OECD Reviews of Pension Systems

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OECD Reviews of Pension Systems: Peru

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Foreword

This Pension Review provides an assessment of the retirement income provision of Peru from an international perspective, and focuses on the capacity of the Peruvian pension system to deliver retirement income in a financially sustainable way. The OECD Pension Reviews use the OECD international best practices for the design and regulation of pension systems. The analysis is based on both OECD flagship pension publications, Pensions at a Glance and Pensions Outlook, the OECD Roadmap for the Good Design of Defined Contribution Pension Plans, the OECD Core Principles of Private Pension Regulation, various other OECD work in the area of pensions, and country-specific sources and research.

The report was prepared by a team of pension analysts from the OECD's Directorate for Financial and Enterprise Affairs and the Directorate for Employment, Labour and Social Affairs: Pablo Antolin, Hervé Boulhol, Jessica Mosher, and Andrew Reilly. Contributions from Juan Vazquez from the OECD Development Centre are gratefully acknowledged. The report has benefited from insightful comments and suggestions from Diana Hourani, Romain Despalins and Stéphanie Payet. Editorial assistance was provided by Pam Duffin, Arianna Ingle, and Edward Smiley.

The OECD is very grateful to numerous public officials in the Superintendence of Banking, Insurance, and Private Pension Administrators of Peru (SBS) and the Pension Normalisation Office (ONP) – particularly, Soccoro Heysen, Jorge Mogrovejo, Elio Sanchez, Cristina Nakasone, Alejandro Arrieta, José Valderrama, Hillman Farfan – for their invaluable help and input. The OECD team is also grateful for useful discussions and comments from representatives of the Peruvian Pension Funds (AFPs) and their association, as well as the Peruvian association of insurance companies.

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Table of Contents

Tables

Figures

Boxes

Executive summary

This review assesses the Peruvian pension system in its entirety, looking at both public and private, pay-as-you-go (PAYG) financed and funded pension provisions. It draws on international best practices and the specificities of the Peruvian pension system to propose a set of policy options to improve its functioning and ability to deliver adequate and secure retirement income.

These policy proposals should be implemented as a package. All the components work together to balance the different trade-offs. Implementing them separately in a piecemeal manner will break the balance and could jeopardise the whole reform. Nevertheless, implementation could be gradual taking into account fiscal capacity, institutional capability and labour market developments.

The review provides policy options to help tackle old-age poverty; establish a solid framework for the contributory pension system to meet its objectives; improve the coverage and level of pensions; and, optimise the design and improve the regulation of the funded private pension component. These proposals also aim to improve trust that the pension system and its institutions will work in the best interests of the population to provide a secure retirement income.

Tackle old-age poverty by establishing a non-contributory pension that provides a safety net for all Peruvians in old age

The safety-net programme Pensión 65 that provides a flat benefit payment for the elderly in extreme poverty has largely been a success. However, coverage could improve.

- Benefit levels (currently around 9% of average wages) should increase and should grow, at least, with inflation to maintain purchasing power.
- Publicity campaigns could increase people's awareness of the programme and the programme's eligibility criteria could reach a larger population.
- With the expansion of coverage, Pensión 65 benefits may need to change from a flat-rate to a top-up payment.

Establish a solid framework for the contributory pension system to meet its objectives

The PAYG public and funded private pension components currently operate in parallel, competing against each other rather than building on complementarity. Strict eligibility requirements for the public system mean that many contributors will not be eligible for benefits. Furthermore, a lack of coordination among public institutions overseeing the whole pension system has led to pensioners losing contributions.

The public PAYG and the funded private pension should complement each other. One main recommendation is to retain both, and require that everyone contribute to and receive pensions from both components.

- Apply the new rules to all new contributions to the system immediately after the reform while protecting past entitlements.
- Adjust the public system benefit formula to ensure financial sustainability. Introduce automatic mechanisms to adjust the parameters and benefit levels to the macroeconomic and demographic realities.
- Reduce the minimum number of years required to contribute to the PAYG system before being eligible for benefits.
- Establish a minimum level of pension that increases with the number of years of contributions so that individuals can see merit in continuing to contribute. Coordinate the minimum pension benefit with the increased safety-net Pensión 65.
- Create a centralised platform to collect contributions and manage information collection for the entire system.

Improve the coverage of the system and the level of pensions

Coverage of the contributory pension system is low by international standards, at around 55% of the working age population. High levels of informal employment, relatively low contributions, low contribution densities, and the possibility of retiring before the legal retirement age, explain the low levels of pension benefits, which are around 35-40% of final salary.

- Subsidise the social security contributions of low-income workers. This would reduce the costs for informal workers, the majority of whom have low income, to become formal.
- Provide incentives for informal workers to save for retirement. Matching contributions can be an effective incentive to contribute, particularly for low-income groups. Incentives could also be linked to contribution density to encourage more frequent contributions.
- Nudge individuals to save for retirement in addition to the other measures by, for example, introducing automatic enrolment, and using other insights from behavioural economics such as simplification of the processes and improved communication.
- Consider reintroducing the requirement that independent workers contribute to the system, while allowing for a flexible contribution schedule and innovative collection mechanisms such as through utility bills.
- Increase the mandatory contribution rate. This increase could be gradual and linked to wage increases to prevent an immediate reduction in nominal wages. However, during the transition period, there will be people with different contribution rates. Alternatively, or in parallel, additional contributions could come from the employer.
- Limit the early withdrawal of assets from pension accounts. Early withdrawals for the purchase of a home could be limited to voluntary contributions.
- Make early retirement more restrictive. Eliminate the gender disparity in early retirement ages, impose minimum income requirements, and adjust benefits downward in an actuarially neutral way to reflect the longer expected time in retirement.

Optimise the design and improve the regulation of the private funded system

Recent measures have generated cost reductions and competition, but further improvements are necessary to promote better investment outcomes for individuals and to ensure that their best interests are of paramount importance.

- Adapt default investment strategy to provide a more optimal lifecycle approach.
- Introduce independent investment benchmarks to assess the performance of the AFPs and improve comparability.
- Align fees with costs and promote competition. Improving the disclosure and reporting on AFPs' cost and fees would encourage better cost control. Implementing a performance based fee structure would better align the incentives of the AFPs with the interests of their members and would facilitate aligning the fees charged on mandatory contributions with those for voluntary contributions. Limiting how often individuals can change funds and providers would help to avoid cost increases related to unnecessarily frequent switching.
- Eliminate the minimum guaranteed return.

The option to take 95.5% of assets as a lump sum at retirement has undermined the role of the pension system to provide a regular stream of income in retirement. Short of removing this option, policy makers should implement measures to encourage people to have a pension in retirement.

- Require a minimum level of income in retirement to be able to take a lump sum.
- Maintain tax incentives and matching contributions (when introduced) aimed at encouraging saving for retirement only when people buy into a regular stream of income at retirement. People taking lump sums should be able to take only their contributions and returns, but not the incentives received.
- Continue to simplify and standardise the pay-out options.
- Ensure the continued security of benefits by regularly reviewing assumptions (e.g. mortality tables) and establishing a procedure to protect annuitants in the case of insolvency of the insurer.

Address the lack of trust and confidence in the pension system

There is a lack of trust in the pension system. The population does not fully understand how the pension system works and how contributing to the system will benefit them financially in old age. In addition, there is a perception that the public and private institutions involved do not operate in people's best interest.

- Promote knowledge of how the pension system works.
- Improve confidence in the financial institutions of the pension system by establishing a centralised platform as the main point of contact for affiliates.
- Establish an independent committee of experts that will be responsible for the implementation of the reform. They should ensure that the pension reform achieves its long-term view of creating a sustainable pension system in a gradual manner and free of short-term political pressures, and avoiding winners and losers.

Chapter 1. Introduction to the review of the Peruvian pension system

This chapter presents the main structure of the report and an overview of the objectives of the OECD Pension Review of Peru.

1.1. Objectives of the review

The Superintendence of Banking, Insurance, and Private Pension Administrators of Peru (Superindendencia de Banca, Seguros y AFP, SBS), the regulator and supervisor of the financial system in Peru, requested the OECD to conduct a comprehensive review of their pension system. The objective of this review is to help the Peruvian authorities better understand the challenges facing the pension system and the potential solutions to address these challenges in light of international experience and practices.

The purpose of this review is therefore to provide recommendations, using OECD's best practices in pension design, on how to improve the Peruvian pension system with the goal of improving the retirement income that people receive.

Box 1.1. Terms of reference for the OECD review of the Peruvian pension system

BACKGROUND

The Superintendence of Banking, Insurance and Private Pension Funds Administrators, the Peruvian Private Pension System's (SPP) regulator and supervisor, is interested in the OECD conducting a review of the Peruvian pension system based on the OECD's best practices in pension design and presenting various proposals to improve the Peruvian pension system and guarantee its sustainability in the long term. The review will also take account of recent amendments to the regulatory framework, and current proposals to reform the SPP.

OBJECTIVE

The purpose of the review is to provide recommendations, using OECD's best practices in pension design, on how to improve the Peruvian pension system with the goal of improving the retirement income that people may receive from the pension system.

ASPECTS COVERED

The aspects for examination will consider:

i) The adequacy of pensions given current levels of mandatory contributions, retirement age, voluntary savings, and short contribution densities.

ii) Mechanisms to increase coverage and the amount of contributions, in order to ensure adequate income in retirement with a particular focus on lower- and middle-income groups, independent workers and informal workers.

iii) Tax system and retirement savings. Fiscal and other incentives to promote participation and higher retirement savings.

iv) Improving the design of the overall pension system:

   a. Improving the interaction between the labour market and the pension system, including mechanisms to work longer, or other parametric solutions.

   b. An analysis of the best way to design the basic pension to protect low-income groups in the light of the funded private pension system: Pension 65, the Peruvian non-contributory pension system, and matching contribution for low income workers.

c. The convenience of maintaining a defined benefit pay-as-you-go system and a funded defined contribution system as competitors for new entrants.

d. Analysis of other specific Peruvian pension regimes.

v) Improving the design of the accumulation phase:

a. Approaches to promote low-cost retirement savings instruments.

b. Default investment strategies and life cycle strategies.

c. The wisdom of investment restrictions, in particular on foreign securities.

d. Risk-based supervision.

vi) Improving the design of the pay-out phase:

a. Different mechanisms to allocate assets accumulated at retirement: lump-sums, programmed withdrawals and life annuities.

b. Pay-out phase and annuity markets.

c. Managing longevity risk (mortality tables, financial instruments to mitigate longevity risk, including longevity bonds).

vii) Policies to increase public understanding and the public's confidence in the pension system:

a. Strengthening the regulatory framework and governance of private pension funds (AFP).

b. Pension statements and National Pension Communication Campaigns.

The review should also take account of the views of relevant stakeholders by way of a targeted consultation process.

1.2. Structure of the review

This review is comprehensive and addresses all aspects of the Peruvian pension system, including both the public and private components. It assesses the entire Peruvian pension system given the current structure and rules in place, and aims to identify areas that need improvement and to provide guidance on how these improvements can be implemented in practice.

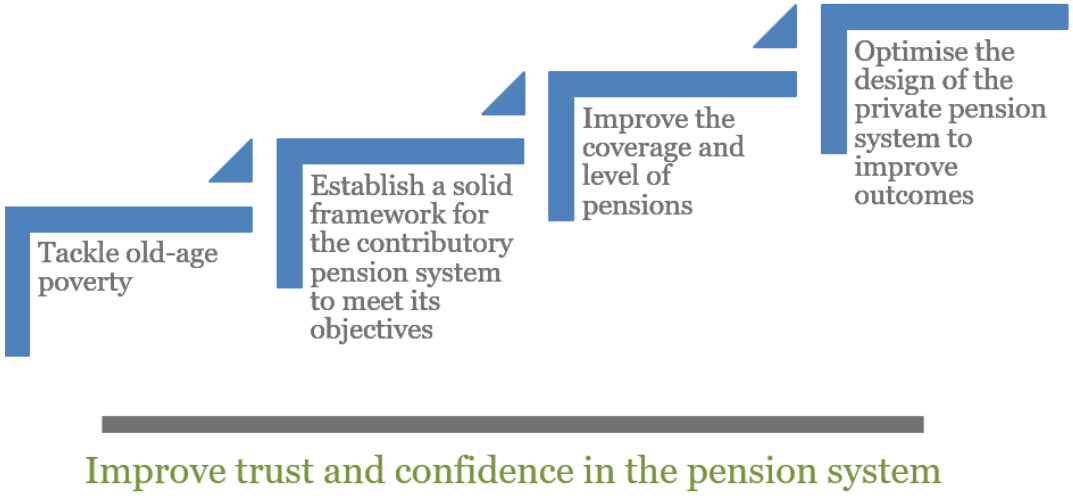
The policy proposals presented in this report to improve the Peruvian pension system should be implemented comprehensively as a package. All the pieces in the policy proposals work together to balance the positive and negative implications of each measure. Implementing them separately in a piecemeal manner will break the balance and lead to winners and losers that could jeopardise the whole reform. Nevertheless, the implementation of the reform could be done in a gradual and incremental manner taking into account fiscal capacity, institutional capability, regulatory powers and labour market developments. Even if the implementation of reforms is gradual, it is essential to agree upon the whole package of policy proposals and its ultimate long-term objective of improving the pension system, and thus work towards that objective implementing all the measures independently of the short-term political agendas.

The recommendations from this review draw upon the OECD best international practices on designing and regulating pension systems that have been put forward in the OECD Roadmap for the Good Design of Defined Contribution Pension Plans, the OECD Core Principles of Private Pension Regulation, the OECD Pensions at a Glance Series, the OECD Pensions Outlook series, as well as relevant Principles that the OECD has established relating to financial incentives, mortality tables, retirement income products, financial education and corporate governance.

Chapter 2 of this report describes the Peruvian pension system and the context in which it has developed and currently exists. The chapter first describes the current macroeconomic and demographic contexts that define some of the challenges that the pension system needs to address in order to be sustainable and achieve its objectives. The chapter then summarises the main reforms and initiatives that have led to the structure of the current pension system. It also describes the structure and rules of the current pension system in order to provide a basic understanding of how it operates and a reference to refer to when discussing challenges and potential solutions in later chapters.

The key issues that this report identifies that need to be addressed in the Peruvian pension system are summarised in Figure 1.1. First, the system needs to tackle old-age poverty by establishing a non-contributory pension that provides a universal safety net for all Peruvians (Chapter 3). It then needs to establish a solid framework for the contributory pension system that operates coherently to meet its objective of providing a retirement income for those who contribute (Chapter 4). In order to maximise the number of Peruvians who benefit from the contributory system and ensure that the benefits received are adequate, measures need to be taken to improve the coverage of the system and increase the level of benefit that individuals can ultimately expect to receive (Chapter 5). The design of the private component of the pension system also needs to be optimised, namely in terms of the investment strategies and costs incurred and the options that individuals have to withdraw their accumulated assets at retirement (Chapter 6 and Chapter 7). Finally, Peru needs to address the fundamental problem of a lack of trust and confidence in the pension system in order to ensure that Peruvians will effectively participate in the system (Chapter 8).

Figure 1.1. Key issues to address in the Peruvian pension system



The foundational recommendation from this review is to maintain both the public pay as you go (PAYG) and the funded individual account components of the system, but make them complementary rather than functioning as two separate alternatives for participating in the pension system. In addition to improving the coherence of the pension system, this solution also has the benefit of smoothing the transition to a new system that would remove the competition between the public and private components.

Chapter 3 addresses the need for the pension system to have a non-contributory pension component to tackle poverty in old age and ensure that all Peruvians can receive an income to provide for some basic needs in retirement. While the current benefit provided by the Pensión 65 programme has been successful in alleviating extreme poverty in old age, benefit levels remain extremely low and the programme's coverage should be expanded and better integrated with the provision of the minimum pension from the contributory system.

Chapter 4 tackles the structural problem of the current pension system, in which the public and private components operate in parallel in a fragmented and incoherent manner and compete with one another. Individuals currently have to choose to contribute to the public or private system, which can provide very different levels of benefits. In addition to being difficult for people to understand, the lack of an integrated system increases the risk of administrative and procedural errors that can significantly harm members. Past reforms to improve the financial sustainability of the public system, namely by increasing the minimum number of years of contributions to be eligible to 20 years, have undermined the system's objective to provide a pension to its members. The OECD review recommends policy options that aim to establish a solid framework for its contributory pension system where the public and private components are complementary and the system operates in an integrated and efficient manner, while addressing the sustainability of the entire system going forward.

Chapter 5 addresses the problem of low coverage of the pension system and low levels of expected benefits. It assesses the coverage of the system in terms of demographics and discusses the problem of high informality in Peru's labour market, which is a main driver of low coverage rates. The chapter also looks at the levels of income that those participating in the system can expect, and shows that this is much lower than the expected benefits due to low contribution densities and the possibility to make early withdrawals from the private system, either by purchasing a first home or through early retirement. The chapter also argues that the financial incentives in place do not seem to be effective in encouraging people to contribute voluntarily. Policy options to improve the coverage of the system need to encourage higher rates of formal employment, provide more effective incentives for underrepresented groups to participate in the system, and encourage voluntary contributions beyond the mandated level. Furthermore, to improve the adequacy of benefits, the ability for individuals to take their benefits from the system before the legal retirement age ideally needs to be limited. Where allowed, however, incentives should be in place to discourage early withdrawal of pension assets.

Chapter 6 and Chapter 7 discuss how to optimise the funded component of the pension system. First, Chapter 6 focuses on the accumulation phase, and looks at the investment strategies and results of the pension fund administrators (Administradoras de Fondos de Pensiones, AFPs), as well as the competitive landscape, costs and fees, and the services that the AFPs provide to their members. The proposed policy options to optimise the period of asset accumulation in the private pension component focus first on the investment strategies and fund offering of the AFPs. It suggests to improve the risk profile of the

default investment strategy to be more appropriate for an individual approaching retirement. To address a potential issue of investment herding behaviour by the AFPs, it proposes to establish more appropriate performance benchmarks and eliminate the minimum guarantee, which serves as an incentive for such behaviour. The chapter also discusses how the incentives of the AFPs could be better aligned with member interests through the use of performance management fees, as well as other options aiming to reduce costs and fees in the system and promote efficient operations.

Chapter 7 then focuses on the pay-out options of the private pension component. The objective of the pension system to provide an income in retirement is currently undermined by the fact that members are allowed to take their assets as a lump-sum at retirement. In addition, the incentives for them to take an income option are not sufficient. Reforms need to address these poor incentives and ensure that all pension members receive at least a minimum level of income in retirement, and encourage them to take an income option while being confident that those benefits will be secure.

Chapter 8 addresses a broader and more fundamental issue of the pervading lack of trust and confidence in the pension system. It concludes that low levels of understanding of the system and a mistrust of the institutions managing the system are at fault. Policy options discussed to improve understanding and trust include measures to increase financial education, to better align the accountability of both the private and public institutions with their responsibilities and to have an integrated regulation and supervision of the entire system.

To conclude, Chapter 9 summarises the challenges that the Peruvian pension system is facing and the recommendations that this Review makes to address these challenges and ensure that the pension system will be able to achieve its objectives.

Chapter 2. Context and description of the current Peruvian pension system

This chapter describes the Peruvian pension system and the context in which it has developed and currently exists. It first describes the current macroeconomic and demographic contexts, and the challenges that the pension system faces. The chapter summarises the main reforms and initiatives that have led to the structure of the current pension system. It then describes the structure and rules of the current pension system in order to provide a basic understanding of how it operates and a reference for subsequent chapters.

2.1. Macroeconomic and demographic context

The macroeconomic situation in Peru, compared with other countries in the region that have implemented an individual account-based pension system in Latin America - Chile and Colombia - as well as the OECD average, is relatively similar. Peru has GDP and productivity growth on par or higher than Chile, and well over the OECD average Table 2.1. Long-term interest rates are comparable to its Latin American counterparts. Government deficit and debt are also comparable to Chile's, while inflation and wage growth are somewhat lower than Chile's, with inflation being higher than wage growth in both countries. Compared to the other jurisdictions shown in the table, Peru has very high employment and labour force participation ratios.

Table 2.1. Macro-economic variables in selected Latin American countries and in the OECD

Latest year available.

Indicator	Unit	Year	Peru	Chile	Colombia	OECD
Real GDP growth	%	2018	4.0	4.0	2.7	2.8
Real productivity growth	%	2014	2.0	1.5	..	1.1
Long-term interest rates	%	2018	5.7	4.5	7.0	1.9
Government deficit	% of GDP	2017	2.9	2.7	2.6	0.5
Government debt	% of GDP	2018	26.8	25.6	50.5	79.6
Annual growth of average consumer prices	%	2018	1.3	2.4	3.2	2.3
Nominal growth of average annual wages	%	2017	0.5	0.8	5.8	2.9
Employment ratio	%	2017	72.9	55.7	62.8	58.1
Labour force participation rate	%	2017	80.0	67.4	74.5	74.4

Note: ".." means not available. OECD represents a simple average among reporting OECD countries.
Source: Banco Central de Reserva del Perú; IMF; ILO; OECD and World Bank databases and publications.

Between 2007 and 2016 there has been very little change in the overall employment rate in Peru, which has remained around 70% throughout the period. However, there is some variation across different age groups and by gender, as shown in Table 2.2. The male employment rate is around 30% higher than that for women, at 78% in 2016 compared to 60% for women. The employment rate among ages 60-64 has increased significantly since 2001, going from under 60% to over 75% currently. Across the OECD the employment rate for 55 to 64 year olds is 60%, showing that the employment rate in Peru is at a relatively high level for older workers.

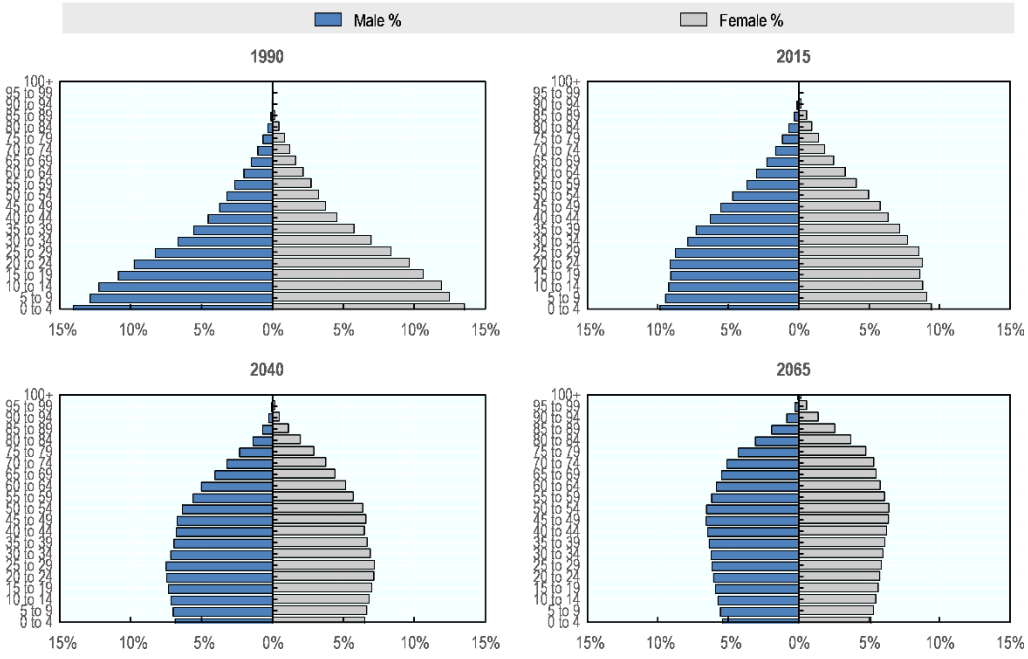
Table 2.2. Employment rate by age and gender, 2001-2016

Category	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	65.7	65.3	68.3	68.2	67.3	68.9	70.3	70.4	70.7	71.1	70.9	70.8	70.3	69.7	69.1	69.2
Age																
14 - 24	47.7	47.7	51.2	52.3	50.1	51.8	51.9	52.9	52.7	52.2	51.2	51.2	50.3	48.2	46.6	45.4
25 - 59	79.3	78.5	81.3	80.2	79.7	81.3	83.4	82.7	83.3	83.8	84.2	83.9	83.7	83.2	82.7	83.3
60 - 64	59.4	60.2	63.8	67.3	67.9	68.2	70.8	69.2	70.5	73.9	73.9	72.3	71.7	74.3	74.2	75.7
65 +	41.6	41.4	42.8	42.7	42.2	43.4	43.8	46.4	45.2	46	44.9	45.7	43.7	43.7	45.2	43.9
Gender																
Male	76.3	75.8	77.6	77.7	77	78.6	79.4	79.7	79.5	79.7	79.6	79.8	79.2	78.7	78.2	78.1
Female	55.2	55	59.1	58.8	57.6	59.3	61.3	61.2	62	62.6	62.4	62	61.5	60.8	60.1	60.4

Source: National Institute of Statistics and Informatics.

Peru, like most countries in the world, has a rapidly ageing population driven by increases in life expectancy combined with lower fertility rates, which will lead to a change in the overall population structure (Figure 2.1). In 1990 just under 15% of the population was under the age of 5, but this age group is currently around 10% and will represent less than 5% by 2060. Over the same time period, the fertility rate has fallen from around 4.0 in 1990 to 2.4 currently, and is projected to be around 1.8 by the middle of the century, well below the replacement level of 2.1.

Figure 2.1. Population structure by sex, age and year



Source: (United Nations, 2017[1]).

Conversely, the proportion of individuals aged 65 and over and therefore of pension age is rising rapidly. In 1990, only 4% of the population were aged 65 and over, reaching 6.5% in 2015 and forecast to increase to 13.5% by 2040 and 22.5% by 2065.

This increase in the elderly population is largely the result of the large estimated increases in life expectancy at birth, which currently stands at 75.4 in Peru, according to the latest UN estimates. By 2060, life expectancy at birth is expected to increase to 83.8, over eight years higher than the current level.

Whilst not all of the increase in life expectancy will be relevant to the pension system, as not all individuals survive until age 65, forecasts suggest that the life expectancy at age 65 will still increase by over four years, from 18 years currently to 22.2 years in 2060.

2.2. The Peruvian pension system: reforms and current structure

2.2.1. Historical background

The Peruvian Pension system was overhauled in 1992 with the Decree Law 25897, which created the Private Pension Fund Administration System (SPP) with the aim of addressing the financial sustainability concerns of the existing pay-as-you-go scheme (SNP) and

contributing to the development and strengthening of the social pension system. This system of privatised individual accounts followed the Chilean model that was introduced a decade earlier. However, unlike Chile, Peru retained the public scheme to operate in parallel with the SPP, and affiliates of the SNP were given the choice to switch to the SPP. Rights accumulated under the SNP for members who chose to join the SPP were granted in the form of Recognition Bonds provided when the member retires.

Three different Recognition Bonds were offered to affiliates who switched from the SNP to the SPP and who had contributed to the SNP at least 48 months over the ten years prior to the date of one of the Recognition Bonds:

- the 1992 Bond recognises contributions through December 1992;
- the 1996 Bond recognises contributions through December 1996;
- the 2001 Bond recognises the contributions made up to January 2001.

The value of rights transferred through the Recognition Bond is based on the product of the number of months of contributions and the average of the last 12 wages, multiplied by a factor of 0.1831.[1] The value of the bond was subject to a maximum nominal value of PEN 60 000 at December 1992, and its value is updated according to the Consumer Prices Index for Metropolitan Lima. As of June 2018, the present value of Recognition Bonds outstanding totalled PEN 3.7 billion, representing 0.5% of GDP.

In 2001, the Law No. 27617 restructured the SNP and imposed a gradual reduction in the benefits offered by the public system. It also allowed members who had switched to the SPP to continue to be entitled to a minimum pension.

In 2012, the Law No. 29903 introduced a major reform of the SPP. The main objectives of this reform were to:

- improve competition among the AFPs with the introduction of a tender mechanism for new affiliates;
- improve the value and transparency of the disability and survival insurance through the introduction of a tender mechanism;
- align the incentives of the AFPs with those of their members by changing the fee structure from charges based on remuneration to charges based on assets under management;
- simplify the administrative process to join the SPP;
- increase the coverage of the pension system by mandating the participation of self-employed workers.

However, the requirement that the self-employed contribute was reversed soon after its implementation, and all contributions were refunded if requested.

In 2013, the government expanded a programme targeting extreme old-age poverty in certain regions to cover everyone in Peru over the age of 65 who does not receive a pension from the contributory pillar. The programme, known as Pensión 65, provides modest benefits of PEN 250 every other month. The number of beneficiaries of this programme has grown to over 500 000.

In 2016, Law No. 30425 allowed members to take 95.5% of their savings in the SPP as a lump sum at retirement. Up until 2016, savings accumulated with the AFP had to either be withdrawn gradually throughout retirement according to a formula that takes into account

gender, age and family status or be used to purchase a life annuity product with an insurer. Allowing a lump-sum pay-out has nearly eliminated the payment of pensions from the system, as over 95% of retirees now take their pension savings as a lump sum.

In 2017, the Ministry of Economy and Finance created a Working Group called the Social Protection Commission to assess the functioning of the social protection systems and to propose economic reforms. The Commission was made up of a group of independent technical professions and academics. Their final report, published in September 2017, suggested proposals to reform the pension, health and unemployment schemes in Peru. With respect to the pension system, the main proposals were to:

- implement a basic universal pension, initially in the form of a means tested subsidy;
- make participation in the SPP mandatory for all;
- establish a centralised entity to take over administration of the system and provide information and advice to members;
- subsidise contributions for low income and young members;
- promote an efficient and simple annuity market, with the default pay-out being a traditional life annuity.

In May 2019, the government created a Council with representatives from the Ministry of the Economy, Ministry of Labour, the Pension Normalisation Office (ONP) and the pension and insurance regulator (SBS) that will evaluate the pension system within 180 days. The objectives of this Council are to evaluate the pension system with a focus on fiscal sustainability, adequacy of pensions, demographic trends, universal coverage, and early retirement regimes. Decree 175-2019-EF established the procedures to be followed by the Council.

2.2.2. Description of the current pension system

The Peruvian pension system has a non-contributory safety-net and an earnings-related contributory component. The non-contributory pension provides a modest benefit to individuals in extreme poverty that do not have access to a contributory pension. The earnings-related pension, mandatory for all formal workers, is made up of a public PAYG system and a private system of funded individual accounts. Workers must choose whether to contribute to the public or to the private system. Although contributions are not mandatory for self-employed workers, they can voluntarily choose to contribute to either system. Several special contributory pension schemes also exist for workers in specific occupations, but many of these have been closed to new entrants. Workers affiliated with the private system may also make additional voluntary contributions to their pension accounts.

Non-contributory benefits for the elderly are provided through the programme Pensión 65, which was established in 2011and provides a flat benefit to the elderly in extreme poverty. The programme is not integrated with the rest of the pension system and is managed separately by the Ministry of Development and Social Inclusion (MIDIS). However, MIDIS does coordinate with the SBS and the ONP to verify that beneficiaries of Pensión 65 do not belong to the SPP or SNP and have not received any benefits.

The public and private contributory pension systems are not complementary, but rather they operate in parallel, and all formal workers in Peru are required to contribute to one or the other. The public system is a PAYG defined benefit pension system managed by the

public sector (Sistema Nacional de Pensiones, SNP). The private system is an individual defined contribution pension system managed by the private sector (Sistema Privado de Pensiones, SPP). Individuals are allowed to switch from the SNP to the SPP at any time, but they may not switch back to the SNP. There are also special schemes for certain occupations that are managed separately, for example for the military and for civil servants.

Both the public and private systems provide benefits in the form of 1) retirement pensions; 2) disability pensions; and, 3) survivor pensions for spouses, dependent children and dependent parents. In addition, individuals working in hazardous or arduous occupations are covered for disability and survival insurance under the Complementary Insurance for Risky Occupations (Seguro Complementario de Trabajo de Riesgo, SCTR) scheme. The legal retirement age is 65 under both systems, but several options for individuals to retire early also exist.

2.3. Non-contributory pension for the elderly

Pensión 65, established in 2011 through the Decree 081-2011-PCM, is a non-contributory and independent component of the pension system providing a benefit to individuals aged 65 and over who do not receive a contributory pension and are living in extreme poverty. Extreme poverty is defined as having income below PEN 183 per month (USD 55) based on an indicator of Social Economic Levels (NSE) established by the Household Targeting System (Sistema de Focalización de Hogares, SISFOH). The programme was an extension of a pilot programme that provided a basic benefit to individuals in extreme poverty from the age of 75 in the regions of Apurimac, Ayacucho, Huancavelica and Lima Metropolitana. Pensión 65 lowered the eligibility age to 65 and initially expanded coverage to six regions before covering all regions. Benefits are flat rate, at PEN 250 every two months.

Additionally, recipients are entitled to free care in public health facilities and are eligible for the Integral Health Insurance Programme (Seguro Integral de Salud, SIS). The number of claimants has been increasing over recent years as shown in Table 2.3, and currently nearly 24% of individuals over the age of 65 benefit from the programme. Total annual expenditure on benefits is around 0.11% of GDP.

Table 2.3. Number of Pensión 65 recipients

Year	Number of recipients	Total benefits (% GDP)
2013	306 298	0.08%
2014	450 000	0.11%
2015	501 681	0.12%
2016	502 972	0.11%
2017	545 508	0.11%
2018	544 202	0.11%

Note: In August 2017, there was a single payment of 200 soles to users affected by the "Niño Costero" made by the pension programme 65.
Source: www.pension65.gob.pe.

2.4. The pay-as-you-go national pension system

The pay-as-you-go national pension system (Sistema Nacional de Pensiones, SNP) is administered by the Pension Normalisation Office (Oficina de Normalizacion Previsional,

ONP). Workers affiliated with this system are required to contribute 13% of their salary on 12 of the 14 wages paid per year.[2] Pensions are paid 14 times per year.

To qualify for a retirement pension, the individual, or couple combined, must contribute at least 20 years. Benefits are calculated on the average of the final 60 monthly wages. The targeted replacement rate depends on the age of the individual at the time of the implementation of the law that restructured the SNP in 2001 (Table 2.4). For the youngest cohort of individuals born in 1972 or later, the first 20 years of contributions entitles them to a replacement rate of 30%, whereas those born before 1947 would expect a replacement rate of 50%. Each additional year of contributions for the oldest cohort entitles the individual to an additional 4% salary replacement and for all other cohorts an additional 2%. The maximum monthly pension benefit is PEN 857.36 (USD 254 or 62.5% of average wage and 92% of the minimum wage), and the system guarantees a minimum pension benefit of PEN 500 (USD 148 or 36% of average wage and 54% of the minimum wage), increased from PEN 415 in June 2019.

Table 2.4. Replacement rates by year of birth

Year of birth	Replacement rate for the first 20 years of contributions	Additional replacement rate for each subsequent year of contribution
1972 onwards	30%	2%
1962 - 1971	35%	2%
1952 - 1961	40%	2%
1947 - 1951	45%	2%
Up to 1946	50%	4%

Source: ONP.

The proportion of individuals over 65 receiving benefits from the SNP has been decreasing, even if the numbers have been increasing in absolute terms. The number of male beneficiaries within the SNP system has remained steady over the last ten years, only increasing by 8%, compared to a 34% increase albeit from a low level for women (Table 2.5). During this time the population aged over 65 increased from 1.66 million to 2.30 million, i.e. a 39% increase (United Nations, 2017[1]). This means that 16% of people older than 65 received a SNP benefit in 2017 against 19% in 2007.

Table 2.5. Number of retirement pension beneficiaries

Population aged over 65

Year	Men	Women
2007	228 493	87 995
2008	223 021	87 231
2009	227 501	89 724
2010	228 729	92 445
2011	230 981	94 863
2012	235 841	98 336
2013	235 252	100 447
2014	237 801	104 745
2015	242 049	110 160
2016	246 208	115 254
2017	247 385	118 752

Source: ONP.

2.4.1. Early retirement

The legal retirement age is 65 for both men and women. Early retirement is possible from age 55 with at least 30 years of contributions for men or from age 50 with at least 25 years of contributions for women. The number of years of required contributions is reduced to 20 years for both men and women under special circumstances, such as collective lay-off from employment.

The early-retirement pension is permanently reduced by 4% for each year that the pension is taken before the normal retirement age of 65, subject to the floor of the minimum pension of PEN 500.

2.4.2. Disability pensions

Disability pensions are paid if an affiliate has a mental or physical disability that prevents them from earning more than one-third of the salary that an equivalent worker could receive. The number of individuals receiving disability pensions by gender is shown in Table 2.6. To qualify for benefits in the event that the disability resulted from a work-related accident or occupational disease, the individual must be contributing to the system at the time the disability occurred. If the individual was not contributing to the system at that time, and whatever the cause of the disability, the individual can still qualify for a benefit if one of the following conditions are met:

- having contributed between 3 and 15 years prior to the disability, with at least 12 months of contributions made in the 36 months prior to the month in which the disability occurred;
- having contributed less than 3 years, with at least half of the contributions made within the last 36 months;
- having contributed for at least 15 years.

Table 2.6. Number of disability pension beneficiaries

Year	Men	Women
2007	11 575	4 019
2008	11 299	3 873
2009	12 069	4 213
2010	12 790	4 590
2011	13 458	4 955
2012	14 342	5 404
2013	14 713	5 736
2014	15 357	6 118
2015	15 976	6 510
2016	16 907	7 070
2017	17 471	7 434

Source: ONP.

The disability pension pays 50% of the reference salary - average monthly earnings in the last 12 months - plus 1% for each full year of additional contribution beyond three years, subject to a floor of PEN 500 paid 14 times per year. For non-work related disabilities, individuals can still qualify for a benefit if they contributed between one and three years prior to the disability, with at least 12 months of contributions made in the 36 months prior

to the month in which the disability occurred. Benefits are one-sixth of the wage for each full year of contribution.

Disability pensions are not necessarily paid indefinitely, as individuals who are eligible for a retirement pension from age 65 can transfer to a retirement pension. Movement to a retirement pension is possible earlier if the retirement pension is higher than the disability pension, more than 20 years of contributions have been made, and the individual is aged at least 55 years for men and 50 years for women.

2.4.3. Survivor pensions

In the case of death of the affiliate, survivor pensions may be paid to the surviving spouse, children, and/or dependent parents. To qualify for the spousal pension, the surviving male spouse must be over the age of 60 or disabled and must have been economically dependent on the affiliate. These conditions do not apply to surviving female spouses, and with women also living longer on average the number of women claiming survivor benefits is nearly 20 times the number of men (Table 2.7). Benefits for survivor pensioners are equal to 50% of the retirement pension that the affiliate would have been entitled to, subject to a minimum benefit of PEN 350.

Children of a deceased affiliate will qualify for a pension if they are disabled, under the age of 18, or under the age of 21 if they have continued studying. Benefits equal up to 50% of the retirement pension that the affiliate would have been entitled to, subject to a minimum benefit of PEN 270.

If there remains a balance of the pension entitlement of the deceased member after paying the widow and orphan pensions, a survivor pension may also be paid to the dependent mother or father over the age of 55 and 60, respectively, or if the parent is disabled. Benefits for each parent are equal to 20% of the retirement pension that the affiliate would have been entitled to, subject to a minimum benefit of PEN 270.

Table 2.7. Number of survivor pension beneficiaries

Year	Men	Women
2007	7 339	118 182
2008	6 982	120 526
2009	6 106	121 181
2010	6 480	125 029
2011	6 552	128 005
2012	5 934	131 547
2013	6 244	134 668
2014	6 509	138 521
2015	6 841	141 829
2016	7 958	146 137
2017	8 325	149 205

Source: ONP.

On top of pension entitlements, special bonuses are paid to individuals meeting certain criteria. For example, bonuses are paid to individuals aged 80 and over, disabled pensioners who need permanent care, and widows aged 70 and over.

Survivor pension payments cease if the widow(er) remarries or if a disabled widower is assessed as being able to work. Upon remarriage a lump-sum of 12 times the spouse's pension is paid.

2.4.4. Reserve fund

A consolidated reserve fund (RCF) was established in 1996 to help improve the financial viability of the system. Its objective is to support pensions paid by the ONP, the payment of Recognition Bonds and pension payments for the *Cedula Viva* scheme for civil servants. It was created with money from the privatization of public enterprises. The resources of the RCF come from the actuarial reserves of public pension schemes administered by the ONP, public treasury contributions, net investment returns, contributions for Pension Assistance and other transfers coming from the private sector and national and international cooperation. Table 2.8 shows the increase in the value of the fund from the end of 2001 to the end of 2017.

Table 2.8. RCF Value as of December 2017

RCF Value DL Nº 19990 - 31.12.2017 (a)	4 219 580 245
RCF Value DL Nº 19990 - 31.12.2001 (b)	1 327 658 202
Incomes (c)	2 713 995 160
Electroperú Dividends	1 124 363 636
Informed Disaffiliation (LDI)	1 589 631 523
Outcomes (d)	1 710 732 403
Pensions Payout	1 710 732 403
RCF Value at 31.12.2017 (a-b-c+d)	1 888 659 286

Note: Figures in USD.
Source: ONP.

The RCF manages four types of funds:

- Funds with actuarial reserves belonging to privatized or liquidated public companies
- Recognition Bonds Fund
- RCF-D.L 19990 Funds
- Solidarity Contribution for Pension Assistance Funds (RCF-DL 28046)

The RCF Board of Directors is responsible for its portfolio policies and guidelines. The Board is made up of the Minister of Economy and Finance, the Head of the ONP, the General Manager of the Central Bank of Peru, and two representatives of pensioners nominated by the National Labour Council and appointed by executive power through a ministerial resolution endorsed by the Minister of Economy and Finance.

In January 2017, the Board approved an update of the RCF regulatory documents within the Strategic Asset Allocation (SAA) framework that contains parameters and investment limits in order to provide some flexibility around the investment management of the fund. Table 2.9 shows the investment limits and asset allocation for the RCF as of December 2017.

Table 2.9. RCF investment Portfolio Asset Allocation and Investment Limits

As of December 2017

Strategic Asset Allocation (SAA)	SAA 2017	Min	Max
I. CASH AND SHORT TERM INSTRUMENTS	8.3%	6%	100%
1. Local	6.9%		
BCRP Term Certificates and Deposits	0.0%	0%	100%
Financial System Deposits	5.4%	5%	10%
Short Term Instruments	1.5%	1%	10%
2. Foreign	1.4%		
BCRP Term Deposits	0.0%	0%	50%
Financial System Deposits	0.4%	0%	5%
Short Term Instruments	1.0%	0%	10%
II. FIXED INCOME	52.0%	35%	80%
1. Local	36.0%		
Government Bonds	16.0%	12%	30%
Financial System and Non-Financial Company Bonds	8.0%	6%	18%
Securitization Instruments	9.0%	6%	18%
Short-Term and Long-Term Instruments	1.0%	0%	5%
Fixed Income Funds	2.0%	0%	10%
2. Foreign	16.0%		
Defensive Fixed Income Mandate	4.1%	3%	6%
Core Plus Mandate	9.9%	8%	16%
Debt Securities	1.0%	0%	5%
Fixed Income Funds	1.0%	0%	5%
III. VARIABLE INCOME INSTRUMENTS	13.8%	8%	30%
1. Local	0.5%		
MILA Plus Mandate	0.5%	0.3%	2%
Mutual Funds	0.0%	0%	3%
2. Foreign	13.2%		
ACWI Mandate	10.5%	6%	18%
MILA Plus Mandate	1.6%	0.8%	5%
Private Equity	1.2%	1%	4%
IV. ALTERNATVE INVESTMENT	25.9%	13%	35%
1. Local	9.5%		
Mortgage	5.5%	5%	9%
Investment Funds	4.0%	2%	7%
2. Foreign	16.4%		
Private Equity Mandates	7.6%	3%	13%
Private Equity	4.0%	1%	8%
Real Assets	4.8%	2%	8%

Source: ONP.

Portfolio management is done through direct investments made by the Technical Secretariat at the ONP and mandates by portfolio managers. The Technical Secretariat periodically examines new investment practices and evaluates them for the RCF portfolio management.

The Investment Committee is responsible for making decisions within the SAA framework. Members of the Committee are the Head of the ONP, the General Manager of the ONP, the Investment Director, the Head of the Risk Management Office, and the Head of the Institutional Control Body.

2.5. Special regimes

Within the Peruvian pension system there are a number of occupations that either still have special schemes, or they had special schemes which have now been closed for new entrants but there is an associated legacy cost.

There are several other contributory pension arrangements for specialised populations covering approximately 2.4% of the active and 15% of the retired population. These populations include the following occupations:

- Civil Servants (closed to new entrants)
- Police and military personnel
- Fishermen

In addition, there are a number of special regimes within the SNP system, with different retirement ages in particular for certain occupational groups, namely:

- Journalists
- Leather industry workers
- Housekeepers
- Pilots and co-pilots
- Maritime workers
- Civil construction workers
- Mining, metallurgy and iron and steel industry workers

2.5.1. Civil Service scheme (Cédula Viva)

The Law Decree No. 20530 (Cédula Viva), promulgated on February 27, 1974, established a special regimen for civil servants in which a worker acquired the right to a pension equal to 100% of the remuneration after 12.5/15 years of contributions for females/males respectively, regardless of age. Pension benefits were indexed to wage increases. Contribution rates were set at 6%.

