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The unavoidable role of private pensions in retirement income systems

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The unavoidable role of private pensions in retirement income systems²

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Overview

This work describes the growing need that governments face to reform their pension systems into more financially sustainable structures, especially in light of the recent financial crisis and the rapidly ageing population. The study identifies two main types of structural reforms: those that automatically link the public pension system's parameters to the demography or actuaries, and those that lead to a partial replacement of the PAYG-financed public pension systems by private pension arrangements and the transfer of a part of social security contributions to fully-funded, DC accounts. While both types of reform bring about long-term improvements in the financial balance of the public pension system, their design may have very different implications for the adequacy and equity of pension systems that policymakers need to address.

1: OECD

2: This Working Paper has been taken from chapter 2 of the book Fuentes F., Herrero G. y Escrivá JL. (2010) (eds) "Pension reforms in Latin America Balance and challenges ahead". BBVA Research, Madrid 2010.

1. Introduction

While pension reforms vary, their objectives are usually similar: providing more sustainable and secure benefits while ensuring that old-age needs are adequately met. A common theme in many so-called structural pension reforms has been the introduction of fully-funded, defined contribution (DC) pension plans, commonly known as “individual accounts”. Such reforms generally help control the long-term growth in public pension expenditure, although where there has been a diversion of social security contributions (a “carve-out”), the financial pressure on public pension systems is temporarily raised. Moreover, such systems expose workers to financial risks that need to be properly managed in order to avoid exposing retirement incomes to a great deal of uncertainty.

As this paper shows, pension reforms that follow the spirit of the Chilean reform in 1981 have been very popular but have not been universally endorsed. Many OECD countries have carried out major reforms to their public pension system that have for instance created an automatic link between pension benefits and life expectancy or the long-term actuarial balance of the public pension system. Such reforms have led to substantial improvements in the long-term solvency of pension systems. Indeed one of the most valuable features of the new DC systems that have been introduced in many Latin American and Central and Eastern European countries is the automatic link between pensions and life expectancy inherent to them.

However, even in those countries where reforms have not involved a “carve-out” there is a growing need to complement social security benefits with some form of private pension provision. The simple reason for this is that these reforms will under any circumstances lead to cuts in future replacement rates. Either such cuts are fully compensated with later retirement (which may be desirable but unlikely) or additional retirement income will have to be provided elsewhere. Hence, private pension provision, particularly of the DC kind, is likely to be a growing feature of most retirement income systems around the world. Such a trend calls for policy involvement both in terms of regulation and supervision.

In particular, there is an urgent need to think carefully about the design of DC systems so that they deliver the benefits of prefunding in terms of diversification of investments and access to growth assets while at the same time offering some degree of predictability and security in old-age income. While life-cycle investment strategies have been much touted in recent years as a key tool to achieve such objectives³, there are many other policy issues that should be considered, such as the costs and benefits of investment return guarantees, whether and when DC balances should be turned into annuities, and how management fees can be kept low while fostering a market of efficiency-seeking providers.

The paper is organised as follows. Section 2 discusses the main factors that explain pension reform trends around the world, with a focus on OECD countries. Section 3 considers briefly the impact of the reforms on the sustainability, adequacy and equity of pension systems. Section 4 addresses the policy implications of the growth in private pensions, particularly those of the DC kind. The last section is the conclusion.

3: See for instance Hinz, R., Rudolph, H. P., Antolin, P. and Yermo J. (ed), *Evaluating the Financial Performance of Pension Funds*, The World Bank, 2010 and Impavido, G., Lasagabaster, E., and García-Huitrón, M., *New Policies for Mandatory Defined Contribution Pensions: Industrial Organization Models and Investment Products*, The World Bank, 2010. An in-depth discussion of the design of life cycle funds can be found in see Schaus, S. L., *Designing Successful Target-Date Strategies for Defined Contribution Plans*, Wiley Finance, 2010.

2. Driving forces behind pension reforms

For much of the second half of the twentieth century, pension provisions in the developed world were a relatively simple affair. After working for a certain number of years, an employee received a social security pension that was not far off their final salary after taxes. In countries where the social security benefit was low, companies complemented it with a company pension benefit that was also tied to their final salary.

