 per cent, which then fell to 56 per cent and in the days before the referendum, from 40 per cent to 31.11 per cent, according to survey data.

Following these results, the campaign for privatization stopped until the idea re-emerged during the discussions of the 1998 constitutional reform. Despite the 1995 referendum against privatization of social security, it was argued that the new Constitution should call for the direct participation of the private sector in the social security administration, a view that was partially accepted by the majority of members of the National Constituent Assembly that prepared the Political Constitution of the Republic of Ecuador, published in the Official Registry on 11 August 1998, as evidenced in the articles cited below:

“Art. 55.- Social security shall be a duty of the government and an inalienable right of all inhabitants. It shall be delivered with the participation of the public and private sectors, in accordance with the law.”

“Art. 58.- The provision of mandatory general insurance shall be the responsibility of the Ecuadorian Social Security Institute, an autonomous agency led by a tripartite administrative-technical body with an equal number of representatives of the insured, employers and the government, who shall be appointed in accordance with the law...”

“Art. 61.- Complementary insurance shall focus on covering social security contingencies not covered by the mandatory general insurance or to improve their benefits and shall be optional. They shall be financed with the contribution of the insured, and employers may make voluntary contributions. They shall be administered by public, private or mixed entities regulated by law.”

As demonstrated, the Constitution reflected the majority will of Ecuadorians expressed in the 1995 referendum to establish the Ecuadorian Social Security Institute as an autonomous body exclusively responsible for the provision of mandatory general social security. The administration of optional insurance is the responsibility of public, private or mixed entities, as defined by law.

This Constitution also called for an urgent reform of the IESS, led by a tripartite Supervisory Commission made up of one representative each of the insured, employers and the executive branch, appointed by the President of the Republic.

The commission was given the task of preparing a draft bill of the reform of the Social Security Law.

To comply with this mandate, the commission hired several national and international experts to carry out consultancies to support the social security reform proposed in the new law. World Bank experts also disseminated and provided training on the application of the World Bank's pension reform options simulation toolkit (PROST) in the financial projections of a mixed system.

Based on the Supervisory Commission's project, the National Congress drafted Social Security Law 2001-55, which was published in Official Registry 465 of 30 November 2001. It maintained the former pension system for pensioners receiving pensions and members aged 50 and over on the date the law went into effect. The law established a mixed pension system like the Uruguayan system for members below age 40. Those between ages 40 and 49 could also choose between the new (mixed) and the old system. The new mixed system included an inter-generational solidarity retirement system under the responsibility of IESS and a mandatory individual-savings retirement system administered by social security savings entities accredited by the Superintendent of Banking and Insurance.

However, the mixed system was not applied in Ecuador because in the first month after the Social Security Law went into effect, several legislators, leaders of the Social Security System for Rural Workers and representatives of leftist political parties filed a motion with the Constitutional Tribunal claiming that several of the articles of the law were unconstitutional. In May 2002, the Constitutional Tribunal declared sub-sections of six articles unconstitutional, two of which referred to the fund or social security savings administrator. The Tribunal also ruled that the article that defined the financing of the mixed system was unconstitutional. That decision was challenged, an action that delayed the effective date of the resolutions of the Constitutional Tribunal until 16 February 2005, when they were published in the supplement of Official Registry 525.

The Constitution that went into effect in October 2008 eliminated the possibility of privatizing the social security system in Ecuador by declaring in Article 367 that the social security system is public and universal, cannot be privatized and that it should attend to the contingent needs of the population. It named the Ecuadorian Social Security Institute as the autonomous agency responsible for providing for the contingencies of the mandatory general insurance. Like the previous Constitution, it also allowed for the existence of special social security programmes for the National Police and the Armed Forces, which have been

administered by the Armed Forces Social Security Institute (ISSFA) since 1992, and by the National Police Social Security Institute (ISSPOL) since 1995.

The Constitutional provision does not expressly call for the tripartite participation of the government, employers and workers in the social security administration. Instead, it mandates the government to legislate, regulate and oversee social security activities. Through the Organic Law for Labour Justice and Recognition of Domestic Work, published in Supplement Three of Official Registry 483 of 20 April 2015, the government exercised this power to eliminate the 40 per cent contribution of the government to IESS pensions, which had been applied since 1942.

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Resolutions of the Constitutional Tribunal. 2005. Published in the supplement of *Official Registry* 525 of 16 February.

7. Nicaragua

Karlos Navarro Medal

7.1. Summary of reforms related to pension privatization and its reversal

1990-1993	Implementation of the first Enhanced Structural Adjustment Facility (ESAF) with support from the IMF and the World Bank. This involved reducing the role of government, public spending, the fiscal deficit and the size of the public sector; opening a financial system; promoting free trade and privatization; and, the decentralization of public services.
1994-1995	The government, in collaboration with international development organizations, commissioned studies to analyse the feasibility of different parametric and systemic reforms. The most influential were conducted by the ILO, in collaboration with the International Social Security Association (ISSA) and the Inter-American Conference on Social Security (CISS); Julio Bustamante (ssuperintendent of the Chilean pension system); and Carmelo Mesa-Lago (Friedrich Ebert Foundation).
1999	The government commission responsible for the pension reform submitted a draft bill for the reformed pension system. While the pro-government trade union supported the law, other unions and civil organizations protested against the bill.
2000	Parametric reforms increased contribution rates from 17.5 per cent to 21.5 per cent (including all three areas of coverage).
2000	Approval of the Law of the Pension Saving System No. 340, privatizing the pension system, promoted by the World Bank and the IDB.
2001	The Organic Law of the Superintendent of Pensions (Law No. 388) was passed, yet the law was never implemented (in response to the World Bank recommendation). Between US$ 12 and US$ 14 million was spent on consultancies, assessments, studies, trips to Chile, equipment purchases, training seminars, etc.
2005	Law No. 568 (passed on 25 November 2005) repealed Law No. 340 (Law of the Pension Saving System), reversing the privatization of pensions and restating a public pension system in Nicaragua.

7.2. Repeal of the privatization of the pension system in Nicaragua[1]

The failed implementation of the Chilean model of private pension fund administrators in Nicaragua

7.2.1 Background on the implementation of private pension fund administrators (AFP)

The social security system in Nicaragua has experienced three phases:

a) Phase 1: Began in 1956 and ended in 1978. The 1950 Constitution of the Republic of Nicaragua established the mandatory social security system.

b) Phase 2: 1978-1990. In 1979, the Sandinistas came into power and enacted Decree No. 974 on 11 February 1982. The Social Security Law went into effect on 1 March 1982, when it was published in *La Gaceta* No. 49. This law is still in effect today.

   The Social Security Law mandates a scaled premium system. Contributions to the pension system are mandatory for employees and voluntary for self-employed workers. A worker must be 60 years old and have paid into the system for a minimum of 750 weeks (15 years) to receive a pension. The pension is calculated based on workers' average weekly wage of the past 250 weeks (five years) of employment.

c) Phase 3: 1990-2006. The post-Sandinista period begins, which is characterized by the government reform and privatization of the pension system (Navarro, 2003).

During the early years of the post-Sandinista government administration (1990-1993), President Violeta Barrios Chamorro implemented the first Enhanced Structural Adjustment Facility (ESAF) with support from the International Monetary Fund (IMF) and the World Bank's International Development Association (IDA). This entailed reducing the role of government, public spending, the fiscal deficit and the size of the public sector; opening the financial system; promoting free trade; and, the privatization and decentralization of public services.

[1] This document has been translated into English from its original version in Spanish. We apologise for any discrepancy due to translation error and for any possible deterioration in the style of language.

7.2.2 Initial efforts to privatize the pension system: proposals for reform and the report of the International Technical Commission

Executive Decree 44-94 was the legal framework for decentralization and reform of the public administration. Article 9 of this decree established the creation of the Sector Commission for Social Security and Welfare Reform to guarantee the adequate restructuring, reorganization, rationalization and efficiency of institutions and/or companies that provide social security services.

During the first half of the 1990s, several assessments and studies on social security reform were carried out. The most important included the studies by the International Labour Organization (ILO), the International Social Security Association (ISSA), the Inter-American Conference on Social Security (CISS), Julio Bustamante, superintendent of Chile, and an assessment by Carmelo Mesa-Lago commissioned by the Friedrich Ebert Foundation.[2]1

The recommendations of these studies are summarized below.

a) ILO recommendations

At the request of the Nicaraguan Social Security Institute (INSS), the ILO conducted a study highlighting the need to improve health services and recommended modernizing enrolment and payment procedures, including measures to extend coverage, and applying parametric reforms to improve system sustainability. In response, the INSS eliminated the regulations that made access conditions more flexible and replacement rates more reasonable, resulting in an improved financial position.

b) Report of the ILO-ISSA-CISS-OISS International Technical Commission, 1995

The Commission analysed the feasibility of: a) the modification of the current system (of the scaled premium established by law); b) replacing the current system with another based exclusively on individual savings; and, c) creating a mixed system. The Commission concluded that the individual savings option (b) was not feasible under the current conditions, considering Nicaragua's macroeconomic situation, while for the mixed system (c) (defined-benefit scheme complement-

[2] 1 For a detailed discussion of this issue, see: Carmeno Meza-Lago, La Seguridad Social en Nicaragua, pp. 109-126 and Instituto de Promoción Humana, La privatización que sangra.

ed by one of several individual savings schemes), it stressed the need for further studies to determine financial viability. Finally, the Commission reported that the main advantage of modifying the current system (option a) was that it did not involve any transition costs, making it the most financially feasible option.

c) Proposal by Julio Bustamante, 1995

In 1995, at the request of the INSS, Julio Bustamante, the superintendent of private pension fund administrators (AFP) of Chile, and a team of Chilean advisors, prepared a study. Bustamante recommended keeping the INSS's pension programme mandatory but dividing it into two sub-systems. He suggested a closed transitory subsystem that would incorporate all people aged 45 and over who are currently enrolled in the INSS pension system, as well as pensioners receiving benefits and future pensioners in this subsystem. This system would be eliminated following the death of all active and passive members.

Mesa Lago wrote: "Although it is not specified in the proposal, the transitory subsystem appears to be based on a system of partial collective funding with undefined solidarity contributions and defined benefits."

Additionally, a permanent subsystem would be created, in which currently-covered individuals under age 45 would be incorporated, along with new entrants to the labour force. A voluntary system would pay complementary pensions to the two subsystems of the mandatory system. The entire system would be based on individual accounts and administered by private administrators. The income from contributions would be deposited in the member's individual retirement account, along with the returns on the investment. Individual retirement accounts would be opened with a cash balance equal to the recognized pension contribution before the reform (a type of recognition bond).

The contribution rate would be 9 per cent: 5 per cent would be deposited in the individual account (old-age retirement); 2 per cent would be allocated to disability and survivors' benefits; 0.5 per cent would go to administrative costs; and, 1.5 per cent would cover the cost of transferring to the transitory subsystem (to reduce its deficit).