In December 2005, the Government established the New Rules of the Pension System of the Law Decree No. 20530 (Law No. 28449) to close the regime. Former employees of Government institutions who contributed under the Law Decree No. 20530 at the date of the reform established by law No. 28389 could qualify to be in this regime.

To qualify for benefits under the new system, men were required to have between 5 and 30 years of service, and women between 12.5 and 25 years of service, otherwise they could opt into the SNP or the SPP and receive recognition bonds for the benefits they had already accumulated. Contributions under the new regime were increased to 13%.

In terms of benefits, men could receive 3.33% of the average pensionable remuneration received over the last twelve months for each year of service, and women could receive 4% per year of service. If pensionable remuneration had increased by 50% or more over the last 60 months or between 30% and 50% over the last 36 months, the pension would be adjusted considering the average of the pensionable remuneration received over the last 60 or 36 months, respectively, or the higher of the two cases.

There is no specific formula for the indexation of pensions, rather the Budgetary offices decide by how much they will be indexed based on the money available, inflation and economic growth up to a maximum limit of adjustment of two times the tax unit established by the tax agency for the year.

2.5.2. Police and military personnel (Caja de Pensiones Militar Policial, CPMP)

The Military and Police pension scheme was established as a defined benefit pension plan in 1972. Contributions were set at only 12%, well below the level of 19% needed to fund the promised benefits of 100% replacement of the final salary after 30 years of contributions. The scheme was closed in 2011 due to the resulting deficit, and now relies on transfers from the Ministry of Finance to fund the pension benefits.

A new scheme was established in 2012 that modified the benefit formula to provide a 55% replacement rate of the last five years of salary for 30 years of contributions, pro-rated for fewer years of contributions. The new scheme maintained the level of contributions at 12%, split equally between affiliates and the state. However, since January 2018 contributions to the new fund have been increased to the equilibrium level of 19% for new entrants into the scheme, with 13% paid by affiliates and 6% paid by the state.

As of December 2018 the technical reserve for the old CPMP system was PEN 52.9 billion, around 7% of GDP (CPMP annual report), and the annual deficit amounted to PEN 633.8 million, around 0.1% GDP. The new fund had a technical reserve of PEN 1.6 billion.

2.5.3. Fishermen (Regimen Especial de Pensiones por los Trabajadores Pesqueros, REP)

The current system REP applies from 2013, after replacing the previous system Caja de Beneficios y Seguridad Social del Pescador (CBSSP).

Fishermen contribute 8% of their insurable earnings and ship operators (the employer) contribute another 5%. Insurable earnings include all earnings and in-kind payments (e.g. captured fisheries) and cannot be lower than the minimum wage.

Eligibility to a pension requires:

- Being 55+ years old;
- Being registered as fisherman and able to prove 25 years working as a fisherman;
- 375 weeks of contributions;
- Not being affiliated to another pension system.

Pension benefits are equal to 24.6% of average insurable earnings from the last 5 years (the same as for workers from old system, CBSSP, who are eligible for REP). Maximum monthly pension of PEN 660 applies in 2018 and pensions are paid 14 times per year. The maximum amount of pension is reviewed every two years and can be increased.

Pensioners and workers eligible for a pension under the old system (CBSSP) are entitled to a special pension named Transferencia Directa al Expescador (TDEP) which cannot be combined with any other public pension or social assistance. The maximum pension is PEN 660 per month with 14 payments per year.

2.5.4. Journalists

Eligibility to a pension is based on both an age requirement and number of years of contributions depending on when eligibility to a pension was achieved. The retirement age is 55 for men and 50 for women.

If the age requirement was met before 18 December 1992, then men need to have made 15 years of contributions and women 13 years. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.2% for each complete additional year of contribution for men and 1.5% for women.

If the age requirement was met after 18 December 1992 then 20 years of contributions are required for both men and women. The benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

In both scenarios reference earnings are defined depending on the number of years of contributions. For 30 or more years of contributions, earnings during the last 36 consecutive months are divided by 36. For 25 to 30 years of contributions earnings during the last 48 consecutive months are divided by 48, and for 20 to 25 years of contributions earnings during the last 60 consecutive months are divided by 60.

2.5.5. Leather industry workers

Eligibility to a pension is based on both an age requirement and number of years of contributions depending on when eligibility to a pension was achieved. The retirement age is 55 for men and 50 for women.

If the age requirement was met before 18 December 1992 then men need to have made 15 years of contributions, and 13 years for women. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.2% for each complete additional year of contribution for men and 1.5% for women.

If the age requirement was met after 18 December 1992 then 20 years of contributions are required for both men and women, of which 15 and 13 years need to be as leather workers for men and women respectively. The benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

In both scenarios reference earnings are defined depending on the number of years of contributions. For 30 or more years of contributions, earnings during the last 36 consecutive months are divided by 36. For 25 to 30 years of contributions earnings during the last 48 consecutive months are divided by 48, and for 20 to 25 years of contributions earnings during the last 60 consecutive months are divided by 60.

2.5.6. Housekeepers

Eligibility to a pension is based on both an age requirement and number of years of contributions depending on when eligibility to a pension was achieved. The benefit is only paid to women and the retirement age is 55.

If the age requirement was met before 18 December 1992 then five years of contributions are required. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.5% for each complete additional year of contribution.

If the age requirement was met after 18 December 1992 then 20 years of contributions are required. The benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

In both scenarios reference earnings are defined depending on the number of years of contributions. For 30 or more years of contributions, earnings during the last 36 consecutive months are divided by 36. For 25 to 30 years of contributions earnings during the last 48 consecutive months are divided by 48, and for 20 to 25 years of contributions earnings during the last 60 consecutive months are divided by 60.

2.5.7. Pilots and co-pilots

Eligibility to a pension is based on both an age requirement and number of years of contributions depending on when eligibility to a pension was achieved. The retirement age is 55 for men and 50 for women.

If the age requirement was met before 18 December 1992 then men need to have made 15 years of contributions, and 13 years for women. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.2% for each complete additional year of contribution for men and 1.5% for women.

If the age requirement was met after 18 December 1992 then 20 years of contributions are required for both men and women. The benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

In both scenarios reference earnings are defined depending on the number of years of contributions. For 30 or more years of contributions, earnings during the last 36 consecutive months are divided by 36. For 25 to 30 years of contributions earnings during the last 48 consecutive months are divided by 48, and for 20 to 25 years of contributions earnings during the last 60 consecutive months are divided by 60.

2.5.8. Maritime workers

Eligibility to a pension is based on both an age requirement and number of years of contributions depending on when eligibility to a pension was achieved. The retirement age is 55 for men and 50 for women.

If the age requirement was met before 18 December 1992 then men need to have made 15 years of contributions, and 13 years for women. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.2% for each complete additional year of contribution for men and 1.5% for women.

If the age requirement was met after 18 December 1992 then 20 years of contributions are required for both men and women. The benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

In both scenarios reference earnings are defined depending on the number of years of contributions. For 30 or more years of contributions, earnings during the last 36 consecutive months are divided by 36. For 25 to 30 years of contributions earnings during the last 48 consecutive months are divided by 48, and for 20 to 25 years of contributions earnings during the last 60 consecutive months are divided by 60.

2.5.9. Civil construction workers

Eligibility to a pension is based on both an age requirement and number of years of contributions depending on when eligibility to a pension was achieved. The retirement age is 55 for both men and women.

If the age requirement was met before 18 December 1992 then 15 years of contributions were required. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.2% for each complete additional year of contribution for men and 1.5% for women.

If the age requirement was met after 18 December 1992 then 20 years of contributions are required. The benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

In both scenarios reference earnings are defined depending on the number of years of contributions. For 30 or more years of contributions, earnings during the last 36 consecutive months are divided by 36. For 25 to 30 years of contributions earnings during the last 48 consecutive months are divided by 48, and for 20 to 25 years of contributions earnings during the last 60 consecutive months are divided by 60.

2.5.10. Mining, metallurgy and iron and steel industry workers

Eligibility to a pension is based on both an age requirement and number of years of contributions depending on when eligibility to a pension was achieved. The retirement age depends on the type of mining undertaken.

In all cases reference earnings are defined depending on the number of years of contributions. For 30 or more years of contributions, earnings during the last 36 consecutive months are divided by 36. For 25 to 30 years of contributions earnings during the last 48 consecutive months are divided by 48, and for 20 to 25 years of contributions earnings during the last 60 consecutive months are divided by 60.

Underground

If working underground the age requirement is 45 years and if this was met before 18 December 1992 then 10 years of contributions were required for a proportional pension and 20 years for a full pension, with at least 10 years in mining. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.2% for each complete additional year of contribution for men and 1.5% for women.

If the age requirement was met after 18 December 1992 then the benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

Open pit

The age requirement is 50 years and if this was met before 18 December 1992 then 10 years of total contributions were required for a proportional pension and 25 years for a full pension, with at least 10 years in mining. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.2% for each complete additional year of contribution for men and 1.5% for women.

If the age requirement was met after 18 December 1992 then 20 years of contributions were required for a proportional pension and 25 years for a full pension (10 years must be working in the open pit mine). The benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

Mining, Metallurgical and Steel Centres

The age requirement is 50-55 years and if this was met before 18 December 1992 then 15 years of total contributions were required for a proportional pension and 30 years for a full pension, with at least 15 years in mining. The benefit is 50% of reference earnings for the first five years of contributions, increased by 1.2% for each complete additional year of contribution for men and 1.5% for women.

If the age requirement was met after 18 December 1992 then 20 years of contributions were required for a proportional pension and 30 years for a full pension (15 years must be working in mining). The benefit is 50% of reference earnings for 20 years of contributions, increased by 4% for each additional year of contribution up to a maximum of 100% of reference earnings.

2.6. The funded private pension system

The funded private pension system (Sistema Privado de Pensiones, SPP) is a fully funded defined contribution system with individual accounts. The SPP is regulated and supervised by the Superintendence of Banks, Insurance and AFP (Superintendencia de Banca, Seguros y AFP, SBS). The pension fund administrators (Administradoras de Fondos de Pensiones, AFPs) manage the assets for the individual accounts. There are currently only four AFPs operating in the market: Habitat, Integra, Prima and Profuturo. Prima is the AFP with the largest number of affiliates, and Habitat the fewest as they are the most recent player to enter the market (Table 2.10).

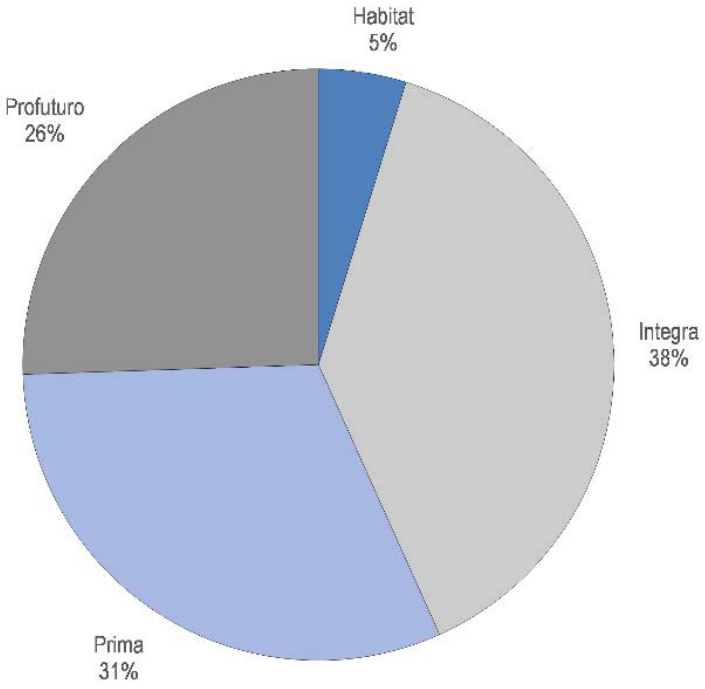
Table 2.10. Number of affiliates per AFP, December 2018

	Number of active affiliates	% total
Habitat	1 076 055	15.3%
Integra	2 010 372	28.6%
Prima	2 137 604	30.5%
Profuturo	1 794 638	25.6%

Source: SBS.

The distribution of assets across the AFPs differs slightly from the distribution of members, with Integra having the largest amount of assets under management at 38% of the market (Figure 2.2). Habitat manages only 5% of assets, as even if they currently have a larger market share of affiliates, they have had less time to accumulate comparable levels of assets.

Figure 2.2. Market share of AFPs by assets under management, December 2018



Source: SBS.

Contributions to the SPP are comprised of two main components: 1) deposits into the retirement savings account, amounting to 10% of the wage; and 2) a premium for disability and survival insurance, set at 1.36% of the wage in 2018, subject to a ceiling for premiums and benefits of PEN 9 489.04. In addition, the AFPs charge affiliates a management fee that is either calculated as a percentage of wages and paid on top of contributions or calculated as a percentage of assets under management (AUM) and deducted from the individual's account accumulated since May 2013.

2.6.1. Retirement savings accounts

Mandatory contributions to the individual's retirement savings account are 10% of monthly salary, with no contributions required from the two additional salaries paid in July and December.[3] The contribution level was decreased to 8% in 1995, but increased back to 10% in 2006. The contribution level established must be set so as to provide the SPP's affiliates with an adequate replacement rate on average when taking into account expected investment returns and life expectancy. According to Law 29903, since 2013 the SBS is required to review contribution levels every seven years. Any change in contribution rate will require an amendment by law that must have the prior opinion of the Ministry of Economy and Finance and the SBS. In addition, this decision must be reviewed by a qualified external party who wins a public bidding process and who will propose any needed modifications in the legislation.

There is an auction system in place to assign new entrants into the SPP. New entrants are enrolled to contribute to the AFP winning the last auction. Every two years since 2012, AFPs can participate in an auction mechanism and bid on the fees charged for the

management and investment of the individual accounts. The winning AFP to receives all new entrants into the SPP. After a period of 24 months, affiliates are free to change to a different AFP. However, the affiliate can switch to another AFP after only 180 days if the return net of fees is lower than the market average

The AFPs have collaborated to establish a centralised system, AFPnet, that collects contributions and centralises other common administrative tasks. Employers are obliged to manage the payments of affiliates' contributions to the AFPs through this system.

AFPs are required to offer four different investment funds with varying risk profiles. The default fund for new affiliates is the Mixed Fund (Fund 2), which can have up to 45% investment in equities. Individuals below the age of 60 can choose to invest in the Growth Fund (Fund 3), which can invest up to 80% in equities. AFPs are required to automatically transfer the affiliate's investment to the Capital Preservation Fund (Fund 1) when they reach age 60, unless the affiliate requests in writing to stay in Fund 0 or Fund 2. This fund can invest up to 10% in equities. The Super Conservative Fund (Fund 0), introduced in 2016, is now required for individuals age 65 and over until they make a decision regarding how they will withdraw assets from their account, unless they provide a written request to stay in Fund 1 or Fund 2.

AFPs are required to guarantee a minimum return to members that is calculated on a monthly basis. The guarantee varies by fund and references the average real returns for the fund across all AFPs over 36 months. AFPs are required to hold a reserve fund to cover the guarantee, which is currently calculated as 0.9% of assets under management. In addition, AFPs are required to obtain a letter of credit from a bank equal to at least 0.5% of the assets under management to guarantee additional risks that AFP´s reserve is not sufficient to finance the minimum guarantee for the affiliates´ accounts.

Since the second half of 2016, affiliates have been allowed to withdraw 25% of the balance in their accounts to buy a first property.

2.6.2. Asset management fees

There are currently two types of fees that members can be charged: a fee based on salaries or a mixed fee based on both salaries and assets under management (AUM). This is due to the reforms in 2012 that changed the structure of the commission payments to AFPs, moving from a fee based on contributions as a percentage of salary towards a fee based on assets under management (AUM). Existing members could choose whether to keep paying the fee based on their salary, or gradually transition to the fee based on AUM with an implementation planned over 10 years. The fee based on AUM applies only to the balance accumulated from contributions made since June 2013, and the fee charged on contributions is subject to a maximum level that declines over the ten year implementation period. The SBS provided information and a calculator on its website to help individuals make the decision of whether or not to switch. New members since February 2013 pay the fee based on AUM.

2.6.3. Disability and survivor insurance

Affiliates can receive a disability pension in the event of temporary or permanent, total or partial disability before retirement age. In the case of total disability, where the worker loses 66% of their capacity to work, the pension paid is 70% of the average of the last 48 wages. In the case of partial disability, where the worker loses between 50% and 66% of their capacity, the pension benefits are 50% of the average of the last 48 wages.

In the case of death of an affiliate, a pension is paid to children, surviving spouses and/or dependent parents. The benefit levels, as a percentage of monthly wage, are as follows:

- 42% for the spouse or partner with no children
- 35% for the spouse or partner with children
- 14% for children under 18 or disabled
- 14% each for a father and/or mother older than 55 and 50, respectively, that is economically dependent on the affiliate

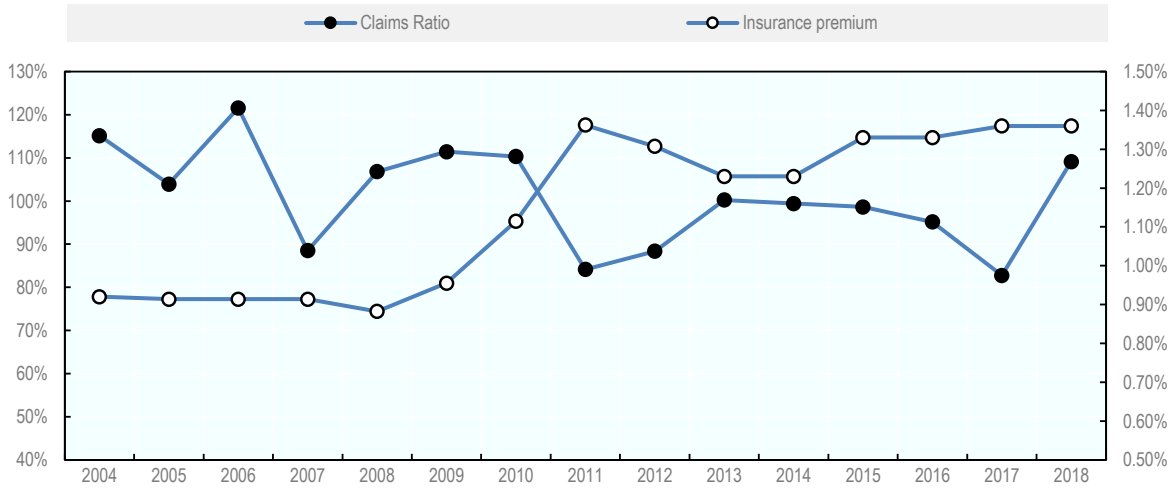
Insurance companies provide the disability/survivor insurance. There are currently seven insurance companies operating in the market. The premium charged for this insurance in 2018 was 1.36% of the worker's wage up to the maximum insurable wage.[4] According to the last auction in December 2018, the new premium will be 1.35%. The pension is financed with the balance from the individual's account, and the insurer provides an additional contribution to top off the balance to finance the level of pension benefit.

In addition to the insurance companies, disability and survivor pensions are also serviced by captive insurance companies of the AFPs established under the Temporary Regime. The Temporary Regime was opened in 2004, and sought to give an initial boost to the pension insurance market by facilitating the entry of companies into this market over time. In the case of a claim, the same company provided the insurance and the payments. It is now a runoff portfolio of survivor and disability annuities. Now the company receiving the premium contributes the additional contribution to top up the assets to a level sufficient to fund the annuity, and pays the total premium to a second long-term insurance company who provides the payments.

Until 2013, each AFP negotiated an individual contract with an insurance company to provide disability and survivor insurance to its members. Law 29903, which became effective in October 2013, established the collective insurance scheme SISCO (Seguro Colectiva para la administracion de los riesgos de invalidez, sobrevivencia y gastos de sepelio). Under this joint administration scheme, insurance companies that win the bid to provide the insurance operate as co-insurers for the disability and survivor coverage, paying a fixed percentage of the claims representing the percentage of the market that they won in the bidding process. This process has eliminated the variability in the cost of AFPs coming from the provision of the insurance, increased the transparency of the management of the insurance and the claims, and mitigated the potential conflicts of interest of companies belonging to the same financial group.

Figure 2.3 shows that the average insurance premium charged increased significantly from 2008 until the introduction of SISCO in 2013, following which the premium decreased before more recently returning to previous levels. Nevertheless, this increase followed a period where the claims ratio was near 100%, implying little margin for the insurers to cover their expenses, so an increase in premium would be expected. Although claims ratios fell in 2016 and 2017, they rebounded in 2018 with a claims ratio over 100%.

Figure 2.3. Claims ratio and insurance rate



Note: Claims ratios (claims paid over premiums received) are shown on the left axis and the insurance premium is shown on right axis (percentage of wage). 2018 does not include complete experience in December. Insurance premium given as a percentage of wage. The claims ratio does not reflect the performance of every contract between the different SISCO bidding periods and may include claims and insurance premiums that were incurred in previous periods.
Source: SBS.

2.6.4. Retirement age

The legal retirement age is 65 for both men and women. Nevertheless, several pathways to early retirement also exist: regular early retirement, retirement due to terminal illness or cancer, and retirement for the unemployed. Individuals who were in the SNP before the SPP are still entitled to the early retirement benefits that the SNP offered as well as the minimum pension if they meet the eligibility requirements.

Regular early retirement can be taken by females aged 50 and males aged 55 if they have accumulated assets sufficient to provide a replacement rate of 40% of the average salary. Congress passed a new version of this law in May 2019 that reduced the period over which the replacement rate is assessed to 120 months from ten years, and limited the amount of voluntary contributions to 20% of savings with the requirement that they remained in the account for at least a year. It also eliminates the minimum requirement for contribution density.

Early retirement can also be taken if the individual has a terminal illness or cancer and is not eligible for a disability pension.

Several temporary special retirement schemes for individuals who are unemployed (Jubilación Anticipada por Desempleo, REJA) have been introduced since 2002. The last regime was introduced in 2009 with an original expiration foreseen in 2013, but it was extended until December 31, 2018. It allowed males to retire at age 55 and females at age 50 if they had been unemployed for a consecutive period of at least 12 months and if the calculated pension was at least as high as the level of the minimum wage. If it was below that level, a lump sum of up to 50% of pension contributions and the corresponding investment returns on these contributions could be taken. Once individuals retire and access their pension account, they are allowed to return to work and are no longer required to pay contributions from their salary. Compared to previous REJA regimes, the last one significantly relaxed the requirements for the level of pension needed to qualify and

reduced the minimum age for women. In May 2019, Congress passed a new version of the law that imposes a limit on the amount of income that an individual can earn as a self-employed worker during the unemployment period to qualify for retirement under the regime. The new law also removes the requirement that the account finances a pension at the minimum wage.

2.6.5. Pay-out from the retirement savings accounts

At retirement, individuals can choose to receive their pension in one of three ways, or in some combination:

- Leave their assets invested with the AFP and take a programmed withdrawal, calculated taking into account their balance, age, gender and family
- Transfer their assets to an insurance company to purchase a life annuity
- Take 95.5% of their assets as a lump-sum, with the remaining 4.5% transferred to EsSalud to finance their health coverage (since April 2016)

Over 95% of individuals retiring now take the lump-sum option. Regardless of the option taken, 4.5% of the pension benefit will go to EsSalud to finance health benefits.

Individuals having switched to the SPP from the SNP who had their accrued rights transferred via a Recognition Bond receive its value paid to their account at retirement.

2.7. Workers in risky occupations

Two regimes exist with respect to how contributions and benefits are defined for risky occupations within the SPP for construction and mining.

For the extraordinary regime, the state provides a supplemental bonus to increase the pension to the level that would have been obtained in the SNP. To qualify for this regime, workers must have worked in the risky occupation for a minimum number of years and have at least 20 years of contributions to the pension system. Depending on the type and duration of the occupation, they can then retire from age 40 to 50.[5]

For the generic regime, supplementary contributions are co-financed with the employer. In mining, an additional contribution of 4% is shared equally between the employee and employer, and the retirement age can be advanced by two years for every 36 months of contributions. For those working in civil construction, additional contributions are 2% shared equally between the employee and employer, and the retirement age can be advanced by one year for every 36 months of contributions. If the employee switched from the SNP to the SPP before 2003 there is an additional bonus provided.

Employers of those in risky occupations must provide their employees with supplementary labour insurance (SCTR) that provides additional health, disability and survivor coverage to complement that provided under the SNP or the SPP. Employers can obtain this insurance either with the ONP/EsSalud or with a private insurance company.

2.8. Voluntary pension savings

Individuals affiliated with the SPP are allowed to have two types of voluntary contributions that are managed by the AFP: a savings account for the purpose of a pension and a savings account with no foreseen purpose. Voluntary contributions to a pension account are subject to the same withdrawal and taxation rules as mandatory contributions. Individuals who

have been affiliated with the SPP for at least five years can also make voluntary contributions to a savings account, from which they can withdraw their funds at any time, though withdrawals are not tax exempt.[6] Administration fees for voluntary contributions differ from those charged to mandatory contributions, and charges vary by fund as a percentage of assets under management. Individuals can have a voluntary savings account with no foreseen purpose with a different AFP than the one that manages their mandatory contributions.

Individuals affiliated with the SNP are not currently allowed to have a voluntary account with the AFP.

Notes

[1] Defined in the D.S. 180/94/EF.

[2] Labour regulation requires that formal employees receive 14 salaries per year.

[3] Since 2015, mandatory contributions were reduced from 14 to 12 contributions per year. Law 30334 established the exemption of payments on the bonuses of the National Holidays and Christmas.

[4] The insurable wage as of December 2018 was PEN 9 489.04. This reference is updated on a quarterly basis to account for inflation, and it serves as a cap for the premiums and benefits for disability, survivorship and funeral expense insurance.

[5] As of December 1999, the affiliates who have reached the following ages, which vary according to the productive activity performed: underground metallic mines: 40 years; directly extractive: 45 years; metallurgical and steel mining production centres: 45 to 50 years, depending on the time of exposure to risk, which vary from 7 to 2 years respectively; civil construction: 50 years.

[6] Prior to 2017, withdrawals were limited to three time per year.

References

United Nations (2017), *World Population Prospects: The 2017 Revision*. [1]

Chapter 3. Tackling old-age poverty

This chapter addresses the need for the pension system to have a non-contributory pension component to tackle poverty in old age and ensure that all Peruvians can receive an income to provide for some basic needs in retirement. While the current benefit provided by the Pensión 65 programme has been successful in alleviating extreme poverty in old age, benefit levels remain low and the programme's coverage could be expanded and better integrated with the provision of the minimum pension from the contributory system.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

A fundamental part of any pension system is the non-contributory component that is available to those who have been unable to secure an earnings-related pension income for their retirement. It should be designed to help alleviate poverty in old-age whilst limiting disincentives to work and contribute to a pension during the working life. This can be an issue with high levels of informality or where large sections of the workforce are exempt. In Peru the non-contributory benefit is called Pensión 65 and is available to those aged 65 and over who are classified as being in extreme poverty.

3.1. Addressing old-age poverty

Poverty is clearly undesirable at any age, but is particularly important to address once individuals have reached pensionable age, as generally they will be unable to supplement their income through employment.

Across most of the OECD, the definition of being in poverty is commonly a relative measure based on a percentage of the overall population income, e.g. being in a household with under 50% of median disposable household income, and so the performance of the overall economy affects the thresholds. However, some countries, including Peru and the United States, establish poverty levels at specific absolute monetary levels.

3.1.1. Poverty levels

Poverty rates in Peru, defined as those living on less than PEN 338 per month (USD 100), 36% of the current minimum wage - the amount needed to purchase the statistical food and non-food basket - have decreased over the last decade. This improvement resulted from surges in export prices for Peru's key mineral exports. However, since 2012 the terms of trade have become less favourable, thereby stopping the decline of the absolute poverty rate (Table 3.1).

Table 3.1. Population in poverty by geographical area

Percentage of the total population

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Lima	16.1	15.8	15.6	14.5	12.8	11.8	11.0	11.0	13.3
Rest of the country	41.2	37.4	33.3	30.9	29.0	27.8	26.8	25.3	25.7
Residence area									
Urban	21.3	20.0	18.0	16.6	16.1	15.3	14.5	13.9	15.1
Rural	66.7	61.0	56.1	53.0	48.0	46.0	45.2	43.8	44.4
Total	**33.5**	**30.8**	**27.8**	**25.8**	**23.9**	**22.7**	**21.8**	**20.7**	**21.7**

Source: National Institute of Statistics and Informatics - National Household Survey (Instituto Nacional de Estadística e Informática - Encuesta Nacional de Hogares).

The level of poverty in Lima is approximately half of that of the rest of the country, with urban residents having a level of poverty of only one-third of the level of rural residents. For the population as a whole, just over one-fifth of residents are recorded as being in poverty in 2017, a fall of 12 percentage points over an eight-year period.

Beyond this basic poverty indicator, about 4% of the population (1.2 million people) live in extreme poverty, meaning that they earn less than PEN 183 per month (USD 55), which is 20% of the current minimum wage and 11% of average earnings. Again, rural residents are more at risk, with a proportion of extreme poverty greater than ten times the proportion of their urban resident counterparts (Table 3.2).

Table 3.2. Population in extreme poverty by geographical area

Percentage of the total population

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Lima	0.7	0.8	0.5	0.7	0.2	0.2	0.3	0.2	0.7
Rest of the country	13.4	10.7	8.9	8.4	6.8	6.2	5.8	5.4	5.3
Residence area									
Urban	2.0	1.9	1.4	1.4	1.0	1.0	1.0	0.9	1.2
Rural	29.8	23.8	20.5	19.7	16.0	14.6	13.9	13.2	12.8
Total	**9.5**	**7.6**	**6.3**	**6.0**	**4.7**	**4.3**	**4.1**	**3.8**	**3.8**

Source: National Institute of Statistics and Informatics - National Household Survey (Instituto Nacional de Estadística e Informática - Encuesta Nacional de Hogares).

Definitions of poverty can differ between countries, but comparisons across countries can be made using the relative poverty rate computed by the OECD. Unfortunately, there is not a directly equivalent measure within Peru for those living below 50% of the median household income, but the poverty levels for Peru described above are based on much lower income thresholds and therefore underestimate the situation using the OECD measure.

For all OECD countries combined, the whole population poverty rate is 11.5%, with a high of 19.5% in Israel (Table 3.3). For the elderly aged 66 and over, the OECD average is slightly higher at 12.5%, increasing to 13.9% when considering those aged 76 and over.

Table 3.3. Income poverty rates by age and gender

Percentage with incomes less than 50% of median household disposable income

2014 or latest available							2014 or latest available						
	Older people (aged over 65)					Whole population		Older people (aged over 65)					Whole population
	By age			By gender				By age			By gender		
	All 66+	66-75	76+	Men	Women			All 66+	66-75	76+	Men	Women	
Australia	25.7	23.4	29.2	23.6	27.5	12.8	Korea	45.7	38.8				13.8
Austria	8.8	8.1	9.9	7.0	10.3	9.0	Latvia	26.5	22.2	31.6	13.9	32.4	16.2
Belgium	7.7	7.0	8.6	7.0	8.3	9.1	Luxembourg	3.9	4.1	3.4	3.1	4.6	8.1
Canada	9.0	8.5	9.9	6.7	11.0	12.6	Mexico	25.6	22.6	30.3	23.9	27.0	16.7
Chile	16.3	16.2	16.4	16.1	16.4	16.1	Netherlands	3.7	2.5	5.5	3.4	3.9	7.9
Czech Republic	3.7	3.5	4.1	1.5	5.3	5.9	New Zealand	10.6	7.7	15.2	6.6	14.0	10.9
Denmark	3.2	2.1	4.9	2.3	4.0	5.5	Norway	4.3	2.2	7.3	1.9	6.3	8.1
Estonia	25.0	21.9	28.5	13.3	30.8	15.5	Poland	7.6	8.3	6.7	4.6	9.3	10.4
Finland	5.2	2.9	8.5	3.2	6.8	6.3	Portugal	9.7	8.5	11.2	7.1	11.6	13.5
France	3.6	2.8	4.5	2.7	4.2	8.2	Slovak Republic	3.8	3.3	4.8	1.9	4.9	8.7
Germany	9.5	8.4	10.3	6.8	11.5	9.5	Slovenia	13.1	10.3	16.9	6.4	17.8	9.4

2014 or latest available							2014 or latest available						
	Older people (aged over 65)					Whole population		Older people (aged over 65)					Whole population
	By age			By gender				By age			By gender		
	All 66+	66-75	76+	Men	Women			All 66+	66-75	76+	Men	Women	
Greece	8.2	7.1	9.5	6.9	9.3	14.8	Spain	5.4	4.7	6.2	3.7	6.7	15.3
Hungary	8.6	7.8	9.9	5.0	10.6	10.1	Sweden	10.0	6.6	15.2	6.4	13.1	9.0
Iceland	5.4	4.9	6.1	3.5	7.1	6.5	Switzerland	19.4	16.3	23.8	16.6	21.8	9.9
Ireland	6.8	5.2	9.3	5.7	7.7	9.2	Turkey	18.9	16.2	23.2	17.0	20.4	17.3
Israel	21.2	17.6	26.1	17.7	23.9	19.5	United Kingdom	13.8	10.4	18.5	11.1	16.0	10.9
Italy	9.3	8.9	9.7	6.7	11.2	13.7	United States	20.9	17.6	25.7	17.2	23.9	16.8
Japan	19.0	17.0	21.3	15.1	22.1	16.1	**OECD**	**12.5**	**10.7**	**13.9**	**8.7**	**13.6**	**11.5**

Note: 2012 for Japan. 2015 for Chile, Finland, Israel, Korea, the Netherlands, the United Kingdom and the United States.
Source: OECD Income Distribution Database, http://www.oecd.org/social/income-distribution-database.htm.

There is, however, considerable variation in the levels by country. Fewer than 4% of those aged 66 and over are classified as in poverty in the Czech Republic, Denmark, France, Luxembourg, the Netherlands and the Slovak Republic. In all these countries the elderly poverty rate is at least two percentage points below the overall population level. In contrast, poverty for the elderly is above 25% in Australia, Estonia, Korea and Latvia, all of which are at least nine percentage points above the whole population figure.

Korea is a special case and may serve as a comparator for Peru, in that large numbers of the elderly population do not have a pension (in Korea's case the pension system was only introduced in 1988 and has yet to mature) and the level of the safety-net benefit is low in comparison to average earnings. In Korea, just under half of all those aged 66 and over are in poverty.

Poverty figures are not available by age in Peru, but as shown in the next section around 24% of the population aged 65 and over are in receipt of Pensión 65, because at some point they were in extreme poverty. Therefore, under the OECD definition of poverty representing those with income below 50% of median household disposable income the poverty figure for Peru would be considerably higher for the elderly population.

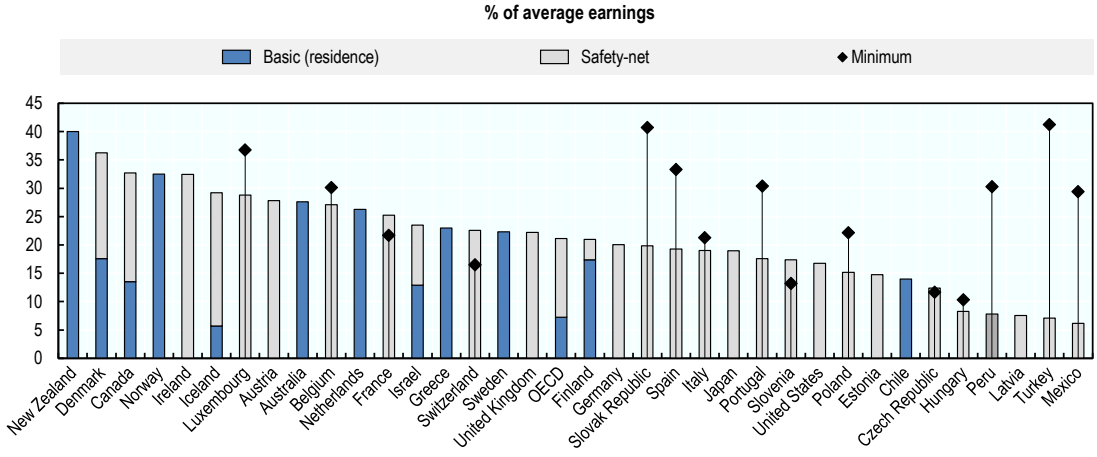
3.1.2. Pensión 65

The main mechanism that Peru has to address poverty in old age is the Pensión 65 programme that was introduced in 2011 and is the only cash benefit available to the elderly. If individuals have been unable to save sufficiently through either the SNP or SPP systems, they may be eligible for support from Pensión 65. Pensión 65 aims to provide an economic subsidy to those over the age of 65 who are living in a household classified as being in extreme poverty. As discussed below, about one in four individuals older than 65 now receive Pensión 65, which is a remarkable achievement in a few years.

Even if the payment of Pensión 65 results in individuals no longer being in extreme poverty, those individuals are still eligible to receive the benefit as long as they are classified as being in poverty, i.e. have less than PEN 338 per month (USD 100). The benefit is only removed if individuals have income above the poverty threshold. This is an unlikely scenario for those aged 65 and over. Even if individuals have an income of PEN 183 per month, the payment from Pensión 65 would only bring this to PEN 308 per month and so they would likely have to return to employment to gain the extra PEN 30 per month required to get above the poverty threshold. Beyond monetary payments, individuals are also entitled to free care in public health facilities, and are enrolled in the Integral Health Insurance Programme (Seguro Integral de Salud, SIS).

There has been no nominal increase in the payment amount from Pensión 65 since its introduction, hence the relative value has been declining. Payments of PEN 250 are made every two months, equivalent to around 8% of gross average earnings. By comparison, old-age safety-net benefits for someone who has never contributed to the pension system but has lived in the country throughout their life averaged around 21% of average earnings across OECD countries. Peru is ranked near the bottom with only Latvia, Mexico and Turkey having lower levels of old-age protection in relation to average earnings within countries (Figure 3.1).

Figure 3.1. Value of first-tier benefits as a percentage of average earnings



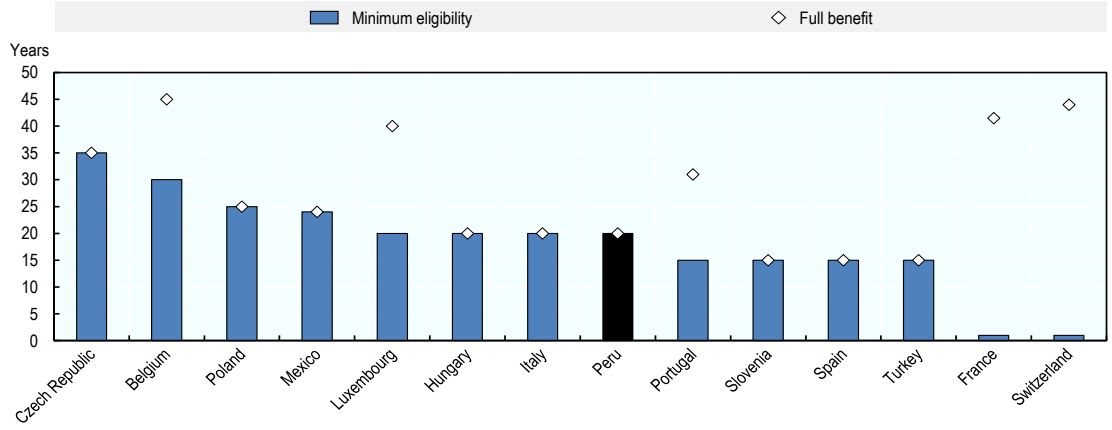
Note: Minimum refers to the maximum level of the minimum pension based on a full career.
Source: (OECD, 2017[1]).

The minimum pension in Peru is equivalent to 30% of average earnings, which is above the OECD average of 26% for the countries that have a minimum pension. The minimum pension, included in Figure 3.1, shows that there is a clear incentive to contribute towards a pension system in Peru, otherwise individuals will have to rely on the much lower safety-net component.

The minimum number of years required to contribute to the pension system to be eligible for a minimum pension is very high in Peru. Twenty years of contributions are required to be eligible for the minimum pension, hence many retirees are not able to reach this level and have to rely on Pensión 65. By comparison, in other countries, it is often possible to access the minimum pension with a considerably shorter career, although the benefit might be reduced. For example, in both France and Switzerland it is possible to receive a minimum pension with just one year of contributions. It is not uncommon for countries to

have a variable minimum pension, with Belgium, Luxembourg and Portugal also having this system in place, whilst the other OECD countries only have one level of benefit (Figure 3.2). Access to a minimum pension requires over 20 years of contribution in Belgium, the Czech Republic, Mexico and Poland, whilst only 15 years are required in Portugal, Slovenia, Spain and Turkey.

Figure 3.2. Years required for minimum pension



Note: Minimum pensions refer to either the minimum of a specific scheme or of all schemes combined. The benefit level can take into account other pension income.
Source: (OECD, 2015[2]).

3.2. Coverage and benefit of Pensión 65

The role of Pensión 65 is gaining in importance as the number of recipients has grown considerably since it was created. It increased from about 300 000 to nearly 550 000 between 2013 and 2018, and now benefits nearly one-quarter of all those over the age of 65 (Table 3.4).

Table 3.4. Number of Pensión 65 beneficiaries and cost

Year	Number of recipients	Annual budget (Millions)
2013	306 298	417
2014	450 000	628
2015	501 681	708
2016	502 972	751
2017	545 508	784
2018	544 202	811

Note: In August 2017, there was a single payment of 200 soles to users affected by the "Niño Costero" made by the pension programme 65.
Source: https://www.pension65.gob.pe/.

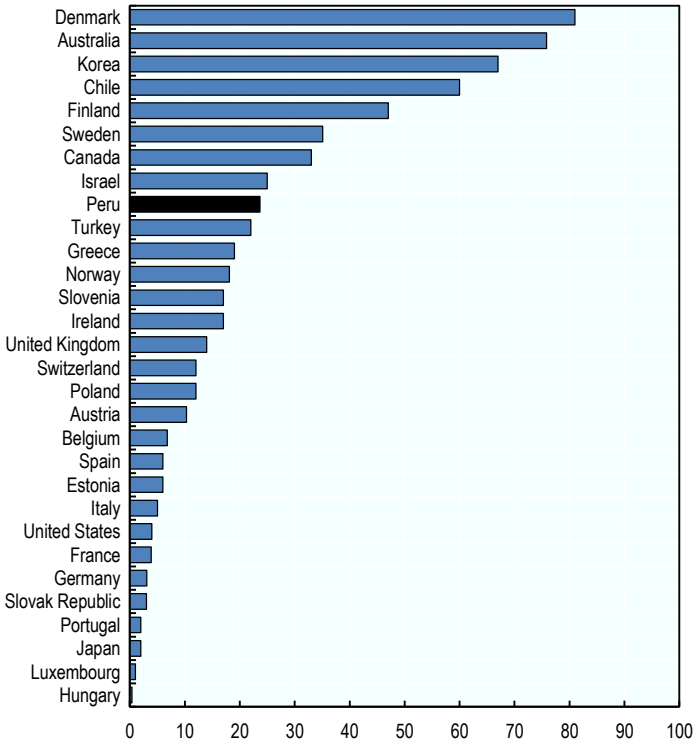
The cost of providing the benefit has also increased in line with the number of recipients, from PEN 417 million in 2013 to PEN 811 million in 2018. However, this still represents only around 0.1% of GDP.

Generally, flat-rate benefits, as Peru has, provide lower benefit levels than countries with gradual withdrawal systems. This is primarily a cost issue as paying a flat-rate benefit to the entire population over age 65 can be very expensive, whereas paying a targeted benefit

could mean that although most people receive something the cost is reduced considerably because relatively few are receiving the full amount, which allows a higher level of basic income.

The take-up rate amongst the elderly population varies significantly by country as it crucially depends on the design of the benefit. Figure 3.3 shows the percentage of the over-65s receiving safety-net benefits across OECD countries, with Peru added for comparison.