Defined benefit (DB), public pension systems worked well and delivered adequate and secure benefits for as long as there was a large pool of contributors relative to pensioners as such systems relied on a pay-as-you-go (PAYG) financing model. Company DB plans in turn were successful in achieving these same goals as long as there was some form of protection against insolvency of the plan sponsor and outright fraud. Legislation was introduced in most countries to require the establishment of pension funds that were legally separate from the plan sponsor. Where companies were allowed to keep these commitments on their books, as in Germany or Sweden, they were also required to contribute to an insolvency protection fund that guaranteed a certain level of benefits in the case of bankruptcy of the plan sponsor.

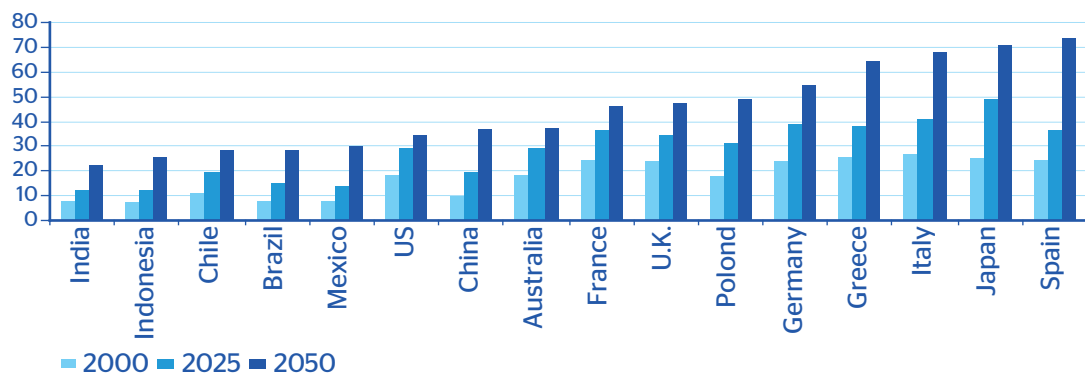
DB pensions were also highly attractive for the state and employers. With the help of PAYG financing, the state was able to provide pensions for the first generation of elderly people although they never contributed to the social security system. PAYG financing also helped to largely hide pension commitments from the casting eye of bond investors, as - at least in their initial stages - the systems appeared to be self-financed. DB pensions were also used to organise an "orderly" retirement and at times of crisis - such as the mid-70s and early 80s - they were used to move older workers into early retirement in order to attempt to open up jobs for the young and unemployed.

For employers, DB pensions were a major tool to reduce turnover and increase employee loyalty. Like state pensions, company DB plans were also used to shed older workers with generous early retirement packages. Companies also benefited from accounting standards which largely avoided the use of market values to calculate pension commitments and funding deficits. Disclosures of DB financials on the annual reports were rare and at best confined to footnotes.

This world no longer exists in most countries. Various factors, led by demographic ageing, global competition, and heightened accounting and regulatory scrutiny, have led to a major reform in pension systems, both public and private. The end result are pension systems that generally rely more on funding and provide a closer link between contributions and benefits via defined contribution (DC) formulas or hybrid formulas that combine elements of both DB and DC.

Chart 1

Old-age dependency ratio



Source: World Population Ageing 1950-2050, United Nations, 2002.

As not everyone in the working age actually works and many workers opt for early retirement, the actual ratio of workers to retirees is often projected to be much lower. For instance, recent projections by the European Commission show that for most EU countries there will be only one worker per each retiree by 2060, compared to two workers per retiree today⁴.

This changing demographic environment is most challenging for public pension systems that are based on PAYG financing and offer traditional types of DB pensions where pension benefits are linked only to workers' earnings before retirement. The financial sustainability of these pension systems is at stake. Improvements in productivity growth and increases in labour force participation rates – especially among women and the elderly – would help improve the finance balance of these systems. Ultimately, however, major reforms are needed to bring about an alignment of the financing potential of these systems with the benefits promised.

Main types of reforms being implemented around the world

Public pension reforms take many different forms, but the main difference is between those that change the parameters of the system, such as contribution rates, benefits or retirement ages on a one-off basis, and those that alter the design of pensions in a structural manner, leading to a new type of financing and benefit accrual system.

Parametric reforms have been implemented by many countries in recent decades. These include the following:

- Raising contribution rates
- Extending the contribution period over which benefits are calculated
- Moving from wage to price indexation of pension payments
- Reducing the earnings ceilings used to calculate pension benefits
- Increasing the minimum number of contribution years needed to qualify for a pension
- Raising the official or/and minimum retirement age.