In financial terms, the permanent subsystem would be organized as a single pension fund with three types of accounts: (a) the individual retirement account; (b) the reserve for old-age pensions; and, (c) the reserve for disability and survivors' pensions.

d) Proposal of Carmelo Mesa-Lago, 1997

Carmelo Mesa Lago's study, published by the Friedrich Ebert Foundation (1997),[3] proposed a mixed system. He stated that: "A structural-type reform (particularly replacement) is inadequate given Nicaragua's socioeconomic conditions...Accordingly, a reform model for the public system is proposed initially (INSS and the Ministry of Health), with the addition of a voluntary programme of complementary pensions and a special healthcare programme for INSS members, but with a solidarity component of the Single National Health System (SNUS). During a second phase, when adverse conditions have changed, a mixed model adapted to the characteristics and needs of the country is recommended."[4]

Creation of a commission to reform the pension system in Nicaragua and justification for the reform

In the context of proposals and assessments, Ministerial Resolution No. 014-98 established the Commission to Reform the Pension System in Nicaragua (CREPEN). The Vice-president of the INSS, Alejandro Vogel, chaired the Commission, which was "formed to analyse the reform and create an adequate, feasible and sustainable model tailored to the Nicaraguan reality."

7.2.3 Characteristics of the desired pension model

According to CEPREN, the current system has 320,000 members and the contribution rate for the three types of coverage – health, old-age and occupational hazards – before the 2000 parametric reform was 17 per cent, with 8.5 per cent for health, 5.5 per cent for old-age pensions, 1.5 per cent for occupational hazards and 1.5 per cent for pensions of war victims.

[3] The first part of the study is a detailed assessment of the social and economic context of the social security system in Nicaragua. It identifies key problems of the system's organization, population coverage, financing, benefits, administration and financial and actuarial balance.
The second part of the study summarizes and discusses the advantages and disadvantages of the main reform models and projects in Latin America, with a view to obtaining lessons from these experiences that can serve in the design of an alternative in Nicaragua.
The third section analyzes and evaluates the social security reform proposals for Nicaragua and offers a detailed reform proposal.

[4] Mesa-Lago Carmelo(1997) p. 173.

In 2000, the contribution rate for the old-age and war-victim pensions rose to 10 per cent, increasing the total for the three types of coverage to 21.5 per cent. Pensions were paid to 100,000 people, of whom approximately 40,000 were victims of war.

The current level of pensions paid, both contributory and non-contributory, is much higher than what is sustainable. Contributions are inadequate to cover benefits.

Actuarial calculations reveal a negative balance of 80 million *córdobas* (US$ 7 million) for 1999, which corresponds to 0.8 per cent of GDP. If this trend continues in the current system, the government will be forced to cover future deficits, which would represent 10 per cent of GDP in the medium term.

In the long term, the financial situation will continue to deteriorate, with adverse social repercussions. System reserves will be exhausted in the immediate future and its dependency ratio (the number of beneficiaries per active worker) will increase from 11.2 per cent in 1996 to 27 per cent in 2030. At the same time, the implicit debt of the current pension system – the present value of current pensions plus future old-age pensions – would increase from 85 per cent of GDP in 1996 to more than 400 per cent in 2030.

The current pension system is unsustainable given the imbalance between contributions and benefits, its high administrative costs considering the size of the system and the high rates of evasion. Neither is the system attractive to workers. Despite the imbalance between contributions and benefits, workers receive very low pensions, for which reason the system perpetuates inter-generational inequality. The system does not encourage workers to develop a sense of ownership of their savings, for which reason they view their contributions as a type of tax. Moreover, the system is inefficient in terms of investment management, pension calculation and benefit payments.

The strategy to reform the pension system was designed to avoid the bankruptcy of the current pay-as-you-go (PAYG) system. In the new pension system, future pensioners would receive a pension in accordance with their individual contributions, which would be higher than current pensions.

The Commission concluded that the scaled-premium system had run its course (Aleman, 2001).

The Commission also stated that transition costs of the pension structural reform would be approximately US$ 800 million, equal to 35 per cent of GDP. This debt would require many years to be repaid which, during more difficult

periods, would only achieve annual disbursements of 1.5 per cent of GDP. Financing the transition cost does not involve any additional tax on the population. Concessional loans from multilateral agencies such as the World Bank and the Inter-American Development Bank (IDB) would cover this expense.

These agencies offer such low interest rates on the loans that they were practically considered donations. Accordingly, the Commission concluded that the transition from the PAYG system to the individual accounts system was reasonable given that it would be financed by multilateral agencies that wanted to support government efforts to modernize the social security system (Aleman, 2001).

The Commission proposed the individual account as the new model. The AFP would administer the funds and the Superintendent of Stocks, Insurance and Pensions would regulate and oversee those administrators. This followed the Chilean model of replacing the government model with a private one. The reforms were based on the Law of Pension Savings of El Salvador, which was in turn based on the Chilean model.

The funds would be invested in the capital markets to eventually become retirement income paid out by insurance companies. The funds would be established based on the savings of the accountholder together with a recognition bond, maintaining the value and profitability of fund investments.

The proposal included a separation of assets between fund administrators and investors to protect the integrity of the savings. In the event of bankruptcy of the administrators, the funds would not be affected and could be transferred to another administrator.

A Superintendent of Pensions, separate from the Superintendent of Banks, would be formed by an advisory board, which would be responsible for dictating standards to oversee and establish general policies related to the supervision and control of the activities and operations of the administrators, in accordance with the Pension Law. The AFP would only manage the pension funds. Titles and other stocks would be in the name of the fund and would be physically deposited in the custodial institution.

The fund management contracts would guarantee a minimum rate of return and establish reserves to support it. The AFP would be prohibited from rejecting workers and from discriminating against members on the basis of age, income level or any other labour or personal condition in their process of joining an AFP, receiving contributions or granting benefits.

To reduce risks to the profitability of these investments overall, funds would initially be invested in the instruments authorized by law and that offer due security conditions. Investing in government bonds, instruments issued by banking institutions and instruments issued by companies would be permitted.

The role of the INSS in the new model would be to collect and distribute the pensions as it does with contributions for sickness, maternity and occupational hazard insurance. Existing infrastructure would be used for this activity, which would gradually diminish over time.

With government funds allocated by the Ministry of Finance, the INSS would cover the cost of current pensions.

Solidarity or non-contributory pensions would be treated similarly, and the war-victims' benefits would remain unchanged, phasing out over time.

The INSS would administer pensions for occupational hazards and those for common disability, the former with its current financing system and the latter with an additional premium of the pension branch. The pension insurance would be transferred to the AFP.

7.2.4 Legal analysis of the reform

Trade unions, civil society and the Frente Sandinista Party frequently defend the public social security system and reject the replacement private system with the argument that Nicaragua's Constitution, Article 105, states that "education, health and social security services are manifest duties of the government, which is obligated to provide, improve on and expand them without exception."

Nevertheless, CREPEN claimed that despite the inflexibility of that constitutional article, the same Constitution in its Article 82, Clause 7, establishes that: "Workers have the right to working conditions that guarantee the following, especially: social security for integral protection and livelihoods in cases of disability, old age, occupational hazards, illness and maternity; and of their family members in the case of death in the manner and conditions determined by law."

According to Alejandro Vogel, INSS vice-minister and president of the Reform Commission, the Organic Social Security Law of Nicaragua regulates all the above.

The Reform Commission argued that for 1987, "the national financial, insurance and reinsurance system and foreign trade will unconditionally correspond to the government (Article 99 of the Constitution).

To resolve this problem without having to reform the Constitution, in 1991, Law No. 125 created the Superintendent of Banks and other Financial Institutions, which allowed for the operation of duly regulated, supervised private banking entities. Additionally, it enabled the creation of the Pension Saving System and private banks and insurance companies without the need to reform the Constitution.[5]

The Commission presented the draft bill of the Law of the Pension Saving System to the National Assembly in early November 1999, after consulting with the High Council of Private Enterprise (COSEP) and pro-government trade unions. Other unions, such as the Sandinista Workers' Central (CST) and the Civil Coordinator (an entity that brings together more than 350 non-profit organizations) protested against the bill. These groups supported a social security reform without pension privatization.

The draft bill of the Pension Saving System was passed on 15 March 2000, with 47 votes in favour, seven abstentions and the opposition of the Frente Sandinista. The law went into effect and became mandatory for Nicaraguan citizens beginning on 12 April 2000, when it was published in the Official Gazette of the Republic of Nicaragua.

The Law of the Pension Saving System had the objective of regulating the saving system, which would be administered by AFP and regulated by the Superintendent of Pensions. This law partly followed the model proposed by Julio Bustamante.

The AFP administer the funds. These companies must hold a minimum social capital of US$ 2 million to be established, to be increased in accordance with the number of members. The AFP are responsible for managing the fund and granting pensions. The pension funds are the property of accountholders and are independent from AFP assets. Enrolment in the pension system is mandatory for all employees, while self-employed workers, diplomats, farmers, domestic workers, Nicaraguans living abroad and all workers who earn an income may enrol. Citizens can freely choose an AFP and transfer funds to other AFP that best serve their interests. Contributors may also make voluntary additional contributions, which are deposited in the individual account and used exclusively to finance increased benefits. Monthly benefits are disbursed starting from the legal retirement age or when members are declared partially or totally disabled.

[5] For a legal analysis of the reforms, see: Karlos Navarro. *La evolución de la Seguridad Social en Nicaragua*. Bitecsa. Managua, Nicaragua.

Members under age 43 must join the Pension Savings System by choosing an AFP. The public pension system cannot accept new members once the law is passed. Workers who transferred to the new Pension Saving System would receive a transfer recognizing their years of contributions to the old system. The most controversial part of this law was the stricter requirements established to have a right to a pension, while employer and employee contributions were increased, and the government contribution was discontinued.

The contribution rate was set at 10.5 per cent: 6.5 per cent paid by the employer and 4 per cent by worker; 7.5 per cent was deposited in the worker's individual account and 3 per cent was paid to the AFP for administrative services. Previously, the rate was 5.5 per cent, with the worker contributing 1.75 per cent, the employer, 3.5 per cent and the government, 0.25 per cent. The retirement age of 60 was maintained but the number of required contributions doubled, from 15 to 30 years. Workers who did not reach the required number of contribution years would receive a minimum pension in accordance with the public system. The total disability pension would increase from 56.3 per cent to 70 per cent of the worker's salary, with the salary being calculated based on the past 10 years rather than the past five, as it was previously. The government would be responsible for pensions of members aged 43 years.

7.2.5 Repeal of the law: rapid return to the public system

In March 2001, the Organic Law of the Superintendent of Pensions was passed.[6] The National Assembly of Nicaragua allocated a three-year budget of nearly US$ 3 million to establish and operate the Superintendent of Pensions. According to Manuel Israel Ruiz, advisor to the government of President Enrique Bolaños, a total of US$ 12 million was spent on consultancies, assessments, studies, trips to Chile, equipment purchases, training seminars, etc. Others put this figure at US$ 14 million (Bodán, 2004).

During those years, the law was never implemented. This was in response to a World Bank study and recommendation rather than to pressure from the trade unions or political parties. Law No. 568 (passed on 25 November 2005) repealed Law No. 340 (Law of the Pension Saving System).[7]

[6] Law Number 388. Published in Gazette No. 85 of 8 May 2001.

[7] Amparo Ballivián, World Bank representative in Nicaragua during that period, in an interview for Revista Confidencial, stated that a study was carried out that indicated that "fiscal clearance" should exist to implement the Pension Saving System, for that reason the World Bank informed the government that the system "was not viable," Bodán, 2004).

Section III of this law states that: "The Economic Cabinet of the Government, based on the studies and analyses conducted by the executive and legislative branches, as well as by international financial institutions, resolved to suspend the implementation of Law No. 340, given that it threatens the country's macro-economic stability as it would cause an unsustainable deficit for the government. The financing alternatives proposed are insufficient to cover the deficit and it generates social inequality by forcing the population to assume transition costs that benefit only the formal labour sector of the country."