Figure 3.3. Recipients of safety-nets, 2016



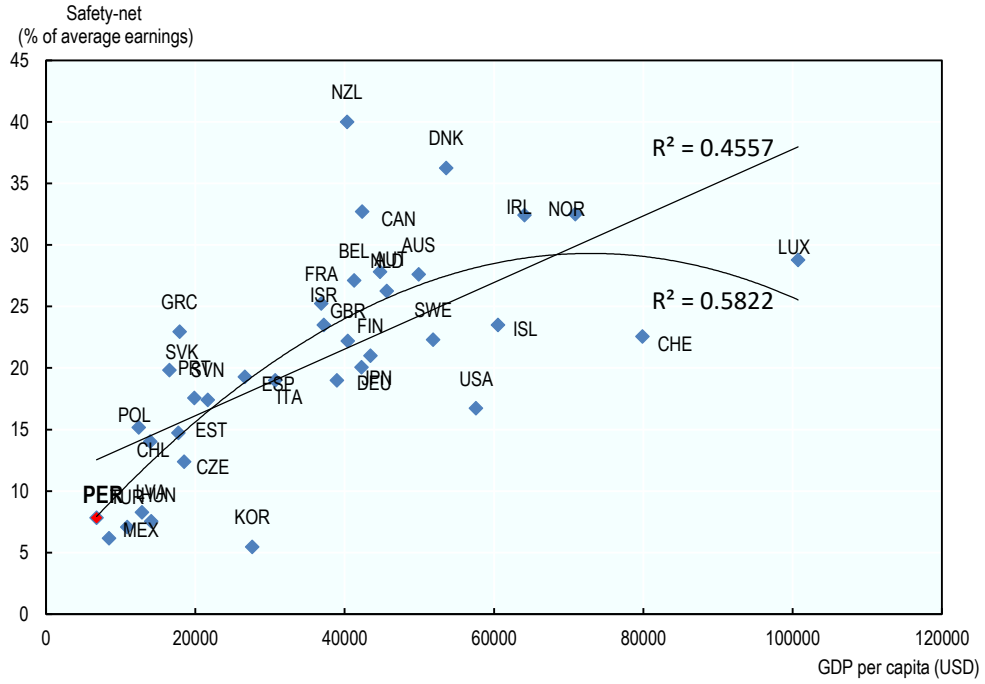
Source: (OECD, 2017[3])

Countries with variable benefits tend to have higher take-up rates. Denmark and Australia have by far the highest take-up rate, but in both countries the benefit is heavily withdrawn against other income and assets so not all recipients receive the full benefit. Nevertheless, at 24%, Peru is still among the top 10 countries and has the highest take-up among those paying a flat-rate benefit to all those that are eligible.

Lower take-up rates, however, do not necessarily imply lower effectiveness at ameliorating poverty. Twelve countries have a take-up rate below 10% (all countries from Belgium down in Figure 3.3). Although the take-up rate of the benefits is low the benefits are clearly working, since the poverty levels for the elderly in most of these countries are well below the whole population poverty level, with Japan and the United States being notable exceptions (Table 3.3).

The level of safety-net benefits (as a percentage of average earnings) is closely related to the level of economic development measured by GDP per capita in PPP terms (Figure 3.4). In some countries, namely Korea, Switzerland and the United States, the safety-net level is significantly below what could be expected based on the economic level or development.

Figure 3.4. Safety-net benefits compared to GDP per capita, 2016



Source: (OECD, 2017[1]).

Peru has the lowest GDP per capita compared to OECD countries, and also has one of the lowest safety-net benefit levels. In Peru, the benefit level falls short by about 30% of the level obtained based on the linear relationship with GDP per capita, but is close to the quadratic-relationship level.

However, if the benefit level remains constant in nominal terms while GDP per capita increases, the safety-net level will move away from the level consistent with the economic development of the country based on international comparison. Every other country shown in the chart has some rule to index benefits in payment, whether it be to either inflation or wage growth. By contrast, the level of benefit in Peru has remained constant in monetary terms. Given the currently low level of the benefit and related spending, there is space to index. This would ideally be based on wage growth, but should at least keep purchasing power constant.

3.3. Impact of Pensión 65

Several studies have been conducted to assess the effectiveness of non-contributory benefits for the elderly in terms of their social impact and whether they also have an influence on labour market participation, both in general and specifically at older ages.

The recipients of Pensión 65 represent over 40% of all those aged 65 and over receiving a "pension", indicating that it has a significant impact on improving the living standards of many elderly Peruvians.

Nevertheless, the existence of Pensión 65 may provide disincentives to participate in the formal labour market. Nearly two-thirds of those contributing to SNP are unlikely to meet the 20-year contribution requirement. Hence, these people may perceive that their

contributions throughout their careers are worthless as they will be relying, if eligible, on Pensión 65 for support in old age.

Indeed, there is some evidence that the introduction of Pensión 65 may have reduced engagement in paid work, as would be expected with the introduction of a targeted benefit for the elderly. One study estimated that receipt of Pensión 65 decreased the amount of paid work undertaken by older adults by four percentage points, although the study was conducted only one year after the programme was introduced (Bando, Galiani and Gertler, 2016[4]).

The same study concluded that there were positive improvements in mental health, as evidenced by a reduction of nine percentage points in the overall Geriatric Depression Scale score. In addition consumption increased by 40% and transfers to other individuals living elsewhere increased by one-third, indicating that the benefit is having a positive impact beyond just the household that is in receipt.

3.4. Policy options

Pensión 65 is an important addition to the Peruvian pension system as it provides a safety-net benefit for those most in need, i.e. those classified as being in extreme poverty. Within this group it has been very successful in achieving widespread coverage. Still, more could be done to ensure that those eligible will receive benefits.

Additionally, benefit levels should be increased and indexed to be more effective at tackling poverty. The current benefit levels are already low relative to Peru's GDP per capita, and have lost value over time since they have not been indexed to inflation or wage growth.

The form of the benefit could also be changed from a flat-rate benefit to a top-up to increase benefit levels and coverage. Instead of providing a flat-rate benefit that everyone gets independently of whether they have other retirement income, Pensión 65 could top up whatever income people have in retirement to put them at some basic level of retirement income.

3.4.1. Increase awareness of benefits

The take-up of the Pensión 65 benefit could be increased by ensuring that everyone who is currently eligible receives the benefit. Whilst the number of beneficiaries has steadily increased over the years, there is evidence that not everyone eligible actually receives the benefit (Acuna et al., 2015[5]). In particular, not all regions have the same level of record keeping. Policies have been implemented to target communication to certain groups that are entitled to the benefits but were not getting them, and to improve record keeping. Updated analysis is required to establish whether those measures have improved coverage, so that further measures can be put in place to increase awareness and hopefully coverage, possibly by better communication campaigns.

3.4.2. Increase benefit amount and threshold

Beyond ensuring coverage for everyone eligible, the level of the benefit needs to increase over time if it is going to act as a more effective mechanism to tackle poverty. The benefit level is low by international comparison relative to earnings in the economy, even when accounting for differences in economic development levels. Moreover, with no nominal increase, the impact of the benefit is declining.

The value of the benefit might need to be significantly raised in a special one-off move. With the total related expenditure amounting to under 0.1% of GDP there seems to be scope

to raise the benefit level. The poverty threshold is set at PEN 338 per month (21% of average earnings) so a tripling of the Pensión 65 benefit to PEN 750 every two months would thereby place every person aged 65 and over above the poverty threshold. However, making this much higher benefit universal so that all Peruvians aged 65 and over receive it - including those above the poverty level, which total 2.5 million people - would be expensive and cost around 1.6% of GDP.

Indexing the benefit with inflation would at least ensure that the elderly maintain their purchasing power. Alternatively, indexing to wage growth would ensure that they maintain their standard in relation to the working-age population. Some OECD countries index the benefit to a mix of prices and wages.

3.4.3. Change the benefit to a top-up payment rather than flat-rate

In order to provide improved coverage and efficiency, the ultimate design of Pensión 65 should depend on the overall structure of the pension system as a whole. The structure of the benefit should be integrated with the minimum pension offered by the contributory pension system. This minimum pension should be progressive and based on years of contribution to encourage participation within the formal pension system.

The suggested change to Pensión 65 is not only to increase significantly the level of the benefit, but to use this new level as a total income component. Therefore, the role of Pensión 65 would be to top up the pensioners' income to this new level, as is done with the Age Pension in Australia, for example. Whilst some individuals would require the full benefit amount of the Pensión 65, over time the reliance on this component would be expected to decline as more and more workers will have made contributions during their working lives and therefore have at least a small component of earnings-related pension in retirement.

The initial cost of this change could be spread over many years by staggering the increase to the benefit paid by the Pensión 65. As more workers begin to attain greater levels of pension rights, having the benefit as a top-up rather than a flat-rate will start to reduce the cost to the public purse of this benefit established to combat poverty.

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Chapter 4. Establishing a solid framework for the contributory pension system

This chapter tackles the structural problem of the current pension system, in which the public and private components operate in parallel in a fragmented and incoherent manner and individuals have to choose to contribute to the public or private system. Policy options discussed in this chapter aim to establish a solid framework for the contributory pension system where the public and private components are complementary and the system operates in an integrated and efficient manner, while addressing the sustainability of the entire system going forward.

The pension system in Peru is made up of different components that do not necessarily align to best promote the objective of the system to provide old-age pensions to Peruvians. The contributory component is made up of a public and a private scheme that, rather than being complementary in their provision, function as two separate alternatives for workers. As in other Latin American countries, the introduction of private pensions in Peru was driven by fiscal pressures on its public PAYG system as a result of changing demographics and the resulting imbalance between contributions and pension promises. However, due to political considerations and the cost of transitioning fully to a private pension system, Peru maintained the public PAYG system and introduced the funded individual accounts in parallel rather than implementing a complementary public and private pension provision or moving fully to a private system.

The public pension component is also fragmented, with numerous schemes for specific populations being managed under the public system (SNP). There are a number of different schemes under Special Regimes, where journalists, pilots and housekeepers, amongst others have their own rules within the SNP.

The institutional organisation of the pension system is far from seamless. Two separate institutions oversee the two systems, the ONP and the SBS respectively, and each operates in a silo without official communication or information sharing channels in place.[1] The non-contributory component, Pensión 65, is managed completely independently from the rest of the pension system by MIDIS, and here again there are challenges with respect to sharing information with the other institutions to facilitate having a complete view on how the pension system in Peru achieves its objectives. The lack of collaboration across institutions has led to procedural errors that harm pensioners. Contributions that employers pay to the wrong system or do not pay at all are often lost to the affiliates who thought they had been paid properly.

Efforts to improve the financial sustainability of the public system have also undermined the objective of the pension system to provide a pension, resulting in unintended consequences. Parametric reforms reduced the generosity of benefits and made eligibility requirements to receive a pension under the public system more restrictive, namely by increasing the minimum number of contributions years to receive a pension to 20 years. As a result, many pensioners contributing to the public system will no longer receive a contributory pension because they will not achieve 20 years of contributions.

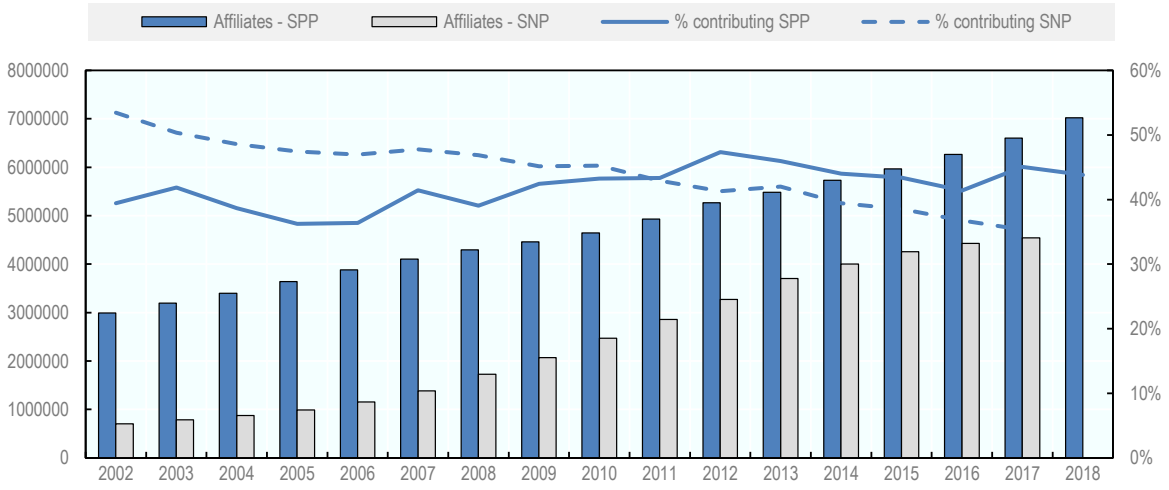
Reforms implemented to improve the financial sustainability of special regimes have not gone far enough. Benefits from the CPMP for the military and police, for example, are primarily funded by transfers from the general budget to cover the shortfall, despite reforms that increased contributions and reduced benefits.

In order to have a more coherent and financially sustainable pension system, Peru first needs to remove the competition and duplication in the pension system between the public and private components and implement a system where these two components are complementary. It also needs to take measures to ensure the long-term sustainability of the new system and the existing special regimes and harmonise the rules across different occupational groups. Finally, measures need to be implemented to improve coordination and information sharing across the institutions participating in the system to allow the system to function more efficiently in a cost-effective manner.

4.1. The choice between the SNP and the SPP

At the end of 2017, the total number of affiliates in the SPP was 6.6 million, compared to 4.5 million affiliates in the SNP, shown in Figure 4.1.[2] The number of affiliates in the SPP grew to 7 million in 2018. However, only a proportion of these affiliates are actively contributing to either system. The proportion of affiliates contributing to the SNP has steadily decreased since 2002 from a level over 50% to only 35% in 2017. The proportion of affiliates contributing to the SPP has remained more stable and has even increased slightly, exceeding 40% since 2009.

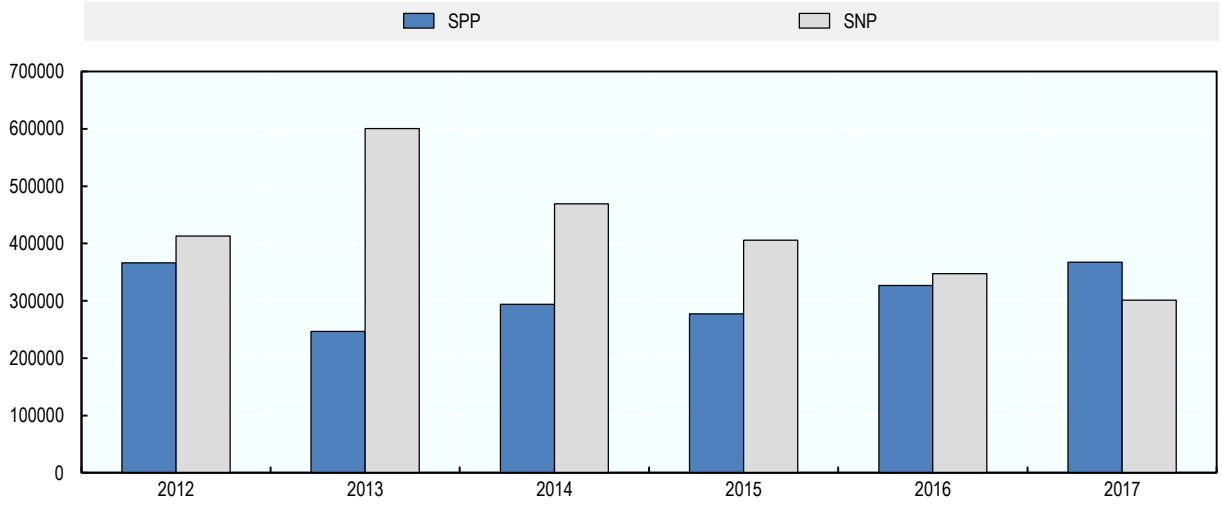
Figure 4.1. Affiliates and contributors to the SPP and SNP



Source: ONP; SBS.

Even though the SPP has a larger number of affiliates in total, in recent years a larger number of new affiliates had been joining the SNP, as shown in Figure 4.2. There was also a spike in new affiliates in 2013 to the SNP, in part due to the new obligation for independent workers to enrol in the system. However, the difference in the number of new affiliates joining the SNP and the SPP has been reducing since the regulatory changes in 2013 that facilitated the enrolment process to the SPP. In 2017, enrolment to the SPP exceeded that for the SNP. However, over 40% of new affiliates to the SPP in 2016 and 2017 were individuals switching from the SNP, the exact figures being 136 460 and 153 359 individuals, respectively.[3] This means that the majority of new contributors still join the public system, despite the measures in place to facilitate enrolment in the private system, and their initial contributions to the SNP are lost.

Figure 4.2. New affiliates to the pension system



Source: ONP; SBS.

The SNP and the SPP present different features that could lead members to enrol in one over the other. However, while members affiliated with the SNP are allowed to switch to the SPP at any time, those in the SPP are only allowed to go back to the SNP under certain very specific conditions.

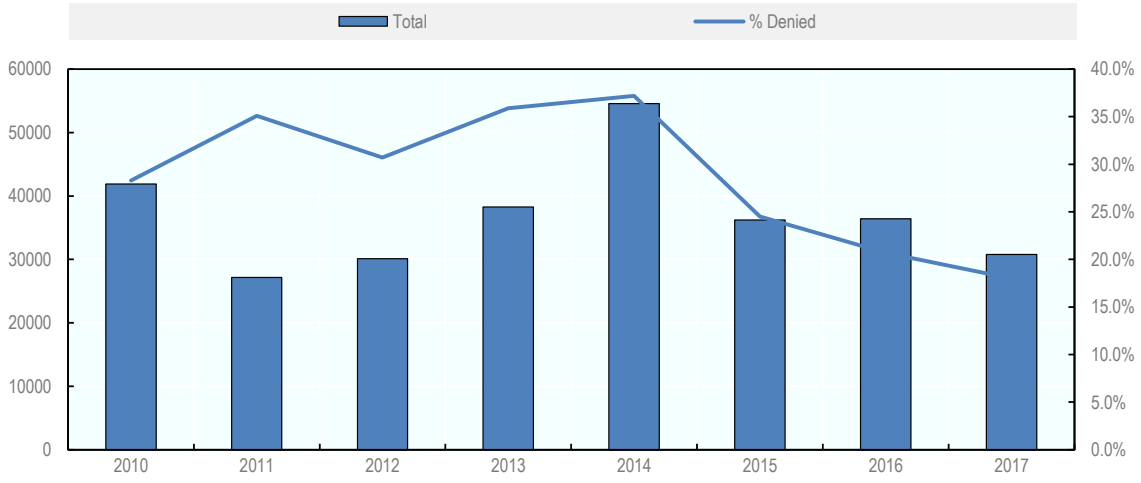
The process and rules to enrol in the pension system have tended to favour enrolment in the SNP. When first entering the formal labour force, new workers must choose to contribute to either the SNP or the SPP. Within the first ten days of employment, employers are required to provide the employee with a document describing the main features of each system. Employees have ten days to choose which system to contribute to, and an additional ten days to change their mind. Prior to 2013, the process for enrolling employees in the SNP was relatively simpler than that for the SPP, and partly as a result of this, more new affiliates joined the SNP than the SPP. The administrative process to join the SPP was simplified in 2013, and since then the employee has been able to sign the contract for the SPP after they have been enrolled.

Despite efforts to simplify the enrolment process to the SPP, new employees are still often enrolled to the SNP. If the employee does not make any decision within ten days, the regulatory framework requires the employer to enrol the employee in the SPP. However, in practice employers will initially enrol employees in the SNP because they can always switch to the SPP.

The number of years that individuals expect to contribute to the system likely lead to a preference for the SPP. If individuals have not contributed 20 years to the SNP, they will not be eligible for either pension benefits or health benefits, whereas under the SPP individuals will have a right to the amount of capital in their individual account and health benefits upon retirement regardless of the number of contributions made. Figure 4.3 shows that since 2010, up to 37% of applications for a pension under the SNP were denied because individuals could not prove eligibility for benefits. Since the peak in 2014, the proportion of denied applications has decreased to only 18% in 2017. This is in part because it has become easier for individuals to prove that they have made 20 years of contributions in recent years. There were no registers of contributions prior to 1999, so before this,

individuals had to prove their contributions by showing their payslips. However, over the last few years, the ONP has worked to complete the registers, and now 85% of individuals are fully accredited in the system with proof of their years of contributions. Nevertheless, the minimum threshold of twenty years of contributions disproportionally affects low income groups, who have a higher probability of not contributing enough to be eligible for a pension under the SNP (Comision de Proteccion Social, 2017[1]). The contributions of these groups would therefore be subsidizing benefits for those who will be able to achieve 20 years of contributions.

Figure 4.3. Applications for pensions under the SNP



Source: ONP.

Nevertheless, when low-income groups are able to achieve twenty years of contributions, the minimum pension provided by the SNP can be a significant benefit for them, as the SPP does not offer a minimum pension. Indeed, 22% of Peruvians feel that receiving a minimum pension is one of the main reasons to contribute to the system (Arellano marketing, 2017[2]). Pensión 65 does provide benefits to all elderly not receiving a pension and in extreme poverty, but the benefit of PEN 250 every two months is significantly lower than the minimum monthly pension of PEN 415 under the SNP that is paid 14 times per year.

The maximum pension paid under the SNP can be a deterrent for high-income people to remain in this system. The maximum pension of PEN 857.36 is now below the minimum wage established in April 2018 of PEN 930. Since the pension thresholds have been detached from the minimum wage calculations, there are no plans to adjust them. In today's terms, a person earning around two times the average annual wage would already be at the maximum pension level after 20 years of contributions.

While disability and survivor benefits also differ between the two systems, these benefits alone are not likely to incite individuals to choose one system over the other. The SPP offers higher disability benefits for those with total disability, but the SNP offers higher benefits to surviving spouses.

Similarly, contribution levels are not likely to have a large influence on the decision between the two systems, as they are nearly identical. When the SPP was first introduced, total contributions were higher than the 13% contributions for the SNP. In order to make the SPP more attractive, the 1% solidarity contribution to the SPP was removed in 1995

and contributions to the individual accounts were reduced from 10% to 8%. These contributions have since been reinstated at 10%, and with the insurance premium of 1.36% and the average fees to the AFPs of 1.26%, affiliates to the SPP contribute slightly less than the affiliates of the SNP.[4]

A significant draw for individuals to switch to the SPP is that they will have direct access to the capital that they contribute. During the accumulation phase, 25% of the account balance can be withdrawn for the purchase of a first home. At retirement, which for the majority of individuals is well before the normal retirement age of 65, 95.5% of the capital can now be withdrawn as a lump-sum. This access to capital could incite individuals to transfer from the SNP to the SPP even when it is not in their financial best interest. Indeed, in 2016 and 2017, over 40% of new affiliates to the SPP had transferred from the SNP despite not receiving any recognition bonus of contributions made since 2001, though many of these transfers were likely done soon after their initial enrolment to the SNP.

Nevertheless, most individuals have a low level of understanding of the differences between the two systems, and are not likely making the decision regarding which system to contribute to in a way that optimises their likely financial outcomes. The perception of whether the pension that individuals will receive will be sufficient to cover their expenses in old age is broadly similar between the SNP and the SPP, despite large differences in their expected replacement ratios (SBS, 2018[3]).

4.2. Procedural errors from a parallel system

The rules around the acquisition and retention of pension rights in either system is very strict. While it is possible to transfer from the SNP to the SPP, the previous contributions need to be transferred through Recognition Bonds, otherwise they will be lost. Individuals who contribute to the SNP after having contributed to the SPP have no such mechanism and will forfeit any contributions that have been made to the SPP.

These rules can create significant risks that affiliates may not be entitled to any pension, or a pension at a lower level than they expected. Because of the unique duality of the system it is important at the start of the career, and when changing employers, that the contributions are going to the correct place. While the body to collect taxes, SUNAT, has the information to check this process, they do not have the mandate to do so. AFPs are responsible for ensuring that the employers are paying the contributions of their employees enrolled in the SPP. However, if an individual changes employer and the AFPs are not informed, there is no mechanism for them to ensure that the new employer does not make payments to the SNP by mistake. As a result, any contributions mistakenly going to the SNP are not flagged and employees often do not notice that their contributions are going elsewhere until they near retirement. As there are no mechanisms for individuals to recoup the wrongly paid contributions, they are ultimately forfeited.

At the end of 2016, the amount of contributions that had been wrongly paid to the SNP totalled PEN 1.67 billion, and the monthly flow of contributions mistakenly going to the SNP averaged around PEN 10 million. The majority of these have been for private sector employers, though the public sector does make up a significant portion of the total, as seen in Table 4.1.

Table 4.1. Contributions misdirected to the SNP

As at December 2016

	Amount of declared contribution (PEN)		
Type	Before 2012	After 2012	Total
Not valid	10 813 370	656 709	11 470 079
Business owners	77 327 124	54 226 454	131 553 578
Public sector	484 301 180	124 929 048	609 230 228
Private sector	596 022 946	320 697 483	916 720 429
Total	1 168 464 620	500 509 694	1 668 974 314

Source: ONP (Oficio No. 307-2016-DRP/ONP 03/11/2016).

The government has taken some steps to correct the situation of misdirected contributions. The Legislative Decree N. 1275, approving the Fiscal Responsibility and Transparency Framework of Regional Governments and Local Governments, came into force at the end of 2016. This decree authorized the ONP to return the misdirected contributions that had been made by regional and local governments between January 2012 and December 2016 to the AFPs, though affiliates still cannot reclaim contributions misdirected before 2012. The decree does not, however, oblige the ONP to return these contributions or pay any interest on them.

Of the PEN 125 million in the public sector, PEN 105.7 million falls within the Regional and Local governments that the ONP is authorised to return, of which PEN 20 million will be returned between 2018 and 2022 using the surplus of contributions being paid into the SNP.

Generally, employers are responsible for correcting the situation if they have mistakenly transferred contributions to the SNP. They may request the ONP to return the amounts paid. The ONP may opt to pay the sum back in instalments.

In other cases of mishandling of contributions, the contributions can disappear completely, with the employer never transferring the employee's contribution to the AFP. If the employer does not comply with the timely payment of the contribution to the SPP, it must provide a statement to the SBS and pay the contributions in the same period or otherwise face a fine of 10% of the tax unit (UIT) for each worker for whom they did not declare contributions. The AFPs are responsible for filing the demand for the collection of missing contributions, and they must determine the amount owed by the employer.

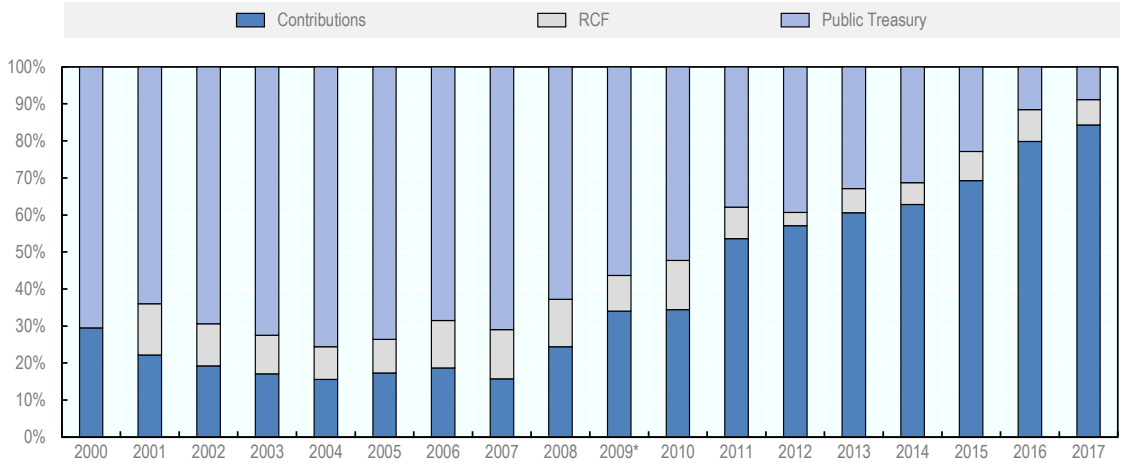
4.3. Cost and financing of the SNP

While reforms to the pension system have improved the financial sustainability of the public system, this has also meant that fewer people will be able to receive a pension from the SNP, even if they do not switch to the SPP. The rules of the system also make it difficult to have an accurate estimate of the liabilities of the SNP, because individuals have the option to move from the SNP to the SPP at any point throughout the career, and many of those who do not switch will not achieve the 20 years of contributions needed to be eligible for benefits. In 2017, net actuarial liabilities of the SNP for those belonging to the system were around PEN 35 billion (around 5% of GDP), but when accounting for the people who will not manage to have 20 years of contributions the liability estimate would be much lower.

The SNP is on the path to becoming self-sufficient with respect to the financing of benefits paid. The pension benefits of the SNP are paid from incoming contributions, funds from

the reserve fund (RCF) and funding from the public treasury. The proportion of funding required from the state to pay for the SNP benefits has steadily declined since 2000, shown in Figure 4.4. From 2000 to 2007, the state consistently contributed around 70% of the benefit payments because of the decline in contributions with individuals having moved to the SPP. However, since then the amount of state support required has fallen considerably as the balance between contributors and pensioners within the SNP has improved. State support in 2017 was only 8.8% of the total SNP benefits, and internal forecasts predict that the contributions will totally finance the pay-outs within the next two years.

Figure 4.4. Sources of financing of the SNP

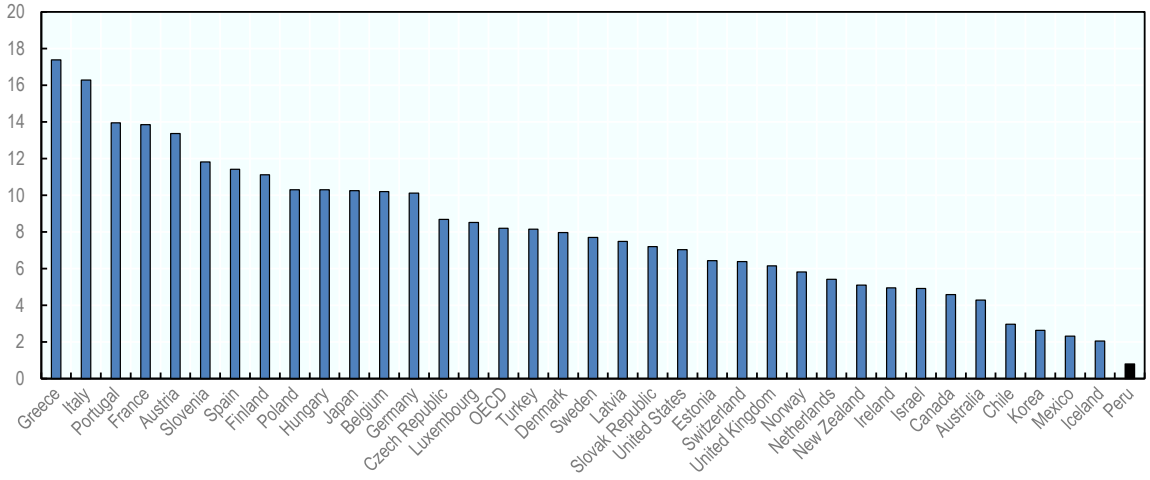


Note: *includes PEN 14.6 million in contributions received directly.
Source: ONP.

Indeed, at only 0.8% of GDP, public expenditure on pension benefits in Peru is extremely low compared to OECD countries. Figure 4.5 shows that this level is less than half of Iceland's expenditure, who spends the least among all OECD countries.

Figure 4.5. Public expenditure on old-age and survivor benefits

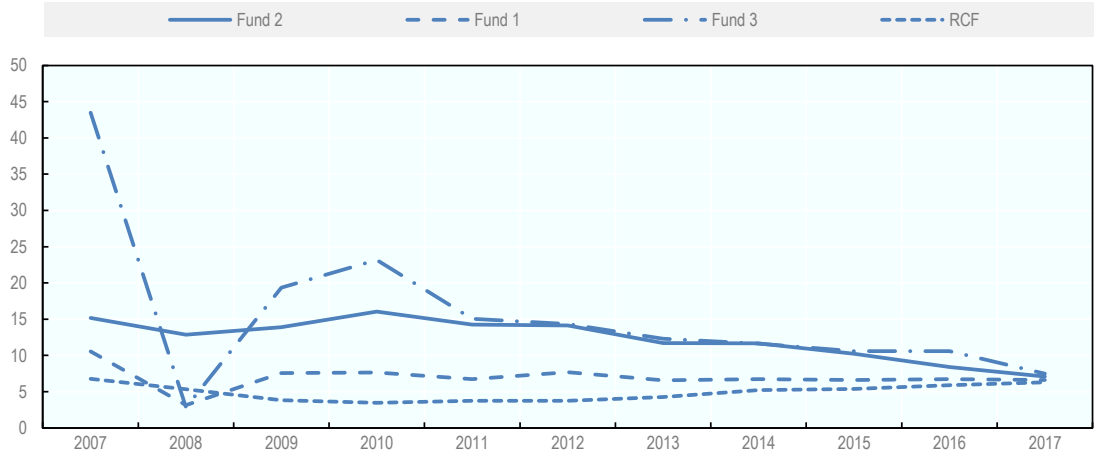
2013 as a % of GDP.



Source: (OECD, 2017[4]), ONP.

The investment management of the reserve fund (RCF) has also been improving over time relative to the investment performance of the funds of the SPP. Over the last decade, the long-term rate of return achieved by the SPP managers has been consistently above that of the SNP fund managers. Figure 4.6 shows that the 10-year nominal annual return of the RCF has been below the returns of even the conservatively invested Fund 1 of the SPP. However, these average returns converged more in 2017.

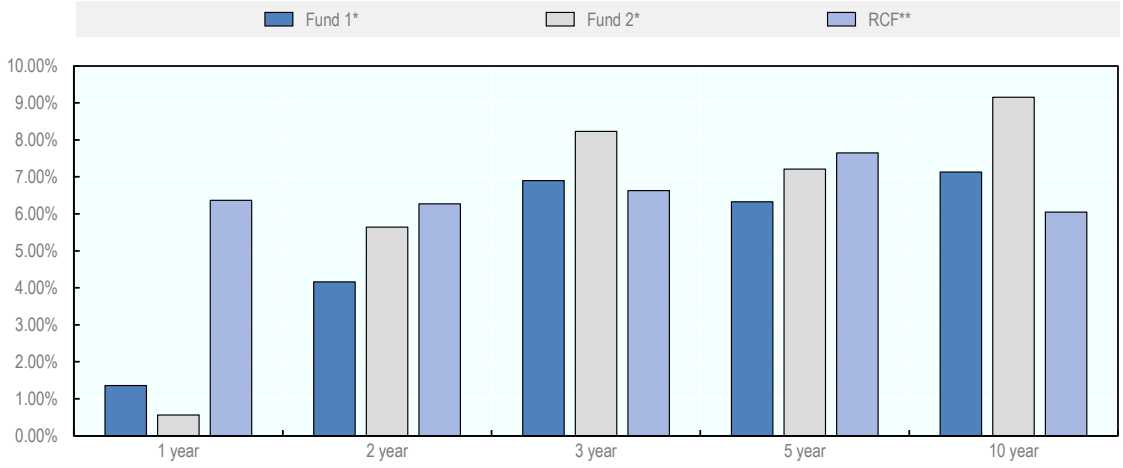
Figure 4.6. 10-year nominal annual returns of the SPP and RCF



Note: Simple average.
Source: ONP; SBS.

The relative performance of the RCF has improved since the introduction of the strategic asset allocation that was approved in 2012. Figure 4.7 shows that the average annual return of the RCF over shorter time horizons (shown on the x-axis) has been more comparable or even exceeded the returns of the SPP Fund 1 and Fund 2.

Figure 4.7. Annualised nominal return of the SPP and RCF, 2018



Note: *Market value, market average in October 2018; **RCF Methodology;
Source: ONP; SBS.

Nevertheless, the returns of the RCF are not directly comparable to those in the SPP. A comparison of the two approaches needs to take into account the different valuation methodologies, investment strategies, and investment restrictions. The returns of the AFP are calculated based on market values, whereas the returns of the RCF are a mix of market and book value. The RCF's investment strategy also tends to invest in more growth assets, and compared to funds in the SPP it is able to invest in higher levels of alternative investments as well as directly in real estate.

If a higher rate of return were to be more consistently obtained, this could help to fully finance benefit payments from the SNP.

4.4. Cost of special pension schemes

Reforms have also aimed to improve the financial sustainability of special pension schemes, though significant deficits remain. Many special pension schemes have large financial liabilities for the state. One of the largest is the Caja de Pensiones Militar Policial (CPMP) for the military and police, which is still open for new employees. There are, however, three distinct contribution periods within the CPMP system. Those insured before 9 December 2012 are covered under Decreto Ley Nº 19846 with contributions set at 12% of earnings, split equally between employees and employers, and benefits equal to 100% of final salary for a 30-year career. An actuarial assessment conducted in 1973 concluded that to finance such a benefit level the contributions needed to be set at 27% of earnings. This system was closed to new entrants in 2011, after which new entrants are covered by Decreto Legislativo Nº 1133. Under this regime, the contribution still remained at 12%, split equally between employee and employer but with a reduced future benefit promise of 55% of last five years' salary for a 30-year career. Since January 2018, new entrants contribute 19% (split 13% employee and 6% employer) with this same future benefit promise.

Consequently, as the funding for the old system was not sufficient to finance the pension promises, there is an annual deficit that is being met by general government finances. In 2018, this amounted to PEN 633.8 million, around 0.1% GDP. The reliance on transfers will only increase in the coming years as the number of contributors relative to pensioners has been declining, as shown in Table 4.2 for the old system.

Table 4.2. CPMP pension payments and sources, 2017

		2013	2014	2015	2016	2017	2018
Contributors (old system)	Armed Forces (FFAA)	43 689	41 668	40 353	39 226	38 162	36 897
	National Police (PNP)	100 892	94 411	90 320	85 688	82 350	79 221
	Total	**144 581**	**136 079**	**130 673**	**124 914**	**120 512**	**116 118**
Pensioners (old system)	FFAA	19 785	21 420	23 030	23 835	24 916	26 167
	PNP	25 246	30 758	35 088	38 640	41 472	43 898
	Total	**45 031**	**52 178**	**58 118**	**62 475**	**66 388**	**70 065**
Contributors (new system)	FFAA	2 160	4 322	6 759	9 004	10 995	13 228
	PNP	3 632	19 518	27 342	34 874	42 299	48 973
	Total	**5 792**	**23 840**	**34 101**	**43 878**	**53 294**	**62 201**

Source: CPMP.

The gap between the level of pensions and contributions is also widening under the old system, as shown in Table 4.3. In 2017, the gap was around PEN 1.2 billion, but increased to nearly PEN 2 billion, representing 0.25% of GDP in 2018.

Table 4.3. Level of contributions and pensions by year to the old system

Thousands of soles

	2017	2018
Contributions	435 525	423 814
Pensions	1 656 388	2 408 866

Source: CPMP.

While the new regime has better aligned contributions with the promised benefits, it is not without its own challenges. It remains unregulated and without investment guidelines, and takes an investment approach more in line with a PAYG system rather than taking a liability driven investment approach. There is also some uncertainty concerning operational continuity, and the deficit and technical risks of the old regime remain.

4.5. Policy options

In order to have a comprehensible and coherent pension system, the design of the system needs to eliminate the competition between the public and private systems and promote the complementarity of the two components in a financially sustainable manner. This could be done by retaining both the public and private components, but requiring that all members contribute to and receive pensions from both. The design of the benefit formula for the public component needs to ensure that even individuals with short careers will accrue entitlements and that in aggregate benefits will continue to be aligned with the contributions being paid in order to ensure the financial sustainability of the system. A minimum pension should be in place to complement the non-contributory Pensión 65 and provide incentives for people to contribute to the system.

Transitioning to the new system will require a decision regarding the appropriate split of contributions between the public and private system. This split could be done in such a way that the flows of contributions to both systems remain relatively stable in order to smooth the transition to the new system. This is important especially for the SNP, as pension promises are fixed, and would allow contributions to continue to cover benefit payments. Implementation costs will also be lower if the rules of the new system apply immediately to all future benefit accruals for everyone currently in either system.

All workers should be in the same system subject, generally, to the same rules. Therefore, all workers in the special regimes should be brought to the new complementary system. The rules of the special regimes, apart from the police and military fund, should be aligned with the rules of this system. For the police and military fund, contributions rates should be aligned to those introduced for new employees since 2018, with past contributions being preserved.

In order for the pension system to operate efficiently as a whole, the administration and data collection for the system could be centralised. This could be done through a single platform operated jointly by the public and private sectors that has the mandate to collect contributions and enforce their payment, as well as gather relevant data. This would improve data-sharing and coordination of the institutions involved and minimise the opportunity for procedural errors.

4.5.1. Design a complementary and financially sustainable pension system

Removing the competition between the public and private contributory pension schemes will provide individuals with a more comprehensible and coherent pension system. There are several options to achieve this. The first could be to close the SPP and have all benefits provided by the SNP. The second could be to close the SNP and have all benefits provided by the SPP. The third would be to keep both the public and private components, but make them complementary rather than forcing individuals to choose one or the other. If the SNP were retained, the benefit formula would need to be restructured in order to ensure financial sustainability, while providing pension entitlements to those who contribute to the system for less than 20 years. Automatic mechanisms would also need to be put in place to adjust the parameters and benefit levels to the macroeconomic and demographic realities, perhaps in an actuarially fair manner. If the SPP is retained, the cost and public perception of the AFPs would need to be improved, and the function of the system to provide a stream of income at retirement restored by removing the option for taking all the assets accumulated as a lump-sum.

The recommendation for Peru is to make both the public and private components complementary. The OECD recommends a balanced pension system combining public and private components (OECD, 2018[5]). The option of retaining both systems would need to address the problems that both systems currently have, but has the key advantage of promoting a diversified pension system and allowing for a smoother transition to the improved, complementary pension system.

Retaining only the public system would not be an optimal solution for Peru due to the related fiscal challenges and the erosion of trust in the system that a reversal of past reforms could create. The private pension system was originally introduced as a response to address the challenges relating to the fiscal sustainability of the public system, though at the time one option would have been to rebalance the public scheme and introduce automatic actuarial mechanisms. Given the changing demographics, fiscal pressures on the public system could only be expected to increase. The parametric adjustments that have been made to improve the sustainability of the system have left many in the system without any benefits at all because of the requirement for 20 years of contributions. Furthermore, if this option was adopted, the authorities would need to decide whether to transfer the assets accumulated in the SPP to the individual, who own the assets in their accounts, or to the public system, to cover for their pension entitlements. Either way, it would likely create significant problems of confidence in the pension system.

One main disadvantage of the second option of moving fully to a private system would be the large transition cost of doing so. First, the benefits of the current pensioners would still need to be financed, which would represent a financial burden for the public treasury, whereas under the current system they are expected to be fully financed by incoming contributions by 2020. Secondly, the contributions that current affiliates have made to the public system would need to be recognised in some manner, likely through recognition bonds, which would represent a significant additional increase in fiscal cost in the future.

The Peruvian authorities should consider the third option of retaining both the public and private components, which would provide a solution that could minimise the disruption to the current system while benefiting from the diversification of risks that a complementary PAYG and funded system could provide. Indeed, one of the main policy messages of the OECD is to promote diversity in the source of pensions in order to better mitigate the numerous risks faced in financing retirement (OECD, 2018[5]).

For this option, the pension income from the public component would act as a base upon which the retirement income from the assets accumulated in the SPP would be added. This would provide some certainty with respect to the base benefit along with the opportunity to have higher benefits from higher contributions and/or investment returns. However, the contributory pension system should also be designed in consideration of the design of the non-contributory pension that will serve as a universal safety net in order to ensure that the appropriate incentives to contribute are in place.

In building a coherent system, several design aspects, all of which are discussed in turn here, will need to be carefully considered: the benefit formula for the public component; the minimum and maximum pension; the survivor and disability pensions; how contributions will be split to finance each component; and how to implement the transition from the old system to the new one.

Benefit formula for the public pension component

The formula to calculate the pension benefits from the public system needs to be defined in a way that encourages individuals to contribute and to ensure the continued financial sustainability of the system. First, it is important that individuals have access to a contributory pension even if they have a relatively short career. Second, the level of benefits granted needs to be closely related to the level of contributions paying for them. Third, the parameters of the system need to be able to adapt to changing demographic and economic realities.

The minimum number of years required to be eligible for benefits in the public component should be reduced to a minimum from the current 20-year requirement so that the majority of individuals contributing to the system receives a contributory pension benefit. Currently, it is estimated that two-thirds of those currently contributing will not reach the 20-year requirement. Removing, or at least considerably lowering, the minimum number of contribution years required would enable more pensioners to have an income during their retirement based on the years they have been able to contribute.

The authorities should also consider removing the maximum pension, especially in a complementary system. The current relatively low level of the maximum pension creates a disincentive to continue contributing to the system once the maximum level of benefits has been reached. At a minimum, the maximum pension should be much higher so that it only affects people at the top of the income scale.

To ensure the long-term stability of the SNP system, accrual rates should be defined in a way that is expected to be financially sustainable given the level of contributions, the macroeconomic environment and the level of life expectancy at retirement. The current level of accrual may need to be revised, as 2% for each additional year of contribution with a contribution rate of 13% is much higher than in most OECD countries ((OECD, 2017[6]), Table 3.6). This level needs to be set to be financially sustainable based on the level of contribution going to the SNP component as well as the retirement age and remaining life expectancy.