By contrast, the main structural reforms are the following:

- Linking the system's parameters, such as benefits or retirement ages, to external factors such as longevity, other demographic variables or indicators of the financial sustainability of the pension system.
- Introducing a system of notional defined contributions (NDC).
- Establishing pension reserve funds as an additional source of long-term financing for the PAYG pension system.
- Introducing a fully-funded, DC pension system.

Within the OECD area, parametric reforms of the types just mentioned include the gradual increase in retirement age from 65 to 67 in countries being currently implemented in the United States and planned increases in countries like Australia, Denmark, Germany, Italy, and the Netherlands. Most OECD countries have also extended the reference period for calculating benefits to most or the whole career and have moved to price indexation of pension benefits.

As for structural reforms, various countries have introduced automatic links in the benefit structures of their PAYG systems to various demographic factors⁵. For instance, in Germany, benefits are linked to the ratio of pensioners to contributors. A higher ratio leads to a smaller increase in future benefits. Finland and Portugal, meanwhile, will link future benefits to changes in life expectancy around the normal pension eligibility age.

4: Ageing report 2009, available at http://ec.europa.eu/economy_finance/publications/publication13782_en.pdf.

5: For a detailed analysis of how longevity risk is managed in this and other pension systems see Whitehouse, Edward (2008), Life-Expectancy Risk and Pensions: Who Bears the Burden?, *OECD Social, Employment, and Migration Working Papers No. 60, October 2007*.

Other countries have linked benefit qualifying conditions to demographic variables. In France, the minimum contribution period to reach a full pension will be raised automatically from 2012 onward in line with increases in life expectancy. In Denmark, the normal retirement age will be raised in line with increases in life expectancy after the year 2027.

Three OECD countries, Italy, Poland and Sweden have introduced Notional Defined Contribution (NDC) systems. In these countries, which are still broadly financed on a PAYG basis, benefits are calculated at retirement by transforming the worker's notional account balance (contributions updated by a certain growth factor, usually wages or GDP) into a retirement annuity on the basis of average life expectancy at that age.

Two OECD countries, Canada and Sweden, have also introduced automatic adjustment mechanisms based on the long-term financial balance of the pension system. In Sweden, there is an automatic, downward adjustment in pensions whenever the actuarial asset (sum of future contributions and assets of the reserve funds) is lower than the liability (sum of future benefits). In Canada, an actuarial projection is made every three years. If an actuarial deficit emerges and the Canadian parliament cannot agree on a set of reforms to eliminate the deficit, an automatic adjustment is made. Contributions are automatically raised to cover 50% of the expected deficit and pensions are frozen during three years. If after three years the deficit persists, the process is relented.

The last two sets of structural reforms, establishing pension reserve funds and introducing a fully-funded DC pension depart from the basic features of traditional social security systems, PAYG financing and DB formulas. Pension reserve funds have been set up over the last ten years in countries like Australia, France, Germany, Ireland, Poland, and New Zealand, joining longer-established reserve funds like the Canadian or Norwegian ones. Non-OECD countries like China and the Russian Federation have also taken this route to support the financing of their social security systems.

The last type of reform, the introduction of a mandatory, fully-funded DC system is unquestionably the most radical of all the possible reforms to a public pension system. Such reforms involve the transfer of part of the social security contribution to a new pension system that is based on fully-funded individual accounts. Six OECD countries have undergone such a reform in recent years, namely Chile, Hungary, Poland, Mexico, the Slovak Republic, and Sweden.

Private pension plans are also a major component of the retirement income system in six other OECD countries (Australia, Denmark, Finland, Iceland, Norway and Switzerland), where they have been made mandatory, although contributions to these plans top-up those of the social security system (there was no "carve-out"). Finally, three countries Netherlands, New Zealand and Sweden have quasi-mandatory private pension systems, where high levels of workforce coverage are achieved via automatic enrolment with an opt-out clause (e.g. New Zealand) or collective bargaining at the industry or national level (occupational pension plans in the Netherlands and Sweden).

Table 1 classifies OECD countries according to the main structural pension reform that they have implemented. As shown, 7 of the 31 OECD countries now have an automatic link between pension benefits and life expectancy in their PAYG-financed, public pension systems. 12 have introduced public pension reserve funds to complement PAYG-financing. 6 countries have introduced "carve-out" individual accounts, and 8 OECD countries have made private pension plans mandatory or quasi-mandatory, complementing the public pension system.