Forces for and against the reform

From 1997 to mid-2005, organizations against the reform included the National Association of Insured People (ANASE), the Union of Business Owners and Executives for National Development (UNYD), the National Association of Educators of Nicaragua (ANDEN), the Sandinista Workers' Central, the National Workers' Front, the Health Workers' Union and the Sandinista Front, the opposition party at the time. Some officials of the Enrique Bolaños administration also opposed the reform (Rocha, 2000).

7.2.6 The Nicaraguan experience

The origin, evolution and development of social security in Nicaragua pre-dated the ongoing struggle of workers whose gains were set forth in legislative provisions. Social security under the principle of universality was directed first toward protecting employees and second for covering self-employed workers. Legislation upheld the principle of the gradual, progressive expansion of social security to guarantee fulfilment of the system's objective of universal coverage of dependent and independent workers.

Nevertheless, this idea, which shaped social security law in Nicaragua and which had enjoyed a consensus, broke down in the 1990s, when economic stabilization and structural adjustment programmes were implemented with support from the IMF and IDA. It was further defeated when Nicaragua joined the Highly-Indebted Poor Countries Initiative (HIPC) to have nearly 80 per cent of its foreign debt forgiven.

In Nicaragua, international financial institutions imposed an economic stabilization process that involved reducing the size of the state, the privatization of public companies, strong economic measures and reduced social spending.

They also recommended creating a new social security model that basically entailed privatizing pensions.

The Nicaraguan reforms were based on Chile's AFP. Although Article 105 of the Constitution prohibited the implementation of that model, and different studies indicated that it was not a sustainable process due to the high transition costs, some political and business sectors viewed it as a lucrative business opportunity at the cost of workers' pensions. The new model was falsely touted as a way to increase domestic savings and investment, as well as to create more jobs.

Undoubtedly, if the World Bank, which originally supported the reform, had not advocated for the repeal of Law No. 340 (Law of the Pension Saving System), that pension model would have been implemented, with highly detrimental consequences for Nicaragua.

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8. Venezuela

Luis Eduardo Díaz

8.1. Summary of reforms related to pension privatization and its reversal

1997	Creation of a Social Security Reform Executive Unit, responsible for leading the entire reform and negotiation of an Inter-American Development Bank (IDB) loan.
1997	Organic Law of the Comprehensive Social Security System (LOSSSI), or Framework Law: Sets a new system of individual saving accounts administered by public, private or mixed institutions, plus a government-run solidarity system to complement the payment of minimum pensions (PMV) to contributors who did not accumulate enough.
1998	Law Decree No. 2993, 1998: Specifies the individual accounts with public, private or mixed administration; substitutive model; government-guaranteed PMV. Individual accounts scheme was never implemented.
1999	New National Constitution stating that Social security is a non-lucrative public service with solidarity financing; pension benefit cannot be below the minimum wage; special coverage available for cultural workers, homemakers, the disabled, public employees and the armed forces.
2000	Appointment of a Presidential Commission for the preparation of re-reform laws. The draft legislation, submitted to the National Assembly, was rejected.
2002	New Social Security Framework Law: Average-premium public and solidarity programme. Defined benefit and public administration. Decision to standardize retirement programmes and establish new institutions.
2014	Law Decree No. 1440, 2014: First modification of the new Framework Law suspends the liquidation of the Social Security Treasury.

8.2. Introduction[1]

Venezuela's social security system was first established legally in 1940 and was put into effect by a series of decrees in 1944 when it also started its operation.

[1] This document has been translated into English from its original version in Spanish. We apologise for any discrepancy due to translation error and for any possible deterioration in the style of language.

The system provided coverage against the risks of sickness, maternity and occupational injuries. Subsequently, the *Worker-Employer Agreement* in the emerging democracy of 1958 and the *Fixed-Point Pact* between the leading political parties led to the *Agreement on Comprehensive Social Security and Wage Policy* (ATSSI), signed on 17 March 1997 at the Miraflores Palace.[2]

The ATSSI created a social security system based on the principles of universal coverage and solidarity. A tripartite entity managed the system, which was composed of the subsystems dealing with pensions, health, layoffs, housing policy, vocational training and recreational benefits.

In the case of the pension subsystem, a mixed system was adopted with a solidarity component, which granted a pension in accordance with the contributions made and another based on individual accounts. Self-employed workers and farmers were to be covered by special programmes, but these were not defined.

A Social Security Reform Executive Unit was created, which negotiated a US$ 350 million loan with the Inter-American Development Bank (IDB) for reforms in health, vocational training and pensions, and another US$ 45 million for their implementation through an Executive Unit responsible for securing supporting contracts. The government also agreed, through ATSSI, to guarantee a minimum annuity (PMV) to workers who contributed to the pension system but did not meet all requirements, and to assist those who were already pensioners. This would recapitalize the pension fund, which would not be administered by the Venezuelan Welfare Institute (IVSS). The goal, although not expressly stated, was to liquidate it.

On 3 July 1997, the *Tripartite Agreement on Employment and Wage Stability* (ATES) was signed and the *Tripartite Agreement to Revise Minimum Wages* (ATSAM) was signed on 18 February 1998. The Tripartite Commission was created to prepare reports and draft bills on these subsystems. On 30 December 1997, the Commission persuaded Congress to approve the Organic Law of the Comprehensive Social Security System (LOSSSI), known as the Framework Law, which established the general regulations on administration, financing and benefits.

[2] In representation of workers, the Workers Confederation of Venezuela (CTV), the Confederation of Autonomous Trade Unions (CODESA) and the General Workers' Confederation (CGT). On the part of the private sector, the Federation of Chambers of Manufacturing and Commerce, the National Council of Commerce and Services (CONSECOMERCIO), the Venezuelan Manufacturing Confederation (CONINDUSTRIA), the Farmers' Federation (FEDEAGRO) and the Federation of Craftsmen, Small and Medium-sized Businesses (FEDEINDUSTRIA), (ATSSI, 1997).

The Framework Law establishes ATSSI guidelines with respect to individual accounts and solidarity, the annuity and system management. It also incorporates changes made by Congress, such as standardizing the system by eliminating the many existing retirement programmes that were formerly based on public employment.

The Framework Law makes two fundamental changes to the ATSSI: the first is that the pension subsystem is not actually mixed, which refers to models where the worker pays into an individual account and a solidarity programme at the same time (Mesa-Lago, 1994). Rather, it is a model that allocates part of the contribution – as discussed later in this report – to a defined benefit (solidarity) fund for pensions to finance the PMV, while the other share is allocated to an individual account scheme.

The second modification is that the Tripartite Commission developed a series of norms for system oversight, for example, distribution of contributions, administration, expenses and supervision of pension funds. This was established through the Social Security Advisory Council; additionally, the Superintendent of Pensions was created for this purpose.

The differences between the ATSSI and the Framework Law reflect two issues: private-sector participation and IVSS liquidation.

8.3. The privatization reform

After the 1997 Framework Law was passed, the Tripartite Commission developed exhaustive regulations. The pension subsystem was created after the Congress granted President Rafael Caldera extraordinary legislative powers in November 1998.

Before the creation of the subsystem, the old-age pension was equal to a basic sum calculated based on inflation and the overall wage level, plus at least 30 per cent of the reference wage of the insured individuals, which could increase if workers made more than 750 weekly contributions and were at least 55 years old in the case of women and 60 years old in the case of men (Mandatory Social Security Law, 1967). However, due to the lack of financial and actuarial adjustments, the purchasing power of pensions deteriorated considerably until, following protests, it was matched to the minimum wage in 1995.

The pension sub-system

Public- and private-sector workers are obligated to enrol in this subsystem, regardless of whether they are dependent workers. Once again, as in the ATSSI, special programmes were designed, this time for temporary and part-time workers, domestic and rural workers. These special programmes were never implemented, however.

Individual savings accounts in the pension subsystem (Law Decree No. 2993, 1998) could be administered by companies with public, private or mixed capital. (At the time of the reform, only private companies associated with the banking sector were in a position to offer this service). The solidarity programme would be managed by an autonomous service of the Ministry of Labour and Social Security (MTSS) responsible for contracting, through public tender, the administration of the resources received.

Members who had turned 60 and who had made at least 240 monthly contributions were eligible to receive the PMV. The PMV was applicable when the amount accumulated in the individual account was insufficient to finance a pension equal to the PMV. The amount would be equal to 50 per cent of the average contribution earnings and could be increased to 60 per cent if the worker had made 300 contributions, and up to 70 per cent for 360 contributions.

Women's retirement age was raised by five years. The employer would finance 75 per cent of the contribution rate while the worker would cover the other 25 per cent. The contribution rate was set at 12 or 13 per cent of earnings, distributed as follows: 11 per cent for individual savings and, if workers earned four or more times the minimum wage, the rate would be 2 per cent for the solidarity programme and 1 per cent for remunerations below four times the minimum wage (Lo Vuolo, 1998).

Overall, the Law of Pension Sub-systems adhered to the regulatory framework that had been applied in other countries of the region and was specifically guided by the Chilean legislation. The IDB, through the executive unit of projects and monitoring of the negotiated loan, would serve as another reference. Like other regulatory frameworks in the region, the Venezuelan model respected the recognition of contributions to the previous system; provided information to users about their individual accounts; informed on the method for calculating fund profitability; and, created different entities associated with the stock and insurance market (Sousa, 1998). Given that the reforms in other countries also revealed that fund administrators charged excessive commissions, and at the

request of the Tripartite Commission and with support from the ILO, the so-called "programmed retirement" pension programme was eliminated.[3]

The political economy of reform

The process to prepare the Law of the Pension Subsystem was complex. This law was supported by the Tripartite Commission and the Congress, which passed the Framework Law. The Congress granted extraordinary powers to President Rafael Caldera to legislate and liquidate the IVSS. Transnational banking institutions and the IDB also intervened.

The Tripartite Commission was useful to the government as it legitimized its objectives. The government in power did not have significant representation in Congress. Different business sectors and three of the four trade union federations offered their support. The procedure for submitting reform projects to the Congress was shortened considerably as consensus between the social partners had been achieved, giving authority to its actions.

The government plan consisted of eliminating the political risks of providing pensions and advocated a transparent administration of pension funds. The main goals were management efficiency – which the IVSS was incapable of providing – as well as the reduction of administrative expenses of the public system and the generation of wealth through domestic savings in individual accounts.

In the reform process, trade unions advocated for guaranteeing the payment of current pensions and the purchasing power of the pensions. The chambers of insurance and banking believed that the Tripartite Commission was a suitable place to launch ventures in a virgin market such as the pension market. They knew that fund administrators, insurance companies and investment companies would employ business practices, together with other support services that could be commercialized, such as training courses, advisory services and publications.

The IDB and the Congress were guided by the World Bank report *Averting the Old Age Crisis* (World Bank, 1994), determining that decision-making would be in the hands of the accountholder when choosing the pension fund administrator, the type of investment and type of pension. Further, the government would no longer

[3] In *programmed retirement*, the amount of the pension is calculated annually based on the balance of the individual account, for which reason it was eventually exhausted if the person lived longer than expected. Thus, it did not guarantee a periodic annuity as established in ILO Convention No. 102, which was ratified by the country.

exercise control or be held accountable. To strengthen the reform, the Congress modified the Framework Law and, in an innovative approach, incorporated Occupational Risk Administrators (ART) in the Law of the Pension Subsystem.