Measures will also need to be taken in the future to ensure the long-term financial sustainability of the system. An automatic balancing mechanism will need to be incorporated in the benefit calculation formula to account for population ageing, and especially for improvements in life expectancy. There are two common approaches that have been adopted by many OECD countries over the last few years. First, the future retirement age can be linked directly to increases in life expectancy. Second, the benefit level can be reduced at a given retirement age by introducing a stability factor based on life

expectancy that effectively reduces the annual accrual rate. The shortcoming of both of these approaches is that they are based on average life expectancies for the population as a whole and they do not account for the macroeconomic environment that can affect the pension system. Therefore, balancing mechanisms may also need to be incorporated into the accrual formula for benefits in addition to adjustments at retirement.

Minimum pension

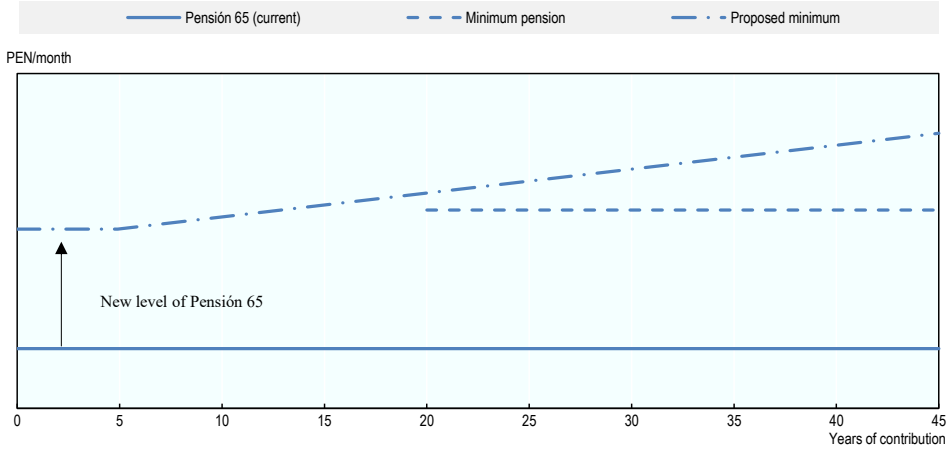
In order to encourage contributing throughout the career, the minimum level of pension should increase based on the number of years of contribution so that individuals can see merit in continuing to contribute. However, the benefit would also have to be coordinated with the safety-net Pensión 65. As every additional year of contribution should be encouraged, then the base minimum pension should be higher than the safety-net benefit. The minimum pension (*i.e.*, the top-up to the earnings-related pension), might be financed through general taxation.

The level of the minimum pension can be set to reflect the number of years contributing, as was the case previously. In 2003, the minimum pension was PEN 145 with up to five years of contributions, PEN 173 for between six and nine years of contributions, PEN 200 for 10 to 19 years and PEN 250 for 20 years or more. The levels would have to be increased but the principle remains the same, as rewarding years of contributions can only encourage participation in the pension system.

The minimum pension could apply to the combination of income from the SNP and SPP components, in which case it has to be financed by general taxation. Currently, 20 years of contributions lead to a minimum benefit of PEN 500 per month, with 14 payments annually. This level could be maintained for 20 years of contributions, with increases based on indexation, but could be proportionally reduced for perhaps 10 years of contributions.

Furthermore, the minimum benefit could continue to increase for additional years of contributions so individuals will be able to directly see the impact of continuing to contribute on their future pension income. One possible option, for illustration purposes, is shown in Figure 4.8, where the current minimum is applicable after 5 years, and increases linearly by a certain number of soles per month for each additional year of contribution. Pension 65 and the minimum pension would complement each other for contribution-years below 5.

Figure 4.8. Illustration of a proposal for new minimum pension



Survivor and disability pensions

Improvements to the pension system to make it complementary will also need to eliminate competition and duplication with respect to the provision of survivor and disability pensions. It will need to be decided whether this coverage is offered by the public or private system or both. Survivor benefits should also be adjusted to reduce cross-subsidisation and reduce disincentives to participate in the labour market.

Several arguments can be made for having the private sector provide survivor and disability coverage. First, the mechanism through which this insurance is currently offered in the SPP has been successful in improving the transparency of the related costs. Second, given that premiums established by insurance companies are frequently updated, the sustainability of the system can be ensured as the premiums should reflect the actual cost of providing benefits. In the case of supplementary labour insurance (SCTR), this would also help to align the incentives of employers in risky occupations with those of their employees to reduce the risk of accidents.

If maintaining only the private provision of survivor and disability insurance, the process under SISCO could easily be expanded to cover all affiliates of the pension system, with the insurance premium paid as an addition to the pension contribution, as is currently the case in the SPP. The collective insurance established under SISCO has successfully led to an increase in the transparency and management of survivor and disability insurance and claims. It allows the participating insurance companies to operate as co-insurers for the disability and survivor coverage and establishes a single price for this coverage for all pension affiliates. Furthermore, the collective bidding process used to set this price has helped to keep the cost of this insurance at competitive levels.

The insurance premiums established under SISCO are updated every two years through the collective bidding process. In this way, the premiums reflect recent claims experience and therefore the system can be sustainable in the long-term as the parameters can be updated to account for demographic, biometric, and economic realities. If this coverage is fully provided by the insurance companies, however, the premiums would need to be increased as the level of capital accumulated in the accounts would be lower. Normally, this could be offset by diverting the proportion of the contributions to the SNP that intend to cover survivor and disability pensions to go towards the insurance premium.

Nevertheless, another option would be for the public system to retain the provision of the survivor and disability coverage for the portion of benefits that continue to be paid by the public system. For this solution the public and private sector would be responsible for the disability and survivor coverage of their respective proportions of expected pension income. The main advantage of this option is that the public sector retains the social policy element for survivor and disability coverage. The main disadvantage is that premiums under the public system are not likely to be regularly updated to reflect the actual risk, and if contributions are insufficient the additional cost will be borne by the public treasury.

However, for the provision of SCTR insurance for risky occupations, a decision needs to be made whether this should be provided by the public or private sector, as the two are in direct competition under the current system. SCTR insurance is largely provided by private insurance companies currently, with the ONP tending to insure higher-risk employers who cannot find a good deal in the private sector. Having this coverage provided only by the private sector would help to ensure that the premiums charged relate directly to the risk exposure for a given occupation and employer. Forcing employers to purchase insurance in the private sector that reflects their risk exposure could encourage them to take measures

to improve the safety of their employees in order to pay lower premiums. Nevertheless, the ONP may still have an important social supplementary function to fulfil in the context of workers in risky occupations that the private sector does not cover because the risk is too high for the premium to be affordable.

The benefits should be defined in a way to reduce the subsidisation of benefits for couples by single individuals and preserve incentives for the surviving spouse to participate in the labour market, regardless of whether the public or private systems provide the survivor benefits. As such, the pension benefit of a single individual should be higher than pension benefits for couples entitled to a survivor pension, and the survivor pension should not be paid permanently to surviving spouses of working age (OECD, 2018[5]).

Split of contributions

The design of the new complementary system will need to define how the current old-age pension contribution of 10% of wages should be split between the public PAYG system and the privately managed individual accounts. To smooth the transition to the new system, one option to consider by the Peruvian authorities could be based on the existing flow of contributions going to each system at the time of the split, thereby maintaining the same cash flows into both systems and requiring no additional financing from the public treasury to cover current entitlements in the public system. Over the three-year period from 2015 to 2017, Table 4.4 shows that currently nearly three-quarters of total contributions to the system have been going to the SPP, while one-quarter has been going to the ONP. Therefore, in order to maintain the existing cash flows at a relatively constant level, the contributions under the new system could be established at 2.5% to 3% of wages for the public system and 7% to 7.5% of wages to the private system. Furthermore, AFPs would have to compete for the contributions to the SPP coming from people that were previously only in the SNP.

Table 4.4. Proportion of contributions to the public and private pension systems

	2015	2016	2017
SPP	73.8%	73.3%	72.6%
SNP	26.2%	26.7%	27.4%

Note: SNP figures represent the total 13% contribution. SPP figures represent the 10% mandatory contribution plus voluntary contributions.
Source: ONP; SBS.

Implementation

The improved pension system will need to define how the new rules of the complementary system will apply to those currently contributing to either system. There are two options to handle the transition from the current pension system to the improved complementary one:

1. All affiliates currently in the system continue to accrue benefits under the current rules and only new affiliates join the new complementary system;
2. Current affiliates retain the pension rights they have accumulated up to the introduction of the new system, and the new rules apply to all current and new affiliates for all future contributions to the system.

The second approach would minimise the implementation costs for Peru, and avoid a dramatic change in replacement rates under the public system when the new affiliates reach retirement.

Mexico provides an example of the problems of taking the first approach, which they did when moving from a public DB system to a system based on funded individual accounts. Workers who had entered the pension system just after the reform could expect a replacement rate of up to 60 percentage points lower compared to workers retiring a year earlier under the old DB formula.

With an immediate transition to the improved complementary system, setting the split of contributions to at least maintain an equivalent flow of contributions into each of the public PAYG and funded private component will ensure that the PAYG component would have the resources to cover most of its liabilities. As contributions going into the PAYG public component would be roughly the same as they are today, they should be sufficient to continue to pay current beneficiaries. The automatic mechanisms to adjust pension parameters and pension benefits to the macroeconomic and demographic realities would make the system financially sustainable going forward.

While the costs of moving to the new system can be minimised, they cannot be completely eliminated. The three main drivers of the additional cost will be:

- Those currently contributing to the public system who will not achieve 20 years of contributions will now be entitled to benefits, to be funded through contributions;
- Those currently contributing to the SPP who would not have been eligible for a minimum pension will now be entitled to one, to be funded with the general revenue;
- The increased level of the minimum pension based on years of contribution will add a cost for the lower earners, to be funded with the general revenue.

4.5.2. Centralise the contribution management and data collection of the entire system to promote information sharing and efficiency gains

Improving the coordination and sharing of information among the institutions involved in the pension system could go a long way towards promoting the coherency of the Peruvian pension system and ensuring that the system is optimally designed to achieve its objectives.[5] Indeed, the institutional framework of the pension system is crucial for the effective implementation and delivery of pensions, and a key factor in implementing the OECD Core Principles of Private Pension Regulation that describe the conditions for effective regulation. The implementing guidelines of Principle 1 on the conditions of effective regulation state that *"the regulatory and supervisory system, institutional and financial market structure, and conduct of the different actors should be coherent, so that each plays a supportive and complementary role in achieving the overall objectives for the system"* (OECD, 2016[7]).

Currently, in order to obtain or provide information with other institutions, the SBS must sign an Inter Institutional Cooperation Agreement. The SBS has signed two such agreements. In September 2013, they signed an arrangement with the Ministry of Labour and Employment Promotion (MTPE) that requires the MTPE to send to the SBS an electronic file every day that contains data from the employers with information on the employees choosing to enrol in the SPP. The SBS then sends this information to the AFP that has won the auction for the period so that they may contact the employees and send

the SPP Registration Document (DRSPP) to complete the registration procedures and ensure that the individual is affiliated with the system. In December 2016, the SBS signed an agreement with the ONP that outlined the information to be shared in order to prevent contributions from the SPP from being misdirected to the SNP.

Since 2013, the SBS has been responding to requests by the ONP and the Ministry of Development and Social Inclusion (MIDIS) for information to determine the eligibility of their beneficiaries for their respective programmes. Around 88% of these requests relate to applications to MIDIS's social programmes such as Pensión 65.

These procedures to share information between the SBS and other instructions involved in overseeing the pension system are very rigid and not conducive to facilitating collaboration. The Inter Institutional Cooperation Agreements require that the specific information to be shared be precisely detailed, and therefore do not allow for the information requirements to evolve or to be updated easily, and do not accommodate ad hoc requests. The procedure to update these agreements to include new information is extremely burdensome and time consuming.

All institutions that require information on the members and beneficiaries of the Peruvian pension system should have access to timely and accurate data in order to improve the efficiency of their operations and minimise the risk of procedural errors, such as the misdirection of contributions to the wrong system. The AFPs are already required to collect standardised information on the affiliate. This type of requirement could be extended for all systems, and be stored in a way that all institutions would automatically have access to the data. In addition, this would facilitate implementing the necessary controls needed to ensure the validity of the data, such as employment status from the Ministry of Labour.

One way to streamline the collection of information and make it more efficient would be to have one centralised, politically independent platform managing administration of the entire pension system, especially the collection of data and contribution management. This data collection needs to additionally ensure the security and reliability of data for the long-term. The platform AFPnet, managed by the AFPs for the private system, demonstrates the advantages of such an approach in increasing administrative efficiencies. Indeed, this platform has reduced the time to invest contributions to a minimum and manages this through the fee charged to members covering all services provided (currently 0.8% of assets under management), compared to the fee of 1.4% that SUNAT charges to collect social security contributions and taxes. This type of platform could be expanded to manage the contributions for both the public and the private system, and could incorporate validation checks that would eliminate the problem of misdirected contributions. It could be financed through a small fee charged on the contributions, and replace SUNAT as the intermediary for contribution collections for the public system. As this platform would cover both the public and private systems, it will hereafter be referred to as *PensionsNet*.

This platform should maintain independence and be free from the risk of governmental control. One way to accomplish this could be for the platform to be jointly owned and managed by the ONP and the AFPs, merging the mandates of the two systems. The ONP could provide oversight and define the objectives, and the AFPs could manage the operation of the platform, as is currently the case with AFPnet. PensionsNet should have the mandate to collect all of the information necessary to perform its function, such as the employer information necessary to determine whether contributions owed to the system have been paid, and should have the authority to enforce payment by delinquent employers. This would help to better align the responsibilities of the AFP with their expected role in

the system and improve members' trust and confidence that the system is working in their interest.

Notes

[1] However, the SBS and ONP do share information to avoid double payments to beneficiaries.

[2] Affiliates to the SNP include only those who have made contributions since June 1999, as information before this date was not recorded.

[3] These figures include individuals who had switched in prior months but were only reported in 2016 or 2017.

[4] The average fee for those remaining on the fees based on contributions is 1.26%. New affiliates pay fees based on assets under management, so whether the total charge is higher or lower in the SPP will vary by member.

[5] The institutions referred to are primarily the SBS, the ONP and MIDIS.

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SBS (2018), *Cómo ahorran los peruanos para su futuro*. [3]

Chapter 5. Improving the coverage and level of pensions

This chapter discusses the problem of low coverage and low levels of expected pensions in the Peruvian pension system. It focuses on their main drivers, namely the problem of high informality in the labour market, the low contribution densities and the possibility of early withdrawals and taking lump sums from the private system. The chapter ends with policy options to improve pension coverage and the level of benefits the pension system provides.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

The coverage of the pension system in Peru and the level of benefits that it ultimately provides to pensioners needs to improve. This dual problem of coverage of the pension system and low pensions is the result of several drivers. High levels of informality lead to low rates of coverage. High rates of transitions between formal and informal employment lead to less frequent contributions. Finally, low levels of mandatory contributions and the lax rules to withdraw retirement savings before the legal retirement age lead to low pension levels.

The high level of informality in Peru's labour market is one of the main challenges that the Peruvian pension system faces with respect to the coverage of the system and the adequacy of benefits. Only formally salaried workers are required to contribute to the system. Moreover, high rates of transition between formal and informal employment mean that individuals make less frequent contributions (i.e. they have low contribution densities). As a result, most Peruvians do not contribute to the system throughout their entire career.

To compound the problem, the level of contributions required for formally employed workers is low by international standards, limiting the level of adequacy of benefits that the pension system can provide even for those contributing a full career.

The design of the SPP system encourages the withdrawal of retirement savings before the legal retirement age, further reducing the amount of assets that individuals accumulate to finance retirement. Peruvians can withdraw assets early for the purchase of a first home, and several pathways to early retirement exist. This means that Peruvians will have a lower level of assets accumulated at retirement that will have to finance a longer period of time than if they had saved until the legal retirement age of 65.

Women are less likely than men to have an adequate pension from the existing system. Women have higher levels of informality, lower ages allowed for early retirement and higher life expectancies than men.

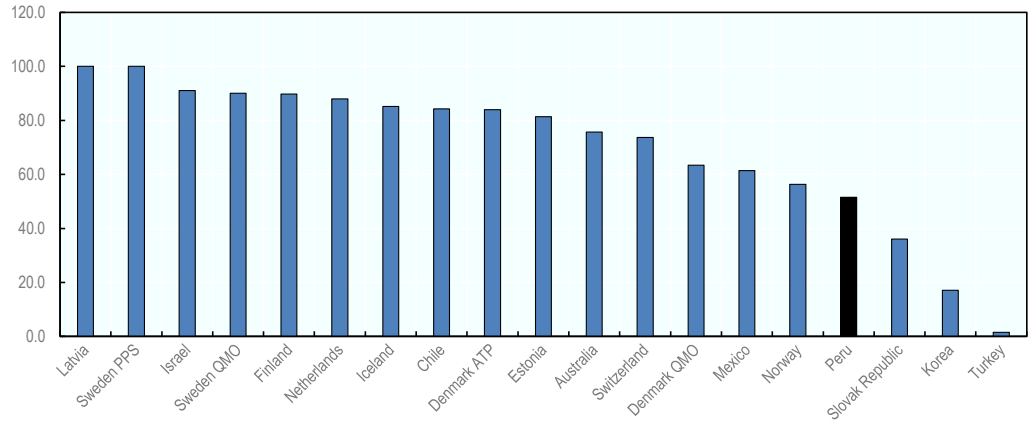
In order to improve the coverage of the pension system and the level of pension benefits that it can provide, its design must address the challenges presented by the high levels of informality and the early exit from the pension system before the legal retirement age. Coverage of informal workers needs to increase, either through the promotion of formal employment or through the promotion of contributions to the system by informal workers. Measures to increase the level and density of contributions for all members also need to be put in place. Options to withdraw from the pension system before the legal retirement age need to be limited to allow time for individuals to accrue sufficient pension benefits to finance the whole of their retirement, particularly for women who can retire earlier yet can expect to live longer than men.

5.1. Coverage of the contributory pension system

The number of economically active people who have contributed to either the public or private systems remains low by international standards. Figure 5.1 shows that even when accounting for both the public and private systems, Peru has lower coverage than most other OECD countries with mandatory or quasi-mandatory funded pensions. This low coverage is driven primarily by high levels of informality in the labour market given that rates of voluntary affiliation to the pension system by informal workers are low. High levels of informality penalise in particular females, those with less education and those living in rural areas.

Figure 5.1. Coverage of mandatory or quasi-mandatory funded pension plans, 2016

As a percentage of working-age population (15-64 years).



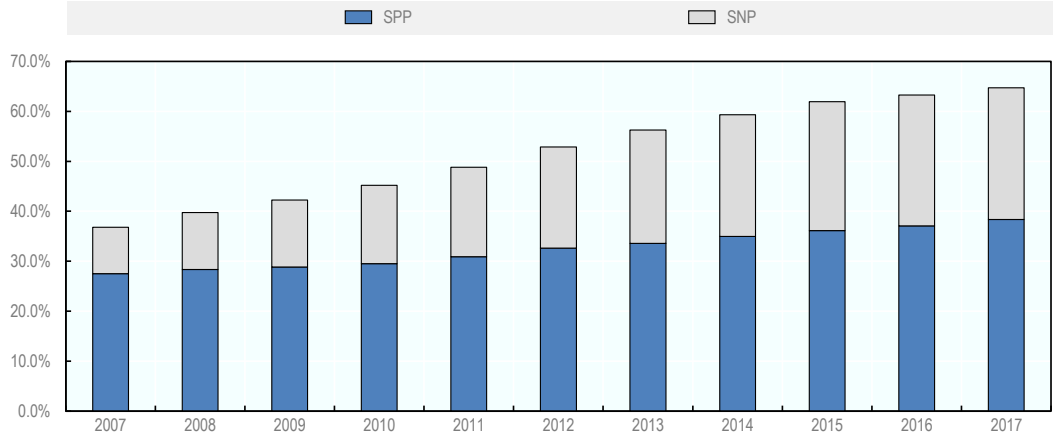
Note: The coverage for Peru includes both the public and private system because members of the SNP can move to the SPP without possibility of returning to the SNP.
Source: (OECD, 2017[3]), SBS, ONP, INEI.

This section first looks at the coverage of the pension system, assessing the number of affiliates to both the private pension system (SPP) and the public pension system (SNP) and their main characteristics. It shows that only around two-thirds of the economically active population are covered by either pension system, and that voluntarily joining the SPP is rare. The section then discusses the challenges related to the high levels of informality in the labour market, particularly with respect to making sure that disadvantaged populations are covered by the pension system.

5.1.1. Affiliation with the pension system

The number of Peruvians covered by the pension system has been steadily increasing over the last decade, with 65% of the economically active population (PEA) covered at the end of 2017 (Figure 5.2). The majority of these individuals are affiliated with the private system, which covered 38.4% of the PEA, compared to 26.4% covered by the public system. However, over the last decade the number of affiliates to the public system has been growing more rapidly than that of the private system.

Figure 5.2. Affiliates as a proportion of the economically active population (PEA)

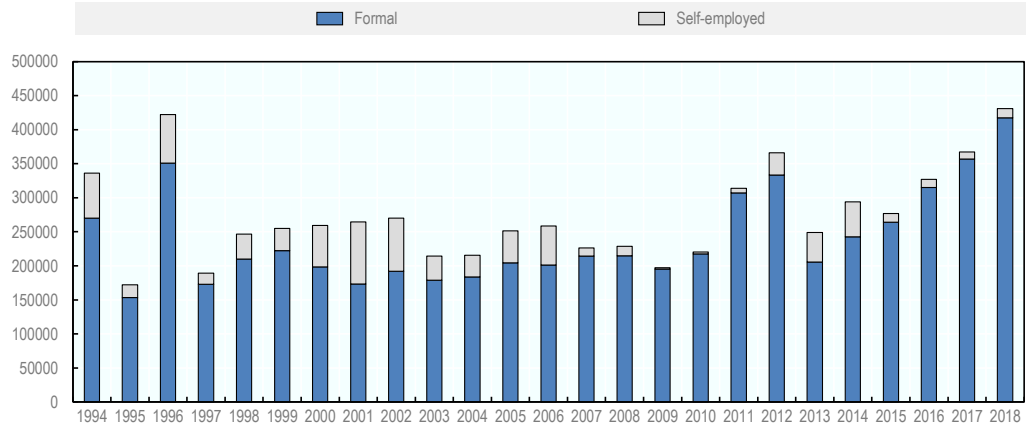


Source: INEI, SBS, ONP.

Participation in the contributory system (SNP or SPP) is only mandatory for formally employed workers. Although the pension reform in 2012 extended the requirement to contribute to self-employed workers born after August 1, 1973, this was reversed in 2014 shortly after its implementation, and all contributions were refunded.

Overall, the number of self-employed who join the SPP voluntarily is significantly less than the number of formally employed workers who are required to contribute to the pension system, although the proportions vary widely from one year to the next. Figure 5.3 shows that through 2006, self-employed workers made up around 20% of the new affiliates on average. Voluntary affiliation peaked in 2001, when a third of new affiliates to the SPP were self-employed workers. Since 2007, the proportion of new affiliates that are self-employed workers has not exceeded 6%, apart from 2012-2014 when law requiring that they contribute came into effect.

Figure 5.3. New affiliates to the SPP by type of worker

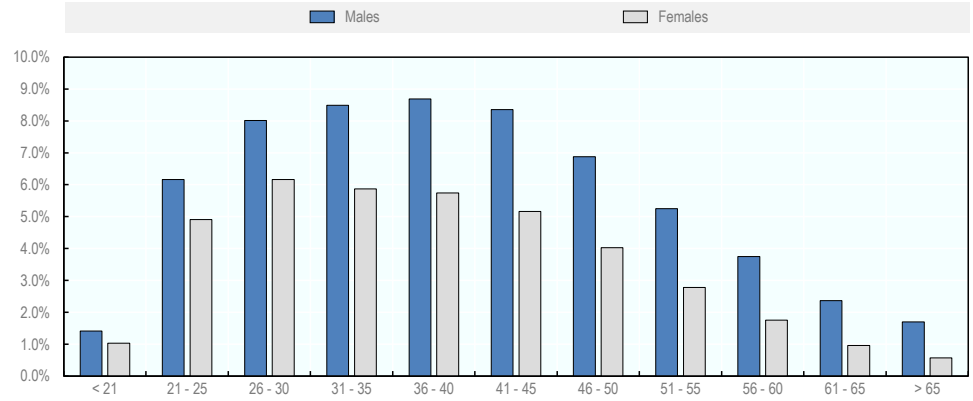


Source: SBS.

Most affiliates to the SPP are prime age workers. Nearly 60% of affiliates in the private system are between the ages of 26 and 45, with the youngest and oldest ages making up a much smaller proportion of members (Figure 5.4). Individuals over the age of 60 make up only 5.6% of total affiliates.

Figure 5.4. Distribution of SPP affiliates by age and gender

December 2018

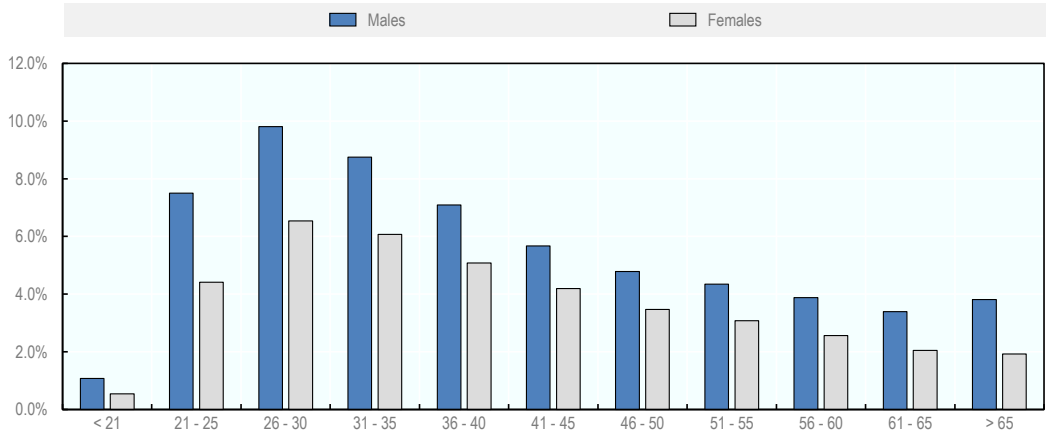


Source: SBS.

Females are less likely to be affiliated with the SPP than males. Females make up just under 40% of total affiliates, and make up a higher proportion of younger affiliates than older affiliates. Around 44% of all affiliates aged 30 and under are female, but this proportion decreases with age and females make up less than 30% of affiliates over the age of 60.

For the public SNP system 53% of affiliates are between the ages of 26 and 45, with the youngest and oldest ages making up a much smaller proportion of members. Individuals over the age of 60 make up only 6% of total affiliates, and those under age 21 account for under 2% (Figure 5.5).

Figure 5.5. Distribution of SNP contributors affiliates by age and gender, 2017

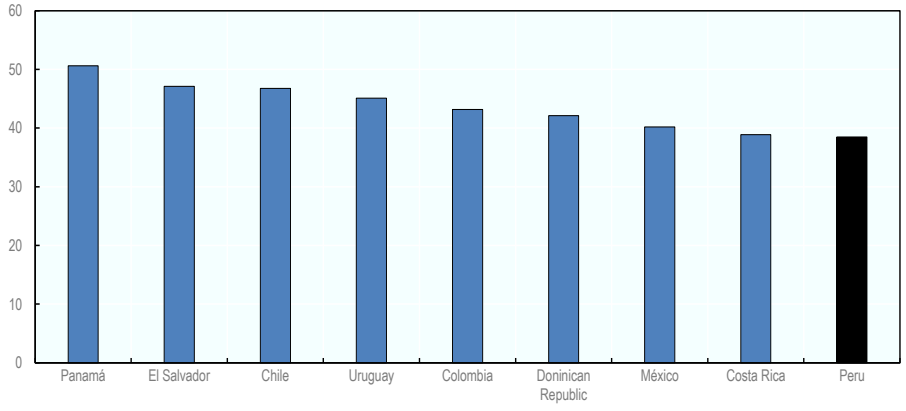


Note: Number of contributors affiliates with complete information of date of birthday and gender.
Source: ONP.

Females are less likely to be affiliated to the SNP than males. Females make up 39.9% of total affiliates, with very little variation by age, ranging from 34% of those aged either under 21 or over 65 to 42% of those aged 41 to 50.

Peru has the lowest proportion of female affiliates for the selected Latin American countries (Figure 5.6). Apart from Costa Rica, females make up at least 40% of pension affiliates in the other countries shown.

Figure 5.6. Proportion of private pension affiliates that are female, December 2017



Source: Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones, AIOS, Statistical bulletin, 2018.

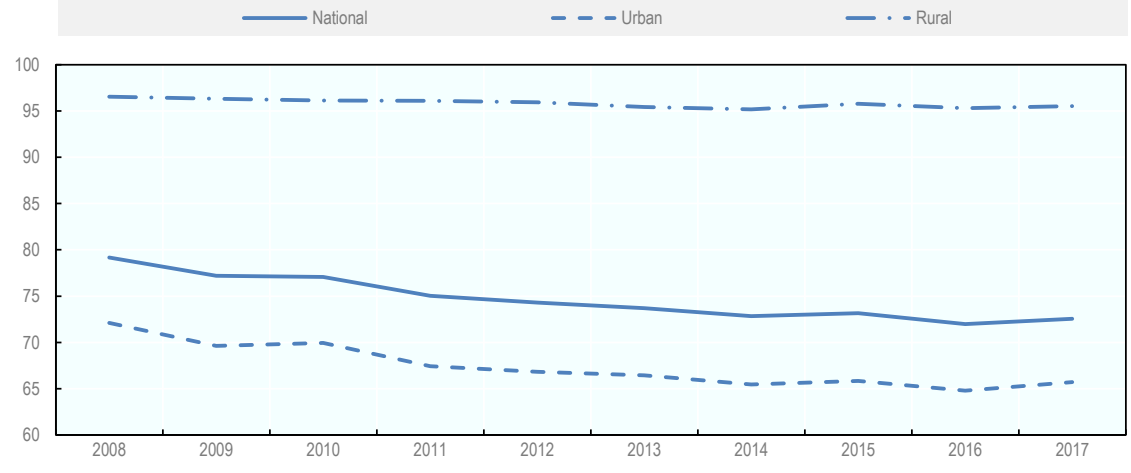
5.1.2. Labour market and informality

Labour markets in Peru have a large share of the working-age population that is either inactive, unemployed or working in informal jobs. As much as 27.6% of the working-age population was inactive in 2017, with particular incidence among women (64% activity rate vs 81% for men). Among the active population, 5% were unemployed and 72.5% of those employed were informal. This leaves only a small share of the population working in formal jobs (INEI, 2018[1]). However, the definition of informal jobs in Peru, as in many other Latin American countries, includes all those jobs in which there is not a requirement to contribute to pensions, for example, all the self-employed and independent workers.

The main weakness of Peru's labour market is the large presence of informal jobs, which represents a challenge for the functioning of the pension system. Informal employment includes all jobs which are "*not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits (advance notice of dismissal, severance pay, paid annual or sick leave, etc.)*". According to the definition provided by Peru's National Institute of Statistics (INEI), this includes "*unregistered employees who do not have explicit, written contracts or are not subject to labour legislation, workers who do not benefit from paid annual or sick leave or social security and pension schemes, most paid domestic workers employed by households and most casual, short term and seasonal workers"* (INEI, 2014[2]). In this respect, by definition informal workers will not have compulsory contributions to the pension system.

Labour informality has remained high and stagnant in Peru, even across periods of significant economic growth. Between 2008 and 2017, labour informality fell from 79.2% to 72.5% (Figure 5.7). While this is a relevant decline, it shows that informality is a persistent issue that still affects a majority of workers. Furthermore, most of the decline has taken place in urban areas, where it fell from 72.1% in 2008 to 65.7% in 2017. The level of informality remains larger and practically unchanged in rural areas, where it stood at a level of 95.5% in 2017 (96.5% in 2008).[1]

Figure 5.7. Evolution of labour informality in Peru (2008-2017)



Note: Labour informality is defined following INEI's definition.
Source: Own elaboration based on (INEI, 2018[12]).

Formal workers are much more likely to have contributed to the pension system than informal workers, who are more likely to be low-income. While only 16% of informal workers are affiliated to the pension system, 83% of formal workers are affiliated. Peru has attempted to extend this to self-employed workers with the Law 29903 that made pension affiliation and contributions compulsory for a subset of independent workers (in particular professional service providers). However, the policy was reversed only months after its implementation. Self-employment is large in Peru, and only 14% of self-employed workers were affiliated to a pension system in 2015. Extending pension coverage to independent workers is thus a major pending challenge (OECD, 2016[3]).

The frequent transitions between formality, informality, and inactivity is an important additional problem as these generate significant gaps in workers' contributions to the pension system. Contribution densities are low as a result. Workers move between formal and informal jobs and also between salaried jobs and self-employment, and hence it is not accurate to label workers as being 'formal' or 'informal', as they may change their labour market status various times across their working trajectory. Over the two-year period from 2013 to 2015, 21% of formal workers changed status and moved into inactivity (3%), unemployment (3%), self-employment (7%), or directly into informal salaried jobs (8%) This suggests that workers frequently rotate between jobs, and this might even underestimate the level of rotation, given that it does not take into account movements within a single year (Bosch, Melguizo and Pagés, 2013[4]) (OECD/IDB/The World Bank, 2014[5]) (Goñi, 2013[6]).

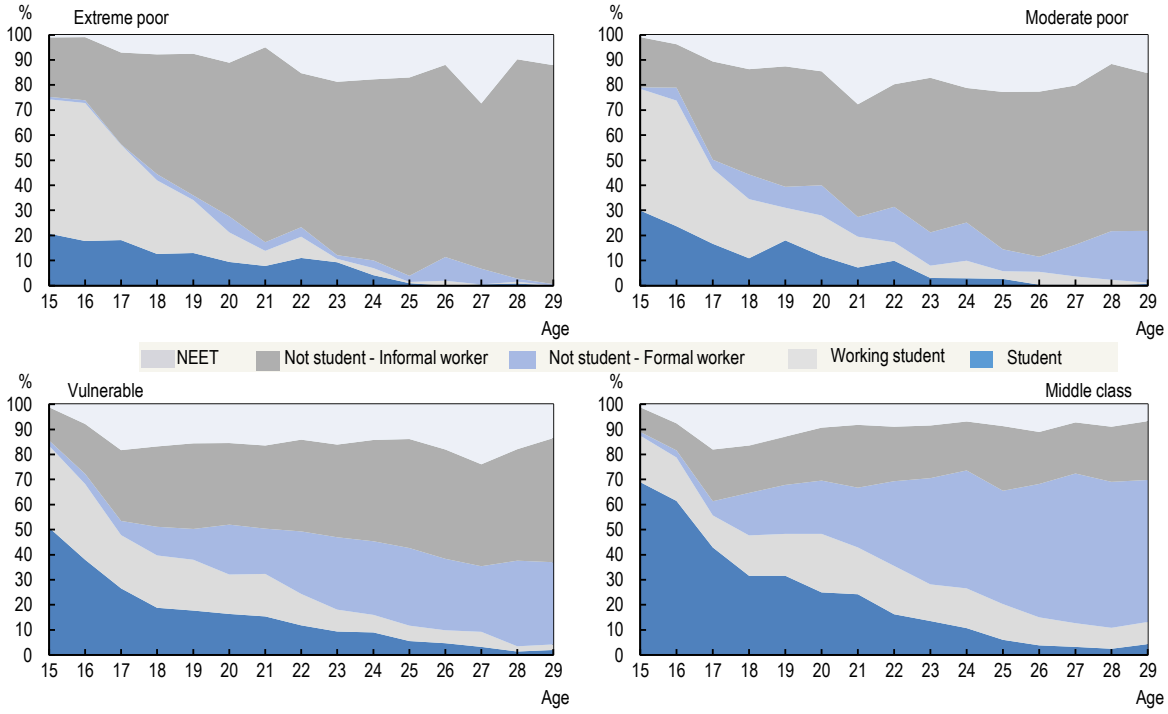
High levels of job rotation result in a large number of incomplete contribution histories, which lead to low pensions savings in the SPP and, in many cases, ineligibility to receive the pension at the age of retirement for those affiliated with the SNP. The density of contributions (i.e. the percentage of time contributing into a pension system) is low for many due to job rotation, and usually affects more the most disadvantaged, who are more likely to exit the formal sector recurrently. In Peru, around 50% of working-age men have never contributed to the pension system, and among those who have contributed, 49% did so for less than 50% of the time. For working-age women, the picture is even more problematic: around 75% have never contributed, and almost 50% of those who have contributed have done so for less than 50% of the time (Bosch, Melguizo and Pagés, 2013[4]) (OECD/IDB/The World Bank, 2014[5]). A retiring worker has to have contributed for 20 years to receive a pension at retirement age in the SNP. Given the low levels of formality and low contribution densities, workers who transit between formal and informal employment are not likely to achieve 20 years of contributions to the SNP, which is likely to lead to significant numbers of older people without pension benefits.

Poor labour outcomes are particularly pressing for those belonging to most disadvantaged groups. In particular, labour outcomes for youth show that the first steps of the working trajectory usually involve periods of inactivity and/or working on informal jobs, oftentimes while studying. Only around 19% of young people (aged 15-29) were studying in 2014, while around 12% were NEETs (neither in employment nor in education nor training), 16.9% were working students, and 52.7% were working. NEETs are more numerous among the youth from poor and vulnerable socioeconomic groups (almost 70% of all young NEETs). Among those young people who work, the informality rate is as high as 65.2% (OECD/CAF/UN ECLAC, 2016[7]).

Young people from poor and vulnerable households face more difficulties in accessing formal jobs. This is crucial, as it can largely determine their capacity to reach a density of pension contributions along their working trajectories that is sufficient to have access to a

pension at the age of retirement or to accumulate a sufficient level of assets. Looking at the activity status of youth from different socioeconomic backgrounds at different ages (from 15 to 29) in Figure 5.8 provides a clear picture of the challenges they face to access a formal job. For young people from poor households, two out of ten 15-year-olds work in informal jobs, but by age 29 almost nine out of ten work in informal jobs, and the remaining one is a NEET. For young people belonging to the vulnerable class, half are informal by age 29, and around 15% are NEET. This compares to young people belonging to households in the middle-class, of whom only two out of ten are informal workers by age 29 (OECD/CAF/UN ECLAC, 2016[7]).

Figure 5.8. Activity status of youth by single year of age, 2014

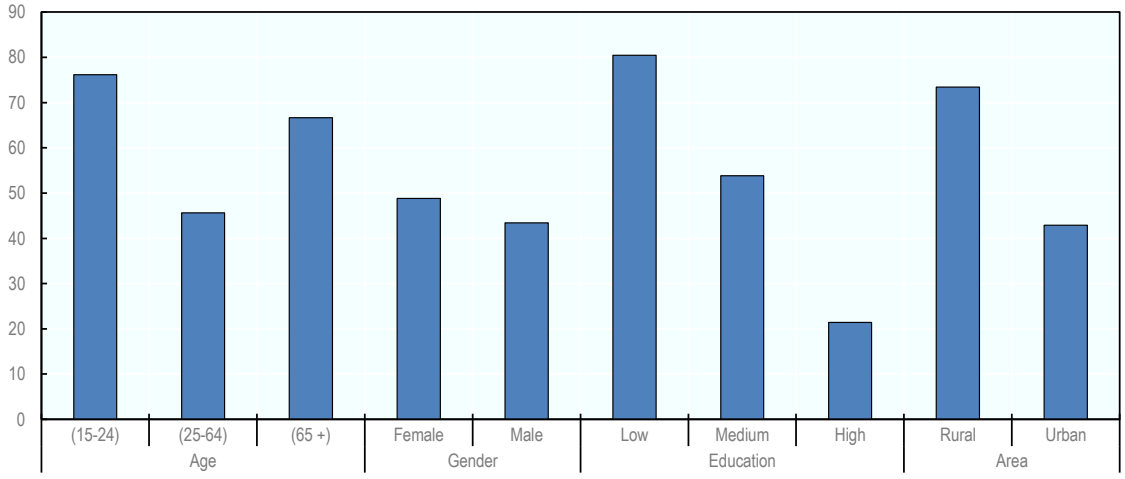


Note: Socio-economic classes are defined using the World Bank classification: "Extreme poor" = youth belonging to households with a daily per capita income lower than USD 2.50. "Moderate poor" = youth belonging to households with a daily per capita income of USD 2.50-4.00. "Vulnerable" = individuals with a daily per capita income of USD 4.00-10.00 "Middle class" = youth from households with a daily per capita income higher than USD 10.00. Poverty lines and incomes are expressed in 2005 USD PPP per day (PPP = purchasing power parity). LAC weighted average of 16 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru and Uruguay.
Source: (OECD/CAF/UN ECLAC, 2016[7]).

Informality levels are higher for young females with low levels of education and living in rural areas. Informality is linked to other socioeconomic characteristics that go beyond income levels, though these are correlated with income. In particular, and using the legal definition of informality (i.e. a worker is considered informal if (s)he does not contribute to a pension for retirement), young people (aged 15-24) show particularly high levels of informality (76.2%). This is also the case for females (48.8% rate of informality vs. 43.4% for males), for low-educated workers (80.5% of informality vs. 53.8% and 21.4% for medium- and high-educated individuals, respectively) and for people living in rural areas

(73.4% vs 42.9% in urban areas). This implies that the contributory pension system faces particular challenges to reach certain socioeconomic groups (Figure 5.9).

Figure 5.9. Informality levels across different socioeconomic groups, 2016



Notes: 1) The legal definition of informality is used here, by which a worker is considered informal if (s)he does not contribute to a pension for retirement;
2) the categories on gender, education and area only include adults aged 25-64.
Source: (SEDLAC, 2018[8]).

5.2. The level of pension benefits

The level of pension benefits that individuals receive is a function of the level and amount that they have contributed and the age at which they retire, among other variables. In Peru both of these factors lead to low levels of benefits. This is firstly driven by low levels of mandatory contributions compared to international standards and, in the SPP, a lack of additional voluntary contributions to compensate. Secondly, contribution density (i.e. the number of contributions that individuals make relative the time that they have been affiliated with the system) is low. Finally, in the SPP, individuals can easily withdraw their retirement savings before the legal retirement age.

Low contribution density in the SNP can result in no pension benefits received if individuals do not achieve the minimum number of twenty years of contributions. In the SPP, low contribution density results in a lower level of assets accumulated at retirement.

In addition, the design of the SPP is not conducive to encouraging individuals to contribute and to keep their contributions in the system until the normal retirement age. The incentives for individuals to make voluntary contributions to their pensions are limited. Affiliates are allowed to withdraw assets from their account during accumulation to purchase a first home. Numerous pathways to early retirement also exist that allow individuals to withdraw their assets much earlier than the normal retirement age.

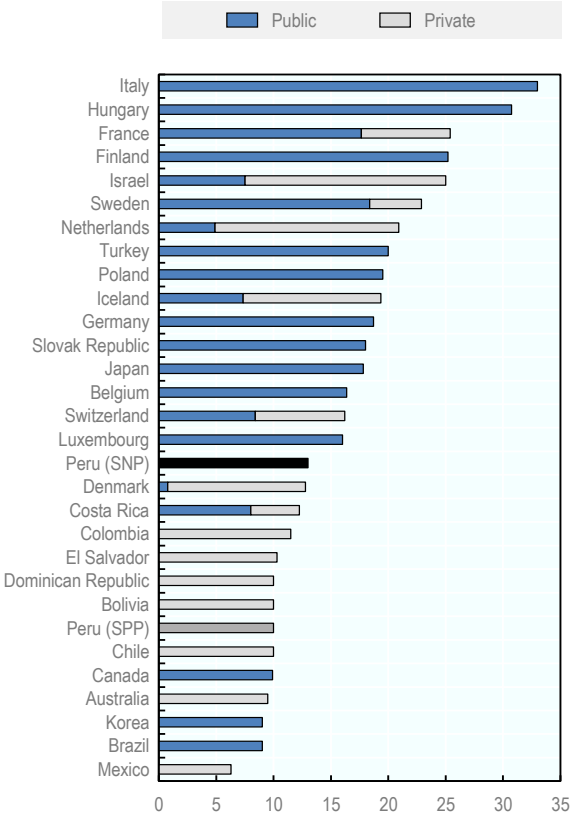
This section examines the level of mandatory contributions to the pension system, the contribution densities, the replacement rates that individuals can expect to receive from the pension system, and the potential impact that the early withdrawal of assets may have on the ability of assets accumulated to be able to finance an adequate pension.