Table 1

Main structural pension reforms in the OECD area

Automatic link to demographic or/and actuarial factors within PAYG system	Public pension reserve funds	Substitutive ("carve-out"), fully-funded DC system	Complementary, mandatory or quasi-mandatory private pension plans
Canada	Australia	Chile	Australia
Germany	Canada	Hungary	Denmark
Finland	Chile	Poland	Finland
Italy (NDC)	France	Mexico	Iceland
Poland (NDC)	Ireland	Slovak Republic	Netherlands
Portugal	Japan	Sweden	Norway
Sweden (NDC)	Korea		New Zealand
	Mexico		Switzerland
	Norway		Sweden
	Poland		
	Portugal		
	Spain		
	Sweden		

Source: Own source

Outside the OECD, the main structural reforms have also involved the introduction of substitutive, fully-funded DC systems. Many countries in Latin America (e.g. Bolivia, Colombia, El Salvador, Peru and Uruguay) and Central and Eastern Europe (e.g. Bulgaria, Croatia, Estonia, Latvia, and Romania) in addition to the OECD ones already mentioned have carried out such reforms.

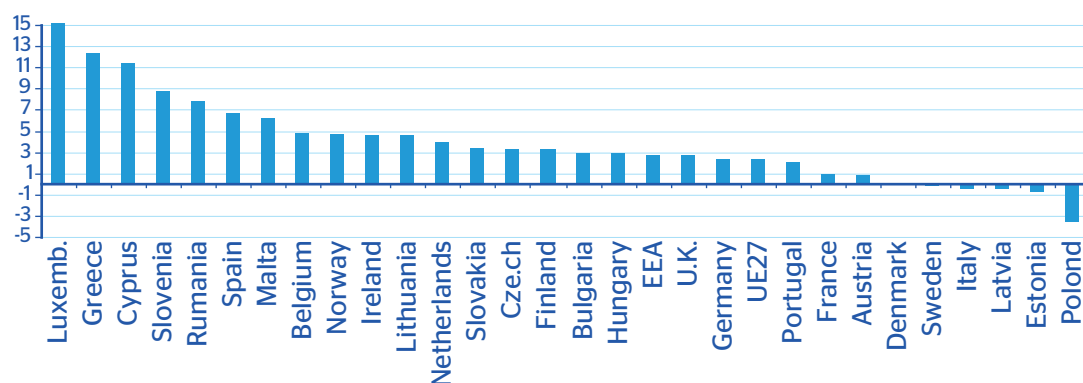
While the reach of major pension reforms is therefore quite extensive, there are unreformed special schemes in most countries, such as those covering public sector workers. Many OECD governments, with few exceptions (e.g. Chile, Denmark, Iceland, Netherlands, Switzerland and the United States), offer special unfunded, DB arrangements for public sector workers, which in most instances are complementary to the general social security system. These special DB plans create a pension liability for governments beyond that already reported in social security arrangements.

3. Impact of reforms on the sustainability, adequacy and equity of pension systems

The impact of reforms on the financial sustainability of public pension systems can be gauged by looking at the projected growth in expenditures over future decades. The European Commission carries out a regular projection of such expenditure (as part of its monitoring of age-related public spending). The Commission's 2009 Ageing Report showed that for some European countries (e.g. Greece, Luxembourg, and Spain) the forecast increase in the ratio of public pension expenditure to GDP was over 6 percentage points. The only countries that showed a projected decline were those that had carried out major structural reforms, such as Estonia, Hungary, Italy, Latvia, Poland, and Sweden. In general, most of the European countries listed in Table 1 can be found in the lower part of Chart 2, displaying smaller projected increases in public pension expenditure.