8.4. The reversal of pension privatization

Following the passage of the Framework Law, the Episcopal Conference complained that the new law would not cover self-employed workers and the unemployed (El Universal, 1998). The Venezuelan Education-Action Human Rights Programme, a non-governmental organization, rejected the pension subsystem because it was based mainly on individual accounts judged insufficient (PROVEA, 1998). Some public companies feared that their retirement programmes would be eliminated and lobbied to keep them. Within the government, some sectors were against the liquidation of the IVSS and the political opposition that later rose to power claimed that the social security system had been privatized.

At the forefront of the change, the Tripartite Commission was viewed as a vehicle for reducing wages and a representative of capital interests. Consequently, the pension subsystem was rejected for the following reasons:

- The nominal cost of social security before the reform was 21 per cent of earnings; with the reform, it rose to 35.45 per cent.
- The fiscal cost was also high. According to an ILO study, which the Tripartite Commission commissioned, during the first 40 years of subsystem operation, the National Executive Unit would have to contribute an accumulated sum equivalent to 41 per cent of GDP of 1998 (the year of the reform), which together with the other subsystems such as health, layoffs, housing and occupational hazards, as well as the new institutions, would compromise the fiscal feasibility of the programme (ILO, 1998).
- The pension subsystem would not protect vulnerable groups: 45 per cent of employees (1.72 million) earned the minimum wage and 80 per cent did not earn three minimum wages. Neither was the informal sector covered, which accounted for 48 per cent of the workforce (Economic and Financial Advisory Office of the Congress, 1999).
- In the National Assembly (the former Congress), collective funding was considered more appropriate given the situation described. It was considered more advantageous than individual accounts because it guaranteed a defined

pension and a lower rate of contribution and helped redistribute the contributions (National Assembly, 2001).

- Problems with application, which other countries with similar pension reforms had already experienced, suggested that the capacity to implement the changes would be fiscally and institutionally challenging. Mere legislative measures were insufficient given that the political risk would not disappear, and market risks would emerge.
- Finally, the pension subsystem did not prioritize poverty reduction, a concern that would intensify years later with the social protection floor (ILO, 2011) and the multi-pillar strategy (World Bank, 2013).

The re-reform and its actors

Following the 1998 elections, the Congress granted President Hugo Chávez extraordinary powers to legislate social security in 1999. The president decided not to liquidate the IVSS and deferred the effective date of the Framework Law and the Law on the Pension Subsystem. In the absence of a government proposal, the deferments continued. A Presidential Commission was appointed (Decree 925, 2000), with the participation of members of the business sector who had served on the defunct Tripartite Commission, and of experts of the IDB Executive Unit, as it was eliminated when the government suspended credit with the IDB. None of the trade union organizations that signed the ATSSI participated since they lost their bargaining power and were displaced after a referendum that same year, in violation of ILO Conventions Nos. 87 and 98.

The Presidential Commission had new guidelines for actions following the adoption of a new Constitution by referendum. The new Constitution stated that:

- Social security is a non-lucrative public service of solidarity financing;
- Pensions and retirement benefits for seniority in public employment cannot be below the minimum wage; and
- Special coverage is available for cultural workers, homemakers, the disabled, public employees and the armed forces.

Nevertheless, the draft bills prepared by the Presidential Commission did not have conceptual unity. Each sub-commission worked on its own and with opposing positions with respect to the possibility of allowing or disal-

lowing private-sector participation. The set of laws was quickly rejected.The Congress, which had a large pro-government majority, assumed leadership of the re-reform.

The new Framework Law

In 1997, the National Assembly prepared a preliminary re-reform project with two pillars: one was based on solidarity and the other on individual savings exclusively for workers with medium-high earnings. This proposal was replaced by another definitive proposal in 2002. The new Framework Law established a defined-benefit pension under an average-premium financial system, with the option of government subsidies to the contributions of self-employed workers. Workers could on a voluntary basis adopt complementary old-age pension plans under a public, private or mixed administration.

In terms of governance, the new Framework Law created a Superintendent's Office not only for pensions but for the entire social security system. The former subsystems were now known as systems, which covered one or more contingencies. New institutions were established, such as the Social Security Ombudsman, autonomous organizations such as that of Employment and of Pensions, and a rectorate of the system, with actuarial and information support units. None of these organizations were implemented, however. It was not until a decade later that the Superintendent's Office and the Social Security Treasury, responsible for collecting and distributing contributions, finally began operations.

8.5. Measures adopted after the re-reform

The re-reform initiative stagnated between 2002 and 2007, when the transition deadlines and the liquidation of the retirement fund were cancelled with the modified new Framework Law. The IVSS was responsible for routine institutional activities. The tripartite administration was eliminated, and the law was modified to increase fines for non-compliance in 2008.

In 2012, the new Framework Law was modified for a second time (Presidency of the Republic, 2012) for the purpose of appointing and dismissing the social security national executive, the superintendent and the treasurer, who previously were supervised by the National Assembly (LOSSS, 2012). With that reform, the political consensus to designate key figures of the system ended.

A year later, the Superintendent's Office rules of procedure were established (Ministry of the People's Power for Finance, 2013) and the Social Security Treasury was charged with administering the retirement fund, whose liquidation had been suspended in the first modification of the new Framework Law (Decree 1440, 2014) after President Nicolás Maduro was granted extraordinary legislative powers.

Contrary to the new Framework Law mandate, IVSS pensions have not been increased to more than the minimum wage, except for certain groups of the public sector who receive higher benefits. The reform and re-reform as opposing projects had one thing in common: they both remained within the limits of mandatory social security.

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9. Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania, Slovakia

Elaine Fultz and Kenichi Hirose

9.1. Introduction

This paper follows the latest developments in the brief but tumultuous existence of mandatory individual retirement accounts in seven CEE countries – Bulgaria, Croatia, Estonia, Latvia, Macedonia, Romania and Slovakia. Often referred to collectively as second pillars, these accounts were established by most CEE governments during 1999-2007, with encouragement and financial support from the World Bank. At the time, the World Bank claimed that second pillars would increase economic growth, ease public pension financing as populations aged and protect worker savings from adverse political actions, rendering the second pillars more stable than public pension systems.[1] In subsequent years, these claims were challenged, including from within the Bank itself.[2] However, they resonated at the time in the CEE region where, in the wake of the Soviet Bloc's dissolution, privatization was a popular reform strategy.

The CEE governments funded the new individual savings accounts by diverting a portion of public pension revenues, thus creating or increasing operating deficits in the public systems.[3] Upon enactment, accounts in most countries were mandatory for younger workers, voluntary for the middle-aged, and unavailable to workers approaching retirement. Thus, over time, participation would become mandatory for everyone. Reflecting the split of each participating worker's contributions between the first- and second-pension pillars, workers would in the

1 World Bank (1994) and Holzmann (1998).

2 For an analysis that challenges the early World Bank claims, see Orsag and Stiglitz (1999), Barr (2000), Holzmann and Palacios (2001) and Fultz (2012).

3 Estonia also required an additional worker contribution, 2 per cent of covered wages.

future receive two pensions in retirement, one government-managed pension financed on a pay-as-you-go (PAYGO) basis and a second privately-managed pension with advance funding.

However, the second pillars soon encountered difficulties. The commercial firms that managed them charged high fees, eroding account balances.[4] Governments relied primarily on borrowing to fill the gaps in public pension finance caused by diverting revenues to individual accounts. This reliance inflated national deficits and caused some countries to approach the European Union's debt and deficit limits.[5] In 2007, the global economic crisis made credit scarce and expensive. No longer able to borrow to fill the gaps in public pension finance, most of the governments reduced second-pillar funding (Table 1). These cuts continued after economic stability was restored. In some countries, cuts are still being planned and implemented.[6] However, individual accounts continue to exist in some form in all seven countries, and most of them have recently begun to pay benefits. This paper describes these benefits and compares them with the public pensions that most accountholders also receive.

Table 1: Public pension contributions diverted to second-pillar individual accounts in seven CEE countries (% of covered wages)

Country	At inception of the second pillar	Prior to crisis (2007)	2018
Bulgaria	2%	5%	5%
Croatia	5%	5%	5%
Estonia	6%	6%	6%
Latvia	2%	8%	6%
Macedonia	7.4%	7.4%	6%
Romania	2%	2%1	3.75%
Slovakia	9%	9%	4.25%
Average	4.77%	6.06	5.14%

Source: Appendix A.

4 Fultz and Ruck (2001) and Price and Rudolph (2013).

5 The EU Maastricht Criteria generally require Member States to keep annual deficits under 3 per cent of GDP and accumulated debt under 60 per cent of GDP.

6 See section 2.

In general, this paper shows that second-pillar policies remain unsettled in most countries. In Bulgaria and Romania, government proposals specifying second-pillar benefits are blocked by opponents. In Romania, a new government reduced the second-pillar contribution rate and is considering making participation optional. Three governments have allowed certain workers to exit the second pillars (Bulgaria, Croatia and Slovakia), refund their contributions, and receive a full public pension. In terms of benefit design, most governments require that life-long annuities be paid to most accountholders, thus helping to protect pensioners from outliving their savings. However, in only one country, Croatia, will these annuities be adjusted for inflation in the same manner as public pensions. In some countries, benefit laws and regulations fall short of ensuring equal treatment for women.

Although new second-pillar exit options (Bulgaria, Croatia, and Slovakia) help to diffuse worker dissatisfaction, they also create horizontal inequalities and strain public pension finance. To protect accountholders from second-pillar disadvantages while simultaneously protecting the public pension system from rising costs, CEE governments may consider moving to supplemental pension systems in which worker participation is encouraged but not required and which are funded independently of the public pension system by additional worker, employer, and/or government contributions.

9.2. A snapshot of CEE pension schemes

Across the seven CEE countries, second pillars operate as components of public pension systems. As such, these systems are the starting point for this analysis. All seven have features that reflect the countries' previous socialist governance and subsequent transitions to a market economy. Contributions are paid mainly by employers. Retirement ages, previously lower than in countries of the Organisation for Economic Co-operation and Development (OECD), are increasing in small increments toward 65-67 for men and 62-67 for women.[7] Redistribution in benefit formulas, widely regarded as excessive during the Soviet period, has been reduced or eliminated. [8] Due to the financing method adopted for second pillars, public pension finance is strained by the diversion of contribution revenues to individual accounts.

[7] Hirose (2011).

[8] Fultz and Ruck (2000), p. 12.

In terms of their design, CEE public pensions have three basic characteristics in common – features that are typical of most public pension schemes worldwide. Monthly payments are guaranteed for life for all those who meet eligibility requirements. Thus, pensioners do not face the risk of outliving their benefits. Public pensions are adjusted regularly based on a mix of wage and cost indices. This, too, helps to protect older pensioners from economic hardship. And all public pensions are computed in a manner that gives women and men of the same age with equal years of work and pension contributions equal monthly benefits, a policy that is widely accepted as equitable.

Replacement rates vary widely, as shown in Table 2, falling below the European Union (EU) average in four countries (Bulgaria, Croatia, Estonia and Latvia) and exceeding it in two (Slovakia and Romania).[9] Women's replacement rates also vary significantly in relation to men's, with the average exceeding that of men in three countries (Croatia, Estonia and Latvia). With one exception (Croatia), all the systems have aggregate replacement rates of at least 40 percent. Note that ILO Convention No. 102 (Social Security – Minimum Standards) requires that the old-age benefit level equal at least 40 percent of the reference wage for a standard beneficiary after 30 years of employment.