5.2.1. Contribution levels

The level of contributions directly influences the levels of expected replacement rates that pension income can provide. In Peru, mandatory contributions to the public and private system are nearly equivalent at around 13% of salary, which under both systems is expected to cover retirement pension benefits, disability and survivor benefits as well as the administrative costs of running the schemes. Contributions going directly to finance old-age benefits under the private system amount to 10%.

Contribution rates in Peru are low in the context of OECD countries, although comparable to other Latin American countries. Figure 5.10 shows the mandatory contributions to pension systems for selected jurisdictions. In terms of total pension contributions, 10% to the SPP is rather low internationally, though comparable to other Latin American countries that also have systems based on funded individual accounts (Bolivia, Chile, Colombia, Dominican Republic, El Salvador).

Figure 5.10. International comparison of mandatory pension contributions, 2016



Source: (OECD, 2017[9]), (OECD/IDB/The World Bank, 2014[5])

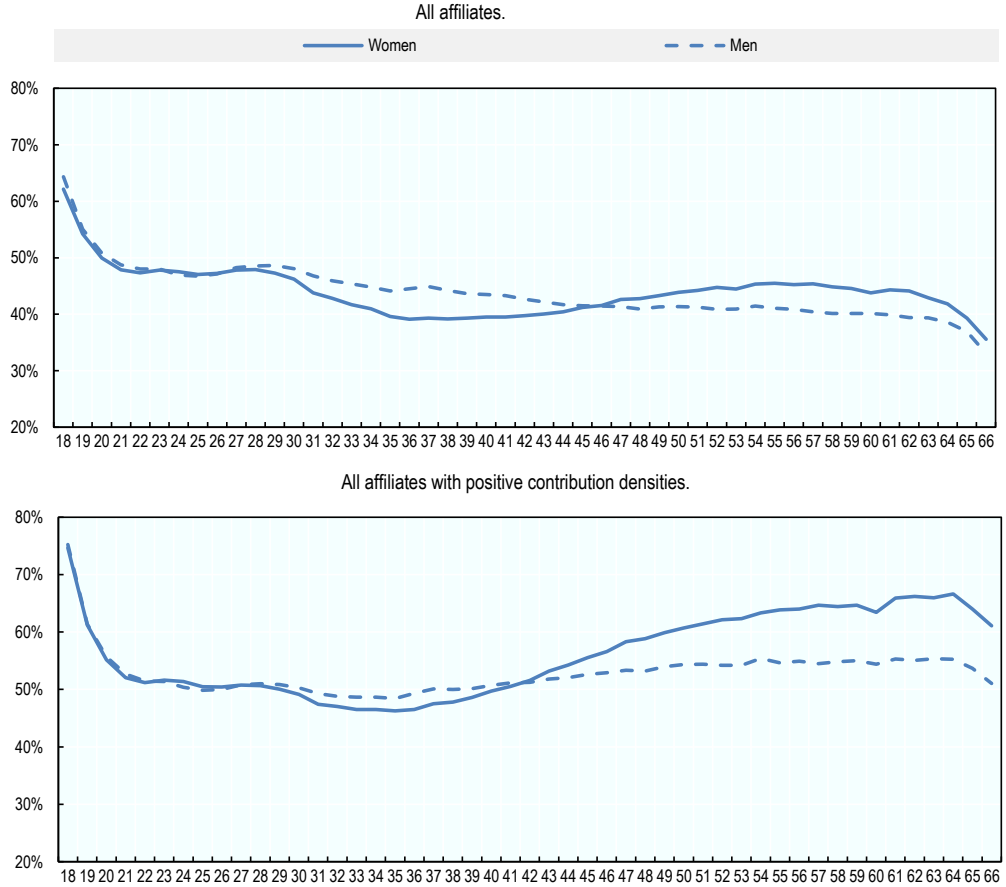
Since 2013, the SBS is required to review the level of mandatory contributions to the SPP in Peru every seven years. The level of contributions must be assessed in light of the experience of both the economic and demographic variables that affect the ultimate pension that can be achieved. The regulatory framework requires that the contribution level be sufficient to allow members to expect an adequate replacement rate in light of current expectations around life expectancy and long-term investment returns. The first review of the contribution level will occur in 2019.

5.2.2. Contribution density

Individuals often do not contribute to the pension system throughout their career because of high rates of informality and transitions between formal and informal employment. Therefore, the number of individuals that are contributing to the pension system at any given time is significantly lower than the number of affiliates who have ever contributed to the system. On average, only 45% of the affiliates in the SPP at the end of 2017 had contributed to their accounts in the last month.

The low frequency of contributions, or low contribution density, reduces the level of benefits that individuals will be able to accrue in the pension system. Figure 5.11 shows how often individuals are contributing to their pension. On average for all affiliates, both genders contribute less than 45% of the time during which they have been affiliated with the SPP. However, when considering only those affiliates with positive contribution densities, this average increases to over 50%. For this latter group, contribution densities tend to increase with age from the mid-30s. Contribution densities are virtually the same for both males and females under the age of 30, but males in their 30s have higher contribution densities than females. From the mid 40s, however, females have higher contribution densities than males, and for those with positive contribution densities the difference between the genders increases with age. Just before the normal retirement age, female affiliates in this group have contributed around 65% of the time since they joined the system, whereas males at this age have contributed only 55% of this time.

Figure 5.11. Density of contributions in the SPP by age and gender

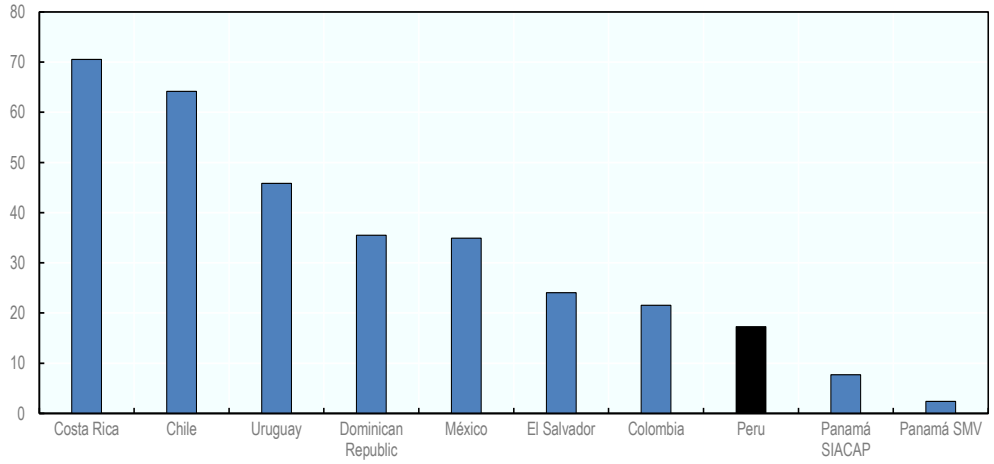


Source: SBS.

Considering both systems, Peru has a lower proportion of the economically active population contributing than the majority of other Latin American countries. In Peru, 17.3% of the PEA contributed to the SPP in December 2017 (Figure 5.12), compared to 9.3% that contributed to the SNP. This compares to 38.4% and 26.4% of the PEA that are affiliated with the two systems, respectively.

Figure 5.12. Contributors to private pensions as a proportion of the economically active population

December 2017.



Source: Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones, AIOS, Statistical bulletin, 2018.

5.2.3. Replacement rates

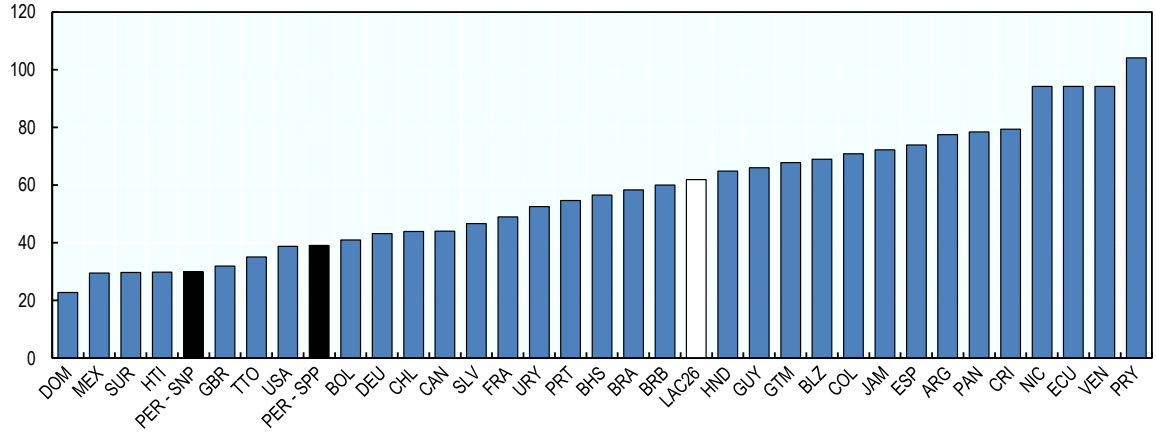
The level of the pension relative to the level of last wages provides an indication of how adequate the expected pension benefits will be to maintain a similar standard of living in retirement. The calculation of these replacement rates is a hypothetical exercise based on a common set of economic parameters across countries, thereby allowing for a comparison of the pension system independent of outside factors.

These economic parameters are price inflation, real earnings growth, and the rate of return. For the countries within Latin America and the Caribbean, the assumptions have been set at 2.5% for price inflation, 2% for real earnings growth and 3.5% for the real rate of return, after fees, for defined contribution pension systems.

Peru has among the lowest hypothetical replacement rates in Latin America and the Caribbean and selected OECD jurisdictions. Figure 5.13 shows the hypothetical replacement rate that average-earning males beginning to contribute to the pension system now can expect to receive after a full career with no breaks, given the current rules of the different systems. It shows the replacement rate for both the public and private systems for Peru. For the SNP, the low replacement rate is the result of the maximum pension imposed. While a full 45-year career would give a replacement rate of 80% given the accrual formula, there is a maximum pension of PEN 857.36 per month that has not increased since 2001. However, for this analysis price indexation has been assumed. In the long-term if the maximum pension from the SNP is indexed to price inflation then the future replacement rate for someone entering the labour market today would be 29.9% for a full career average earner, as shown in Figure 5.13. This is one of the lowest of any country within the Latin

American and Caribbean region and is also well below the level of the pension that would be achieved from the SPP, which has a replacement rate of 39.1% after a 45-year career. The average for Latin American and Caribbean jurisdictions is much higher at 61.9%.[2]

Figure 5.13. Hypothetical Gross Pension Replacement Rates: Average-earning males



Note: Hypothetical gross replacement rates based on current pension system characteristics and rules. They are calculated for someone entering the labour market in 2012 at age 20 and working a full career until the normal retirement age. Price inflation is assumed to be 2.5%, real earnings growth is 2% and the real rate or return is 3.5%.
Source: (OECD/IDB/The World Bank, 2014[5]). Revised calculations for Peru from OECD pension model.

In the long-term if the maximum pension is not indexed, the future replacement rate would only be 9.9% from the SNP. Conversely, if the maximum pension were indexed to wage growth then the replacement rate would be 73.0%, though clearly this would also imply a significant increase in cost.

The analysis above refers to the levels of pension entitlement for average earners, who because of both their earnings levels and full career condition are capped at the maximum pension in the SNP. However, those with much lower earnings and shorter careers may benefit from the minimum income guarantee of the SNP. The minimum is set at PEN 415 per month, equivalent to 35% of average earnings, and like the maximum level has not been increased in many years.

Indeed, low earners having at least 20 years of contributions to the SNP are likely to get a higher pension than they would have otherwise because of the minimum pension guarantee. Anyone retiring today with a 20-year career whose lifetime average earnings are below 88% of the national average would have their benefit topped-up to the minimum pension level. For those at the low earnings level as classified by the OECD, i.e. 50% of the national average, the minimum pension represents a 70% replacement rate, assuming price indexation. These individuals would need to have a contributory career of over 35 years before they would be able to achieve a pension above that of the minimum level, implying that they would be very likely to benefit from the minimum guarantee.

However, if there remains no indexation to the minimum pension then the impact of having a minimum pension will be eliminated in the long-term. Under the modelled assumptions for price inflation and wage growth, the minimum pension will be equivalent to under 15% of average earnings by 2036, meaning that even those with low earnings (50% of average) will not benefit unless the level of the minimum pension is increased in the interim.

Currently, however, the minimum pension is playing an important role, especially because of the parallel nature of the public and private pension systems. Individuals who transferred from the SNP to the SPP and who have not accumulated sufficient assets to finance the minimum pension level are still entitled to the minimum pension that they would have received in the SNP. Law 27617 allows individuals who were born before December 1945, are at least 65 years old, and have at least 20 years of contributions in either system to be eligible for the minimum pension. For individuals born after 1945, Law 28991 establishes a complement pension of a minimum pension to top up the pension amount for those who are receiving a pension in the SPP that is lower than the minimum.

The number of individuals in the SPP receiving the minimum pension has increased rapidly. Table 5.1 shows an increase from only 2 186 in 2007 to 12 000 individuals in 2017, before a slight decrease in 2018 to 11 904. The associated cost to the SNP has also increased, from PEN 10.85 million in 2007 to PEN 68.12 million in 2018, though the net cost is lower because capital accumulated in their pension pots de facto finances part of it. In any case, the cost remains low at less than 0.01% of GDP.

Table 5.1. Number of recipients and cost of minimum pension in the SPP

Year	Number of recipients	Annual Cost (PEN Million)
2007	2 186	10.85
2008	2 590	13.33
2009	2 956	15.67
2010	3 742	18.69
2011	4 728	23.79
2012	5 540	28.25
2013	6 628	34.24
2014	8 586	41.95
2015	10 795	54.4
2016	11 818	63.81
2017	12 000	67.62
2018	11 904	68.12

Source: SBS.

5.2.4. Replacement rate sensitivities

The intention of the initial replacement rate calculation is to compare pension systems across countries under the same economic and contribution density scenario. All of the results for replacement rates in the previous section are based on an average earner with a full career of 45 years, beginning contributions at age 20 and retiring at 65. In addition, the economic assumptions used (price inflation of 2.5%, real earnings growth of 2%, and real rate of return of 3.5%) are the same for all countries and may not accurately reflect the situation in Peru.

The assumptions regarding contribution years and the rate of return in particular do not likely reflect the situation in Peru. Contributions tend to be made less frequently over the career, resulting in fewer than 45 years of contributions. With respect to net returns, the bidding process for the administration of the new affiliates´ accounts is expected to lead to a lower level of fees, which in theory could lead to an increase in the net rate of return after fees.

As mentioned above, affiliates to the SPP contribute on average around 45% of the time that they are affiliated. This would represent 20 years of contributions assuming that the contribution density throughout the career were to remain at 45%. For the public system, this would theoretically lead to a replacement rate of 30% for those born from 1972 onwards, irrespective of when the contributions are made.

For the SPP the timing of contributions is the most important factor, as the earlier the contributions are made the more time they have to accumulate over the working life. If 20 years contributions were made at the beginning of the career, the replacement rate would reduce to 20.7% from 39.1% for a full career of contributions (Table 5.2). Contributing for 20 years at the end of the career, i.e. from age 45 to 64 would give a replacement rate of only 14.3%. Either way the replacement rate from the SNP is higher, as 20 years of contributions guarantees a replacement rate of 30%.

Table 5.2. Sensitivity of replacement rates to contribution history

Contribution history and pension type	Gross replacement rate (%)
SPP - 45 years of contribution	39.1
SPP - 20 years of contribution (ages 20-39)	20.7
SPP - 20 years of contribution (ages 45-64)	14.3

Source: OECD pension model calculations.

The replacement rate that the SPP system provides is sensitive to the rate of return. Calculations in Table 5.2 have assumed that the rate of return above wage growth is 1.5% (2% real earnings growth and 3.5% real rate of return after fees). If this value were to increase to 2.25% then the replacement rate would be 47.6% for a full 45-year career, compared to 39.1% for the 1.5% scenario (Table 5.3). Increasing further to 3% would give a gross replacement rate of 58.1%. However, if the effective rate were to fall to 0.75% above wage growth or to zero then the replacement rates would fall to 32.6% and 25.9%, respectively.

Table 5.3. Sensitivity of replacement rates to rates of return

Real rate of return - real wage growth	Gross replacement rate
0 percentage points	25.9
0.75 percentage points	32.6
1.5 percentage points	39.1
2.25 percentage points	47.6
3 percentage points	58.1

Source: OECD pension model calculations.

5.2.5. Withdrawals during accumulation in the SPP

Withdrawing assets from the pension account before retirement will reduce the level of assets that individuals will have accumulated to finance their retirement. Since 2016, affiliates to the SPP are allowed to withdraw 25% of the accumulated balance from their individual account for the purpose of making a down payment or paying down the mortgage for the purchase of a first home. AFPs are responsible for verifying that the requested funds are actually being used for this purpose. The total number of individuals exercising this option in 2016 and 2017, shown in Table 5.4, was around 35 thousand and 22 thousand,

respectively, falling to around 15 thousand in 2018. This represented only between 0.2% and 0.6% of total affiliates to the SPP for these years.

Table 5.4. Number of affiliates withdrawing from their account for buying a first home

Year	Down Payment	Amortization	Total
2016	1 738	33 353	35 091
2017	5 605	16 313	21 918
2018	7 501	8 100	15 601

Source: SBS.

5.2.6. Early retirement in the SPP

Early retirement will reduce the time that individuals will have to accumulate assets and increase the length of time that those assets will need to last to finance retirement. A large proportion of pensioners retiring in the SPP do so before the legal retirement age of 65 by meeting the criteria for one of the pathways to early retirement. The various retirement options are presented in Table 5.5. The regular early retirement regime allows individuals to retire early as long as they have sufficient assets to provide a minimum replacement rate. Since 2017, individuals are also allowed to retire early if they are diagnosed with cancer or have another terminal illness. The REJA regime allows early retirement for the unemployed.

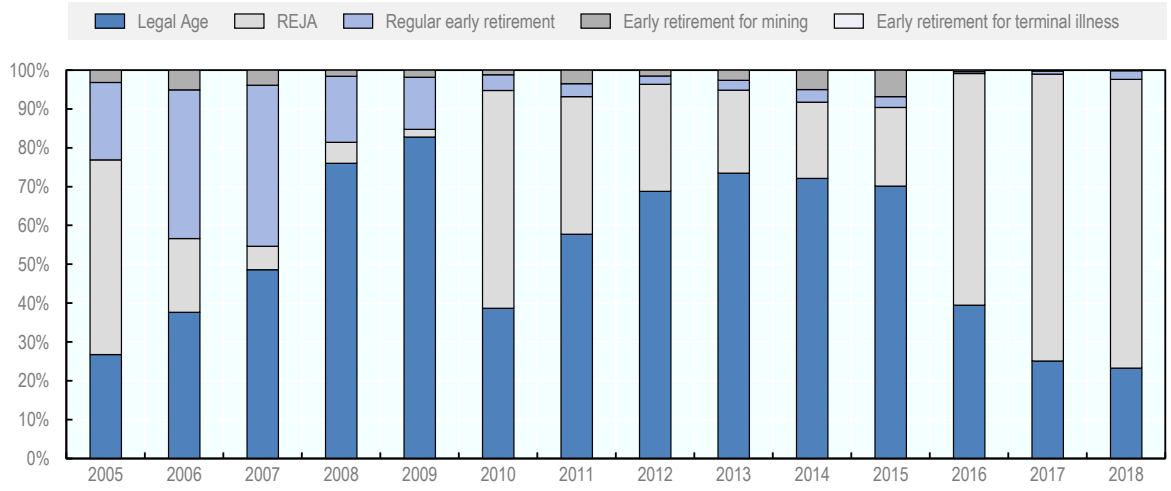
Table 5.5. Pathways to retirement in the SPP

Type	Criteria
Legal Retirement	Aged 65 or over
Regular early retirement	Males aged at least 55 and females 50 who have sufficient assets to provide a replacement rate of 40% of the average salary over the last 120 months
Terminal Illness	Terminal illness or cancer not eligible for a disability pension
REJA	Males aged at least 55 and females 50 who have been unemployed for at least 12 consecutive months and whose income during that time did not exceed 7 tax units (UIT)

Note: Prior to May 2019, individuals were also required to have a 60% contribution density over the last 120 months to retire under the regular early retirement regime, and the replacement rate was calculated over the last 10 years of salary. To retire under the REJA regime, accumulated assets had to be sufficient to finance a pension that was at least the minimum wage, and there was no restriction on the amount of income that could be earned during the period of unemployment.
Source: SBS.

On average, since 2005 just over half of the individuals retiring under the SPP have retired at the legal age, with the remaining retiring early. However, the proportion of individuals retiring at a normal retirement age varies widely from one year to the next, ranging from a high of 85% in 2009 to a low more recently of 24%. Figure 5.14 shows the proportion of retirees following the different pathways to retirement. Since 2010, the majority of individuals retiring early have done so under the REJA regime, which allowed males to retire at 55 and females at 50 if they have been unemployed for at least 12 consecutive months and they could finance a pension that was at least the minimum wage, though this latter requirement was removed in 2019 and replaced with a maximum income that could be earned during the period of unemployment. The proportion of individuals retiring under the REJA regime increased dramatically in 2016, coinciding with the law allowing individuals to take their accumulated assets as a lump-sum at retirement.

Figure 5.14. Proportion of individuals retiring in the SPP per regime



Source: SBS.

The allowance for an early retirement has a significant impact on the average age at which individuals decide to retire, and therefore not only how long the assets in their pension account continue to accumulate but also how long those assets need to last once the individual withdraws them from their account. Table 5.6 shows the average age of retirees since 2008 under both the early retirement regimes and the normal retirement regime. While the average age of those retiring early has increased over this period, people still retire on average five years before the legal retirement age of 65. Those who retire under the normal regime, however, work two years beyond the legal age on average.

Table 5.6. Average retirement ages

Year	Ordinary early retirement	REJA	Legal Age	All
2008	55.2	61.5	66.3	64.4
2009	56.6	63.1	66.2	65.3
2010	57.4	58.0	66.4	62.0
2011	57.5	57.8	66.6	63.4
2012	57.8	57.8	66.5	64.3
2013	58.1	58.0	66.6	64.9
2014	58.7	58.0	66.8	65.2
2015	59.1	58.2	66.7	65.0
2016	57.5	57.5	67.2	61.9
2017	56.6	57.2	66.8	60.1
2018	54.1	56.8	66.6	59.5
2019*	51.7	57.6	66.6	61.9

Note: *As of May 2019.
Source: SBS.

5.3. Policy options

In order to expand coverage of the pension system, the problem of high levels of informality in the labour market needs to be addressed, though this problem also has implications beyond pensions. It is important to keep in mind that independent and self-employed workers are considered informal workers in the official definition.

The problems posed by informality for pensions could be addressed by encouraging informal workers to become formal, and thereby be subject to the requirement to contribute to the system, or by expanding coverage to independent workers through mandates or incentives to contribute. The high cost of formalisation represents a large barrier for informal workers to become formal workers, particularly those in low-income groups. These costs could be reduced by subsidising the social security contributions for these groups. Nudges and incentives for informal and independent workers to contribute voluntarily to the pension system, such as subsidies targeted to specific populations, could increase the coverage of the system for these workers.

For independent workers, specific measures, such as reintroducing the mandate could be considered. However, in order for this measure to succeed it would need to be implemented differently than it was in 2014, and consider using more flexible payment schedules and innovative collection mechanisms.

The amount of contributions going into the system will also need to be increased to improve the level of pension benefits that the system can pay. This could be done either through increasing the mandatory level of contributions or by providing financial incentives or nudges for individuals to make additional voluntary contributions to their account beyond the mandated percentage of wages.

Opportunities for individuals to access their pension benefits before the legal retirement age should also be limited to allow individuals the time to accumulate sufficient pension benefits. As such, withdrawals for a first home should be limited, the gender gap for early retirement should be closed and early retirement schemes should be more restrictive.

5.3.1. Promote formal employment and improve coverage of the pension system

Policies to strengthen the coverage of the pension system must be designed taking into account their linkages with the functioning of labour markets. A broad array of policies are available that can alter the supply and demand of formal jobs by changing the incentives of employers and employees to reach formal job agreements. In this respect, and given that the contribution to a pension scheme is directly linked to having a formal job, policies to improve the coverage of the contributory pension system must be conceived in coordination – and hence taking into account potential trade-offs – with other policies affecting labour markets, mainly labour, fiscal, and social policies.

Increase the relative cost of informality

Policies to promote formal jobs will be critical to build a stronger, more effective pension system in Peru. Insofar as high informality limits pension coverage, putting in place policies that address the multiple causes of informality and favour the creation of formal jobs must be at the centre of the agenda to build a stronger pension system. These policies range from efforts to promote the formalisation of firms (including a reduction of costs of becoming formal and the simplification and integration of special tax regimes to provide incentives to formality) to policies to promote the formalisation of jobs. The focus here is on the latter set of policies, and more in particular on efforts to reduce costs of formalisation for groups where these are binding.

Costs of formalisation are particularly burdensome for workers in the bottom of the income distribution. In Peru, the average cost of pension and healthcare programmes represent 17.5% of total labour costs for salaried workers, 10.1% of which is paid by the employee, and 7.4% by the employer (OECD, 2016[3]).

The high costs of formalisation in order for salaried workers in low-income groups to access social security may lead them to rather become self-employed in order to have the free access to social security given to independent workers (OECD, 2016[3]) (OECD/IDB/CIAT, 2016[10]). Most informal workers are not subject to the general regime, given that a large share of them are self-employed. Independent workers in the first three deciles qualify to access the free health system (Sistema Integrado de Salud – SIS) and thus do not pay social security contributions. This creates a large gap and may generate incentives to remain self-employed and not declare a share of income in order to remain with free access to the SIS, the existence of which diminishes the benefit of being formal.

Subsidising the social security contributions of low- and low-middle income workers could be an effective way to incentivise pension savings for those who, given their low levels of income, do not see this as a priority. By subsidising these workers, the cost of formality is de facto reduced, hence creating an incentive to be formal.

Nevertheless, the specific design of the subsidy (size, group of focus, etc.) will determine its potential success. In order to reach those who are most burdened by the cost of formalisation, the subsidy could target these low-income groups. To align incentives to become formal, the amount of subsidy could also decrease with income, with lower incomes receiving a full subsidy of their social security contributions, and the proportion of the subsidy being reduced as income increases.

Evidence from countries like Chile, Colombia and Turkey shows that subsidies have had an impact in increasing formal jobs and hence pensions' coverage (Melguizo, Bosch and Pagés, 2013[11]). In the case of Chile, the impact evaluation of the programme for the subsidy of youth employment shows improvements in formality rates across eligible young workers of around 4.8 and 6.6 percentage points for 2009 and 2010, respectively (Universidad de Chile, 2012[12]). In Turkey, the evaluation of various regionally targeted employment subsidies for low-income groups shows that these increased formalisation of existing firms and jobs rather than creating new economic activity. This would suggest that in countries with relatively weak enforcement institutions, high labour costs on low-income workers create a strong incentive for informality for both firms and workers (Betcherman, Daysal and Pagés, 2010[13]).

Encourage informal and independent workers to join and contribute to the pension system

Increasing the coverage of independent workers and their participation in the system could be done through measures that encourage voluntary contributions or alternatively mandating participation. Given the low voluntary contributions to the pension system by these workers, there needs to be alternatives in place to incorporate them into the pension system. Furthermore, informal workers, and in particular independent workers, usually transition more frequently between types of jobs and present higher levels of informality, which leads to more irregular contribution patterns and hence to lower densities of contributions. Specific measures targeted at specific populations, such as distinguishing between low-income informal workers and independent workers, could be most effective.

Targeted subsidies for low-income informal workers

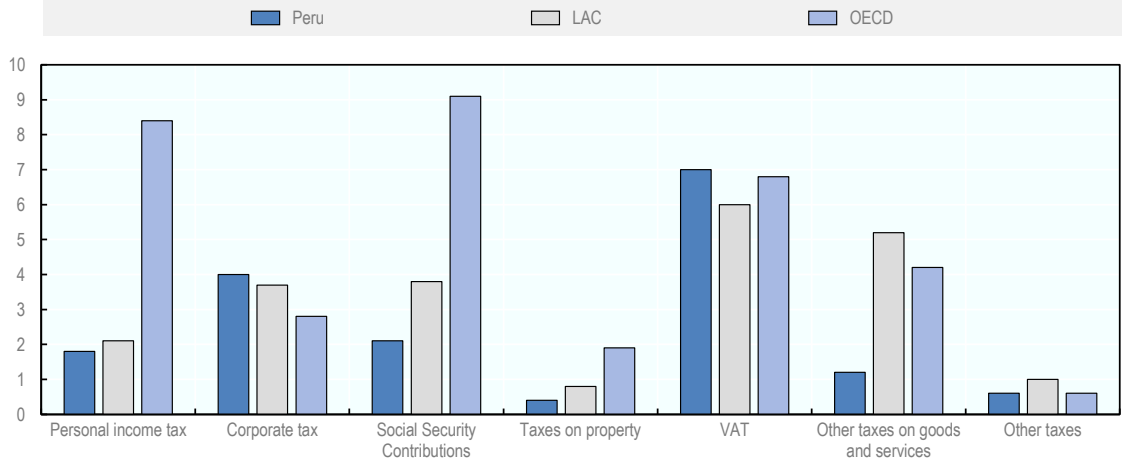
Establishing a system of targeted subsidies could more directly incentivise voluntary pension savings among informal workers. A large share of workers (around 52% of informal workers in 2014) earn less than the minimum wage in Peru (OECD, 2016[3]). This implies that the above mentioned mechanisms to subsidise social security contributions for

low-income workers would actually not reach a large share of the workforce. In fact, in 2016 the minimum wage (which is usually the threshold above which social security contributions start) was equivalent to the income levels of the sixth decile of the income distribution, which implies that the first five deciles would not be receiving these type of subsidies (OECD, 2016[3]). In order to reach workers in lower income deciles, a system of targeted subsidies for pension contributions could be more effective to encourage voluntary contributions. The risk with this type of mechanism is that it can create an incentive to remain informal, so it has to be designed in a way that does not create a parallel system, but rather is integrated into the broader social security system. This could be done, for example, by targeting a matching contribution to all workers below a certain income level, and could be provided for a limited number of years only.

Introducing subsidies, however, would require financial resources. Higher financial resources can accrue as the tax base increases with the level of formality, which the previous section addressed. Informality erodes the tax base and represents a critical challenge in Peru, given the already low level of tax revenues. Tax revenues over GDP represented only 16.1% in 2016, relative to LAC average (22.7%) and the OECD average (34.3%) (OECD et al., 2018[14]). Additionally, the available fiscal space in Peru allows for increasing taxation.

Additional tax revenues could mainly come from larger tax revenues on personal income tax, taxes on property, and other taxes on goods and services. The bulk of Peru's fiscal revenues are raised by consumption taxes with a strong dependency on VAT (37% of total taxes), a characteristic shared with other LAC economies. On the contrary, direct taxes, especially personal income tax (PIT) and social security contributions are less significant in Peru's tax collection (Figure 5.15). While PIT revenues represented 1.8% (11% of total taxes) of Peru's GDP in 2016, the average share in Latin American and OECD countries was 2.2% (10% of total taxes) and 8.4% (25% of total taxes) of GDP, respectively. All in all, the space for raising tax revenues appears mainly in personal income tax, taxes on property, and other taxes on goods and services (OECD et al., 2018[14]) (OECD/CAF/UN ECLAC, 2016[7]).

Figure 5.15. Tax revenues by type of taxes in Peru, Latin America and the OECD, % of GDP



Source: (OECD et al., 2017[15]).

Mandating participation for independent workers

As an alternative to providing incentives for independent workers to voluntarily contribute to the system, contributions of independent workers to the pension system could be made compulsory again, but accompanied with: 1) the possibility to have more flexible contribution schedules and patterns; and 2) innovative collection mechanisms (OECD, 2016[3]).

More flexibility with respect to contributions for independent workers is crucial to encourage them to contribute. Currently, even affiliates who choose to voluntarily contribute to the system are required to contribute a minimum of 10% of their monthly salary. This can be a large deterrent for independent workers who have more variability in their salaries to contribute. Chile provides an example where irregular contributions corresponding to the income pattern of seasonal industries and workers are allowed (OECD, 2018[16]). Current work at the OECD on non-standard forms of work also suggests that more flexible contributions can help those workers to save for retirement.

Innovative collection mechanisms can also be a cost-effective way of promoting pension contributions. For example, there could be agreed withdrawals through utility bills (mobile phone, water, electricity) that could replace the automatic withdrawal that could not be enforced for independent workers whose contributions are not automatically deducted by employers (Melguizo, Bosch and Pagés, 2013[11]) (OECD, 2018[16]). This type of withdrawal on the expenditure side (not on the income side as it happens with formal salaried workers) provides an alternative for pensions' savings and can create a greater sense of belonging of workers usually excluded from social schemes.

Nudges for independent workers

Insights from behavioural economics have encouraged the use of new techniques to foster pension savings across independent workers in various countries. One example is found in Brazil, where the Brazilian Ministry of Social Security experimented in 2014 with reminders by post to independent workers about their obligation to contribute to social security. Compliance rates increased by 7 percentage points within the first three months after sending the reminders (OECD, 2018[16]).

Another interesting example of nudging people to save for retirement is in Mexico, where the regulatory commission (CONSAR) and the private retirement fund administrators (AFORES) have explored new ways to narrow the savings gaps by encouraging voluntary retirement savings based on insights from behavioral economics. Three years of experiments (from 2015 to 2018) led to several lessons learned. First, capturing the attention of workers is a critical first step, and can be done using both regular mail and text messages as well as sending frequent reminders. Second, providing clear feedback on how savers are doing in the accumulation of retirement savings can be effective. Retirement account statements received by workers showed a thermometer intended to illustrate the evolution of savings, alongside other personalised tips for savings. This increased the number of account holders making contributions by 40%. Third, the use of a smartphone app that pictured the face of users as if they were old made them empathise with their future self, and led to an increase in 13% of account holders making contributions. The app "Afore Movil" also makes contributing to pensions easy, and takes advantage of the significant number of mobile phone users as a way to expand pensions coverage (Fertig, Fishbane and Lefkowitx, 2018[17]) (IDB, 2017[18]).

5.3.2. Increase contribution levels and density

The level of contributions and the frequency with which they are paid (contribution density) need to be increased for the entire system. The SPP can be used as an example to demonstrate the impact that low levels and densities of contributions can have on the expected retirement income. The best-scenario replacement rate under the SPP at 40% is low by international standards. This best-scenario rate assumes a full career in the formal sector with no contribution gaps. This scenario is not at all realistic in Peru given the low density of contributions resulting from high levels of informality and the tendency for people to move between the formal and informal sectors. The more realistic replacement rates of around 15-20%, accounting for a much lower density of contributions, means that most people will not be able to receive an adequate income in retirement from the pension system that could allow them to maintain their standard of living.

In order to target a higher replacement rate from the system, contributions will have to increase. The level of contributions to the pension system is a key driver for the level of pension income that the pension system will be able to deliver. With overall contributions at 13% of income, Peru is at the low end internationally in terms of the amount of mandatory contributions to the pension system, whether that is public or private. Table 5.7 shows the level of contribution rates needed to achieve different target replacement rates with a given probability for a funded individual account. With a 10% contribution rate over a 40-year period, there is only around a 50% chance of achieving a target replacement rate of 60%, and a 25% chance of having a replacement rate below 40%. In order to achieve a 60% replacement rate with much higher level of certainty of 90%, contributions would have to more than double.

Table 5.7. Contribution rates needed to achieve different target RRs with a given probability

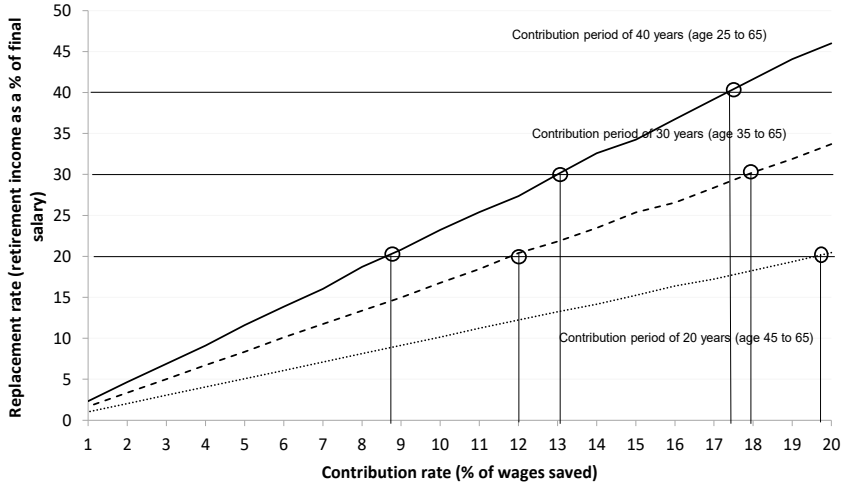
		Target replacement rate (RR)							
		30	40	50	60	70	80	90	100
Probability of reaching the target RR	50	5.3	7.0	8.8	10.3	12.0	14.0	15.5	17.3
	75	7.8	10.5	13.0	15.5	18.0	20.8	23.5	26.0
	90	11.0	14.5	18.0	21.8	25.3	28.8	32.3	36.3
	95	12.8	17.3	21.8	25.8	30.5	35.0	39.0	43.3
	99	17.3	23.3	28.5	34.5	39.3	45.8	51.5	57.0

Note: Assumes uncertain investment returns, inflation, discount rates, life expectancy and labour market conditions. People contribute over a 40-year period, assets are invested in a portfolio comprising 40% in equities and 60% in long-term government bonds, and people are assumed to buy a nominal life annuity at age 65.
Source: OECD calculations.

The level of contributions needed to achieve a target replacement rate also depends on the number of years spent contributing. Currently, only around 45% of those affiliated with the SPP are contributing, and on average affiliates contribute only 50% of the time during which they have been in the system. Assuming a contribution density of 45-50% of the years between the working ages of 20 and 65, this would mean that the average affiliate only contributes around 20 to 23 years to their pension account. Figure 5.16 shows the replacement rate that can be reached with a 95% probability for different contribution levels and periods. Assuming 20 years of contributions with contribution levels of 10%, the replacement rate that can be achieved with 90% certainty is only 10%. In this scenario, doubling the number of years spent contributing to 40 years would have a similar impact on the replacement rate to doubling the level of contribution to 20% of income. With 40 years of contributions at 10%, individuals could expect to have a replacement rate of 23%

with 95% certainty, whereas they could expect to have a replacement of 20.5% with 95% certainty if contributing 20% of their salary for 20 years. These are, however, pessimistic scenarios with all of the contributions coming later in working life. The replacement rates would be expected to increase if contributions were made earlier, as investment returns would be earned for a longer period.

Figure 5.16. Replacement rates reached with 95% probability according to different contribution levels and contribution periods



Note: Contribution and replacement rates at the 5th percentile when assets are invested in a portfolio comprising 40% equities and 60% fixed income, assuming stochastic investment returns, discount rates, inflation, labour market conditions and stochastic life expectancy at age 65.
Source: (OECD, 2012[19]).

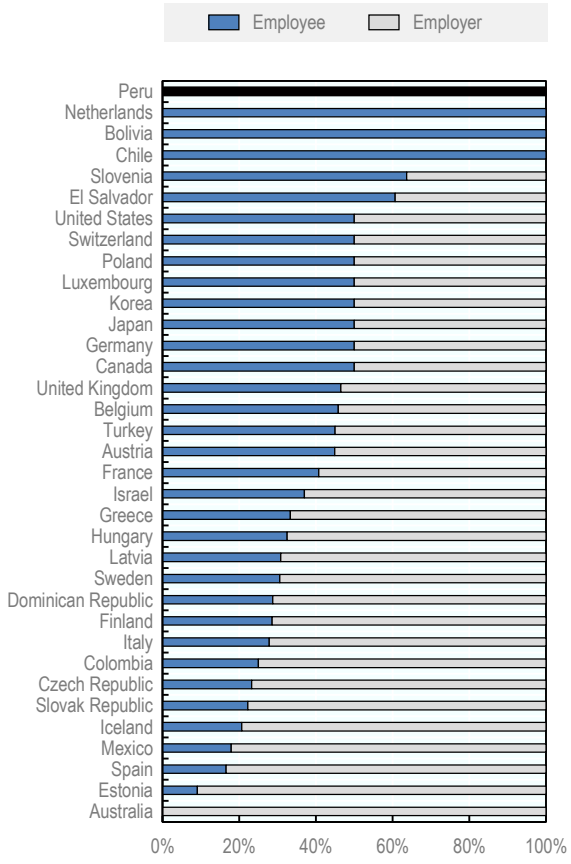
To increase both the level and density of contributions, policy makers can consider various options to (i) increase the mandatory contribution rates; (ii) introduce automatic enrolment for voluntary contributions; and (iii) improve incentives for voluntary contributions.

Increase mandatory contribution rates

The first option to increase contribution rates would be to increase mandatory contributions from the current level. This does not necessarily need to be borne fully by the employee, and the cost could be shared by the employer. Increases could also be implemented gradually to limit the impact on nominal wages.

The increased contributions do not necessarily have to be fully borne by the individual worker, however, and could also be paid by the employer. Indeed, in most OECD and Latin American countries, the employer pays part of the total pension contribution. Peru is one of the few countries where this is not the case, along with Bolivia and Chile, as seen in Figure 5.17. Australia is at the other end of the spectrum, with the employer paying the full mandatory contribution to the funded individual accounts.

Figure 5.17. Distribution of the total mandatory pension contribution between employers and employees, 2016



Note: Austria, Czech Republic, Dominican Republic, Estonia, Greece, Ireland, Latvia, Norway, Portugal, Slovenia, Spain, UK and US reflect the total social insurance contribution.
Source: (OECD, 2017[9]); (OECD/IDB/The World Bank, 2014[5]).

Increasing the level of contributions by the employer rather than the employee could mitigate the perception of increased taxation from an individual's standpoint, particularly if the increase is not immediately felt in full through a reduction of salary. In order to avoid a reduction in salary, such an increase could be implemented gradually over time. Several jurisdictions have taken this approach when introducing additional mandatory contributions. With the introduction of mandatory individual pension accounts in Australia, employer contributions were scheduled to be increased progressively from 3% in 1992 to 9% in 2002. In 2012, an additional increase of 3% was introduced, to be implemented gradually through 2025 to achieve a total contribution rate of 12% in 2025. The United Kingdom gradually increased the default contribution rates for their automatic enrolment programme, though at a much more rapid rate of increase. Contributions were raised by six percentage points over the course of five years, going from 2% in 2012 to 8% in 2018.

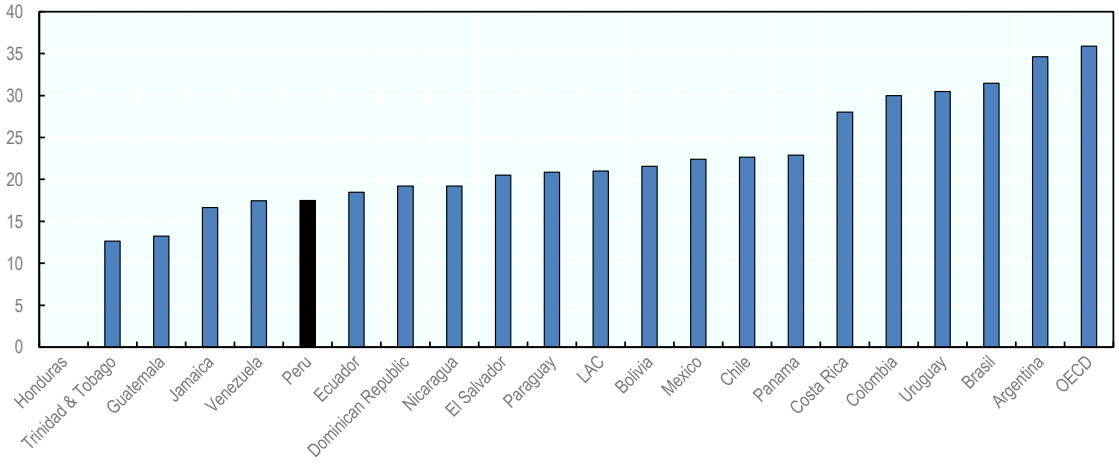
The main problem with increasing mandatory contributions is the capacity of low wage earners to do so. One way to avoid this problem is to link the increase in contributions to wage growth. Such an approach mitigates the loss aversion that individuals may suffer from a reduction of nominal wages by increasing the contributions in line with wage increases so that nominal wages never fall. This approach has been shown to successfully increase

pension savings even through voluntary contributions in the United States (OECD, 2018[20]). It could therefore be a reasonable approach to mitigate the disincentives to being formally employed. However, it should be noted that people will be contributing a different mandatory rate until they all reach the target rate. Moreover, if employer's contributions were added this would not apply to self-employed and, therefore, their contribution could be lower.