Chart 2

**Change in public pension expenditure
as a share of GDP over 2007-2060 (in percentage points)**



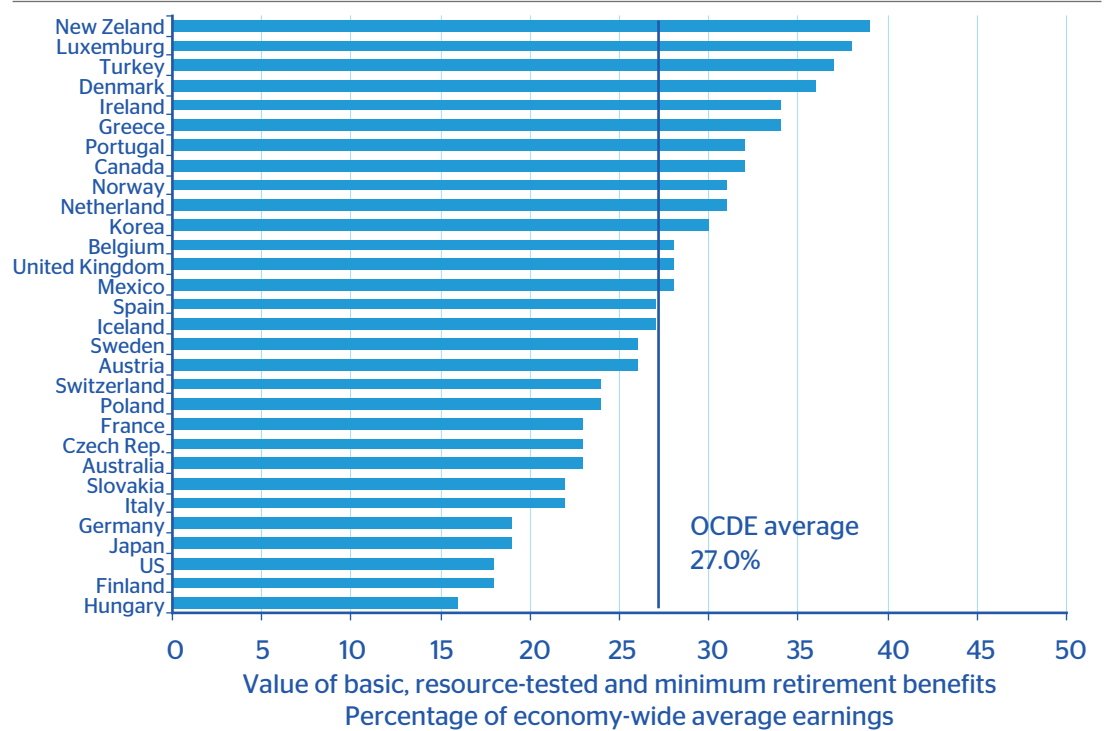
Source: Ageing report 2009, available at: http://ec.europa.eu/economy_finance/publications/publication13782_en.pdf

While the driving force of most if not all the reforms reviewed has been to improve the financial balance of the social security system, the reforms have differed substantially on their impact on adequacy and especially equity. In countries such as France and Germany that have effectively cut replacement rates for future retirees without compensating those cuts with higher private pensions or later retirement, workers are exposed to the risk of inadequate income provision. Also, countries such as Australia or Mexico that have shifted largely to a pure DC system as the mainstay for retirement income provision - and have therefore largely dealt with the sustainability problem of PAYG pension systems - expose workers to substantial uncertainty regarding the ultimate level of pension benefits they will receive when they retire. Yet benefits are also uncertain in public pension systems where there have been no major structural pension reforms, such as Greece and Spain, as the long-term sustainability of such systems under current rules is questionable.

Pension reforms have also treated differently the benefits of workers depending on their incomes. In countries such as France, Finland and Sweden reforms have protected the replacement rates of lower income households as those of higher income workers were cut. On the other hand, the Hungarian, Polish and Slovak reforms had a regressive impact on the retirement income distribution as replacement rates were cut relatively more for poorer than richer workers.

New Zealand is an interesting case to study in this context as it combines a financially sound public pension system that costs less than 5% of GDP while offering good protection against old-age poverty by providing a generous basic pension to all citizens (see Chart 3). It also recently introduced a retirement savings system (the so-called "Kiwisaver") to complement the universal, basic pension. The "Kiwisaver" is based on automatic enrolment into individual accounts with an opt-out clause and has also served as a model for the United Kingdom's proposed National Employment Savings Trust (NEST) which is expected to be introduced in 2012.