Table 2: Aggregate replacement rates for selected CEE pension systems, 2016[10]

Country	Men and women	Men	Women
Bulgaria	45%	50%	42%
Croatia	37%	39%	40%
Estonia	45%	39%	51%
Latvia	42%	40%	43%
Macedonia	–	–	–
Romania	66%	68%	57%
Slovakia	62%	60%	57%
EU 19	*58%*	*61%*	*55%*

Source: European Commission (2018b), p. 47.

[9] As it is not an EU Member State, a comparable replacement rate is not available for Macedonia.

[10] The ratio of the median individual gross pension of people aged 65-74 to the mean individual gross earnings of people aged 50-59.

9.3. Second-pillar benefits – the legal frameworks

Many CEE governments launched individual-account systems before defining the benefit package that workers could expect to receive.[11] This situation has since been largely rectified, with laws now in place in five of the seven countries (Croatia, Estonia, Latvia, Macedonia and Slovakia), as shown in Table 3. All five have recently begun to pay benefits to small numbers of accountholders. In two others, the inception of payouts is still on the horizon (Bulgaria, 2022; Romania, 2032) with no benefit law in place.

Table 3: Countries, dates of second-pillar laws and dates for benefit payouts

Country	Launch of second pillar	Inception of benefit payouts	Benefit law enacted
Bulgaria	2002	2022	No
Croatia	1999	2012	Yes
Estonia	2002	2009	Yes
Latvia	2001	2014	Yes
Macedonia	2006	2016	Yes
Romania	2007	2032	No
Slovakia	2005	2015	Yes

Source: Appendix A.

In neither of the latter countries is legislative action on the horizon. The main obstacles are:

- In Bulgaria, the finance ministry proposed a payout law in 2016 but subsequently withdrew it under criticism led by second-pillar fund administrators. Their main objection focused on a requirement that they pool their assets to ensure solid financing for life annuities.[12] After the ministry withdrew the bill, the government shifted authority for a second-pillar payout law to the Ministry of Labour and Social Policy, which has not yet formulated a

[11] Fultz and Ruck (2000), p. 16.

[12] The requirement was aimed at ensuring adequate funding for annuities for the long-lived. However, the fund administrators criticized it as "rendering the concept of personal savings meaningless." (Krzyzak, 2016).

proposal. Until a payout law is enacted, retiring workers receive lump-sum payments or refund their account balances to the public system in exchange for a full public pension (Table 2 and Appendix A-1).

- In Romania, the previous government's labour ministry proposed a payout law in 2016, but soon thereafter, national elections brought a new government to power. Claiming low public confidence in the second pillar and low investment returns, at various times, the new government proposed to discontinue the second pillar, to make it optional, to cut the public pension contributions diverted to it and to lower the cap on management fees charged by private funds.[13] A compromise agreed upon in late 2017 reduced the diversion of contributions from the first pillar to the second from 5.1 per cent to 3.75 per cent of covered wages but retained the requirement that workers participate. The government continues to study eliminating that requirement.

In recent years, some governments have narrowed the group of workers required to save in individual accounts. These revisions were largely responses to worker dissatisfaction with low second-pillar investment returns and/or to the public pension deficits created by diverting revenues to the second pillars. During 2010-2015, three governments relaxed requirements that workers save in individual counts (Bulgaria, Croatia and Slovakia, Table 4 and Appendices), either by making the accounts optional for some workers, allowing workers to refund their contributions to the government in return for a public pension, or both.

In two countries, further second-pillar revisions are now being considered. In Macedonia, accountholders who receive lower pensions than others in their age cohorts who did not join the second pillar have sued the government. In June 2017, the Macedonian government created a committee to develop proposals for addressing the problem of low second-pillar pensions (Appendix A-6). In Romania, as noted, the government continues to study the feasibility of making individual accounts optional (Appendix A-8).[14]

[13] Ottawa (2018).

[14] *Nineoclock*.

Table 4: Second Pillars: Exit options / requirements

Country	Amendment
Bulgaria	• At the end of 2014, second-pillar members were allowed to return to the first pillar alone, while refunding their account balances to the government.2 The option is available until five years before retirement. • Those who opt out of the second pillar may also opt back in. • The first pillar alone was made the default for new labour market entrants who do not select a second-pillar fund within one year.
Croatia	Since 2011, retiring workers who had joined the second pillar voluntarily (aged 40-50 at time of implementation of the second pillar) have been allowed to return to a single first pillar if that benefit would be higher than their combined first- and second-pillar benefits.
Slovakia	On four occasions during 2008-2015, the government allowed second-pillar members to refund their account balances and regain the right to a full public pension (and, conversely, first-pillar members were permitted to join the mixed system).

Source: Appendix A.

9.4. Second-pillar benefits – three design issues

9.4.1 Will payments be guaranteed for life?

Myopia, or short-sightedness, is the main policy rationale for guaranteed lifetime pensions. If workers were left to their own devises, many would save inadequately for retirement and recognize their error only when it was too late. Some would be forced to rely on public assistance, burdening other taxpayers. ILO Convention No. 102 (Social Security – Minimum Standards) helps to prevent these outcomes by requiring that retirement benefits be paid regularly during the pensioner's lifetime.[15] To what extent do CEE second-pillar laws adhere to this basic principle?

Table 5 shows that most laws require lifetime benefits for most workers. Two countries (Croatia and Latvia) require that workers convert their entire individual account to a life annuity, with no "leakage" in the form of phased withdrawals or lump-sum payments. In two others (Estonia and Slovakia), laws also require

[15] In CEE, Convention No. 102 has been ratified by Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Montenegro, Serbia, Slovakia, Slovenia, Romania and the Ukraine.

payment of lifetime benefits but make exceptions for small accounts, which can be paid as lump sums. The governments of Bulgaria and Romania made similar proposals to those of Estonia and Slovakia, but these were not accepted.

One government (Macedonia) leaves the decision between a lifetime pension and phased withdrawals to the accountholder. Here a complex rule requires that account withdrawals be large enough to make the individual's public pension plus the withdrawal equal to at least the minimum pension. This prevents a pensioner from collecting the minimum pension while setting his/her second-pillar account aside for future years. When the exhaustion of an individual account leaves the pensioner's monthly payment below the minimum pension, it is automatically increased to that level. [16]

Table 5: Will retiring workers be guaranteed regular, lifetime payments?

Policy	Countries
Yes No lump sum payments allowed	• *Croatia and Latvia*– annuity purchase required or workers can refund savings to public pension system in return for a full public benefit
Mostly Accountholders are generally required to purchase annuities, but with exceptions for small accounts	• *Estonia* – lump sum paid for accounts equal to less than one quarter of flat pension rate • *Slovakia* – lump sum paid if no pension provider offers annuity • *Bulgaria and Romania* – previous, unenacted government proposals required annuity purchase for larger accounts
No Life annuity purchase not required	• *Macedonia* – worker has choice between annuity or phased withdrawal

Source: Appendix A.

9.4.2 Will second-pillar pensions retain purchasing power?

Adjusting pensions regularly for inflation and/or changes in average wage levels promotes social cohesion and pensioners' economic security. Such adjustments are of special importance in CEE, where many of the grandparents of today's

[16] Hirose (2017).

workers experienced hardship in retirement during an era when inflation was not officially recognized, and pensions declined in value as pensioners aged.[17] More recently, runaway inflation also eroded pensions during the early years of transition, making life difficult for parents of many current workers.

As shown in Table 6, only one country, Croatia, requires regular second-pillar pension adjustments. Croatian second-pillar pensions must be adjusted in the same manner as public pensions, which is currently twice a year. This requirement provides important protection for pensioners but poses risks for the pension provider due to the uncertainty of future inflation rates. Governments can mitigate such risks for private funds by issuing inflation-indexed bonds. Through investing in them, the funds can shift the risk of uncertain inflation rates to taxpayers. So far, Croatia has not issued these bonds (only one CEE country, Poland, has done so and only in small quantities).

Table 6: Will second-pillar pensions retain their purchasing power?

Status	Country
Adjustment required	• *Croatia* – must follow the public pension adjustment (currently two adjustments per year, using the Swiss method (50% wages, 50% prices) and a variation of it (70:30, 50:50, 30:70), depending on wage and price trends • *Romania* – proposed law would have required adjustment at a rate prescribed in the individual's pension contract
Adjustment not required	• *Bulgaria* – no requirement in previous draft law • *Latvia*
Adjustment optional for fund, but with conditions	• *Estonia* – cannot exceed 3% per year • *Macedonia* – can occur only for two years • *Slovakia* – initial benefit amount is reduced to offset adjustment costs

Source: Appendix A.

In addition, some second-pillar accountholders have indirect access to regular pension adjustments. In countries that allow some accountholders to refund their balances in return for a full public pension (Bulgaria, Croatia and Slovakia)

[17] Fultz and Ruck (2000), p. 4.

or that extend this option to everyone (Latvia), an inflation-adjusted pension is available by choosing that option.[18]

On the other hand, two CEE countries restrict private funds' latitude to provide adjustments – Estonia, by rate, and Macedonia, by duration. Slovakia requires that the initial pension amount be reduced to finance future adjustments, a procedure akin to self-insurance.

In sum, under the second-pillar benefit laws of today, the great majority of pensions will not maintain their value over time. The main recourse available to accountholders who want inflation protection is to refund their balances to the public system, if they have this option.

9.4.3 Will second-pillar pension calculations provide gender equality?

The conversion of an individual account to a lifetime pension involves "stretching" the former over the worker's remaining years of life. Since that period is unknown, annuity providers rely on estimates for particular age cohorts. Two quite different estimates are possible: (i) A unisex life table that applies to both sexes, or (ii) distinct life tables for women and men, reflecting the fact that women as a group live longer. The former approach ensures that men and women with the same contributions and investment returns will receive the same monthly pension amounts while, under the second, a woman will receive roughly 15 per cent less.[19] As discussed earlier, gender-neutral calculation is the norm in public pension schemes, where it helps to prevent poverty, is widely regarded as fair, and is consistent with treatment of life expectancy in other public policies (see Box 1). European Commission Directive 79/7/EEC calls for those Member States whose second pillars are part of the public pension systems to refrain from using gender-specific actuarial factors in calculating benefits.

Table 7 shows that CEE second pillars are nearly evenly divided on this question. Four governments mandate, or have proposed, gender neutrality, while the remainder allow, or propose to allow, private funds to reduce benefits paid to all women to reflect the longer life expectancy of women as a group.

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18 In Latvia, this option was part of the original second-pillar law.

19 For the EU 28, male life expectancy at age 65 / female life expectancy at age 65 = 18.2 / 21.6 = 84.3 per cent.

Box 1: The policy rationale for gender-neutral pension calculations

- *Poverty alleviation* – Paying lower pensions to those who on average live longer would expose that group to greater risk of poverty at every stage of their retirement.
- *Individual fairness* – Calculating pensions based on separate projections of life expectancy for women and men as groups would mask the substantial overlap that exists between them, creating many unjustified winners and losers – in other words, men who outlive the female average but receive higher pensions because other men die earlier (winners) and women whose longevity falls short of the male average but who receive lower pensions because of other women's longevity (losers).
- *Policy coherence* – Women are not the only group in society with longer life expectancy. Non-smokers on average outlive smokers, the affluent on average outlive the poor, and those with a strong genetic endowment live longer on average than those born with predispositions to disease. If we apply group treatment to women, should we not apply it to other groups? Where should this process of differentiation stop?