In considering whether to increase mandatory contribution levels, policy makers must also consider how much room there is for such an increase given the existing tax burden borne by employees. Figure 5.18 shows the tax wedge for the 5th income decile in Latin America and the Caribbean. With a tax wedge on labour of 15.5%, Peru has a lower tax burden from an international standpoint. The average tax wedge in the region is 21%, and for the average earner in OECD countries it is 35.9%. There may therefore be room to increase mandatory contributions in Peru.

Figure 5.18. Tax wedge on labour, 2013

5th income decile, single earner without children



Note: The tax wedge is defined as the ratio between the amount of taxes paid by an average single worker (a single person at 100% of average earnings) without children and the corresponding total labour cost for the employer. The average tax wedge measures the extent to which tax on labour income discourages employment. This indicator is measured in percentage of labour cost. The OECD average shown here is the unweighted average of OECD jurisdictions for the average earner.
Source: (OECD/IDB/CIAT, 2016[10]), (OECD, 2014[21]).

The tax burden, however, must also be considered within the broader labour market context. Given the high turnover rate between formal and informal employment, increasing the tax burden could create additional incentives for individuals to not work in the formal sector and could ultimately result in lower overall contributions to the pension system.

Automatically enrol individuals to contribute higher amounts in the SPP

As an alternative to mandatory contributions, automatic enrolment of individuals into saving in a pension scheme has been gaining traction in many countries as a way to increase participation in the pension system through soft-compulsion. The success of this mechanism relies on the behavioural bias of inertia, taking advantage of individuals' tendency to follow the path of least resistance, while allowing the individual to opt-out if they do not want to participate. Automatic enrolment schemes have been implemented in

ten OECD jurisdictions. The only jurisdiction that has targeted informal employees for automatic enrolment is Chile (OECD, 2019[22]).

The success of automatic enrolment has been varied. Jurisdictions where it seems to have been more successful include New Zealand and the United Kingdom, who have experienced opt-out rates of 17% and 10%, respectively. Other jurisdictions have experienced much higher opt-out rates, however. In Chile, 78% of the self-employed workers opted out of the scheme in 2018, and this rate has been increasing over time. Furthermore, 79% of those contributing by default contribute only once, suggesting that over time individuals have learned to opt-out of contributing (Superintendencia de Pensiones de Chile, 2018[23]). Opt-out rates are also very high in Turkey, at around 60%, as well as in Italy (OECD, 2018[20]).

The reasons for the high opt-out rates in Italy and Turkey seem to be linked to the existence of competing schemes. In Italy, employees have to choose whether their contributions will remain in the pension savings scheme or go towards the previously existing severance pay scheme. In Turkey, the automatic enrolment plans are supplementary to existing personal pension savings.

This experience suggests that while automatic enrolment may not be the best option for Peru to increase contribution levels of self-employed workers, it may be useful to increase the level of contributions for those already required to contribute. For informal workers, the experience of Chile suggests that it is not as effective in a system that is similar to Peru, both in design and the prevalence of labour market informality. However, for formal workers, automatic enrolment would be additional savings on top of the mandatory contributions. Nevertheless, given the tendency for individuals in Peru to fully withdraw their pension assets as soon as they are able to, it seems likely that opt-out rate for automatic enrolment would also be high. This policy would therefore only be effective at increasing contributions for a small portion of the population, so the costs of implementation would need to be considered against the expected benefits.

Improve accessibility and incentives for voluntary contributions

Improving the incentives that individuals have to contribute can lead to higher voluntary contributions. Currently, there are virtually no incentives for an individual to make voluntary contributions to their pension account. In addition, even if they wanted to make additional contributions, not all Peruvians are allowed to do so.

First, all individuals who would like to voluntarily save in a pension account should be allowed to do so. Currently, only individuals enrolled in the SPP are allowed to have a voluntary pension account. In addition, individuals not having been enrolled in the SPP for at least five years are not allowed to make voluntary contributions.

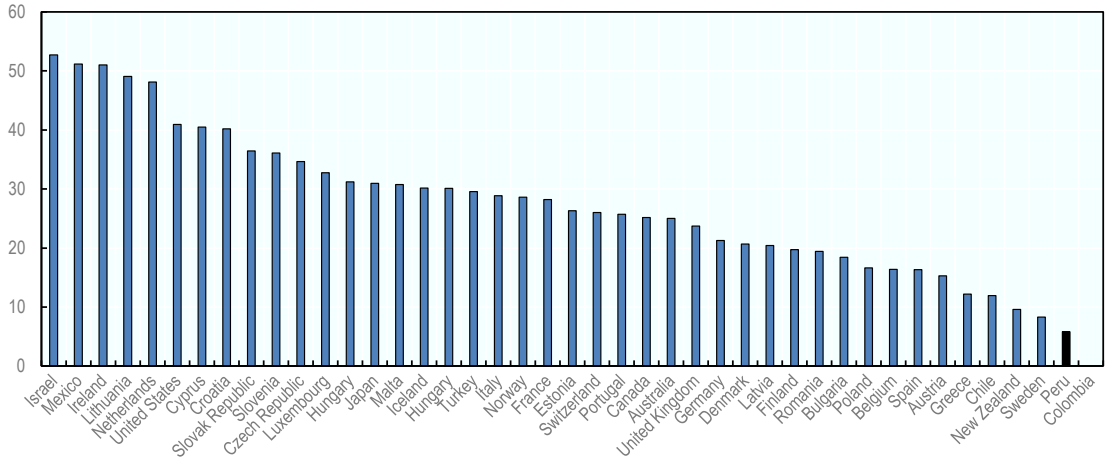
Second, financial incentives for contributing to pension accounts could be improved. Currently, the financial advantage from advantageous tax treatment is limited in Peru. While contributions for formal workers are mandatory, providing better financial incentives could not only help to provide incentives for additional voluntary contributions, but also to mitigate the incentives to work informally by providing some financial benefit for making mandatory contributions.

The advantageous tax treatment of pension savings can provide an incentive for individuals to contribute more to their pension accounts, thereby increasing the ultimate pension benefits that they will receive. In Peru, the tax treatment of all contributions to the pension system is “TEE” (taxed, exempt, exempt), that is contributions are taxed as income but the

investment income is not taxed, nor are the assets withdrawn for retirement regardless of the form in which they are taken (programmed withdrawal, lump-sum, etc.).

The "TEE" tax treatment provides a financial advantage for pension savings, because compared to saving in a regular savings product, individuals will not have to pay tax on the investment income earned. For normal savings and investment vehicles, as well as voluntary pension savings, individuals owe a tax of 5% on dividends received, and 6.25% on investment income after taking a 20% deduction on gains. This implies that an individual contributing to their mandatory pension savings in the SPP from the age of 20 until they retire at age 65 will have an expected financial advantage amounting to 5.8% of the present value of their total contributions to the plan compared to someone with a voluntary savings account.[3] However, this tax advantage for average earners in Peru is lower than all OECD countries, shown in Figure 5.19.

Figure 5.19. Overall tax advantage for the most prevalent funded pension plan in each jurisdiction

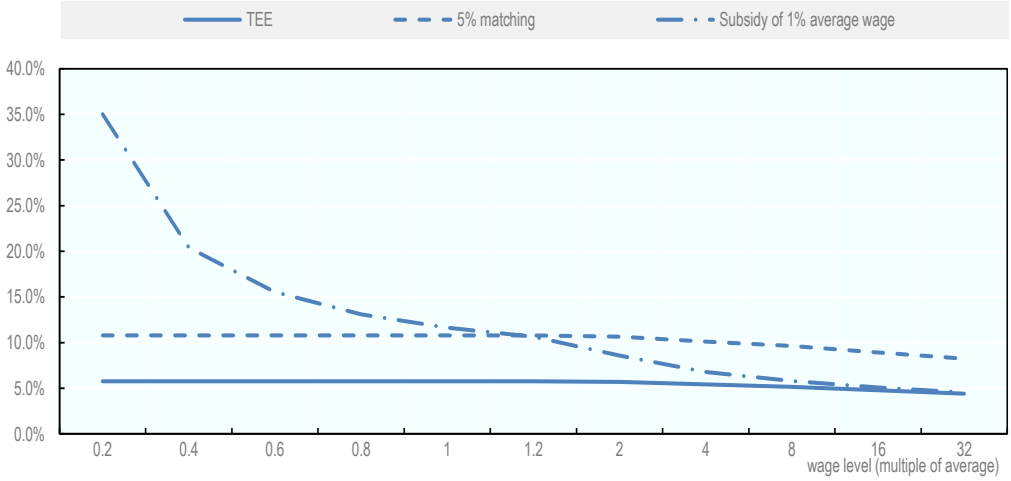


Note: The calculations assume that the average earner enters the labour market at age 20 in 2018 and contributes yearly until the country's official age of retirement at a rate equal to the minimum or mandatory contribution rate fixed by regulation in each country or 5% of wages in the case of voluntary plans. The total amount of assets accumulated at retirement is converted into an annuity certain with fixed nominal payments. Inflation is set at 2% annually, productivity growth at 1.25%, the real rate of return on investment at 3% and the real discount rate at 3%.
Source: (OECD, 2018[24]).

The "TEE" tax regime for pension savings in Peru is tax neutral in the sense that it does not provide a disincentive to save, and individuals should be indifferent between saving and consuming given an expected return that is equivalent to the risk-free rate. Additionally, since individuals are taxed up front on their contribution and are able to withdraw all assets accumulated tax-free, the relative financial advantage does not vary across income groups as a percentage of post-tax contributions to pension accounts. However given the progressivity of the income tax rates, this advantage declines slightly with income when considering the advantage as a proportion of pre-tax contributions (Figure 5.20).

Figure 5.20. Tax advantage of tax and non-tax financial incentives in Peru

Present value of taxes saved over a lifetime, as a percentage of the present value of contributions.



Notes: Subsidy is not indexed over time. The label '5% matching' means that the individual contributes 5% and the State contributes the same amount, 5%, which correspond to a match rate of 100%.
Source: Own calculations.

The main disadvantage of TEE taxation compared to EET (exempt, exempt, taxed), where contributions are exempt and withdrawals taxed, is that the EET system provides an immediate reward to individuals from making contributions, whereas this reward is delayed for a TEE system. However, shifting from a TEE system to an EET system is very costly, and would imply a significant loss in fiscal revenue in the short term.

Alternatively, financial incentives for pensions could be increased through the use of a matching contribution or a flat subsidy that would be paid directly into the pension account of the saver. These types of incentives have the advantage of benefitting lower income groups more than higher income groups, and being easier for people to understand than other types of tax incentives because the amount is known and is paid directly into the pension account. Furthermore, even low-income groups who do not pay taxes can benefit from these types of incentives.

In Peru, introducing financial incentives that benefit those with lower incomes more would make sense because these individuals are those that most need to save for retirement, and are also the individuals more likely to be in informal employment. The likelihood that individuals are not doing anything to financially prepare for their retirement increases inversely with income and age, so these individuals could especially use some encouragement to save more into the pension system (Superintendencia de Banca, Seguros y AFP del Perú, 2016[25]).

Flat subsidies are relatively more advantageous to low income groups than matching contributions, as the flat subsidy represents a larger proportion of contributions as income levels decrease. Figure 5.20 shows that the tax advantage from a flat subsidy of 1% of the average wage for the lowest income group shown, earning 20% of the average salary, is 35% of the present value of their contributions. This compares to an advantage of 10.8% of the present value of contributions for the lowest income group of a matching subsidy providing a 5% match of contributions made. The matching contribution also benefits

lower income groups more, but the difference is less significant. The financial advantage from the subsidy declines significantly as income levels increase, reaching the level of the matching contribution for individuals earning around 1.2 times the average wage.

Evidence shows that these types of non-tax financial incentives can be effective in encouraging contributions to voluntary pension arrangements, in particular for low income individuals. Coverage of private pensions for low-income individuals in Germany has increased through the Riester plans, which offer a flat-rate subsidy. Matching contributions in Australia have contributed to increased voluntary contributions by low-income groups, though not necessarily increased coverage. Both subsidies and matching contributions for the KiwiSaver plans in New Zealand have helped to promote equal coverage of these schemes across all income groups (OECD, 2012[19]). In Mexico, voluntary contributions have increased in the Solidarity Savings Programme as a result of matching contributions (OECD, 2016[26]). Of these examples, Australia and Mexico offer perhaps the most relevant comparisons for the case of Peru. The matching contributions offered in both of these jurisdictions is for voluntary savings on top of existing mandatory savings, though in Australia the mandatory contribution is fully paid by the employer and in Mexico the plans are only available for public sector workers. Table 5.8 summarises the jurisdictions that offer non-financial incentives for retirement savings.

Table 5.8. Government provided non-tax financial incentives, 2018

	Matching contributions (match rate)	Fixed nominal subsidies
OECD countries	Australia (50%), Austria (4.25%), Chile (50% or 15%)[1], Czech Republic (scale), Hungary (20%), Mexico (325%)[2], New Zealand (50%), Turkey (25%), United States (50% to 100%)[3]	Chile, Germany, Lithuania, Mexico, Turkey
Selected non-OECD countries	Colombia (20%), Croatia (15%)	

1. Chile has two different matching programmes, one for young low earners (50% match rate) and one for voluntary contributors (15% match rate).
2. The matching programme for Mexico only applies to public sector workers.
3. The matching programme for the United States refers to the Thrift Savings Plan for federal employees. The first 3% of employee contribution is matched dollar-for-dollar, while the next 2% is matched at 50 cents on the dollar.
Source: (OECD, 2018[20]).

To limit the cost of providing these incentives, the incentives could be targeted at specific populations, for example low-income groups and/or young people to encourage them to start contributing. Such measures could be particularly valuable in increasing female participation in the pension system, as although females are less likely to be affiliated with a pension system, those who are affiliated contribute at higher rates than males. To further limit costs, the incentives could be limited in terms of duration, for example matching contributions for only the first five years of contributing. This could be effective to the extent that people who begin contributing are more likely to continue to contribute going forward. A 5% voluntary contribution by the individual, that is matched equally (100% match) by the State and targeted at those earning below the median wage (which is roughly similar for the affiliates of the SPP and the total population), would cost less than PEN 1 billion per year (0.1% of GDP). This cost estimation assumes that the incentive would be successful in getting everyone who had contributed to the system in 2017 to contribute the full match of 5% more of their salary.

Such financial incentives could also be employed to encourage higher density of contributions. Turkey employs matching contributions to a similar effect in order to incentivise individuals to not withdraw assets early from the pension scheme. The government provides a matching contribution of 25% of pension contributions up to a cap plus a flat one-time subsidy for those who do not opt out of the automatic enrolment scheme. However, individuals can only keep the full matching contribution and resulting investment returns if they have contributed for at least ten years and they remain invested in the scheme until the age of 56. The proportion of the matching contribution and returns that they can keep increases in steps along with the number of years they remain in the scheme (OECD, 2018[27]). A similar type of incentive could be employed in Peru to try to increase the rate at which affiliates contribute, with individuals being allowed to keep the matching contribution and related investment returns if they achieve a certain contribution density.

5.3.3. Allow withdrawals of only voluntary contributions for first home

Allowing individuals to withdraw 25% of their assets in the SPP during accumulation to pay for a first home has a significant impact on the level of assets that they will have accumulated at retirement. Nevertheless, saving for the purchase of a home is a key reason for Peruvians to save, with 20% of the population saving to acquire a home (Arellano marketing, 2017[28]). This compares to 22% of the population that aim to save for old age.

Given that a significant portion of the population values saving for the purchase of a home, allowing for the use of a portion of pension assets for this purpose is valuable for the population. Rather than allowing this withdrawal from mandatory contributions, however, withdrawals could be based on voluntary contributions only, perhaps at a rate higher than 25%. This could provide incentives for additional voluntary pension savings and avoid the decrease in assets that will be accumulated for retirement. Australia takes this approach, and allows tax-advantaged withdrawals for the purchase of a first home up to an absolute amount. Nevertheless, any matching contribution or subsidy that the individual received for their voluntary contribution would have to be removed if they withdraw assets in order to avoid an arbitrage of the system.

5.3.4. Close the gender gap for early retirement

Currently early retirement ages are different for men and women, being 55 for men with 30 years of contributions and 50 for women with 25 years of contribution. This represents 10 years before the normal retirement age for men and 15 years for women.

If women retire at age 50, they can expect an average of 32.0 years in retirement, based on UN Population projections, much longer than the career required to retire at the early age. However, for every year that the benefit is claimed under the SNP before the normal retirement age the benefit is reduced by 4%, so for women the total reduction would be 60%, whilst it would be 40% for men, albeit subject to the minimum pension of PEN 500.

These reductions mean the benefit is only going to have the possibility of reaching an adequate level for the highest of earners in the SNP, but for all earnings levels sustainability will be an issue. If women contribute for 25 years their future gross replacement rate will be 40%, reduced to 16% if the full early retirement is taken, with contributions during the career of only 13%.

Under the SPP, a woman retiring at age 50 could expect to receive around 55% lower pension than if she retired at age 65.[4]

With women living longer than men in all countries and generally having lower earnings levels and employment rates during their career, longer working periods are required to reach the same pension level. Therefore, enabling women to retire earlier is not necessarily in their best financial interests.

Globally the recent trend has been to equalise the retirement ages for men and women across all exit options, i.e. for both normal and early retirement. Peru is already ahead of many countries in that the normal retirement age is 65 for both men and women. Closing the gap for early retirement is however required to ensure equality across the system as a whole.

In addition, with increasing life expectancy over the coming decades the early retirement conditions for men may also need to be reconsidered. Retiring 10 years early within a defined benefit public scheme is high in comparison to all OECD and most Latin American countries, where the ceiling is more commonly set at five years as a maximum.

5.3.5. Limit early retirement

Early retirement should be the exception rather than the rule. The majority of Peruvians tend to retire early, and as such the pathways to early retirement should be more restrictive. Only 39% of the individuals retiring in the SPP since 2005 have done so at the normal retirement age. While early retirement can be acceptable in some cases for individuals who are not able to continue working until the normal retirement age, it should be avoided for situations where individuals have not accrued sufficient pension benefits and are capable of continuing to work.

The REJA regime that allows early access to pension assets for those who are unemployed has been particularly problematic, and has undermined the objectives of the pension system to provide an adequate income for retirement. The number of people retiring early through this regime has reached critical levels. Since 2005, 93% of the individuals retiring early have done so through the REJA regime. In 2017 and 2018 alone, 98% of the people retiring early - nearly 75% of individuals retiring in those years - retired through the REJA regime.

One of the largest problems with the REJA regime has been the eligibility requirements. First, the minimum age requirements of 50 and 55 for females and males, respectively, are very young for a person that is fully capable of working to retire. Secondly, the criteria to prove unemployment have been very easy to fulfil. The AFP simply had to confirm that the affiliate had not made mandatory contributions in the last 12 months prior to the date of applying for early retirement. Voluntary contributions made by self-employed workers did not count against the eligibility to retire early under the REJA regime. As such, there were few controls in place to prevent people who were employed informally from retiring early under this regime.

Recent measures passed by Congress have gone in the right direction by reducing the ability to game the system. Limits have been introduced on the amount of voluntary contributions that can count towards the minimum income requirement under the normal early retirement scheme to prevent people from temporarily depositing funds to meet the minimum level. Limits have also been introduced for the amount of income that can be earned during unemployment to retire under the REJA regime in order to prevent those who are actually employed informally from being eligible.

Mechanisms need to be in place to adjust the level of benefit downward in an actuarially neutral manner in order to account for the longer expected time in retirement. This

adjustment is automatic in the private system, but the formula to adjust benefits in the public system should be modified to discourage early retirement.

In addition, any allowance for early retirement should impose a minimum requirement for the resulting pension income, and require that the minimum pension income is taken as income rather than a lump-sum. The combination of a reduction of benefits and a minimum income requirement should discourage individuals who are still capable of working from taking early retirement.

Notes

[1] The level of informality is higher than the proportion of the PEA affiliated with the pension system primarily because the latter population includes those who have ever contributed, not only those who are currently formally employed and required to contribute.

[2] Higher replacement rates, like for example in Argentina, Spain and Venezuela, could be the result of pension promises that are too generous relative to the contributions being paid to the system, and may therefore result in significant deficits.

[3] This calculation assumes a rate of wage growth of 2%, inflation 2.5%, and a real rate of return 3.5%, and takes into account tax saved during the accumulation phase only.

[4] Assuming a discount rate of 5.06%, a full career history and a nominal annuity purchased at retirement.

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Chapter 6. Optimising the design of the private pension system for the accumulation phase

This chapter focuses on the accumulation phase in the private pension system, and looks at the investment strategies and results of the pension fund administrators (Administradoras de Fondos de Pensiones, AFPs), as well as the competitive landscape, costs and fees, and the services that the AFPs provide to their members. The chapter proposes policy options to optimise the period of asset accumulation in the private pension component with a focus on the investment strategies and fund offering of the AFPs. It also discusses how the incentives of the AFPs could be better aligned with member interests as well as options aiming to align costs and fees in the system and promote efficient operations.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

The amount of assets that individuals contributing to the SPP will have at retirement is driven by the way that those assets are invested during the accumulation phase and the related costs of doing so. More needs to be done to ensure that the investment strategies are appropriate for savers and to ensure that the fees that they are paying are aligned with the cost to the AFPs of the services provided.

Investment strategies are controlled through explicit investment limits and a requirement to provide a minimum guarantee that is established with reference to a peer benchmark. However, the rules in place, particularly with respect to the default investment strategy, are not necessarily optimal for individuals, and the peer-based benchmark promotes incentives for herding in investment behaviour.

Tender mechanisms and the collective insurance scheme that were introduced with the 2012 reform have promoted lower costs and higher transparency. In addition, the AFPnet platform has resulted in significant efficiency gains. However more could be done to better align costs and fees charged as well as to align the incentives of the AFP with the interest of members. Furthermore, the expected role of the institutions involved in the system are not necessarily aligned with their responsibilities.

Several policy options should be considered to improve investment outcomes for individuals. The default investment strategy should be better suited to the interests of the average member. The performance of the AFPs should be judged according to more appropriate benchmarks. The fee structure should be performance-based and the same structure should apply to both mandatory and voluntary contributions. The minimum guarantee should be removed to reduce incentives for investment herding. Improving the disclosure and reporting of costs and fees and limiting the ability for members to frequently switch funds would help to promote better cost control in the system. Finally, the misalignment of responsibilities needs to be addressed and the financing of activities related to the system more closely linked with their function.

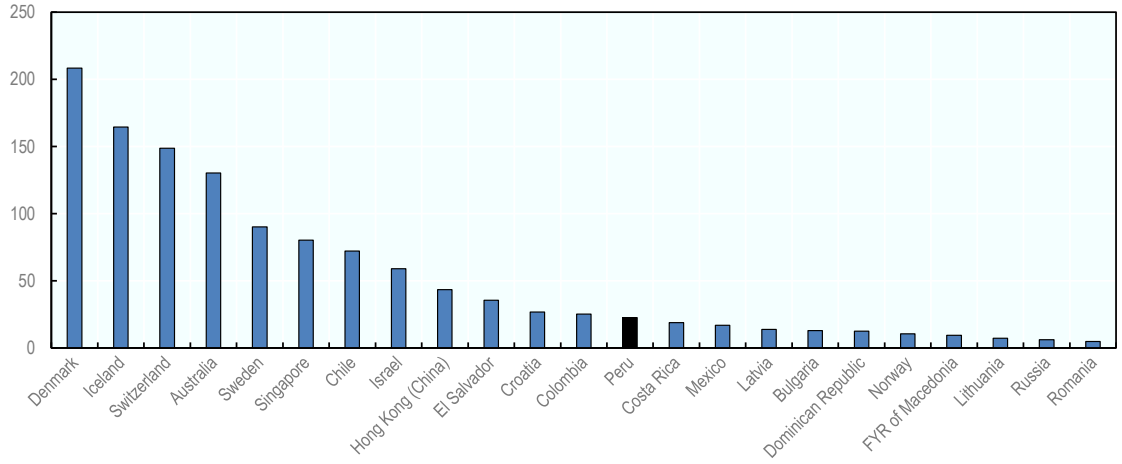
6.1. Investment of pension assets

The AFPs are in charge of managing the pension assets in the individual accounts of the Peruvians affiliated with the SPP. Four AFP are currently operating in the Peruvian market: Habitat, Integra, Prima and Profuturo. The newest AFP to enter the market is Habitat, which began operations in June 2013. This entry coincided with the exit of the AFP Horizonte, which was absorbed in equal parts by Integra and Profuturo in August 2013. The fourth AFP, Prima, began operations in 2005 and merged with Union Vida in December 2006.

The four AFPs were managing a total of PEN 156.2 billion in pension assets (22.7% of GDP) at the end of 2017. This level is somewhat modest compared to other jurisdictions having mandatory DC-type pension arrangements, but comparable to the other Latin American countries with similar systems and maturity (Figure 6.1). Chile, El Salvador, and Colombia have higher levels of assets relative to GDP than Peru, but Costa Rica and Mexico have lower levels.

Figure 6.1. Pension assets as a percentage of GDP, 2017

Jurisdictions with mandatory DC-type pensions.

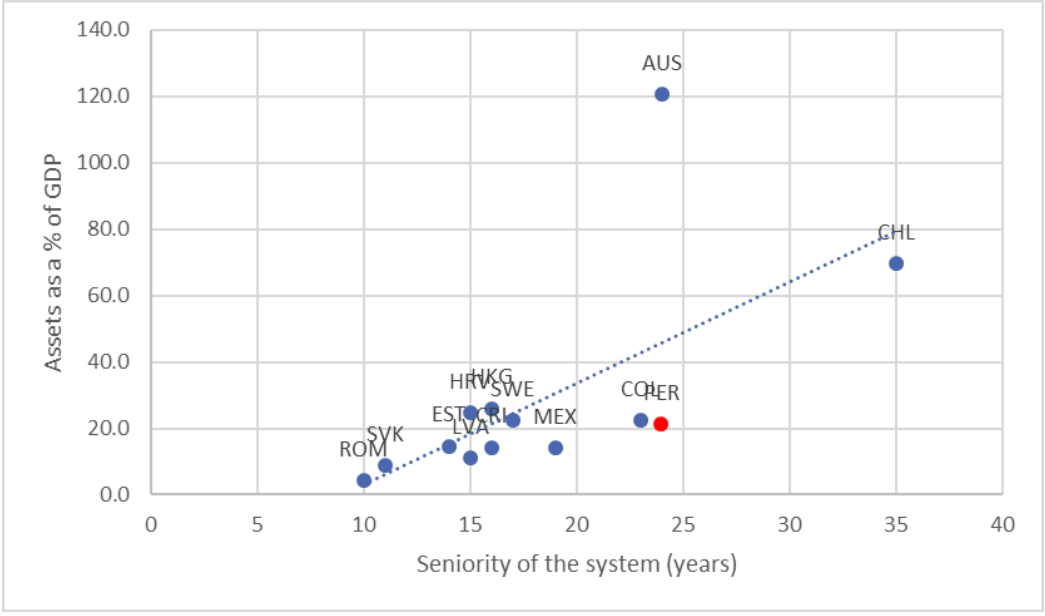


Source: (OECD, 2018[1]).

The level of pension assets would be expected to be greater in jurisdictions that have had their systems in place for longer. Figure 6.2 shows the assets in mandatory DC pension arrangements against the seniority of the system. Peru lags behind compared to the other countries shown. This is likely primarily driven by the low coverage and contribution rates of the Peruvian system that result in a lower level of assets, as well as competition with the public system. However, the asset allocation and investment performance may also play a role.

Figure 6.2. Assets under management and seniority of the mandatory funded DC pension system in selected jurisdictions

2016.



Source: OECD Global Pension Statistics.

This section explains the investment requirements that are in place and presents the asset allocation and fund performance of each AFP.

6.1.1. Available funds and investment choice

The AFPs must offer four different funds of varying risk profiles to the affiliates in the SPP (Table 6.1). Fund 2 is the default fund, and aims for an investment strategy that does not take a lot of risk while offering the opportunity for some capital appreciation. Funds 1 and 3 were introduced as alternatives to Fund 2 in December 2005. Fund 3 aims for higher capital appreciation with an investment strategy in higher volatility assets, whereas Fund 1 aims for very low volatility to preserve the existing capital in the account. The very conservative Fund 0 was introduced only in April 2016 with the investment objective of capital protection and no investment in growth assets.

Table 6.1. Investment funds in the SPP

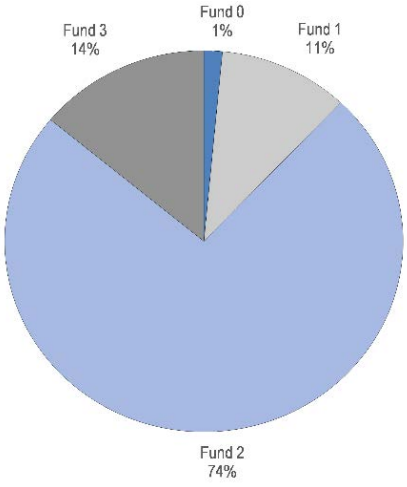
Fund	Type	Strategy	Target population
Fund 0	Capital Protection	Mostly cash and deposits	Pensioners aged 65+
Fund 1	Capital Preservation	Conservative and low volatility	Pre-retirement aged 60-65
Fund 2	Balanced	Medium volatility	Default for new members
Fund 3	Capital appreciation	High volatility	Not allowed for people aged 60+

Source: Texto Único Ordenado de la Ley del SPP.

New affiliates are automatically invested into the Fund 2 regardless of age. Once an affiliate reaches the age of 60 and 65, the AFP must automatically change their investment to Fund 1 and Fund 0, respectively, unless they request in writing to be in another Fund. Affiliates over the age of 60 are not allowed to invest in Fund 3.

Nearly three-quarters of all pension assets are invested in the default Fund 2, as seen in Figure 6.3, implying that most members simply stay with the default investment strategy and do not opt into a different fund. However, 14% of assets are invested by under 4% of the affiliates in the most aggressive Fund 3, implying that individuals with higher levels of invested assets also tend to invest more aggressively.

Figure 6.3. Allocation of AFP assets under management by fund type, December 2018



Source: SBS.

Individuals are only allowed to invest their mandatory contributions in a single fund, although voluntary contributions may be invested differently. The AFPs must provide printed information, available in all physical branches, that details the main aspects of the SPP (investment portfolio, historical rate of return, fees, number of contributors, number of pensioners, etc.) along with the features of the different types of funds available. The AFP websites are also required to have detailed information about the different types of funds and their risk profiles.

An individual must request any change to the fund in which they invest their mandatory contributions in writing. The process to change funds takes approximately two months. Requests must be processed by the AFP within 10 days of the month following the request, and the full transfer of funds must be executed the first six days of the subsequent month.

6.1.2. Asset allocation and fund performance

Regulation imposes certain limits on investment for each of the four funds offered by the AFPs (Table 6.2). Equity investment by Fund 0 is forbidden, and only bonds and bank deposits are allowed. Equity investment in Fund 1 is restricted to only 10% of the assets in the fund. Investment in alternative instruments are allowed only for Fund 2 and Fund 3, with Fund 3 allowing for the highest level of riskier investment strategies. Derivative products are only allowed for hedging purposes or for more efficient portfolio management.

Table 6.2. Investment limits by type of fund

	Equity	Bonds	Cash and Deposits	Derivatives	Alternatives
Fund 0	0%	75%	100%	0%	0%
Fund 1	10%	100%	40%	10%	0%
Fund 2	45%	75%	30%	10%	15%
Fund 3	80%	70%	30%	20%	20%

Note: Cash and deposits includes bank deposits and short-term bonds. Only indirect real estate investment allowed. Derivative investment allowed only for hedging or efficient portfolio management.
Source: OECD, Texto Único Ordenado de la Ley del SPP.

Additional sub-limits are applicable for each fund within the categories shown in Table 6.2. A maximum of 30% of each fund can be invested in instruments issued or guaranteed by the Peruvian government, and a maximum of 30% in instruments issued or guaranteed by the Peruvian Central Bank. However, investment in Peruvian issued securities in total cannot exceed 40% of the fund. Sub-limits are also imposed for investment in alternative instruments for Fund 2 and Fund 3, shown in Table 6.3.

Table 6.3. Sub-limits on alternative investment

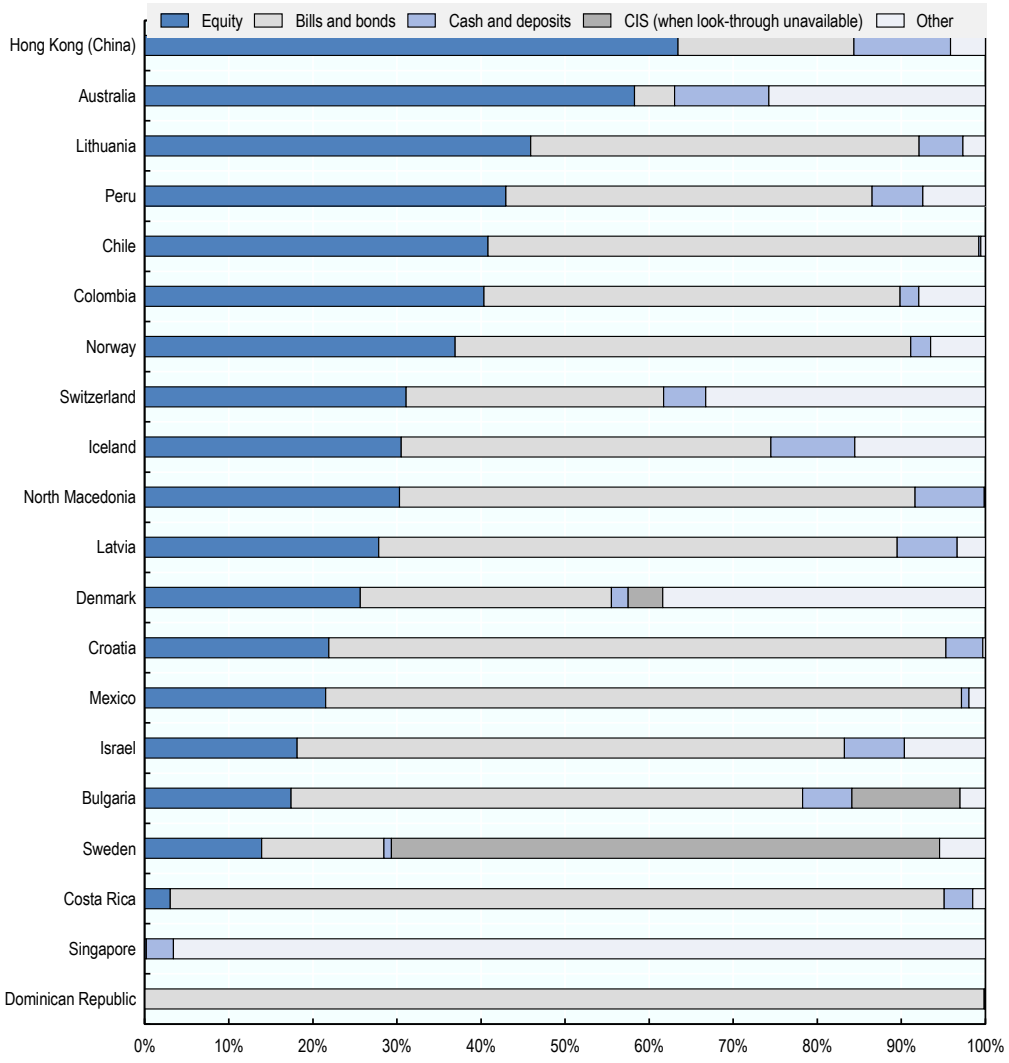
	Private Equity	Venture Capital	Real Estate	Hedge funds	Commodities	Natural forests
Fund 2	12%	6%	6%	4%	4%	4%
Fund 3	15%	8%	8%	6%	6%	6%

Source: Título VI del Compendio de Normas de Superintendencia Reglamentarias del Sistema Privado de Administración de Fondos de Pensiones referido a Inversiones.

The equity and fixed income investment as a proportion of the total assets of all AFPs and fund types is 86.5%, including investments in collective vehicles, with a near equal split between the two categories. The remaining assets are similarly split between cash and deposits and alternative instruments. In an international context, Figure 6.4 shows that Peru

has a relatively significant investment in equities at 43% of total pension assets, including investment in collective vehicles, compared to other jurisdictions with mandatory DC-type pension arrangements. Of the jurisdictions shown, only Hong Kong (China), Australia, and Lithuania have higher investment in equities. This could be positive in the sense that a higher average investment in equities will promote higher investment returns in the long run, increasing the level of assets that individuals are able to accumulate.

Figure 6.4. Allocation of pension assets in selected investment categories, December 2017



Note: Please see methodological notes included in OECD Pension Markets in Focus 2018.
Source: (OECD, 2018[1]).

Table 6.4 shows the asset allocation of each AFP at the end of 2018 without the look-through on collective investments.

Table 6.4. Asset allocation by fund type, December 2018

In %.

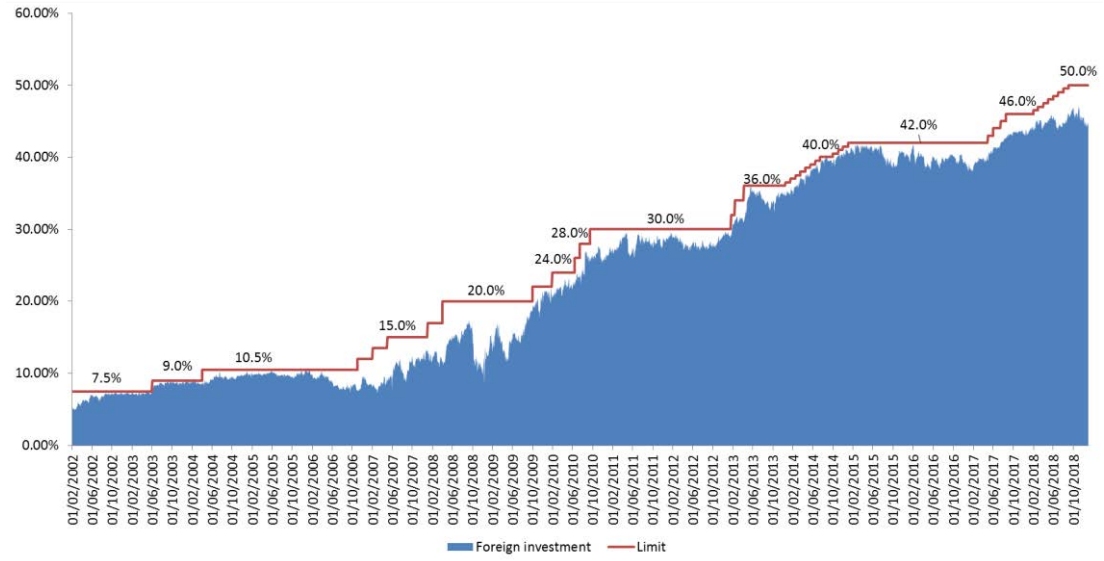
		Equity	Bills and bonds	Cash and deposits	Collective Investment	Others
Fund 0	Habitat	0.0	17.6	82.6	0.0	-0.2
	Integra	0.0	0.0	99.9	0.0	0.1
	Prima	0.0	31.0	70.5	0.0	-1.6
	Profuturo	0.0	14.7	85.7	0.0	-0.4
Fund 1	Habitat	3.5	70.5	1.7	24.1	-0.7
	Integra	4.4	71.1	1.1	23.5	-0.1
	Prima	3.4	76.6	1.4	18.3	0.2
	Profuturo	3.6	68.7	1.7	25.5	0.5
Fund 2	Habitat	9.7	45.6	1.4	43.9	-0.5
	Integra	9.4	40.8	2.1	47.4	0.4
	Prima	9.1	42.8	1.7	45.5	1.0
	Profuturo	9.0	40.8	0.7	48.5	0.9
Fund 3	Habitat	28.0	11.5	2.2	58.5	-0.2
	Integra	29.5	4.1	0.4	65.0	1.0
	Prima	27.7	3.5	1.0	67.2	0.6
	Profuturo	27.2	2.8	0.3	67.9	1.9

Source: SBS.

The allowable investments for the pension funds have been expanding over the last several years in an effort to increase investment in alternative instruments. In 2012, the SBS broadened the investment opportunities for private pension funds, allowing for, among others, financial instruments related to direct investment in infrastructure. In 2014, it created a more flexible process for investments where pension funds could invest in plain vanilla instruments, including direct investments in infrastructure, without prior authorization by the regulator. Previously this process could be long and complex, which limited the supply of investment instruments. According to a recent proposal, foreign infrastructure funds will be included as a new investment alternative for the portfolios managed by the AFPs. The majority of current infrastructure investment is through fixed income instruments. At the end of 2017, infrastructure investment by pension funds amounted to 8% of total assets (OECD[2]).

The limits on foreign investment have also been gradually expanded. The legal maximum for foreign investment is 50% of the total assets under management by the AFP. However, the Central Bank of Peru establishes operational limits for this threshold, which has been gradually increased over the last 15 years and was recently set at the maximum limit of 50%. Figure 6.5 shows the history of this increase and demonstrates that foreign investment has increased along with the investment limit. At the end of 2018, AFPs held 45% of their assets in foreign investments.

Figure 6.5. Foreign investment limits and actual foreign investment

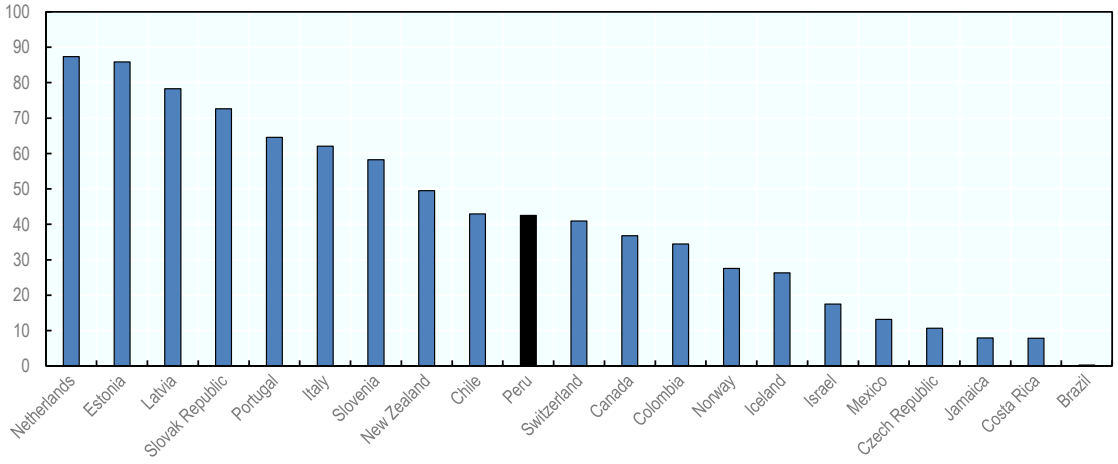


Source: SBS.

Following the increased foreign investment limits, Peru now finds itself just below the average of selected OECD and Latin American countries in terms of the amount of foreign investment by pension funds. Figure 6.6 shows pension funds' foreign investment for selected jurisdictions at the end of 2017.

Figure 6.6. Pension funds' foreign investment as a percentage of total investment

2017



Source: OECD Global Pension Statistics.

The regulation also establishes the minimum guidelines for the design of the investment policy. These address the overall investment policy for the portfolio, and includes long-term diversification of the global portfolio, tactical diversification, the global portfolio construction model, portfolio monitoring and rebalancing, liquidity, valuation guidelines

for the invested instruments, guidelines for preparing and approving the policies including the responsible entity, internal limits or restrictions on investments, and the currency trading policy.

Each investment manager is responsible for the preparation of the investment policy, which must be evaluated and approved in consideration of the guidelines above. As part of this, the managers must establish a minimum, maximum and target percentage of investment for each active asset class, internal investment limits, and the acceptable levels of leverage in derivative investment, among other considerations. The SBS is responsible for reviewing and approving the investment policies and their modifications.

AFPs are required to guarantee a minimum level of real investment return that varies by fund and market performance. The level of this guarantee is established based on the average annualised real returns over the latest 36 month period for all AFPs, as described in Table 6.5. AFPs must hold a reserve to back the guaranteed return. The reserve is calculated according to each security type based on their risk classification, and is currently 0.9% of assets under management. This reserve must be invested in funds available to the affiliates. As the reserve is financed by the AFPs' own resources, the expectation is that the incentives of the fund managers and the affiliates will be more aligned. The value of the guarantee is evaluated on a daily basis. If the minimum guaranteed return is not met, the AFP must transfer funds into the individual accounts. AFPs are also required to obtain a letter of credit from a bank equal to at least 0.5% of the assets under management to guarantee additional risks that AFP´s reserve is not sufficient to finance the minimum guarantee for the affiliates´ accounts.