Chart 3

Minimum or basic pension as a percentage of average economy-wide salary

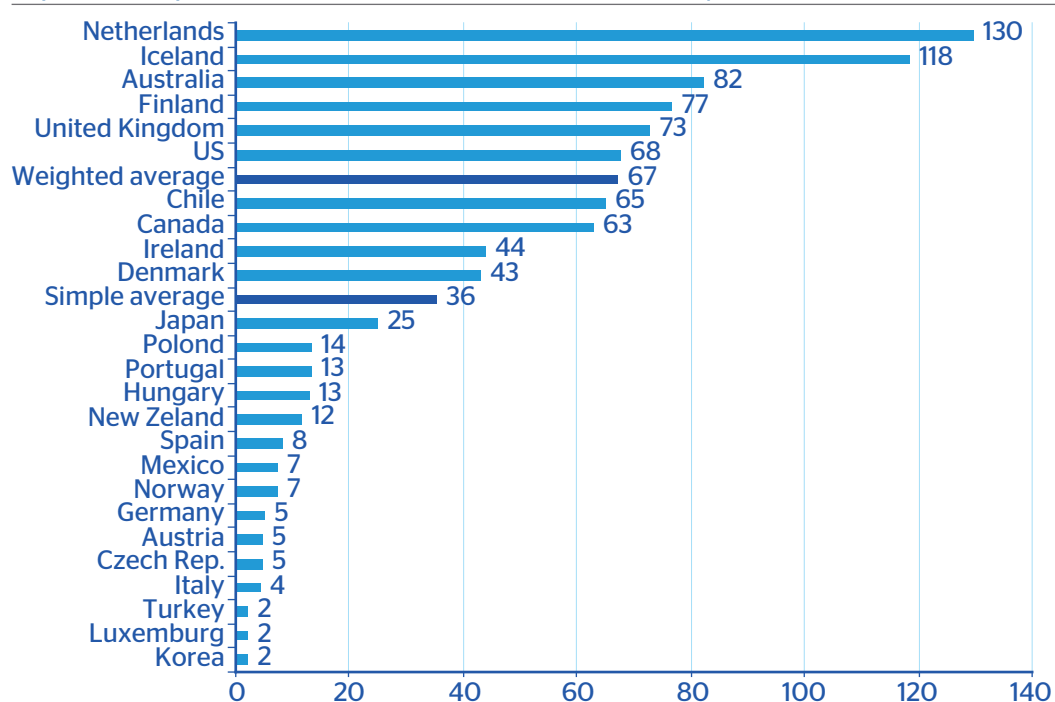
Source: OECD, Pensions at a Glance, 2009

4. Policy implications of the growing importance of prefunding and the shift to defined contribution

The extent of funding in OECD pension systems can be observed by looking at Chart 4 and Table 2. Chart 4 shows the total assets of pension funds in OECD countries as a percentage of GDP. These numbers correspond roughly to the size of the private pension system in the countries listed, though it excludes important parts such as book reserves in Germany or life insurance as a form of retirement savings in France. Table 2 shows the extent of reserves held by social security systems in the OECD countries with the largest such funds. Funding, clearly, is no longer the preserve of private pension arrangements.

Chart 4

Importance of pension funds relative to the size of the economy in selected OECD countries, 2009



Source: OECD Pensions Markets in Focus, July 2010, Issue 7

Table 2

Size of public pension reserve funds in selected OECD countries, 2009

Type of fund	Country	Name of the fund or institution	Founded in	Assets		
				USD billions	% of GDP	% increase
Social Security Reserve Fund	Canada	Canadian Pension Plan	1997	108.6	8.5	13.8
	France (1)	AGIRC-ARRCO	n.d.	72.4	2.5	n.d.
	Japan (1)	Government Pension Investment Fund	2006	1,137.7	23.2	n.d.
	Korea	National Pension Fund	1988	217.8	26.1	17.9
	Mexico	IMSS Reserve	n.d.	3.6	0.3	3.3
	Poland	Demographic Reserve Fund	2002	2.3	0.5	64.4
	Portugal	Social Security Financial Stabilisation Fund	1989	131	5.7	12.8
	Spain	Social Security Reserve Fund	1997	83.4	5.7	4.9
	Sweden	National Pension Funds (AP1-AP4 and AP6)	2000	108.8	27.2	13.2
	United States	Social Security Trust Fund	1940	2,540.3	17.9	5.0
Sovereign Pension Reserve Fund	Australia	Future Fund	2006	51.6	5.9	11.0
	Belgium	Zilverfonds	2001	23.5	5.0	4.4
	France	Fond de Réserve des Retraites (FRR)	1999	46.3	1.7	20.6
	Ireland	National Pensions Reserve Fund	2000	31.0	13.7	38.5
	New Zealand (2)	New Zealand Superannuation Fund	2001	8.3	7.1	-6.7
	Norway (3)	Government Pension Fund - Norway	n.d.	19.0	5.0	32.9
Total selected OECD countries (4)				4,467.7	18.6	7.3

(1) Data refer to 2008

(2) Data refer to June 2009

(3) The Government Pension Fund - Global is treated as a Sovereign Wealth Fund by the OECD and is not covered by this publication.