Source: Fultz and Steinhilber, 2003.

Table 7: Will the calculation of second-pillar pensions be gender-neutral?

Yes	No
Croatia	Latvia, but workers may return to public NDC system, where gender neutral pensions are provided
Estonia	Macedonia
Slovakia	Romania, no requirement in proposed law
Bulgaria, proposed3	

Source: Appendix A.

There are also some fine points:

- In Latvia, retiring female workers have an indirect path to gender-neutral benefit computation. By refunding their accounts to the public pension system at retirement, they can receive a full public benefit computed with a single, unified life expectancy estimate. This is an especially beneficial option for women who, all other things being equal, could be expected to use it in larger numbers. If so, this would create disproportionate savings for private pension funds and disproportionate costs for the public system.
- In Macedonia, where accountholders have the option to convert their balances to a lifetime pension, the absence of a requirement for gender fairness will likely discourage women from doing so.
- In Romania, the previous labour ministry's proposal required workers to use their accounts to purchase life-long annuities but with neither a requirement for gender fairness nor an exit option (as in Latvia). Had this proposal been enacted, Romanian women would have received lower monthly second-pillar pensions than their male peers with similar account balances and investment returns.

Gender-neutral pension calculation is key to achieving gender equality, but in competitive private-pension markets, this alone is insufficient. When subject to these requirements, providers can lower their overall costs by recruiting fewer female members. Such discrimination may be illegal but nevertheless occurs in subtle ways, for example, through advertising or rewards for joining the fund that target men. There are two ways to eliminate this incentive: a single national annuity provider that converts all account balances to monthly payments, and thus has no leeway to discriminate in choosing members, or a mandatory system of financial transfers among pension providers that offsets any advantage that would accrue from a disproportionate number of men in a fund's membership base.

One government, Croatia, has adopted the former approach; in another, Bulgaria, the finance ministry proposed it but later withdrew the option in response to opposition led by private fund providers.

The second approach does not exist in any CEE country. There are, however, precedents in EU healthcare systems where private funds compete for members, for example, in the Netherlands, Poland, Switzerland, Romania and Slovakia.[20] In these countries, equalization funds were created to dissuade private healthcare

[20] As well as in the US Affordable Care Act (Obamacare).

providers from discriminating against potential members who are likely to be less healthy and thus incur higher medical expenses.

9.5. Discussion

Drawing on the preceding pages, this section discusses the main impacts of second-pillar pension design on workers' retirement security. Four cross-cutting patterns stand out, related to: (i) the stability of second-pillar laws; (ii) requirements or a lack thereof for regular pension adjustments; (iii) second-pillar implementation strategies; and, (iv) the impact of the new refund options on the financing of public pensions.

A. *Unsettled second-pillar policies.* It is a universal principle that pension systems need to be reformed gradually to enable workers to plan early for their security in old age. The preceding discussion demonstrates that one country, Estonia, has largely observed this principle. While its government suspended the redirection of public-pension contribution revenue to the second pillar after the global financial crisis, it restored it when economic conditions stabilized and even created a catch-up period (Appendix A-3). However, Estonia's situation contrasts sharply with the fluctuating policies in the other six countries.

   Three of these countries have permanently reduced the flow of public pension contributions to individual accounts (Latvia, Romania and Slovakia); three have relaxed the requirement to save in individual accounts (Bulgaria, Croatia and Slovakia); and, two lack the political consensus needed to pass a benefit law (Bulgaria and Romania).[21] One government is the target of lawsuits by second-pillar accountholders who receive lower pensions than non-members (Macedonia) and has established a working group to develop solutions.

   Clearly, this high policy flux is not helpful to workers in planning for the future, nor is it conductive to the worker confidence that is essential for the second pillars' success.

B. *Pensions without inflation protection.* Four of the five countries with payout laws require that all or most account balances be converted to annuities at

[21] Macedonia also reduced second-pillar revenues, but this was part of an overall reduction in the pension contribution rate (see Appendix A).

retirement. This is a positive development for the affected workers, one that will help ensure regular payments throughout their lifetimes. Yet only a single law requires that second-pillar pensions be adjusted regularly for inflation (Croatia), and several laws place limits on the frequency, rate or means of financing such adjustments (Estonia, Macedonia and Slovakia). Thus, for most workers who retain their account balances in the second pillar at retirement – either because they do not have a refund option or because they choose not to exercise it – the goods and services that their pensions can buy will diminish over time.

C. *Missing support and enforcement mechanisms.* In principle, second-pillar pensions can be designed to protect workers' retirement security in the same way that public pension systems do: guaranteed lifelong benefits, regular inflation adjustments and gender equality in benefit computation. However, competing private funds require both regulation and assistance from governments to implement these worker protections. In several CEE countries, the legal requirements are in place, but the regulation and support needed for their successful implementation are not.

The observation applies, first, to gender-neutral benefit computation. Without either a single annuity provider or an equalization fund, private annuity providers operating in those CEE countries that require gender equality in benefit calculation (Estonia and Slovakia) have the potential to reduce their costs through subtle recruitment of male members and discouragement of female enrolment. Such gender discrimination may not yet have occurred, or the regulatory authorities may not have detected it. The threat, however, is real, as evidenced by the existence of equalization funds in many European systems that rely on competing private firms to deliver health benefits.

Similarly, in the single country with mandatory private pension adjustments (Croatia), this requirement is not supported by a government initiative to make inflation-adjusted bonds available to private funds, thus enabling them to hedge their risks. For Croatia and other governments that might follow its lead in protecting second-pillar pensioners from inflation, ensuring the availability of such bonds will be key to success.

D. *Refund options that strain public pension finance.* Refund options enable accountholders to avoid second-pillar losses relative to public pensions. Such options are expanding in CEE countries, with three governments in this study having adopted this approach in some form in recent years (Bulgaria,

Croatia and Slovakia).[22] These options favour the subset of accountholders that are both eligible and aware of their rights. However, they are problematic for accountholders who are less well-informed, as well as for public pension recipients as a group.

As pension literacy is not high in CEE countries, many accountholders may be unaware of their eligibility for a refund option. Furthermore, if options are time-limited, some accountholders may miss deadlines or make mistakes, either by action or inaction that become apparent only after it is too late. Laws that allow workers to make multiple choices, moving in and out of the second pillar, add further complexity to their decisions.

Furthermore, the existence of refund options for some accountholders but not others creates horizontal inequities. As retiring accountholders without refund options find out that they are disadvantaged relative to peers who have them, or those who do not have individual accounts at all, political pressure is likely to mount for more and broader options for exiting second pillars.

Yet expanding such options strains public pension finance to the disadvantage of all pensioners. Strains arise for two reasons: first, because the account balances that are refunded to the public pension system do not make it whole. They are insufficient due to the deduction of private management fees during a worker's career. These fees are high in most CEE countries and, over a worker's career, can erode the account balance by a fifth or more.[23] A second strain arises from gender differences in life expectancy. In countries without a mandate for gender-neutral pension calculation in the second pillar, women have stronger incentives to refund their account balances at retirement, all things being equal, than do men. Thus, the more "expensive" pensioners will likely return to the public system in larger numbers, providing large savings to private funds but creating disproportionate costs for the government.

For both reasons, the more widely that refund options are made available and exercised, the more likely that they will strain public pension finance and create pressures for future cuts in public pensions.

[22] In addition, Poland now requires refunding, Hungary allows it, and Latvia included a refunding option in its original second-pillar law.

[23] An investment management fee of just 1 per cent of the account balance will reduce the value of the account by 20 per cent over a workers' career (Barr, 2011, p. 19). For CEE management fee levels, see Price and Rudolph, 2013.

How can governments protect retiring accountholders from second-pillar losses without weakening the financing of their public pensions? While recognizing that there are no easy answers, some observers have called for a paradigm shift in which the second pillar is no longer financed from the first, and in which governments "nudge" rather than require workers to contribute to supplemental retirement savings plans.[24] Policy initiatives that nudge pension participation through automatic enrolment, but from which workers can withdraw at will, have been undertaken on a large scale by the United Kingdom, the US State of California, and New Zealand (Kiwi Savings Plan).

Such an initiative is currently being planned in Poland, where second pillars will be fundamentally restructured in 2019. A quarter of existing account balances will be transferred to a demographic reserve in the ZUS, the public pension agency; and the remaining three-quarters will be transferred to new occupational savings accounts to which both employers and workers will contribute, incentivized by government matching funds. Enrolment will be automatic, but workers will have the right to opt out (by signing a declaration). Because the new accounts will be financed outside the public pension system, they will not strain its financing and so will not pose a threat to workers' public pensions.

The success of such a shift hinges on several factors. First, governments would need to educate workers, raise public awareness and overcome resistance, including opposition from private investment managers that today benefit from mandatory worker participation and public funding of second pillars. Second, with worker participation encouraged by making enrolment automatic, governments must develop the technical capacities and commit the resources needed to monitor private management fees and to regulate them to protect the investments of inattentive accountholders. Third, to promote high levels of worker participation, governments would need to ensure transparency in the operation of voluntary private funds, as well as to raise workers' awareness and pension literacy. Finally, when the second pillar is voluntary, the need for an adequate and soundly-financed public pension system becomes even more important.

Taken together, these prerequisites provide a reminder that there are no shortcuts in addressing the difficulties that currently face CEE second pillars. But it is equally clear that a key source of those difficulties – the funding of the second pillar from the first – is difficult to sustain when private benefits compare

24 The concept of the "nudge" was elaborated by Thaler and Sunstein (2008). Orenstein (2013), and Cribb and Emmerson (2016), among others, have advocated it as an alternative to mandatory second pillars,.

unfavourably with public pensions. For those CEE governments that are seeking to protect accountholders from second-pillar disadvantages while simultaneously protecting public pension systems from excessive costs, the option of moving toward a voluntary, independently-financed supplemental system deserves a close look.

Appendix A. Country profiles

A.1 Bulgaria

Enactment of second pillar – 2002

- Contribution rate, 2 per cent of covered wages, subsequently increased to 5 per cent
- Two types of funds, so-called universal funds (for all workers)[25] and occupational funds (early retirement for those engaged in hazardous work).

Retrenchment – end of 2014

- Second-pillar members (both universal and occupational funds) given the option to return to the first pillar alone, while refunding their account balances (proposal: to the government Silver Fund, a demographic reserve that is conservatively managed). The option is available until five years before retirement. Those who opt out of second pillar may return.
- A single first-pillar system is made the default for new labour market entrants who do not select a second-pillar fund within one year.

The second-pillar benefit package

- Qualification – Must be of retirement age.
- *Benefit types* – No law in place. Periodic payments (pensions and annuities)[26] planned to start in 2022. Pending enactment of law on payouts, retiring workers receive lump- sum payments or, as described above, refund their account balances to the public system in exchange for a full public pension.

  During 2015 and 2016, the finance ministry proposed legislation on conditions of benefit payout. The proposal included:

  - Pension funds must offer accountholders lifetime pensions;
  - Accountholders may opt to receive a pension from a pension fund or an annuity from a life insurance company, with the goal of encouraging competition in the pensions/annuities market;[27]

[25] Born in 1960 and thereafter.

[26] In Bulgaria, the term "lifetime pension" is used for pension funds and the term "lifetime annuity", for life insurance companies.

[27] However, the Ministry of Labour, along with existing pension fund administrators, opposes payment by life insurance companies.