Table 6.5. Minimum real guaranteed return

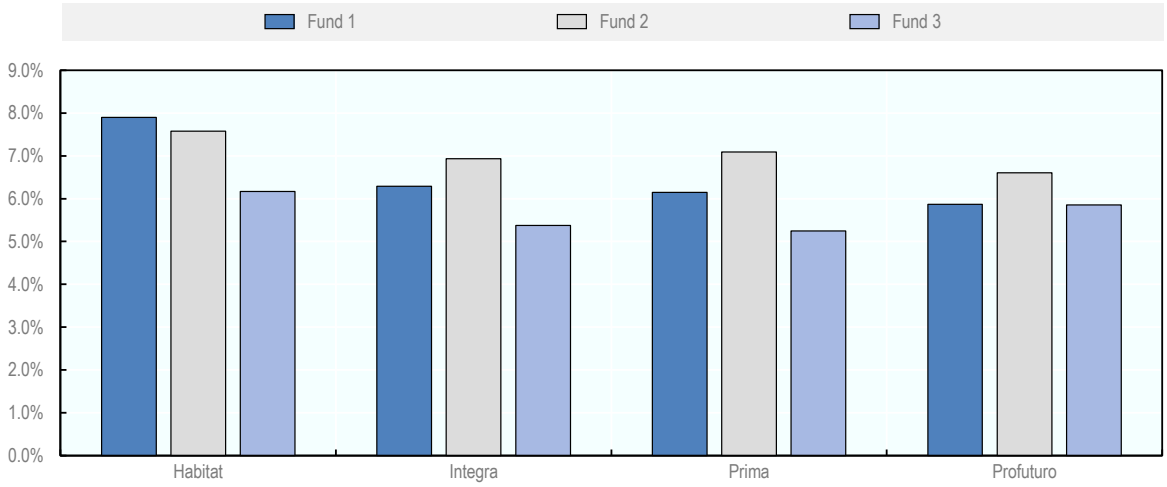
	Minimum of:
Fund 1	a) Average annualized return of the last 36 months of Fund 1 minus 2 percentage points
	b) 50% of the average annualized return of the last 36 months of Fund 1
Fund 2	a) Average annualized return of the last 36 months of Fund 2 minus 3 percentage points
	b) 35% of the average annualized return of the last 36 months of Fund 2
Fund 3	a) Average annualized return of the last 36 months of Fund 3 minus 4 percentage points
	b) 25% of the average annualized return of the last 36 months of Fund 3

Source: SBS.

The average return over the last five years has not varied widely across AFPs for any given fund type. Figure 6.7 shows the five-year nominal returns for each fund and AFP. Fund 3 has not managed to outperform Fund 2 for any AFP, despite having a more aggressive risk profile. Returns across AFPs also do not vary widely, though Habitat has outperformed all other AFPs for every fund.

Figure 6.7. 5-year average nominal returns by AFP and fund type

As of December 2018

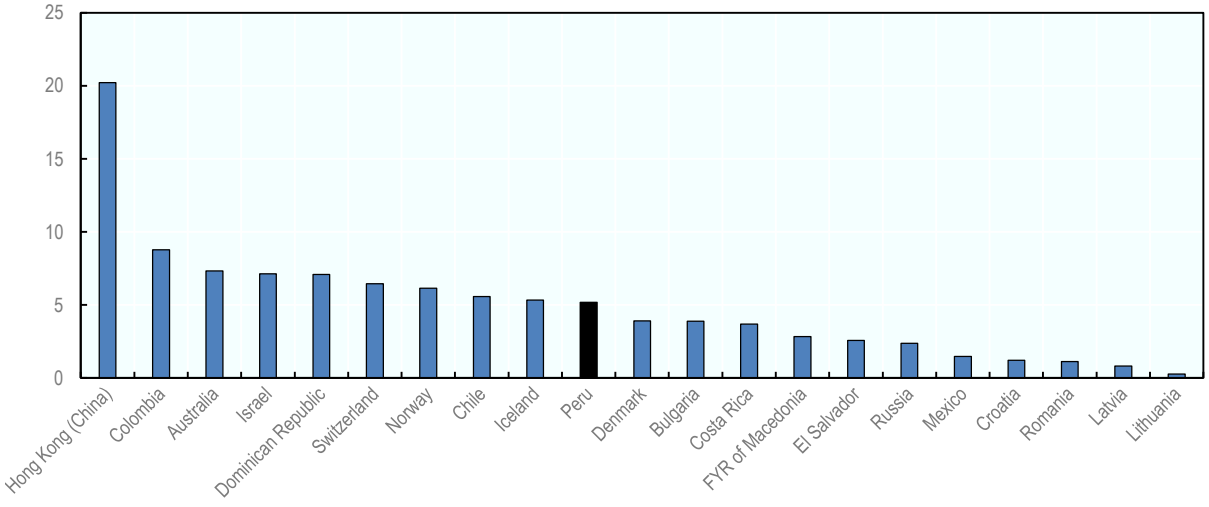


Source: SBS.

Globally, the investment return on pension assets in Peru compares well to those realised in other jurisdictions. The real annual return in Peru in 2017 was 5.2%, compared to the OECD average of 4.0%, or 6.6% average weighted by pension assets. For comparison, Figure 6.8 shows the real returns on pension assets in 2017 in selected jurisdictions having mandatory DC-type pension arrangements. Here again, Peru seems to be doing fairly average in terms of investment performance.

Figure 6.8. Annual real investment rates of return of pension assets, net of investment expenses

Selected jurisdictions with mandatory DC-type pensions, 2017.



Note: Please see methodological notes included in *OECD Pension Markets in Focus 2018*.
Source: (OECD, 2018[1]).

Nevertheless, average real returns have lagged somewhat behind other countries over the last five to ten years, achieving only 2.4% and 1%, respectively (Table 6.6). However, the average annual real returns, net of expenses, that the system has delivered over the period from 2002 to 2018 is higher at 5.0%.

Table 6.6. Nominal and real geometric average annual investment rates of return of pension assets over the last 5, 10 and 15 years

In percent.

	Nominal			Real		
	5-year annual average	10-year annual average	15-year annual average	5-year annual average	10-year annual average	15-year annual average
Australia	9.6	4.9	6.7	7.5	2.5	4.2
Dominican Republic	10.3	11.5	..	7.3	7.0	..
Costa Rica	8.8	8.2	..	6.4	3.7	..
Israel	6.0	5.5	..	5.9	4.0	..
FYR of Macedonia	6.2	5.0	..	5.7	3.3	..
Romania	6.4	9.5	..	5.5	6.2	..
Switzerland	4.9	3.0	3.9	5.1	3.0	3.5
Iceland	7.1	5.6	8.1	4.8	0.8	3.2
Bulgaria	4.7	1.6	4.5	4.7	-0.4	0.9
Denmark	5.3	5.8	6.3	4.6	4.4	4.7
Norway	7.0	5.3	6.7	4.6	3.2	4.7
Chile	7.5	5.1	7.4	4.0	2.0	4.1
Lithuania	4.8	..	..	3.7	..	..
El Salvador	3.4	3.8	..	2.7	2.1	..
Colombia	7.0	10.7	11.7	2.5	6.3	6.9
Hong Kong (China)	5.3	..	..	2.4	..	..
Peru	5.5	4.1	8.0	2.4	1.0	5.0
Latvia	2.9	2.6	3.5	2.0	0.5	-0.5
Mexico	4.8	6.2	..	0.7	1.9	..
Russia	7.1	..	..	-0.5	..	..

Note: This table is based on the annual nominal and real net rates of investment return reported in (OECD, 2018[1]). Please refer to the notes of these statistical annexes in that publication for more country-specific notes. The 5, 10 and 15-year annual averages are calculated over the periods Dec 2012-Dec 2017, Dec 2007-Dec 2017 and Dec 2002-Dec 2017 respectively, except for Australia (June 2012-June 2017, June 2007-June 2017 and June 2002-June 2017).
Source: (OECD, 2018[1]).

6.2. Cost and services of the AFPs

Reforms to the Peruvian pension system have introduced measures aimed to increase the competition among AFPs and insurance providers and to reduce the fees charged to pension affiliates. For the AFPs, two main measures have been implemented. First, a tender mechanism was introduced to assign the enrolment of new affiliates to the system, and second the fee structure was changed from one charging per contribution to one charging on assets under management. These changes have promoted competition and fees have come down on average, but fees could come down further. The number of members switching AFPs is also on the rise.

The platform that administers the contributions of members, AFPnet, has been very successful in increasing the efficiency of administering contributions and tracking potential employer debt. However, AFPs lack the resources needed to be able to enforce the payment of contributions owed, which is a huge shortcoming in the effective operation of the pension system.

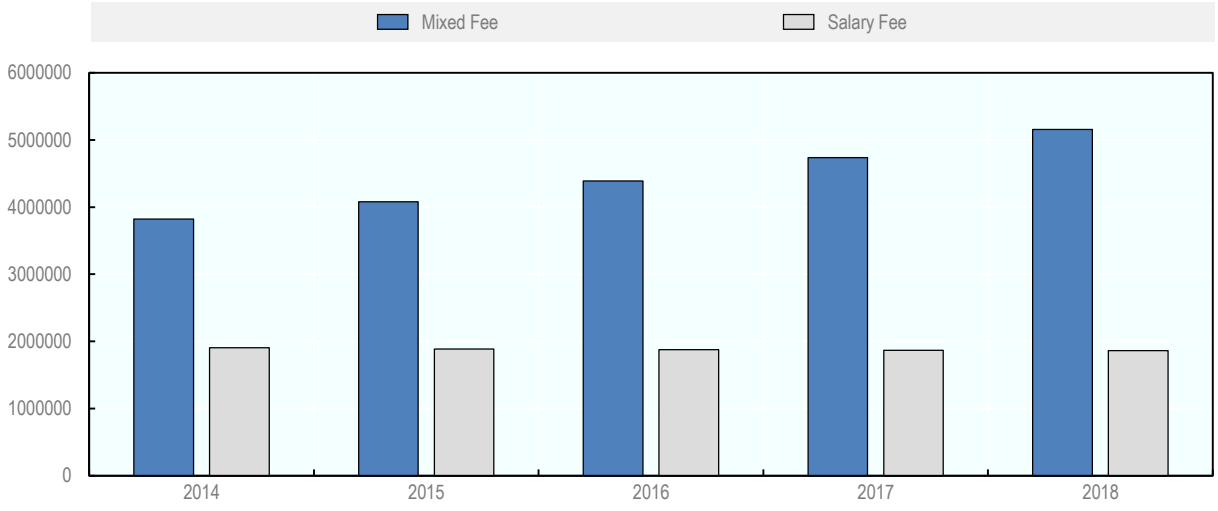
The introduction of the collective insurance scheme SISCO for survival and disability insurance has been successful in bringing consistency and transparency to the provision of this insurance. However, AFPs remain the face of the system, even for services they are not directly responsible for such as the provision of insurance and decisions around payments that are made to individuals.

This section discusses in more detail the measures that have been introduced and looks at evidence of their effectiveness in making the SPP more competitive and efficient.

6.2.1. Management fee structure

The reforms of 2012 modified the allowed fee structure that AFPs charge to members, moving from a per-contribution charge based on salary to a charge levied on the assets accumulated in the individual accounts. The change in fees is being gradually implemented over time. Existing affiliates were automatically transitioned to the new fee structure unless they explicitly opted to remain with the old structure. All new affiliates since the reform will be charged based on assets under management. Following the changes in fee structure, only around a third of the members remained on the fee structure based on salary, as seen in Figure 6.9.

Figure 6.9. SPP affiliates per commission structure



Source: SBS

The transition from fees on contributions to fees on accumulated assets is being managed over a period of 10 years, during which the fees take the form of a mixed commission. The maximum allowable fee charged on remuneration is scheduled to decrease over time, and the fee charged on assets apply only to contributions made since June 2013. The intention of the mixed fee structure was to avoid significant double counting of fees. The maximum commission that could be charged on remuneration over this period was established as a

percentage of the commission for each AFP charged in August 2012, shown in Table 6.7. Up until January 2019, all AFPs charged close to the maximum allowed limit. However, since the auction in December 2018, the participating AFPs reduced their proposed fees on remuneration to 0.0%.

Table 6.7. Reduction schedule for the maximum charge on remuneration for the mixed commission structure

	% of charge on remuneration
Feb 2013 - Jan 2015	86.5%
Feb 2015 - Jan 2017	68.5%
Feb 2017 - Jan 2019	50.0%
Feb 2019 - Jan 2021	31.5%
Feb 2021 - Jan 2023	13.5%
From Feb 2023	0.0%

Source: (Comision de Proteccion Social, 2017[3]).

The AFPs are free to establish the commission that they will charge on assets. The fees charged by each AFP under the mixed commission scheme at December 2018 and fees that were presented in the auction of December 2018 (that apply for the winner from June 2019) are shown in Table 6.8. At December 2018, the average fees charged for the mixed commission scheme were 0.63% of wage per contribution and 1.23% of assets under management. Proposed fees significantly reduced in the latest auction, with fees on wages completely eliminated and the average fee on assets falling to 0.91%. The average fee for those who stayed with the old fee structure was 1.58% of wage per contribution.

Table 6.8. Mixed fees charged by AFPs

In %

AFP	December 2018		Auction December 2018	
	Fees on wage	Fees on AUM	Fees on wage	Fees on AUM
Habitat	0.38	1.25	0.00	0.90
Integra	0.90	1.20	0.00	0.82
Prima	0.18	1.25	0.00	1.00
Profuturo	1.07	1.20	-	-

Note: Fees on contribution as a percentage of wage. Fees for the auction winner will apply from June 2019. Profuturo did not participate in the last auction.
Source: SBS.

AFPs are allowed to charge different fees on voluntary contributions to the pension system, and these fees are also allowed to vary by fund type. As expected, these fees are highest for Fund 3 and lowest for Fund 0 (Table 6.9). The average spread between the lowest and highest charge is 123 basis points. However, fees charged for Fund 2 are higher for voluntary contributions than mandatory contributions by at least 25 basis points for all AFPs, despite the fact that the majority of assets are invested in Fund 2. Furthermore, fees charged for Fund 0, which is invested primarily in cash and deposits, are 80 basis points on average.

Table 6.9. Annual fees charged for voluntary pension contributions, December 2018

In %.

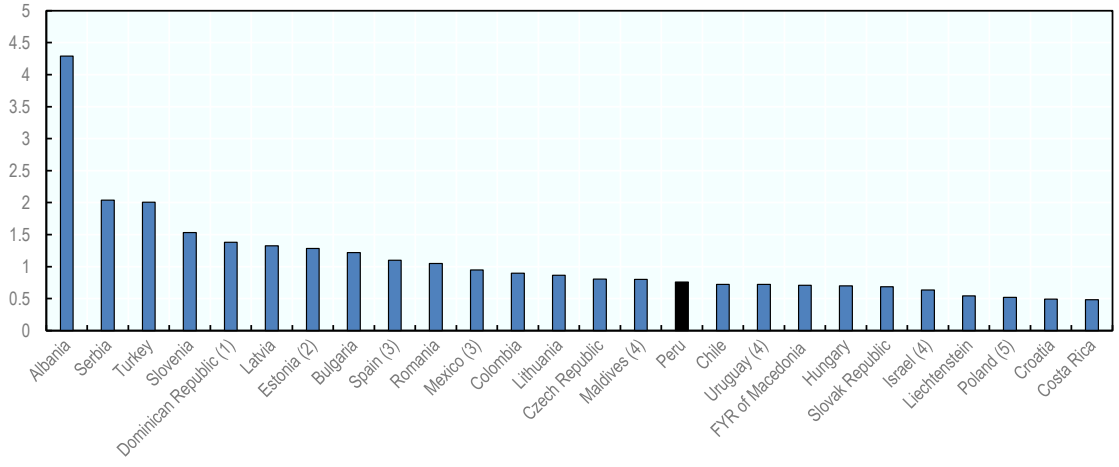
	Fund 0	Fund 1	Fund 2	Fund 3
Habitat	0.70	1.10	1.50	1.90
Integra	0.49	1.15	1.75	2.00
Prima	1.21	1.21	1.57	1.94
Profuturo	0.81	1.21	2.12	2.30

Note: Fees charged for existing affiliates.
Source: SBS.

Given the different types of fee structures within the Peruvian pension system and those implemented in other jurisdictions, a direct comparison of the fee charged by the AFP is not possible. However, Figure 6.10 makes a comparison by showing the total amount of fees paid as a percentage of the total amount of assets under management for DC pension plans. In 2017, the AFPs in Peru charged members total fees amounting to 0.8% of assets under management, which included both the charges based on remuneration and the charges based on assets under management. Currently, this level is in line with the majority of the countries shown, as 17 out of 26 fall between 0.5% and 1%. Nevertheless, as the system completes its transition to fees based on assets under management, this figure can be expected to increase to the level of the fee that is being charged by the AFPs. If this remains at around 0.9%, however, Peru would still remain around the median level of fees of the countries shown.

Figure 6.10. Fees or commissions charged to members of DC plans in selected countries, 2017

As a percentage of total assets.



Note: (1) Data refer to mandatory individual accounts only. (2) Data refer to 2015. (3) Data refer to personal plans only. (4) Data refer to 2016. (5) Data refer to open pension funds only.
Source: OECD Global Pension Statistics.

6.2.2. Competition

The pension reform passed in 2012 introduced a tender mechanism to select the AFP in which all new members are enrolled in order to promote competition among the AFPs and reduce the fees charged. The AFP proposing the lowest mixed fee receives all new affiliates to the system for a period of two years.

Since the tender mechanism was introduced, only Habitat has entered the market as a new player. Table 6.10 shows the AFPs winning each auction and the commissions proposed. Habitat won the first two auctions, and Prima won the auction held in 2016. Integra won the last auction, held in December 2018, which resulted in a significant reduction in the fees charged. From June 2019, new affiliates enrolled with Integra will be charged zero fees on their salary, and 82 basis points on assets under management.

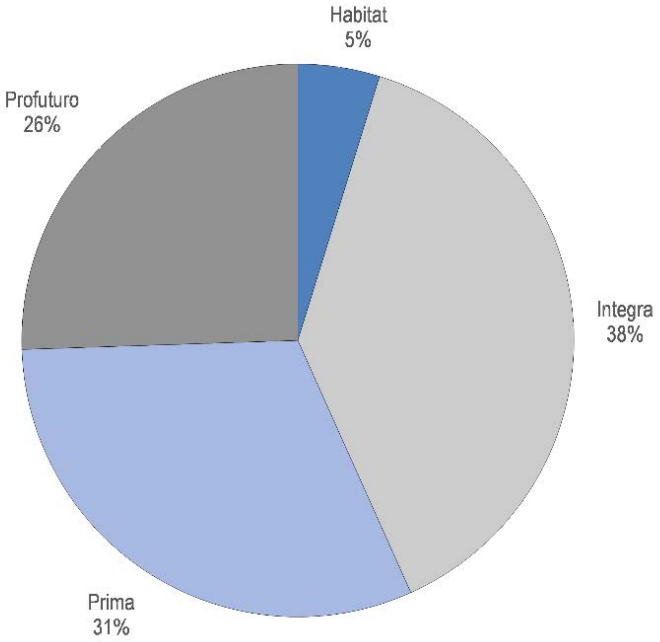
Table 6.10. AFP auction winners and mixed fees charged

Mixed Commission	2012	2014	2016	2018
% salary	0.47	0.38	0.18	0.00
% assets	1.25	1.25	1.25	0.82
Winning AFP	Habitat	Habitat	Prima	Integra

Note: Auction fees applicable from June the following year.
Source: SBS.

The AFPs with the largest market share are Integra and Prima, who manage 38% and 31% of the pension assets, respectively. Habitat is the smallest player as well as the newest, with a market share of only 5%, as seen in Figure 6.11.

Figure 6.11. Market share of AFPs by assets under management, December 2018

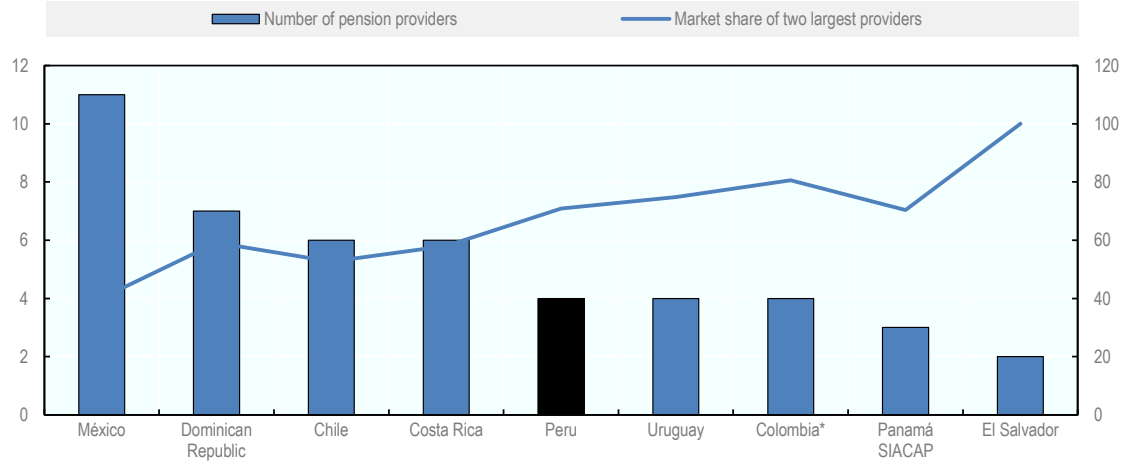


Source: SBS.

This concentration of market power among only a few providers is quite common in Latin America. Figure 6.12 shows that only Mexico has more than seven pension providers among the countries with a similar individual account pension system. Compared to the other jurisdictions in which there are only four pension providers, Colombia and Uruguay, the market is slightly less concentrated in Peru.

Figure 6.12. Concentration of market power of pension providers

December 2017.



Note: *December 2016. The number of pension providers is shown on the left axis and the market share of the two largest providers is shown on the right axis.
Source: Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones, AIOS, Statistical bulletin, 2018.

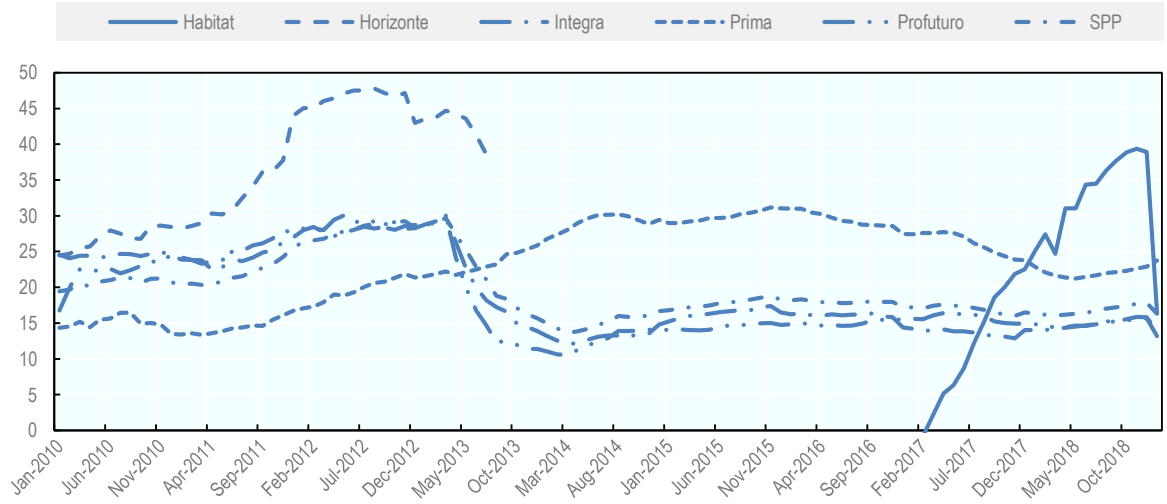
6.2.3. Profitability and costs

The introduction of the tender mechanism seems to have been successful in its objective to promote competition among the AFP and ultimately reduce the costs of investing for members, as evidenced by a reduction in profitability following its introduction. Nevertheless, there has been only one new entrant into the business, and the AFPs overall have remained relatively profitable. Figure 6.13 shows the return on equity (ROE) for each of the AFP and for the SPP on average since 2010. Over the entire period, the return on equity averaged just under 20%. With the introduction of the tender mechanism, the ROE decreased to around 15% and has remained below 20% on average since. This is due to the fact that the AFPs' income growth was constrained from the auctions, and from the decrease in the remuneration component of the mixed fee. Only Prima did not experience a reduction in its ROE following the introduction of the tender mechanism, though it did reduce since Prima won the third auction to receive new members.

The ROEs relationship with investment returns need to be considered in the long-term, and the two should not necessarily be correlated. For example, the ROE for all AFPs increased slightly over the year 2018 while annual real returns were negative. This is likely due to the transition from fees based on remuneration to fees based on assets under management. It would be expected that the total fees collected would be greater than before, and as the asset base to which the fees are applied grows so would the profitability of the AFP. On the other hand, ROE dropped at the beginning of 2019, and the fees charged by the AFPs are expected to reduce significantly from June 2019.

Figure 6.13. Return on Equity of the AFP

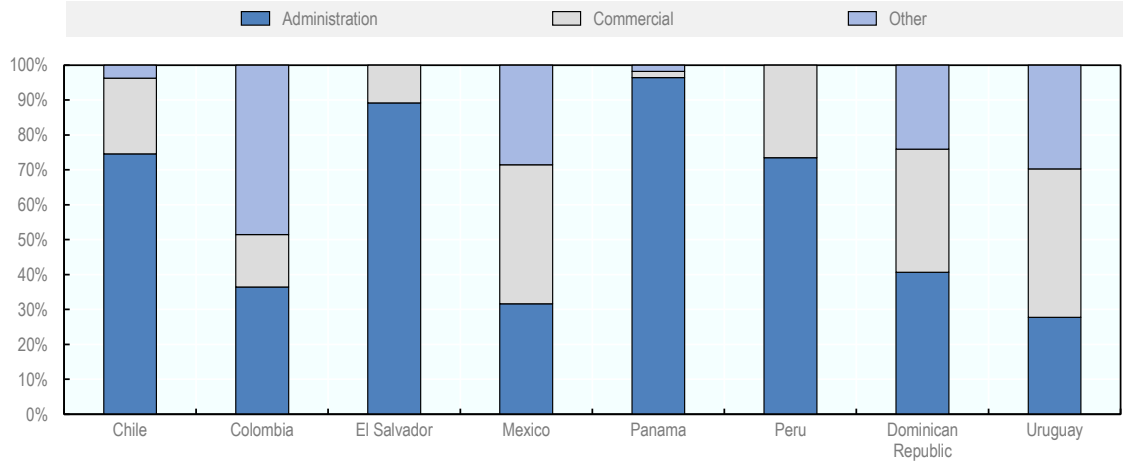
January 2010 to January 2019.



Source: SBS

The amount that AFPs in Peru spend on commercial endeavours and marketing relative to administrative costs seems to be more or less in line with other Latin American countries. Commercial spending totals around a third of the total spent on administration (Figure 6.14). In November 2018, total operating costs of the AFPs represented 47% of income and administrative costs 35% of income on average in the SPP. Income per active affiliate amounted to PEN 190.3, and operating costs less than half of that amount at PEN 89.3.

Figure 6.14. Breakdown of operational spending of pension providers, 2017



Note: Other expenses not available for Peru.
Source: Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones, AIOS, Statistical bulletin, 2018.

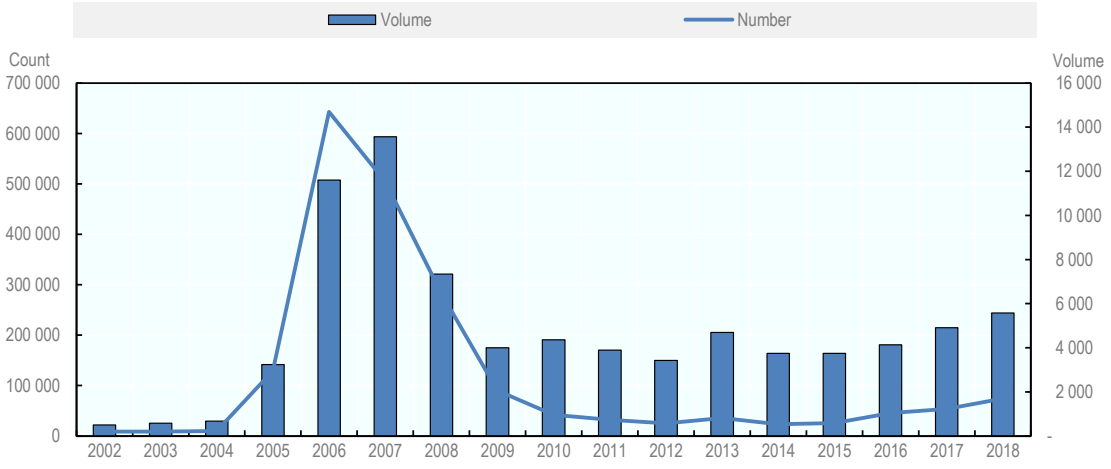
6.2.4. Switching between AFP

Affiliates are allowed to switch AFPs without restrictions or charges 24 months after they have been initially enrolled in the SPP. New affiliates are required to remain with the AFP that won the auction for 24 months, unless the investment performance of this AFP is particularly poor. If the return net of fees is lower than the market average, the affiliate can switch to another AFP after only 180 days. After 24 months, there are no additional restrictions on fund transfers. AFPs do not charge the affiliate fees to transfer providers. However, the sales representatives do earn commissions per transfer, and these commissions are not regulated by the SBS.

Affiliates must have all of their mandatory contributions managed by the same AFP, so if they decide to switch their entire account balance must be transferred to the new AFP. In order to change AFPs, the affiliate must request the transfer from the AFP that will receive the funds. This process takes around two months from the date that this request is made. If the request is made before the 23rd of month *m*, the affiliate will be registered with the new AFP in month *m+1* and the funds will be transferred on the fifth working day of month *m+2*. If the request is made after the 23rd of month *m*, the registration and transfer take place in month *m+2* and *m+3*, respectively.

Transfers peaked in 2006 and 2007 following the liberalisation of transfers in 2005, as shown in Figure 6.15. During these two years, over 1 million affiliates transferred over PEN 25 billion between AFPs. These large volumes were driven by a commercial war that erupted among AFPs once transfers became easier and a reduction in fees from the increased competition. From 2009 to 2015 transfers were more stable, with 25 to 40 thousand members transferring around PEN 4 billion annually. This has been increasing in recent years, however, with the number of transfers in 2018 nearly tripling that observed in 2015, for a total annual volume transferred of approximately PEN 5.6 billion.

Figure 6.15. Transfers between AFPs



Note: Number, shown on the left axis, reflects the number of affiliates switching. Volume, shown on the right axis, reflects the amount of assets transferred in millions.
Source: SBS

6.2.5. Administration and services provided

AFPnet is a platform service that the AFPs provide and jointly administer. The internet-based platform facilitates the process for employers to transfer the affiliates' contributions

to the AFP, allowing this to be done with the completion of an excel file containing the employees' identification data. The software then automatically prepares the spreadsheets, links the affiliate to the AFP and calculates the amount of their contribution. The employer is then able to make contribution payments to the affiliates' accounts. Employers are obliged to use AFPnet to transfer their employees' contributions, and must do so by the fifth working day of each month.

AFPnet has resulted in significant efficiency gains in terms of the administration of contributions. The time to deposit a contribution into the member's account has been reduced from one month to one day.

AFPnet is also used to notify employers about presumed debt when the employer stops sending an employee's contributions but has not informed the AFP that the employment relationship has ended. The employers can then confirm whether or not the debt is correct, and can now use the platform to make debt rescheduling agreements.

Apart from the management and investment of contributions, AFPs are also responsible for managing other administrative aspects for the affiliates, notably their eligibility for certain types of payments. The AFP is responsible, for example, for verifying that members are eligible to withdraw 25% of their account balance for the purchase of a first home and to assess the validity of the transaction. AFPs are also responsible for processing the application and liaising with the ONP for payment of the Recognition Bonus from the government into the account if the member is eligible for a Recognition Bond at retirement. The AFP is obliged to send all affiliates of the SPP information on the eligibility and process to obtain the Recognition Bonus, and must provide the application forms in all authorised agencies and establishments.

AFPs are also responsible for collecting the contributions of members who have opted into the SPP from employers. The AFPs are required to establish an administrative procedure to do so or to launch a legal judicial process against the employers.

The AFPs are also subject to minimum requirements with respect to the content and format of the information they provide to their affiliates about the pension system, their individual accounts and the benefit options available.

At retirement, the AFPs must inform the individual of their pay-out options and are responsible for obtaining quotes from the insurance companies. If the individual chooses an annuity option with an insurance company, the AFP manages the intermediation with the insurer, and remains the main point of contact for the individual throughout retirement.

AFPs are also responsible for the AFP Medical Committee, COMAFP, which is an autonomous body financed by the AFPs that determines the validity of disability claims. The committee is responsible for producing an evaluation and issuing an opinion as to whether a certain disability and its causes are covered by the insurance. The committee typically bases their decision on historical precedent and the official medical manual used for this purpose. There is no requirement, however, that the medical manual be regularly updated, and as a result it has not necessarily kept up with medical advances.

The COMAFP is required to provide a report with their opinion within ten days following the request by the affiliate, and must notify the SBS, the affiliate or beneficiaries, and the AFP and Insurance Company within three days of its decision. The affected parties are allowed to appeal the decision within 15 days.

The COMAFP is subject to the control, supervision and sanction by the SBS relating to the performance of its functions. It is made up of six members, of which four represent the AFP

or the parent entity, and two representatives of the SBS. Despite being directly implicated in the decisions of the COMPAFP, the insurance companies are not represented on the committee. The designation of the members of the COMAFP is valid for three years, and can be renewed for a consecutive period of three additional years under certain conditions established by the SBS. Once this period has expired, a doctor may return to be a member again of the COMAFP following a period of at least three years.

6.3. Policy options

More needs to be done to promote better investment outcomes for individuals and align the incentives of the various players in the pensions system with positive outcomes for members. The following measures, implemented together, would improve investment outcomes for members, better align the incentives of the AFPs with their members, and promote more cost efficiencies in the system.

1. The default investment strategy should be adapted to provide a more optimal lifecycle approach, providing a more gradual de-risking as individuals approach retirement and more flexibility around how different types of savings are invested.
2. Independent investment benchmarks should be introduced to assess the performance of the AFPs in order to reduce the incentives for herding in investment behaviour.
3. Fees should be aligned with costs and competition promoted. This could be done by improving the disclosure and reporting on cost and fees for the AFP in order to encourage better cost control, implementing a performance based fee structure to better align the incentives of the AFPs with the interests of their members, aligning the fees charged on mandatory contributions with those for voluntary contributions, and setting limits around how often individuals can change funds and providers to avoid cost increases related to unnecessarily frequent switching.
4. The minimum guaranteed return should be eliminated and the riskiness of investment strategies controlled in a more direct manner.
5. The role of the institutions in the system and how the different components are financed should also be better aligned with their function. The central platform PensionsNet should be responsible for enforcing the payment of contributions, and be financed through a small fee charged on the contribution. Insurers should play a larger role in the decisions related to insurance in the COMAPF, and this body should be financed through the insurance premium.

6.3.1. Adapt the default investment strategy to a more optimal lifecycle approach and allow for flexibility in the default for voluntary savings

The current investment offering to members does provide a range of investment strategies to suit various degrees of risk tolerance of investors. Nevertheless, the default strategy to de-risk investment as individuals approach retirement is abrupt rather than gradual and therefore does not provide an optimal strategy as a lifecycle approach to investment. In addition, all pension savings are required to be invested in the same fund.

Provide a more gradual path to de-risk investments

The *OECD Roadmap for the Good Design of Defined Contribution Pension Plans* recommends that pension arrangements offer a default investment strategy, and one that

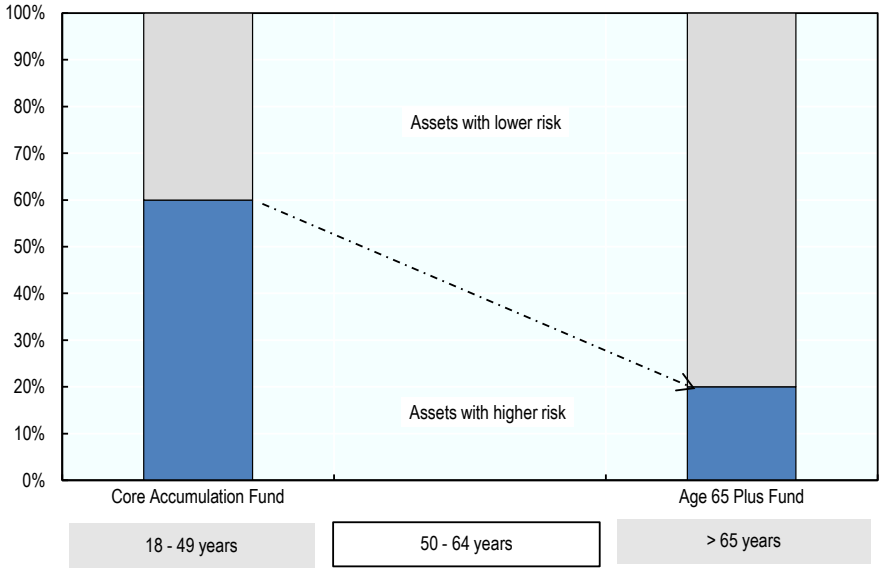
ideally follows a lifecycle strategy. Lifecycle strategies are generally strategies that take more risk at younger ages and become more conservative as individuals approach retirement. Until 10-15 years before retirement, assets can be invested in riskier assets with higher expected returns because the investment horizon is long and individuals will have time to recover from any potential losses. The investment strategy shifts towards more conservative strategies when retirement is 10-15 years away in order to lock in the gains that have been earned with high growth assets and limit the risk of significant investment losses that cannot be recovered from.

The default strategy in Peru is to invest in a moderate growth strategy investing in up to 45% of equities until the age of 60, at which point assets are immediately rebalanced to a conservative strategy of mostly fixed income instruments. At 65, the normal retirement age, assets are transferred to a near risk-free strategy of cash and deposits until the individual makes a decision regarding pay-out.

While this investment strategy does de-risk the portfolio as an individual approaches retirement, it could invest more aggressively at the younger ages and it de-risks in a very disjointed manner, exposing the individual to additional risk of not being able to recover from severe investment losses.

The typical lifecycle strategy employed in many pension funds allows for higher risk investment at younger ages and follows a more gradual path of de-risking, with the asset allocation gradually rebalanced as the individual approaches retirement rather than implemented all at once. The Mandatory Provident Fund in Hong Kong (China), for example, takes the approach of gradually shifting assets from a growth fund to a low-risk fund over the 15 years approaching retirement in a linear fashion (Figure 6.16).[1] This type of approach aims to still allow for some level of higher growth while locking in the achieved investment returns, mitigating somewhat the risk of unrecoverable losses as people near retirement.

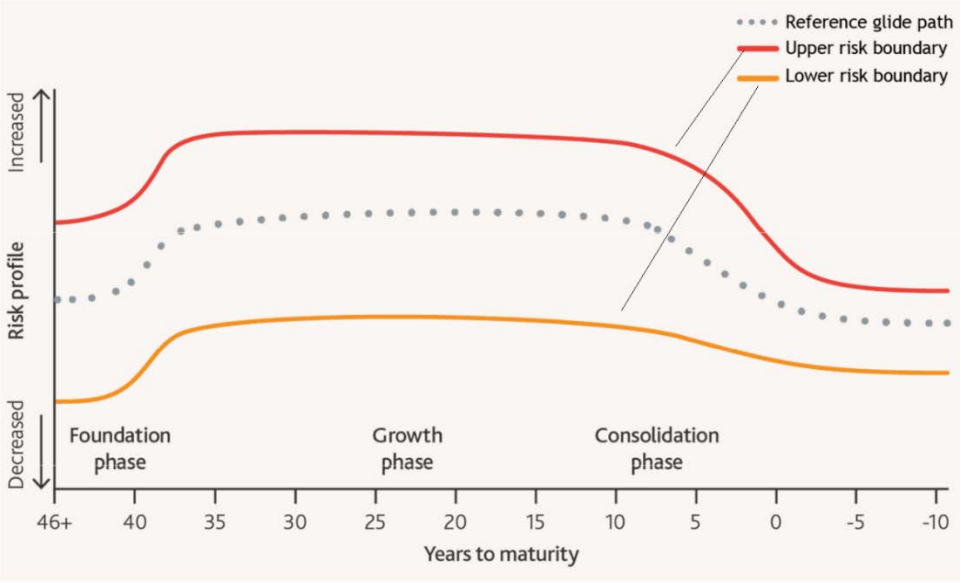
Figure 6.16. Risk allocation – MPFA Default Investment Strategy



Source: (MPFA, March 2017[4]).

Other funds, commonly known as Target Date funds, reduce the automatic nature of the lifecycle approach and invest in a more dynamic manner along a glide path that takes into account the ages of a specific cohort, the economic environment, and the market conditions as it moves from one phase to the next. The NEST funds in the UK are an example of a target date approach. Each phase targets both a real investment return and a certain long-term volatility. Contrary to other lifecycle strategies, however, for the youngest members the NEST strategy begins more conservatively to limit losses that might discourage new savers, then builds up the level of risk from a horizon of 40 years to retirement (Figure 6.17).

Figure 6.17. Risk allocation – NEST funds



Source: (NEST, 2018[5]).

Target date funds have the advantage of more gradually linking the accumulation and the pay-out phase and having a coherent long-term perspective for investing for retirement. However, taking such an approach would limit the investment options that could be offered to members, and would require more significant changes to the current structure of the private pension system in Peru.

Allow different investment strategies for voluntary savings

More flexibility should be allowed in how individuals invest different types of savings. Individuals are currently required to invest all of their retirement savings, both mandatory and voluntary contributions, in the same AFP and fund.

Individuals should be allowed to opt for different strategies and providers for the different types of accounts to reflect their own risk preferences. This would allow them to opt for an intermediate level of risk between those defined by the funds by allocating their mandatory and voluntary pension savings to different funds. It could also allow them to diversify providers for their different types of savings.

6.3.2. Implement independent investment benchmarks to assess and compare investment performance

Basing the minimum guaranteed return for each fund on the average return of all AFPs may create an incentive for herding behaviour. This could result in similar investment strategies across all AFPs to minimise the likelihood that any one AFP's investment returns deviates much below the average and triggers additional payments by the AFP to the individual accounts.

Indeed, when considering the correlation of real returns from Fund 2, in which most of the assets are invested, there does seem to be evidence of potential herding. Table 6.11 shows that the correlation of annualised returns, measured on a monthly basis, from January 2015 to June 2018 is close to 1 for all AFPs.

Table 6.11. Correlations of real annual returns (monthly) of Fund 2

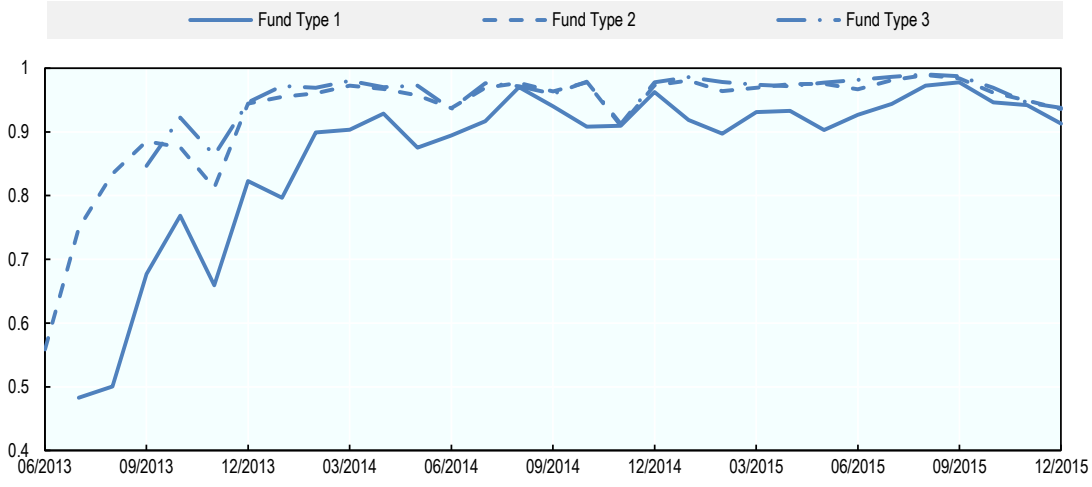
January 2015 - June 2018.

	Habitat	Profuturo	Integra	Prima
Habitat	1			
Profuturo	0.984	1		
Integra	0.996	0.977	1	
Prima	0.992	0.972	0.997	1

Source: Own calculations based on SBS data.

Figure 6.18 shows the evolution of the average correlations of daily returns over a given month for each fund type. The correlations in returns increased considerably from June 2013 to June 2014, though correlations tended to also be higher prior to 2013. In addition, the correlations for the different fund types have been converging.