(4) Weighted average for assets as a % of GDP and % increase

Source: OECD Pensions Markets in Focus, July 2010, Issue 7

The growth in the use of funding naturally exposes pension systems to more financial risks, which if inadequately managed can create high uncertainty over benefits. Pension regulators therefore have a central role to play to promote effective management of pension fund investments via governance and risk control regulations and an appropriate oversight of pension funds' operations.

As pension funds have become increasingly relevant over the last twenty years or so, the actions of policymakers have become critical to ensure the success of pension systems in delivering adequate retirement income. Some of the efforts most worthy of mention are attempts to raise standards among trustees or directors of pension funds, the consolidation of funds to reduce costs, and the introduction of risk-based supervision.

The other main trend in pension systems, the growing popularity in defined contribution arrangements has proceeded with relatively little regulatory intervention. Yet, experience teaches us that individuals' saving and investment decisions are often generally poor when they involve financial products. If policymakers wish to promote pension funds and other retirement products such as annuities, they need to start thinking about regulating those markets more closely, facilitating access to a small number of low-cost choices, requiring effective disclosure of information, and designing adequate default accumulation and pay-out investment options that best meet retirement income objectives.

Changes in defined contribution plans are also needed to make them a bit more defined benefit in "look-and-feel". For instance, life-cycle investment strategies can be used to reduce the volatility of retirement income. Relatively cheap investment guarantees, such as the protection of the nominal value of contributions at the end of the contribution period, can be used to ensure a minimum level of benefits without jeopardising too much upside potential.

Policymakers also need to pay more attention to the pay-out stage of the pension system, and consider to what extent annuities markets can be modernised and developed to offer a secure benefit option to retirees, ideally covering also protection against inflation. The management fees charged by providers during both the accumulation and pay-out phase should also come under the close purview of regulators. Some innovative industrial organisation structures have been tried and tested in recent years involving some degree of centralisation in administration functions such as the Swedish PPM and the Danish ATP systems, which have been successful in bringing down costs to reasonable levels.

5. Concluding remarks

Pension reform remains an unfinished task for many governments around the world, yet the pressure to reform is mounting. Many countries, especially in the OECD area, are battling with crisis-induced fiscal pressures and the deepening of population ageing as the babyboom generation enters the retirement years. While one-off, parametric reforms can give some extra time to struggling social security systems, major structural reforms are called for to set the system on a sustainable financing path.

Two main types of structural reforms can be identified: on the one hand, there are reforms that introduce an automatic link in the public pension system's parameters to demographic or actuarial variables (such as the NDC system in Italy, Poland and Sweden). On the other hand, there are reforms – popular in Latin America and Central Eastern Europe – that lead to a partial replacement of the PAYG-financed, public pensions by private pension arrangements, involving the transfer of part of the social security contribution to fully-funded, DC accounts.

Both types of reforms bring about long-term improvements in the financial balance of the public pension system, but depending on their design they may have very different implications for the adequacy and equity of pension systems. A well-designed pension reform, regardless of its type, should aim to achieve improvements in all these three objectives.

Furthermore, and with few exceptions, major structural pension reforms lead to a reduction in public pension replacement rates at a given retirement age for future generations. Later retirement can and should be promoted as a way to compensate any reduction in public pension benefits. Yet, it may be difficult to ensure full compensation as this would require more radical and hence politically more difficult reforms, such as linking the official retirement age to future rises in life expectancy, as Denmark is planning to do from 2027.

Given current reform experiences, therefore, one can expect mandatory private pension provision (or some form of soft-compulsion) to be a growing feature of most retirement income systems around the world. Today, 14 of the 31 OECD member countries have in place a private pension system that covers most of the workforce. The fact that these systems are increasingly of the DC kind is creating a new set of policy challenges that need to be addressed by policymakers, such as ensuring a sufficiently high level of contributions, designing appropriate default investment strategies, keeping costs low and ensuring access to appropriate forms of benefit pay-outs.

Policymakers also need to carry out a balancing act in which diversification of pension income sources is a very valuable tool to reach retirement income goals. The growth of funding and DC plans was natural developments to protect the state and private companies from the effects of population ageing. However, they create new risks for retirees and need to be combined with financially sustainable public pension systems providing adequate old-age protection.

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