- Pension funds must create a common pool of assets for paying supplemental pensions to ensure financing for the long-lived;
- Annuity providers (both pension funds and life insurance companies) must use gender-neutral life expectancy tables in computing benefits.

Recent experience – There are nine private pension management companies, each offering two funds, as described above.

In 2016, 24,373 retiring workers refunded their second-pillar account balances, resulting in an average public pension increase of US$ 42.44. During 2017, 14,586 retiring workers applied for this transfer and 3,797 transfers were completed as of 20 March 2018.

A.2 Croatia

Enactment of second pillar – 1999, implementation, 2002, with benefit payments to start in 2012. Contribution rate, 5 per cent of the 20 per cent pension insurance rate redirected to individual accounts.

Retrenchment – No change in contribution rate. Since 2011, retiring workers who had joined the second pillar voluntarily (ages 40-50 at time of second-pillar implementation) can return to the single first-pillar scheme if that benefit would be higher.[28] As a result, the initiation of second-pillar benefit payments has been pushed forward 10 years, to 2022. In 2014, life-cycle funds were introduced, and workers nearing retirement must move their savings into a conservative fund.

The second-pillar benefit package – Upon retirement, individuals must use the accumulated balance in their accounts to purchase an annuity from an authorized insurance company. Currently, there is only one licensed company, Raiffeisen.

- *Qualification* – entitlement to a public pension.
- *Benefit types* – Single life pension, joint life pension, single life pension with guarantee period,[29] and joint life pension with guarantee period. Lump-sum payments are not permitted. Annuities are paid by pension insurance companies. As noted, there is currently only one.
- *Benefit computation* – Gender-neutral benefit computation is required, and the law prohibits discrimination based on gender (2014).
- *Pension adjustment* – Mandatory, following the rules of the first pillar, which require two adjustments per year, one according to the Swiss method (50 per cent wages, 50 per cent prices), and a second based on variable ratios (70:30, 50:50, 30:70), depending on wages and price trends (2014).

Recent experience

- In 2017, 249 people were receiving second-pillar annuities.
- Just over half of them (52 per cent) received a joint pension with a guarantee period.
- Croatia's single annuity provider, Raiffeisen, applies both gender-neutral benefit calculation and bi-annual pension indexation but reportedly opposes the latter.

[28] The first pillar is attractive, in part, because workers in the mixed system are not entitled to a public pension supplement (since 2007, between 4 per cent and 27 per cent of the public pension). This created an imbalance between pensioners in the mixed system and those in the first pillar only. The government has deferred the decision on whether to provide this supplement to members of the mixed-pension system. In addition, many early retirees are women in low-paid jobs who had been contributing to the second pillar for a relatively short time and who retired early (resulting in high life expectancy in the second-pillar benefit calculation) (Vukorepa, 2015).

[29] If the beneficiary dies during the guarantee period, the pension is paid to a designated heir.

A.3 Estonia

Enactment of second pillar – 2002, contribution rate, 6 per cent of the covered wage, of which 4 per cent was redirected from the public pension system to the individual accounts, supplemented by a 2 per cent mandatory contribution from the accountholder's wage.

Retrenchment – During 2009 and the first half of 2010, the 6 per cent contribution rate was temporarily reduced to zero. During 2014-2017, the rate was temporarily increased to 8 per cent to make up for missed contributions.[30]

The second-pillar benefit package

- *Qualification* – Person must have contributed to the individual account for at least five years and be of pensionable age, which is gradually increasing from 63 to 65.[31]
- *Benefit types* – Lump sums and programmed withdrawals are paid by pension companies, while annuities are paid by insurance companies.
  - Lump sums are permitted only if invested balances are less than 10 times the basic pension. Phased withdrawals are allowed when balances are 10-50 times the basic pension (Rocha, 2012).
- *Annuity calculation* – Insurance companies are required to use gender-neutral life expectancy tables.
- *Annuity adjustments* – Not required. Insurance companies may offer interest of up to 3 per cent on annuities.[32]

Recent experience

- Commencement of benefit payments, 2009.
- Three insurance companies are licensed to pay second-pillar annuities.
- At the close of 2016, 32, 272 people were entitled to receive payments from their second-pillar accounts. Of these:
  - 21 per cent (6,083) had postponed application for payment.
  - 48 per cent (15,949) opted for a programmed withdrawal.

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30 Individuals could opt to voluntarily pay the 2 per cent rate, starting in 2010 (while the 4 per cent social tax was still not being redirected to the second pillar). Thus, for some individuals, the current rate is 9 per cent rather than 8 per cent.

31 The increase is three months per year beginning in 2017, until age 65 is reached in 2026.

32 Accountholders may purchase annuities that distribute at least 50 per cent of profits.

- 16 per cent (5,225) took the account balance as a lump-sum payment.
- 15 per cent (5,015) were receiving an annuity.
  - Of these, 56 per cent are men, 44 per cent women.
  - Men's annuities are on average 27 per cent higher.

A.4 Latvia

Enactment of second pillar – 2001. Contributions equalling 2 per cent of wages were redirected from the public pension system to individual accounts. This gradually increased to 8 per cent (and would have risen to 10 per cent but for retrenchment, as described below). Participation is mandatory for those born after 1971 (or age 30 at the time of enactment), and voluntary for those born during 1951-1971 (ages 30-39 at enactment). Benefit payments are mandated to commence in 2014.

Retrenchment – 2009, second-pillar contribution rate reduced to 2 per cent, subsequently (2016) increased to 6 per cent.

The second-pillar benefit package

- *Qualification* – eligibility for a public pension
- *Benefit types* – At retirement, workers choose between (1) purchase of an annuity, or (2) crediting of the second-pillar account balance to his/her public notional defined-contribution (NDC) account to increase the NDC retirement benefit.
  - For annuity purchase
    - Option to defer annuity for up to 10 years and to set three different benefit amounts over time;
    - Option for insurance companies to offer pensioners joint annuities with a fixed-duration guarantee (during which the monthly payment is inheritable);
    - No requirement for gender-neutral benefit calculation; and
    - No requirement for pension adjustments.
  - For refunding option
    - Pension adjustments as under public NDC system;
    - No option for joint annuity; and
    - Gender-neutral benefit calculation required, as in the public NDC system.

Recent experience – In 2016, 14 per cent of retiring workers (2,028) opted to purchase an annuity with their account balances, which averaged US$ 5,952. The remaining 86 per cent of retiring workers (10,248) opted to transfer their balances, which averaged US$ 1,887, to the public NDC system.

The first cohort of mandatory second-pillar participants will reach statutory retirement age in 2035.

A.5 Macedonia

Enactment of the second pillar – 2003, implemented in 2006, with a 7.42 per cent contribution rate diverted from the 21.2 per cent pension contribution rate at the time.

Retrenchment – 2011, 7.42 per cent reduced to 6 per cent in the context of an overall reduction in the pension contribution rate from 21.2 per cent to 18 per cent.

The second-pillar benefit package (enacted in 2012)

- *Qualification* – Generally, accountholders must be eligible for a public pension (requiring prior contributions of 15 years).[33]
- *Benefit types* – An accountholder may choose a life annuity, a programmed withdrawal, or a combination of the two. Those without a public pension generally receive lump-sum payments.
  - *Payment* – Annuities are paid by insurance companies, while lump sums for those without a public pension are paid by pension funds.
  - *Benefit calculation* – No requirement for gender neutrality. An annuity may include a guaranteed period, during which a designated heir would inherit the income stream.
  - *Pension adjustments* – Not required. Annuities may be indexed by cost of living or share of profits for up to two years. Phased withdrawals must be adjusted annually to reflect market yield.
  - *Interaction with public pension system*
    - For second-pillar accountholders, the maximum public pension is reduced from 80 per cent to 30 per cent of prior wages.
    - Programmed withdrawals must be paid at a rate that pegs the first- and second-pillar benefits to the minimum pension. When the exhaustion of a phased withdrawal leaves the public pension level below the minimum pension, it is increased to the minimum pension level.
- *Recent experience*
  - In 2018, 73 accountholders are receiving second-pillar pensions, of which 35 are voluntary members and 38 are mandatory members.
  - About 15,600 accountholders will retire over the next decade.

[33] An accountholder who is not eligible for a public pension may receive the balance as an annuity only if the annuity amount exceeds 40 per cent of the statutory minimum pension. Otherwise, the account can be drawn down through phased withdrawals (without a guarantee of lifelong benefits).

– Complaints are currently being litigated from accountholders who receive lower pensions than peers who did not join the second pillar. In June 2017, the Macedonian government created a committee to develop proposals for addressing the problem of low second-pillar pensions.

A.6 Romania

Enactment of second pillar – Legislation passed in 2004 and implemented in 2007, with an initial contribution rate of 2 per cent of wages, set by law to rise by 0.5 per cent per year to reach 6 per cent in 2016. Participation was mandatory for those under age 35. A one-time choice to join the second pillar was available to those then aged 35-45.

Retrenchment – legislated rate of increase was suspended and slowed. In November 2017, it was reduced from 5.1 per cent to 3.75 per cent of wages, effective in 2018. A proposal to make the second pillar voluntary was considered but not adopted.

The second-pillar benefit package

- *Qualification* – Entitlement to a public pension.
- *Benefit types* – Pending enactment of a law on benefit payouts, provisional regulations authorize payment of lump sums.
  - In December 2016, the Ministry of Labour proposed a draft law on annuities according to which:
    - Accountholders with larger balances (sums that would finance an annuity of at least 24 per cent of the first-pillar social pension) would be required to purchase annuities, while those with lesser amounts would receive programmed withdrawals over 5-10 years.
    - Annuities would be paid not by second-pillar funds but by "pension payment providers."
    - Gender-neutral calculation of annuities would not be required.
    - Annuities would be indexed annually at a rate pre-established in the contract between the individual and the pension payment provider.

However, the new Romanian government has not promoted this proposal.

Large numbers of second-pillar accountholders will begin to retire in 2032.

A.7 Slovakia

- *Enactment of the second pillar* – 2005, initial contribution rate, 9 per cent of wages, redirected to individual accounts from the country's then 18 per cent public-pension contribution rate for retirement.
- *Retrenchments*
  - *2008-2015* – On four occasions, the government allowed second-pillar members to refund their account balances and regain the right to a full public pension (and, conversely, first-pillar members to join the mixed system).
  - *2012* –
    - 9 per cent rate reduced to 4 per cent, with a provision to increase by 0.25 per cent per year, starting in 2017 and reaching 6 per cent in 2024.
    - Accountholders required to choose one of four funds with varying levels of risk from their pension management company.[34]

The second-pillar benefit package

- *Qualification* – 10 years' contributions and reaching retirement age.
- *Benefit types* – Life annuities, temporary annuities[35] and phased withdrawals. The first two are paid by private life insurance companies, with the Social Insurance Agency (SIA) mediating the companies' negotiations with the retiring worker.[36] Three private insurance companies are currently licensed. If the account balance is so low that none of them offers an annuity, a phased withdrawal (at the current rate of 11 euros per month) is paid by the pension fund until the account is exhausted.[37]
  - Gender-neutral benefit computation is required. Insurance companies reportedly oppose it and, to hedge their risks, use longer estimates of life expectancy than the SIA.[38]
  - Cost-of-living increases are optional (in which case, the initial benefit amount is reduced).
  - Spousal benefit is optional but limited to two years (with an actuarial reduction in the benefit amount).

[34] Some companies have four, three or two, but every company has a single guaranteed fund.

[35] A supplemental pension for those whose life annuity exceeds a threshold (four times the subsistence minimum, 792.30 euros in 2017) paid for 5, 7 or 10 years.

[36] For life annuities and temporary pensions, the SIA collects offers of annuity amounts from private insurance companies based on the worker's account balance, conveys these to the worker who chooses among them, and mediates contract negotiations between the chosen company and the worker.

[37] Lump-sum distributions of small accounts are prohibited by law.

[38] Nineteen years versus 16 years for the SIA.

- *Recent experience* – During 2015-2016, 1,816 individuals applied for an offer of annuity and 708 accepted it:

Second-benefit pillar benefit applications and payments, 2015-2016

Type of payment	Number of persons who received offer	Number of persons who accepted offer and made contract
Life annuity	1,281	458
Life annuity coupled with lump sum or phased with-drawal (for large accounts)	187	79
Phased withdrawal (for small accounts)	348	171
Total	**1,816**	**708**

In 2016, the average payment was 26.24 euros. About 60 per cent of pensioners received less.

Appendix B. Notes on second-pillar replacement levels

We provide a model for second-pillar replacement rates and some related empirical evidence.

1. Relation between defined-contribution and defined-benefit pensions

Typical formulas for defined-benefit (DB) and defined-contribution (DC) pensions are:

$$P_{DB} = P_{DB}(a, w) = a\sum_{t=0}^{T-1} W_t (1 + w)^t,$$

$$P_{DC} = P_{DC}(c/g, i) = \frac{c}{g}\sum_{t=0}^{T-1} W_t (1 + i)^t$$

where

T : Number of contribution years

W_t : Contributory wage of the individual in t-year before retirement

w : Rate of growth of the average wage

a : Benefit accrual rate per year of contribution

i : Rate of interest credited to individual accounts

c : Contribution rate

g : Annuity factor at retirement age

Here w and i are assumed to be constant over time for simplicity.

Observe that if $i = w$,

$$P_{DC}(c/g, w) = P_{DB}(c/g, w).$$

This means that a notional defined-contribution (NDC) scheme which provides interest equal to the average wage growth is equivalent to a DB pension with a benefit accrual rate equal to $a = c/g$.

For simplicity, a retired worker who has earned the national average wage throughout his/her career is considered:

$$W_t = \overline{W}_0 (1 + w)^{-t}$$

where $\overline{W}_0$ is the national average wage at the year of retirement.

In this case,

$$P_{DB}(c/g, w) = \frac{c}{g} T\overline{W}_0$$

and

$$P_{DC}(c/g, i) = \frac{c}{g} \sum_{t=0}^{T-1} \overline{W}_0 \left(\frac{1+i}{1+w}\right)^t = \frac{c}{g} D\overline{W}_0$$

where

$$D = \frac{(1+\alpha)^T - 1}{\alpha},$$

and

$$\alpha = \frac{1+i}{1+w} - 1 \approx i - w$$

is the net interest rate, or the difference between interest rate and wage growth.

Therefore,

$$\frac{P_{DC}(c/g, i)}{P_{DB}(c/g, w)} = \frac{D}{T}.$$

Thus, the ratio of the benefit level of a DC pension relative to that of the corresponding DB pension depends on the net rate of interest of wage growth and the contribution period.

2. Second-pillar pension levels in selected CEE countries

To estimate the level of the second-pillar pension for an average retired worker, the annuity factor at the retirement age (denoted by g in the previous section) is assumed to be the life expectancy at age 65 for both sexes. Note that the annuity factor is the expected present value of unit pension payments. The assumption is

that future interest earned on the remaining balance will be used for the indexation of the pensions in payment.[39]

Private pension funds charge fees on contributions, assets (or returns), or others such as entry, exit and transfer fees. These operating costs and fees have a non-negligible effect on the benefit level through the reduction of balances of individual accounts. It is thus important to consider the operating costs and fees.

a) The NDC case

First, the case where $i = w$ is considered. The table below presents the estimated benefit level of second-pillar pensions for an average retired worker in selected CEE countries.

Country	Life expectancy at 65 for both sexes (1)	Cont. rate for the second pillar (2)	Total cont. rate for old-age pensions (2)	Share of the second pillar cont. rate	Equivalized accrual rate of the second-pillar pensions (3)	Benefit accrual rate of the government pension (4)
	g	C_{PII}	C_{tot}	C_{PII} / C_{tot}	C_{tot} / g	a
Bulgaria	16.2	5.0%	17.8%	28.1%	1.10%	1.10%
Croatia	17.6	5.0%	20.0%	25.0%	1.14%	0.97%
Estonia	18.7	6.0%	20.0%	30.0%	1.07%	–
Latvia	17.0	6.0%	20.0%	30.0%	1.18%	1.18%
Macedonia	15.5	6.0%	18.0%	33.3%	1.16%	1.80% (m) 2.06% (f)
Romania	16.7	3.75%	25.8%	14.5%	1.54%	1.02%
Slovakia	17.5	4.25%	18.0%	23.6%	1.03%	1.03%

Source: Authors' calculation.

Notes:
(1) Life expectancy at 65 for both sexes are from EUROSTAT (http://ec.europa.eu/eurostat).
(2) Contribution rates for the second pillar and total contribution rates of the old-age pensions in 2018 (See Annex A).
(3) Equivalized accrual rate of second-pillar pensions is calculated by dividing the total contribution rates of the old-age pensions by life expectancy at 65 for both sexes.
(4) Benefit accrual rate of the government pension is calculated as follows:
- Bulgaria: The accrual rate used in the pension formula.
- Croatia, Macedonia, Romania and Slovakia: These countries adopt the point system. The accrual rate was calculated as the pension value as a percentage of the national average wage of the most recent year where data are available. The rate of Croatia includes the supplementary increase of 27 per cent.

[39] In Sweden, the annuity factor for the NDC pension is 16.0 while the current life expectancy at age 65 is 20.0 years. This implies that a discount rate of around 2.5 per cent is assumed.

- Latvia adopted NDC for the government pension scheme. The accrual rate was pegged to the equivalized accrual rate of the second-pillar pensions.
- Estonia: The pension formula consists of a flat-rate base amount, a length-of-service component, and an earnings-related component.

(Source: Country Fiche on public pensions for the Ageing Report 2018. https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070_en.)

To compare the generic benefit levels of the first and second pillar on the same basis, the above calculation assumed the full allocation of the contribution rate for old-age pensions. In fact, a part of the total contribution rate is diverted to the second pillar and the pensions are calculated proportionately.

Comparing the results in the last two columns of the table above,note that the equivalized accrual rate of the second pillar pensions is quite close to the benefit accrual rate of the government pension in all countries. In addition to Latvia, which adopted NDC pensions, these two rates coincide in Bulgaria and Slovakia. The second-pillar accrual rate is higher than the government pensions in Croatia and Romania. By contrast, the government pension accrual rate is significantly higher than the second pillar in Macedonia although a gradual reduction in government pensions is planned.

b) The general case

In the general case where *i* differs from *w*, the accrual rate of the second-pillar pensions also depends on their difference as well as the contribution period. One needs to consider the *D/T* factor defined in the first section. The table below presents *D/T* values in selected cases.

T / α	-3.0%	-2.0%	-1.0%	1.0%	2.0%	3.0%
5	0.94	0.96	0.98	1.02	1.04	1.06
10	0.88	0.91	0.96	1.05	1.09	1.15
20	0.76	0.83	0.91	1.10	1.21	1.34
30	0.67	0.76	0.87	1.16	1.35	1.59
40	0.59	0.69	0.83	1.22	1.51	1.89

The table below compares the average wage growth rates and rates of return on investment as well as fees expressed as a percentage of the total assets for a 10-year period (2006-2016).

Country	Average wage growth (1)	Average return on investment (2)	Operating costs and fees as a % of total assets (3)
Bulgaria	10.2%	2.3%	1.0%
Croatia	3.0%	N.A.	0.7%
Estonia	6.2%	1.1%	1.3%
Latvia	6.6%	2.7%	1.9%
Macedonia	4.3%	5.6%	0.5%
Romania	9.3%	7.6%	0.6%
Slovakia	3.9%	1.3%	0.8%

Notes:

(1) Average wage growth is the average rate of growth of the national average wage for the period 2005/2006-2016.
(Source: OECD.Stat https://stats.oecd.org/Index.aspx?DataSetCode=AV_AN_WAGE for Estonia, Latvia and Slovakia, and National Statistical Offices for Bulgaria, Croatia, Macedonia and Romania).

(2) Except for Macedonia, the average return on investment concerns both mandatory and voluntary private pensions for the period 2006-2016 (Source: OECD, Pension Markets in Focus, 2017 edition). The average return on investment in Macedonia concerns the second-pillar pensions for the period 2006-2015 (Source: Agency for Supervision of Funded Pension Insurance).

(3) For Estonia, Latvia and Slovakia, the data on operating costs and fees concern both mandatory and voluntary private pensions for the period 2006-2016 (Source: OECD, Pension Markets in Focus, 2017 edition). For Bulgaria, Croatia, Macedonia and Romania, the data on fees are the current maximum rates of asset management fees of second-pillar pension funds approved by the supervising authorities (which most pension funds apply).

Although caution must be exercised in comparing data with different sources and bases, the table above shows that for a 10-year period (2006-2016), the average wage growth exceeded the average return on investment in all countries except for Macedonia. Moreover, if the operating fees are considered, the discrepancy will further widen. Note that the global financial crisis occurred during that period. A negative net interest rate against wage growth implies that the benefit level of the second-pillar pensions will be less favourable than the NDC case, as indicated above.

3. Effect of a change in the interest rate on the accumulated balance of individual accounts

To illustrate the effect of operating costs and fees, the sensitivity of the accumulated balance with respect to a change in interest rate is demonstrated (Rocha, 2012).

$S = S_T(i)$ denotes the accumulated value of a stream of a unit currency contribution made to an individual account with a compound interest rate over an -year period. It is given by

$$S = S_T(i) = \sum_{k=0}^{T-1} (1+i)^k = \frac{(1+i)^T - 1}{i}.$$

Hence,

$$\frac{S'}{S} = \frac{T(1+i)^{T-1}}{(1+i)^T - 1} - \frac{1}{i}.$$

The values of S'/S are tabulated below for selected values of T and i.

i \ T	1%	5%	10%
5	2.0	2.0	2.0
10	4.5	4.7	4.8
20	9.7	10.6	11.4
30	15.1	17.2	18.9
40	20.6	24.4	27.2

This table shows that for a full career (T=40) contributor, 1 percentage point of change in the interest rate will result in a more than 20 per cent change in the final balance in individual accounts.

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From 1981 to 2014, thirty countries privatized fully or partially their public mandatory pensions; as of 2018, eighteen countries have reversed the privatization. This book documents the under performance of private mandatory pensions in fifteen countries, and abstracts lessons for governments intending to improve their national pension systems. Specifically, this volume:

- analyses the failure of mandatory private pensions to improve old-age income security and their under performance in terms of coverage, benefits, administrative costs, transition costs, social and fiscal impacts, and others;

- documents the reversals of pension privatization, the laws, governance, new entitlements, coverage, financing and contribution rates of the new public pension systems;

- provides guidance on the key policy steps to reverse pension privatization in accordance with ILO standards for those countries considering returning back to a public pension system.

ISBN 978-92-2-132242-9