Figure 6.18. Evolution of Monthly Average Correlation of Pension Funds Returns



Source: SBS

Correlations in investment returns may be due to the correlation of returns in similar assets or could result from similar investment strategies across AFPs. Internal studies by the SBS

suggest that AFPs frequently changed their position in an asset in the same direction within a given month, with at times almost half of the assets traded within a given month being traded in the same direction by at least two AFPs. While all funds demonstrated a certain level of matching investment strategies, this effect was more significant for Funds 2 and 3. However, this could be partially explained by the lack of diversity in investment opportunities in the local market, which could necessitate similar investment strategies for a given asset allocation.

The SBS is working on the development of benchmark indicators for the AFPs, which will allow for the measurement of the relative performance of the funds against these indicators for the purpose of establishing the minimum guaranteed return. AFPs also have their own benchmark indicators for the pension funds they manage that have been established based on the actual asset classification in their portfolios and are shared with the SBS. The SBS is currently evaluating these indicators to see whether they fulfil regulatory requirements. However, any initiative to develop benchmarks should attempt to avoid herding behaviour towards the benchmarks and focus on the AFPs' ability to outperform that benchmark on returns adjusted by risk and cost.

While individualised investment benchmarks are more appropriate for assessing the investment performance of the AFPs, the SBS should also establish a common independent benchmark for each fund that would allow for better comparability across AFPs. This benchmark should allow for the assessment of performance over the long-term, in line with the investment horizon of members. It should also allow for the comparison of the risk profile and the impact of fees and charges on overall performance.

6.3.3. Ensure charges are aligned with costs and promote competition

The introduction of the tender mechanism has been effective in reducing the average fees charged by AFPs. Nevertheless, the levels of profitability of the AFPs and the level of fees charged on assets under management indicate that there may still be room to reduce fees further. This could be done by improving disclosure requirements and introducing a fee structure that better aligns the incentives of the AFPs with those of members (OECD, 2018[6]). In addition, fees charged for accounts with voluntary contributions should be aligned with those for mandatory contributions, and frequent switching between AFPs should be limited.

Improve disclosure and reporting of costs and fees

Making costs and fees more transparent is often the primary policy tool implemented to reduce costs and fees when market mechanisms fail. Policies to improve the disclosure of fees aim to not only increase the transparency of fees charged to members, thereby increasing competitive pressure on providers, but also to help providers to better understand the fees that they actually incur in order for them to take action. Effective policies also improve the engagement of members by making the disclosures easy to understand.

The SBS, in coordination with the AFPs, has already taken steps to simplify fee disclosures and improve their transparency for members. AFPs are required to include in their communication the accumulated net returns of the pension account and the commissions that are charged, and it must be done in a way to promote simplicity and accessibility, among others.

While AFPs have to report total costs, the cost-reporting requirements to the SBS are not as comprehensive as they could be. Their reporting includes only the categories of

administrative, operating, and marketing costs, and it is done following international accounting standards. However, as with most countries, they are not required to report implicit costs.[2] Cost reporting requirements that have been implemented in the Netherlands provide a good example of how requiring funds to provide more granular details on their cost structure, service levels and performance can result in lower costs. In addition to administration costs, pension funds in the Netherlands also have to break out their investment costs and transaction costs. This exercise revealed that the pension providers were not fully aware themselves of all of the costs they incurred, and once this became more clear they took action based on this information to reduce costs (OECD, 2018[6]).

Nevertheless, there is a cost to increased data collection, so the relevance and usefulness of the data requested must be considered with the administrative burden to collect it. The success of the disclosure requirements in the Netherlands was, in part, driven by a pragmatic approach that the regulator took to implement the requirements gradually with increased granularity over time (OECD, 2018[6]).

Impose a fee structure to better align the incentives of providers and members

The change in fee structure from one based on remuneration to one based on assets under management does not fully align the interests of the AFPs with members and will result in lower accumulated assets for individuals at retirement. Assets will be lower because fees will be taken from the contributions rather than charged as an addition to the contributions, and in many cases, the new structure will also result in more fees paid to the AFP. Nevertheless, as the pension system in Peru is maturing, it may still be necessary to move away from the fee structure based on remuneration to cover costs as the asset base grows.

The change in fee structure to one based solely on assets under management does not necessarily align the incentives of the AFP with the interests of their clients. Fees based on assets do not provide incentives for fund managers to be more efficient, and may reward poor performance and penalise good performance. This is true because they are not linked to the relative performance of the fund compared to the market, and a fund that underperforms the market with positive returns can earn more in absolute terms than one who outperforms the market but with negative returns (OECD, 2018[6]).

Additionally, fees on assets under management (AUM) need to be set carefully. Moving from a fee based on remuneration to a fee based on AUM could potentially have a significant impact on the total amount of fees that members will pay to the AFPs and the pension pot they will ultimately accumulate if the level is not set correctly. Given that a fee on AUM is charged on the entire asset base in each period, the accumulated fees paid could be higher, if not set appropriately, than those charged on contributions, which are received only once. In addition, assuming that the fees based on AUM are deducted from the individual's account and that contributions remain at 10% of salary, the individual's assets accumulated at retirement would be lower than if they had continued paying an additional fee based on remuneration because the initial contribution would be reduced rather than having the fee charged as an addition to the contribution. Nevertheless, this higher potential cost is also a result of the need to implement the transition to the new fee structure in a gradual manner, as the AFPs lost the upfront funding for managing the assets, and initially the level assets on which the AUM fees were charged were very low. Over time these fees would be expected to gradually reduce to equalise the cost to members.

The impact of the new fee structure varies across demographic profiles. One study assessed the impact of the new fee structure in Peru using a microsimulation model with different income profiles, contribution rates and returns (Bernal et al., 2016[7]). Assuming the new

fee structure does not result in lower overall fees due to increased competitive pressure, the study finds that the largest negative impact of the change in fee structure is for younger contributors and members with higher balances. Women are also more negatively affected because they are more likely to contribute and accumulate more savings. On the other hand, low-income workers end up paying less in fees under the new fee structure.

Under the new fee structure, Peru can be expected to remain it its current average position in the ranking of the level of fees if fees do not decline further (Figure 6.10). Currently, the total amount of fees charged relative to assets under management stands at 0.8%, and the fee based on assets under management charged to new affiliates will be 0.82% from June next year. If this level stays constant, Peru could be expected to remain at just under the median of the countries shown.

Policy makers should consider introducing alternative fee structures, such as performance-based fees, to better align the interests of AFPs with those of members. Performance based fees pay higher fees for higher risk-adjusted returns. Combining an appropriate investment benchmark with a performance-based fee structure would incentivise the fund managers to seek higher risk-adjusted returns with more innovative strategies. Some studies have shown that funds compensated with this type of fee structure achieve higher risk-adjusted returns than funds with AUM-based fees (Hamdani et al., 2016[8]). Furthermore, this type of fee structure would reduce the incentives for herding behaviour by providing additional compensation for over-performance.

The benchmark for performance needs to reflect the actual investment strategy of the fund and be in line with the objective of providing a pension. This benchmark should be the benchmark established by the SBS to assess the performance of each type of fund. The SBS could rely on an independent technical body to establish this benchmark.

Nevertheless, performance-based fees must be structured carefully in order to provide the right incentives to fund managers. Typically, these fee structures combine a small fixed-percentage base fee calculated on AUM combined with the variable fee based on performance. The main components include the asset base on which fees will be charged and the fee rate, the reference point for performance in order to asses 'good' performance, and the length of time over which this performance is calculated. The reference point can also incorporate a high watermark to avoid compensating the fund manager for previous losses (OECD, 2018[6]).

Different performance fee structures are possible to smooth the potential volatility of fees. The Government Pension Investment Fund (GPIF) in Japan provides one example of how to structure performance-based fees with a custodian model to smooth the volatility of fees from year to year. For this structure, the base fee references the return of a passive fund. Performance-based fees are calculated on the excess return over this passive fund. However, only 45% of the performance-based fee is actually paid to the asset manager each year, with the remaining 55% deferred to the following year. The carryover structure aims to encourage a longer-term horizon and avoid excessive payment for very high performance in one year – which is a drawback of using high watermarks – as well as the problems of clawbacks where excessive fees are taken back, which can present complications with respect to taxation (Jimba, 2018[9]).

Policy-makers could consider incorporating a performance-based fee structure with the current auction process. This could be done by basing the auction on the base fee that the AFPs would receive for achieving the benchmark returns. Other variables reflecting the value added that the AFP has to offer could also be considered. The SBS could then

establish the proportion of the excess return that AFPs would receive for exceeding the benchmark returns, which would be the same for all AFPs, but could vary by fund type to align the total expected fee with the level of active management required (i.e. the highest performance fee for Fund 3). As an initial step to transition to the new structure in a smooth manner, the SBS could establish the level of the performance-based fee by solving for the amount required to match the current level of fees based on the target excess return of the funds and the expected base-fee.

This solution would address several challenges relating to the implementation of performance-based fees. Allowing the AFPs to establish their own base fees first provides a solution for having a performance-based fee structure that is compatible with the tender process. It also addresses the challenge of the communication of fees and net returns to members. Individuals could rely on the base fee as a way to compare the costs of the different AFPs, and net returns could still be calculated and communicated for members to be able to assess the relative investment performance of the AFPs. Finally, allowing for the performance-based fee to vary by fund type better aligns the fee received with the investment strategy of the fund, with higher fees paid for more actively managed funds.

Align fees on voluntary contributions with those for mandatory contributions

The performance-based fee structure proposed in the preceding section could also be a solution to align the fees of mandatory and voluntary contributions. One reason why the fees may currently differ between the mandatory and voluntary contributions is that it would be more likely for individuals to invest in the higher risk funds with voluntary contributions. With the performance-based fees, the same fee structure could apply to both because the expected fees would still be higher for the more actively managed funds.

In the current system, AFPs have no competitive pressure to offer lower fees for voluntary contributions. The tender mechanism only references the fees for mandatory contributions, and individuals have to invest their voluntary retirement contributions with whichever AFP they are already affiliated with.

While voluntary contributions are much less significant in size compared to mandatory contributions, the fees on voluntary contributions should also be addressed. For voluntary contributions, AFPs can charge different levels for different funds, which is justified as the higher growth funds could be expected to involve more active management. Nevertheless, on average we would expect that fees on voluntary contributions should resemble those charged for the mandatory contributions. This is not the case, and in fact the average fee charged for voluntary contributions weighted by the actual asset allocation across funds is 1.74%, which is more than 50 bps higher than the charges for mandatory contributions. Furthermore, fees charged for voluntary contributions to Fund 0 range from 49 bps to 1.21 bps, which is extremely high considering that this fund is primarily invested in cash and deposits.

At worst, these higher fees will provide disincentives for individuals to voluntarily contribute to their pension account. At best, people will not even realise that they are paying higher fees on their voluntary contributions, but will not be able to accumulate as much assets as they otherwise would have.

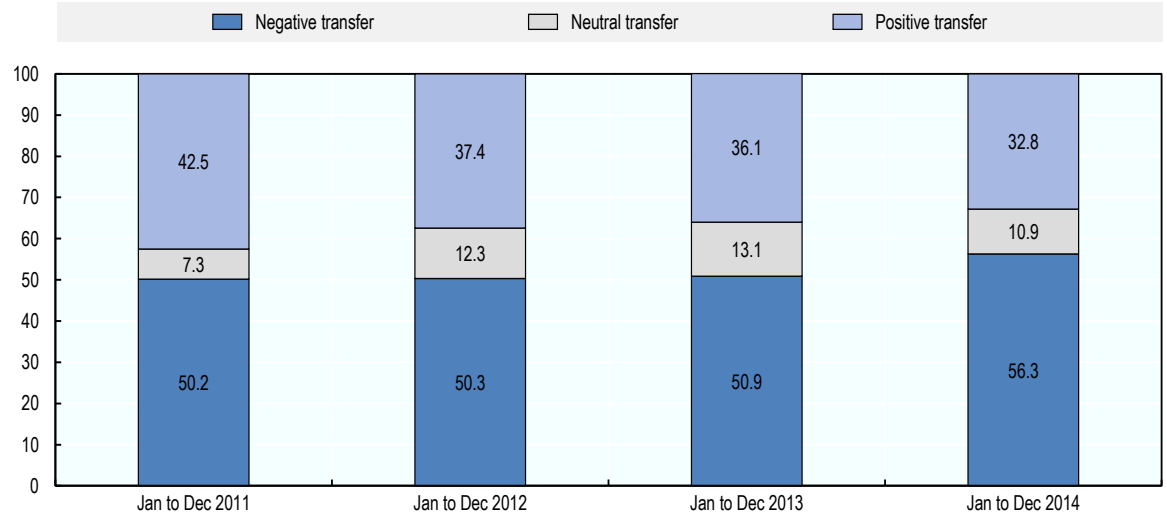
Establish limits around frequent switching

While the ability to switch providers is in theory a positive feature to promote competition, frequent switching can result in negative unintended consequences. It can encourage

increased commercialisation expenditure by the AFP to convince consumers to switch, even if switching may not be in their best interest in terms of the net returns they can expect to receive. There is evidence in Mexico, for example, that over half of the individuals switching funds each year switched to a pension fund offering lower net returns (Figure 6.19).

Figure 6.19. Quality of account transfers in Mexico

As a % of all transfers



Note: A negative transfer is one to an AFORE offering a lower net return. A positive transfer is one to an AFORE offering a net return at least 5% higher than that offered by the previous AFORE. A neutral one is any other offer.
Source: (OECD, 2016[10]).

Switching funds in Chile has also become a concern in recent years, where services have emerged that recommend frequent switching between funds. This has not only increased the costs to members because of the fees paid to the advisory service, but also has resulted in indirect costs as a result of a shift in the investment strategies of the funds towards more liquid assets and increased price pressure in the equity market (Da et al., 2018[11]).

Increased switching and commercial expenditure was evidenced in Peru during the commercial war of 2006 and 2007, when the profitability of AFPs fell and the number of members switching AFP skyrocketed. While the number of people subsequently reduced, there has been a strong uptick in recent years, so this trend should be carefully monitored.

In order to mitigate the negative unintended consequences of allowing members to switch between funds and providers, there should be some limits around how frequently members are allowed to switch. For example, members could be allowed to change providers only once per year, or to switch funds within a provider once per quarter. Limits could also be placed around unreasonable switching, for example from Fund 0 to Fund 3. Currently, the time it takes to process a request to change providers does mitigate the risk of frequent switching, however.

Another approach to prevent frequent switching would be to put limits on the commissions that sales representatives can receive when advising a switch. This is the approach taken in Mexico, where agents advising account transfers to another provider within 30 months are only allowed

to receive 20% of the normal fee (OECD, 2016[10]). Alternatively, switching could only be allowed if fees are lower or returns higher over a reasonable period (e.g. one year).

6.3.4. Remove the minimum guaranteed return

The minimum guaranteed return defined relative to the average performance of the AFPs seems to have two main objectives. First, it should encourage AFPs to invest in a strategy that will not be harmful to members. Second, it aims to constrain the level of risk of the investment strategy, as defined through the volatility of performance. The first objective can be met with the implementation of appropriate benchmarks and a performance-based fee structure that aligns the incentives of the AFP with the members, discussed above. The second objective would be better met with a more direct approach to limit the riskiness of the investment strategies taken. This should be based on the probability of achieving a certain level of retirement income.

6.3.5. Align the responsibilities of the institutions with their expected role in the system

The responsibilities of the private institutions involved in the pension system are not always aligned with the role that they are expected to play. AFPs have the responsibility of managing many administrative aspects of the SPP, and more consideration should be given as to whether they are best placed to have this responsibility and whether they have the capability of being effective in doing so. Furthermore, the financing of the various components needs to be more closely linked to the function.

Many aspects of the operations and processes followed by the institutions to fulfil their responsibilities to the pension system are robust and efficient. AFPnet has led to significant efficiency gains in the management of contributions. The collective insurance scheme SISCO has greatly increased the transparency of the management of insurance claims and mitigated the potential conflicts of interest that existed between related capital companies.

However, with respect to contributions, AFPs are not only responsible for managing their collection and subsequent investment, they are also responsible for collecting unpaid contributions from employers. But in many cases they do not have adequate information to determine whether or not contributions are owed, particularly in the case where an individual has changed employers and has not informed the AFP. Under the proposed structure of the pension system, this responsibility would be given to the PensionsNet platform (Section 4.5.2) which would also have the power to enforce the payment of contributions and reduce the tendency of the public to blame the AFPs for procedural failures. This platform should be financed through a small fee paid on the contribution rather than through the fees charged by the AFP.

AFPs are also the sole representatives of the financial sector on the COMAFP that decides the validity of disability claims. However, the insurers are better placed with relevant expertise and experience to provide insights on recent trends and medical advances that may not be accurately reflected in the latest version of the medical manual. As such, representatives from the insurance companies should also be able to participate in the decision making process for the COMAFP, along with the AFPs and the regulator. This would also allow the insurers to play a more integrated role in the pension system, as currently they operate only in the periphery. COMAFP should be funded through the insurance premium rather than the fee paid to the AFP.

Notes

[1] The OECD is able to provide technical assistance regarding the development of such a strategy, as it did with the MPFA in Hong Kong (China).

[2] Implicit costs include costs such as external asset management, look-through costs, transaction costs, platform fees etc. (OECD, 2018[6]).

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Chapter 7. Optimising the design of the private pension system for the pay-out phase

This chapter focuses on the pay-out options of the private pension system. The main objective of a pension system, to provide a regular income in retirement, is currently undermined by the fact that people are allowed to take their assets as a lump-sum at retirement. In addition, the incentives for them to take an income option are not sufficient. Reforms need to address these poor incentives and ensure that all pension members receive at least a minimum level of income in retirement, and encourage them to take an income option while being confident that those benefits will be secure.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

The current pay-out structure of the SPP has significantly undermined the role of the SPP to provide an income in retirement. Prior to 2016, individuals retiring in the SPP had to take their accumulated assets as a stream of income in retirement, either by purchasing a life annuity from an insurance company, taking regular withdrawals from their individual account, or some combination of the two. Mixed currency options are also available but have not proven very popular. Since 2016, Law No. 30425 allows individuals to take 95.5% of their accumulated assets as a lump-sum without penalty. This has driven a huge increase in the number of people retiring, who largely exit before the legal retirement age through the REJA regime given the ease of qualifying for early retirement under this regime. Nearly all retirees now take the lump-sum at retirement.

In parallel, recent initiatives have increased the security of annuity benefits, including improvements in the reserving and capital requirements for these products and the longevity assumptions used.

Nevertheless, changes need to be made to the pension system to make sure that the pension system's objective of providing a lifetime income in retirement is fulfilled. International best practices for the structure of the pay-out phase, reflected in the *OECD Roadmap for the good design of defined contribution pension plans,* promote the use of life annuities as a way to protect individuals from the risk of outliving their savings in retirement.[1] One way to offer this protection while striking a balance between flexibility and liquidity, and longevity protection is to combine the option of a programmed withdrawal with a deferred annuity beginning payments at an advanced age. While the OECD recommends that in an ideal world the option of taking the lump sum should be removed, this option is likely not feasible to implement in Peru.

Therefore, given that the main objective of a pension system is to provide a retirement income, measures should be implemented that would make individuals better off taking a pension rather than a lump-sum. Ideally, and in line with the OECD Roadmap for the Good Design of Defined Contribution Pension Plans, people should only be allowed to take their savings accumulated to finance retirement as a lump-sum when they already have pension benefits that provide them with a regular stream of income in retirement, or when they (partially) use their savings to buy a product that provides a regular stream of income during retirement. Therefore, first, measures should be put in place to provide incentives to take a pension rather than a lump-sum. Second, the options for pay-out in the SPP should be simplified. Finally, measures should be in place to ensure the security of benefit payments during retirement.

7.1. Options for pay-out at retirement

At retirement, individuals can choose to receive their pension in one of three ways, or in some combination:

- Leave their assets invested with the AFP and take a programmed withdrawal, calculated taking into account their balance, age, gender and family
- Transfer their assets to an insurance company to purchase a life annuity
- Take 95.5% of their assets as a lump-sum, with the remaining 4.5% transferred to EsSalud to finance their health coverage (since April 2016)

The AFPs are required to explain the options that affiliates reaching retirement have to withdraw their accumulated assets, how pension income could be expected to change over time for each option, and the offers from the different insurance companies that are

providing annuities. In their communication, the AFPs must follow seven principles that intend to make the communication easy to understand and act upon (simplicity, opportunity, objectivity, security, traceability, accessibility, and service orientation).

For the programmed withdrawal option, the level of income is determined using an age-specific annuity factor each year. The SBS derives a range for the discount rate on which the programmed withdrawal calculation is based from a projection based on utility maximisation, and the range is updated every two years. AFPs have discretion to set the discount rate used for the calculation of programmed withdrawals for their members within the range set by the SBS. Table 7.1 shows the technical rates offered by each AFP for the calculation of programmed withdrawals, and shows that the range between the lowest and the highest rate is quite large, at nearly a percentage point.

Table 7.1. Technical rate used by AFPs for the calculation of programmed withdrawals

December 2018.

AFP	Rate
Habitat	3.85%
Integra	4.06%
Prima	3.19%
Profuturo	4.10%

Source: SBS.

For options involving annuities, insurance companies provide quotations through the electronic platform MELER (Mercado Electrónico de Rentas y Retiros del SPP). This system is an online tool developed by the SBS through which the insurance companies can sell their pension products. AFPs can provide affiliates with the quotations once they begin the retirement process to decide how to withdraw their pension.

At a minimum, the AFPs must provide the affiliate with quotes from all insurance companies of how much pension income could be received from a family life annuity and temporary programmed withdrawal with a deferred annuity. Within these basic options, individuals can choose the currency (PEN or USD), the level of payment adjustments and the period of deferral. The affiliate can request quotes for up to two additional retirement pension products with the characteristics of their preference, which will be requested from all insurance companies that have registered such products in the Superintendence Registry.

The various combinations of pay-out options involving life annuities from insurance companies are as follows:

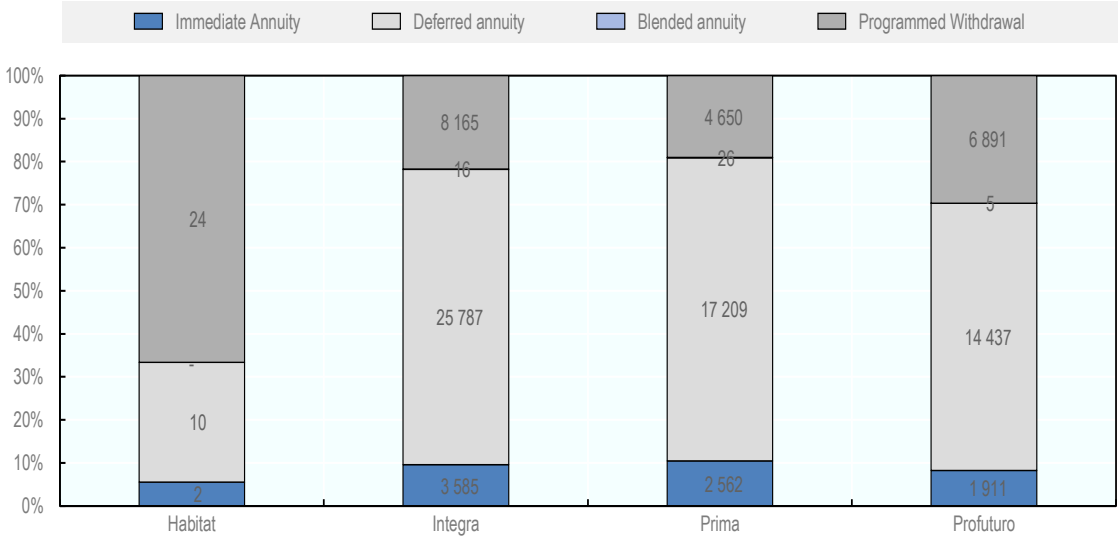
- Renta mixta - programmed withdrawal taken in soles and a life annuity taken in USD
- Renta temporal con renta vitalicia diferida - half of the fund is taken by programmed withdrawals and half used to purchase a life annuity deferring payments 1-3 years in either currency, with payments indexed at 2%
- Renta combinada - programmed withdrawal and a life annuity paying in soles at the same time
- Renta bimoneda - two annuities paying in soles and USD, with payments indexed by 2%
- Renta escalonada - after 20 years the annuity income is reduced by 50-75%, and payments are indexed by 2%

Retirement annuities indexing payments to inflation are not commonly offered due to a lack of instruments with which to hedge inflation.

The SBS must approve all new types of annuity products offered by insurance companies. Once the authorization process is completed for a certain type of product, any insurer may offer it. Pay-out options that combine a programmed withdrawal with a deferred life annuity are the most prevalent pay-out option, and three-quarters of pensions in pay-out are either this option or an immediate life annuity. Nearly a quarter of individuals are receiving programmed withdrawals only (Figure 7.1). Besides Habitat, who being new to the market has very few pensioners in pay-out, Profuturo has the largest proportion of its pensioners (30%) taking a programmed withdrawal, and is also the AFP offering the highest discount rate for this option. The number of people choosing non-standard blended annuity options is negligible.

Figure 7.1. Old age pensions in pay-out

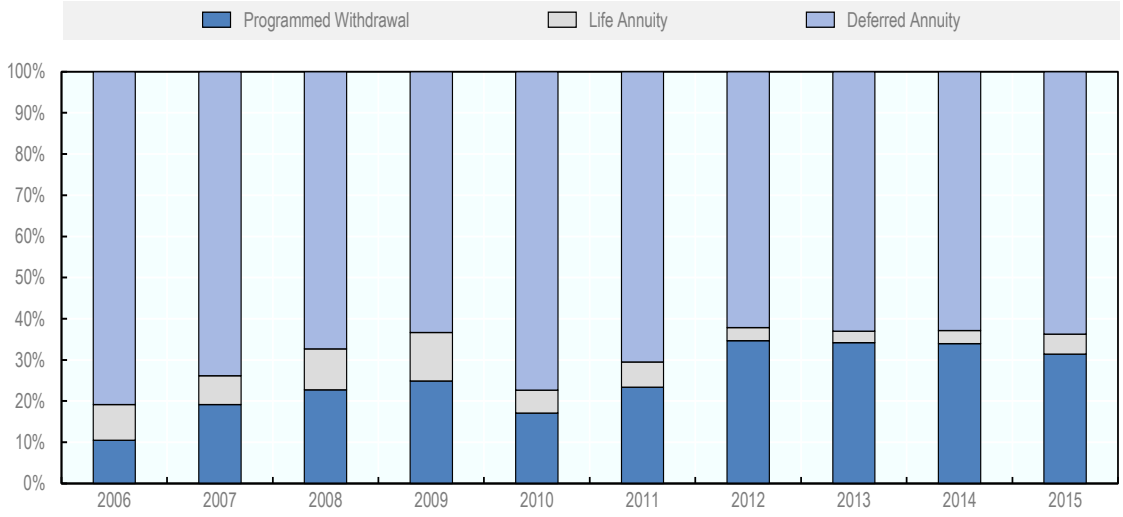
Number of contracts as of December 2018.



Note: Blended annuity includes mixed annuities, combined annuities, and multi-currency options.
Source: SBS.

Up until 2016, the majority of individuals each year preferred taking a combination of a programmed withdrawal and deferred annuity at retirement. Preferences between deferred annuities, programmed withdrawals and life annuities remained relatively stable from 2012 to 2015, with around a third of retirees choosing a programmed withdrawal, and under 5% selecting a life annuity (Figure 7.2). In terms of preferences by gender, a larger proportion of women have preferred to take programmed withdrawals, while a higher proportion of men have preferred the deferred annuity. There has been little difference, however, in gender preference for life annuities.

Figure 7.2. Pay-out option selected by retiring affiliates before lump-sum option



Source: SBS.

Since 2016 nearly everyone retiring in the SPP chooses a lump-sum. The Law Nº 30425 enacted April 2016 allowed members to fully withdraw the assets accumulated in their individual account at retirement as a lump-sum. Individuals who choose this option receive 95.5% of their assets in cash, and must pay 4.5% to EsSalud to secure their health benefits in retirement. As a result of this law, nearly everyone now retiring in the SPP elects to receive their benefits as a lump-sum. Table 7.2 shows that 95% of individuals retiring elected to receive a lump-sum in 2016, increasing to nearly 99% in 2018. Among the few individuals who choose to receive their benefits as income, the majority prefer to have some type of annuity in retirement.

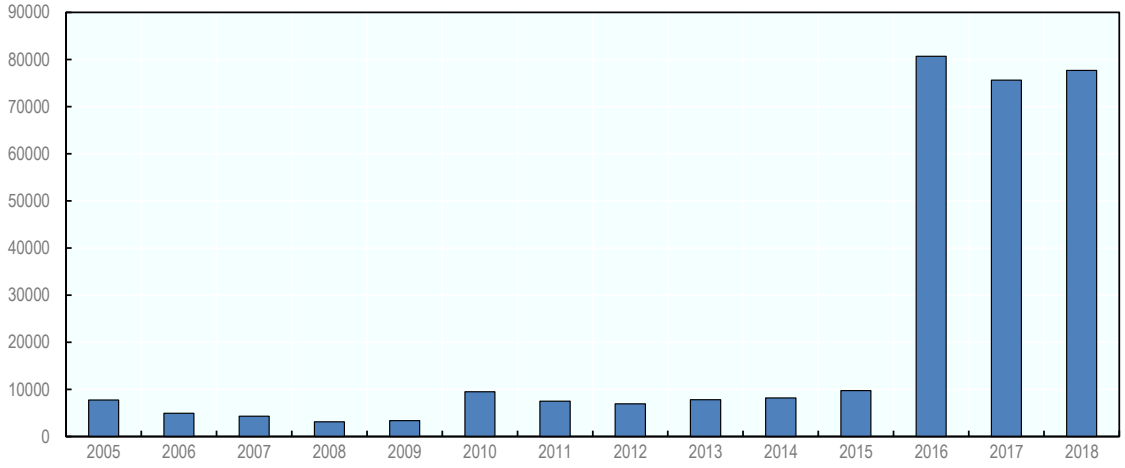
Table 7.2. Proportion of retiring pensioners selecting each type of pay-out option since lump-sums have been available

	Programmed Withdrawal	Life Annuity	Deferred Annuity	De-escalating Annuity	Lump-Sum
2016	1.43%	0.54%	2.42%	0.32%	95.29%
2017	0.40%	0.35%	0.68%	0.27%	98.31%
2018	0.45%	0.20%	0.38%	0.05%	98.91%

Source: SBS.

The ability for individuals to take their pension savings as a lump sum at retirement also triggered a massive increase in the number of individuals retiring. Figure 7.3 shows that there was an eight-fold increase in the number of people retiring in 2016 compared to 2015, with the number of people retiring jumping from around 10 thousand to over 80 thousand in 2016. The high number of retirees has been sustained in 2017 and 2018 at just under 80 thousand.

Figure 7.3. Number of SPP affiliates retiring



Source: SBS

This increase is largely driven by the ability for individuals to retire early under the REJA regime. 60% of retirees in 2016 and 74% in 2017 and 2018 retired early under the REJA regime. A slightly higher proportion of women than men have selected the lump sum option.

While most people now take a lump-sum at retirement and the majority of these people do not keep the funds invested, 40% of the funds taken out as of December 2017 stayed invested. A small proportion (3.6%) was invested with insurance companies, typically in ten year term annuities. A larger proportion (13.3%) was surprisingly reinvested with the AFPs, but in a regular investment account rather than the pension account. Individuals are therefore not making the optimal financial decisions with the lump-sum, and even when they want to keep it invested, they do not want it within the pension system.

7.2. Annuity market

Insurance companies provide life annuities to pensioners in the SPP. There are currently seven life insurance companies operating in the Peruvian market that offer life annuities for the SPP: Interseguro, La Positiva Vida, Mapfre Peru Vida, Pacifico Vida, Protecta, Rimac and Sura.

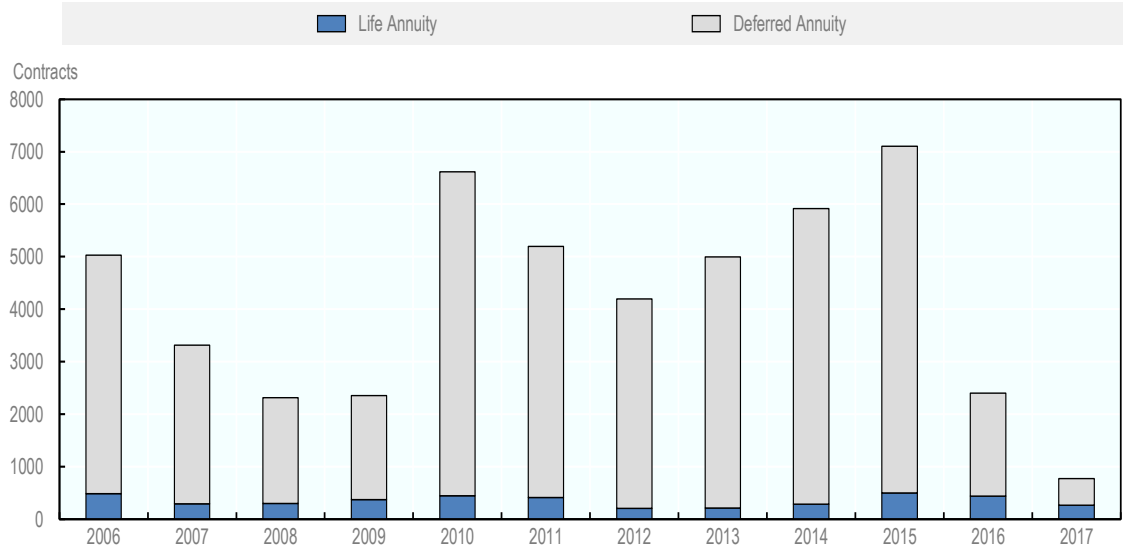
Since 2012, the annuity prices have been going down in tandem with the increase in the 10-year bond rate. Nevertheless, since individuals have been allowed to take a lump sum at retirement, annuity sales have plummeted.

The SBS has taken several measures in recent years to increase the security of annuity benefits for pensioners. Reserve requirements now better reflect the mismatch of cash flows between assets and liabilities, and capital requirements are moving towards risk-based requirements. New mortality tables have been implemented that are based on the actual mortality of the pensioners in the SPP and account for future expected improvements in life expectancy following international best practices. Finally, options to protect annuity payments in case of insurer insolvency are being considered.

7.2.1. Annuity sales and pricing

The number of annuities sold each year has varied, and sales dropped off significantly in 2016 following the allowance of the lump-sum pay-out (Figure 7.4). The majority of individuals prefer a combination of programmed withdrawals with a deferred life annuity rather than an immediate annuity.

Figure 7.4. Annuities sold

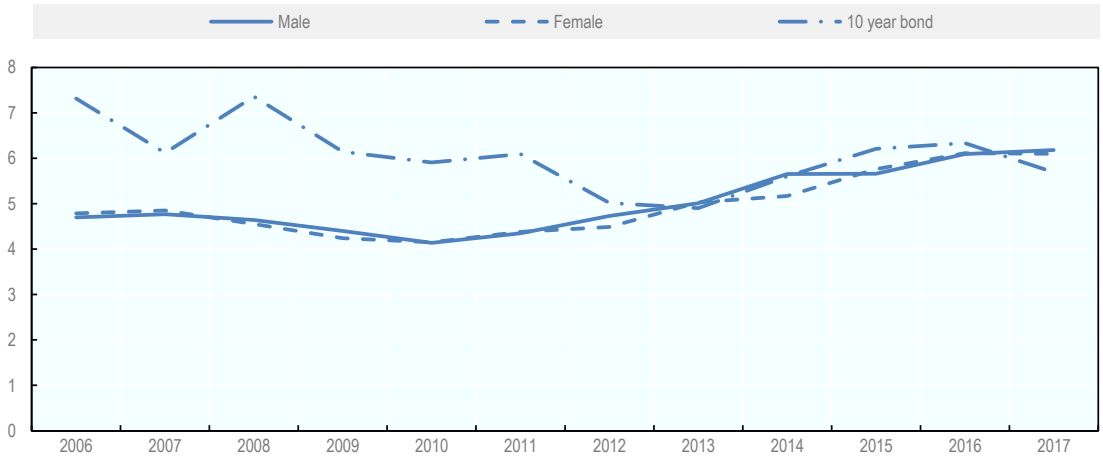


Source: SBS, OECD Global Insurance Statistics

Over 60% of pensioners in pay-out as of December 2018 that had chosen options involving annuities (either immediate or deferred) had fixed nominal pension payments. Individuals seem to be reluctant to take a lower pension income initially in exchange for protection against inflation risk to maintain a stable standard of living, in line with what has been observed internationally.

The discount rates used to price annuities have more recently aligned more with long-term bonds. Up until 2012, annuity providers seemed to be charging a significant margin on the annuities being sold to individuals aged 65, with the implicit discount rate used for pricing one to two percentage points below the ten-year government bond rate (Figure 7.5). Since 2012, however, the discount rates have converged more with bond rates. One potential explanation of this observation could be the introduction of new regulatory mortality tables in 2011, which were more conservative than the previous regulatory tables and were likely closer to the assumptions that insurance companies were actually using. The use of the new tables to calculate the implicit discount rate would result in a higher implicit discount rate, and one that would be closer to the discount rate actually being used for pricing.

Figure 7.5. Implicit discount rates for annuity at age 65



Notes: 10 year bond rate in PEN is the 12 month average. Discount rate is calculated assuming pricing with the regulatory mortality tables, and the average price of all annuities sold.
Source: SBS, Banco Central de Reserva del Perú.

7.2.2. Reserving and capital requirements

New reserve requirements for insurers that improve the method for discounting the expected future cash flows became effective in 2019. The new reserving methodology is more in line with the approach taken by Chile. It calculates the mismatch of asset and liability cash flows on a monthly basis, and assumes that any excess is invested to cover the following period. At the end of the asset cash flows, the rolled forward difference is discounted to the beginning of the period and required as an additional positive or negative reserve. The new methodology derives the discount rate through a comparison of the sales rate, the risk-free rate and the average sales rate of the SPP combined with a methodology to measure the adequacy of assets, both in terms of duration and currency, for the coverage of the obligations. This methodology will apply to new policies, existing policies and the SCTR regime.

The solvency margin for individual life and income insurance operations is equal to the amount obtained from the application of the following formula and on the basis of the information contained in the financial statement: 5%*(Mathematical Reserve)*Max(Retention Ratio, 0.85) where the Retention Ratio is the proportion of the mathematical reserves retained on the provider's balance sheet. However, the SBS is planning to transition to risk-based capital requirements.

7.2.3. Managing longevity risk

Having appropriate mortality tables that account for future improvements in life expectancy is important to ensure the security of people's pensions. The SBS is responsible for the approval of the mortality tables used for the calculation of annuity reserves and programmed withdrawal calculations (SBS, 2018[1]). The development of appropriate mortality tables and accurate mortality assumptions is necessary to ensure that annuity providers will have sufficient reserves to back and guarantee the future annuity payments.

The SBS developed mortality tables following international best practices in 2017, which were approved in 2018.[2] For the first time, the tables used for the SPP are based on the

mortality experience of members in the SPP and take into account expected future improvements in mortality. A primary goal of the development of the new mortality tables was to reflect the mortality experience of Peruvian SPP members, both in terms of the current level of mortality and the future expected improvements in mortality that lead to increases in life expectancy. Up until then, the mortality tables used for the private pension system in Peru had been based primarily on the experience of Chile, and did not incorporate future expected increases in life expectancy.

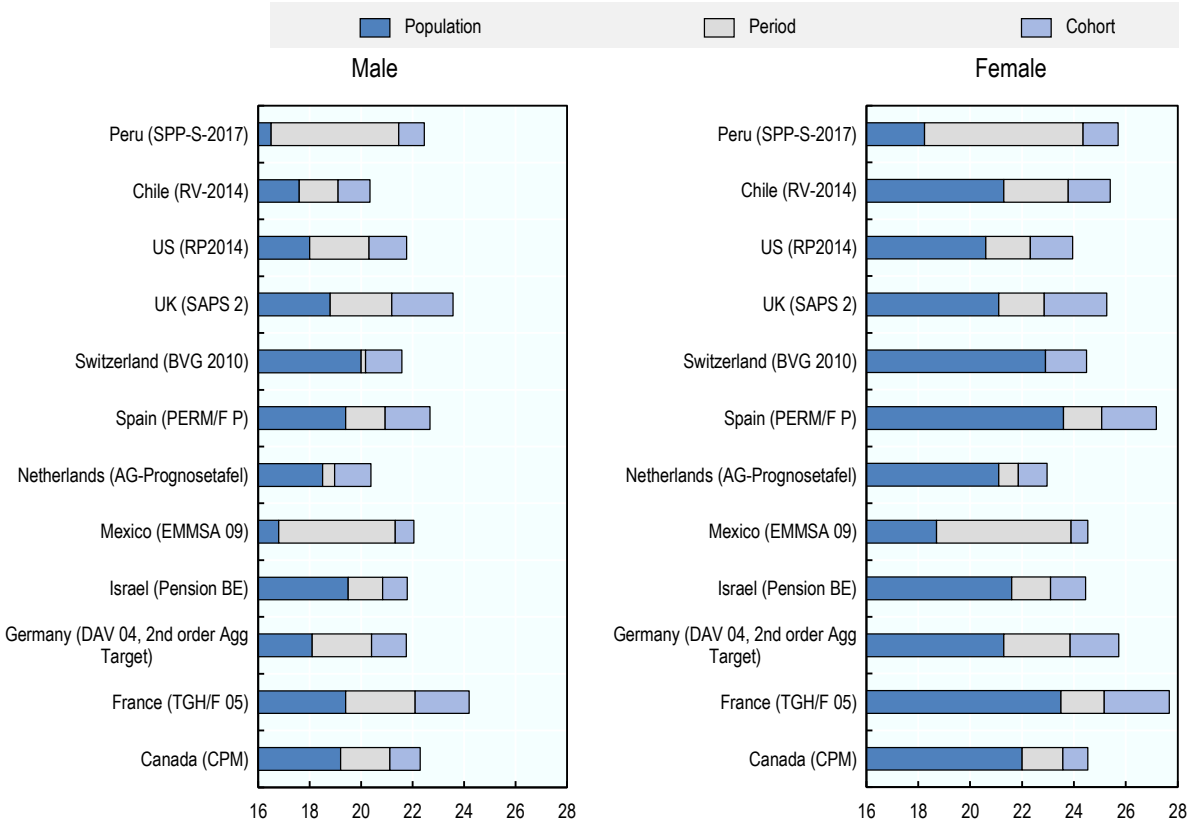
The new tables use the Peruvian SPP population to determine the current level of mortality, which is important not only because life expectancy can differ widely across different countries, but also within countries for different population sub-groups. The Peruvian SPP population represents a specific subset of the general Peruvian population, and tends to have better access to education and health care. International evidence makes clear that life expectancy can differ significantly across socioeconomic groups, and those having higher incomes and education can expect to spend several years longer in retirement compared to those with low educational attainment and lower incomes.

In addition to ensuring that base assumptions are accurate for the specific population in question, accounting for future expected improvements in mortality is imperative to reflect the fact that life expectancy is increasing. Incorporating mortality improvement assumptions typically increases the estimated life expectancy at age 65 by one to two years.

The development of mortality tables based on Peruvian SPP data and the adoption of dynamic tables that account for expected future improvements was a major step to ensure the sustainability of the private pension system to provide pension income to retired Peruvians. The use of accurate tables improves the soundness of annuity reserves and preserves the solvency of the insurance companies, ensuring that annuity payments to pensioners can be met. Indeed, establishing appropriate mortality tables is essential to mitigating the expected longevity risk that annuity providers are exposed to (OECD, 2014[2]).

The life expectancy given by the tables for the pension population is higher than the life expectancy for the general population of Peru. However, comparing the life expectancy from the new mortality tables for healthy lives in the SPP with those calculated from other tables largely reflects differences that would be expected given the differences in the underlying populations in question. Figure 7.6 compares the 2016 life expectancies in several countries, and shows the period life expectancy of the population, the period life expectancy of the mortality table developed for pensioners or annuitants in that country and the cohort life expectancy from that same table taking into account future improvements in mortality. For the countries shown, the life expectancy of the pensioner/annuitant population is over 2 years higher than the general population on average. Future expected improvements in mortality add around an additional 1.5 years to life expectancy. The difference in life expectancies between the Peruvian population and the Peruvian pensioner population, however, is much higher than this average, with the gap amounting to five to six years. This result is driven by the very low coverage of the pension system in Peru, and the fact that the affiliates of the SPP tend to have higher incomes on average than the general population. The additional life expectancy from future improvements in mortality, however, is more or less in line with other countries, with one additional year in life expectancy for males, and 1.35 for females.

Figure 7.6. Life expectancy at age 65 in 2016



Note: Population figures are 2016 from OECD statistics, except for Canada, Chile, France (2015) and Peru (2016, CEPAL).
Source: OECD, CEPAL, own calculations.

7.2.4. Protecting members in insolvency

Currently there is no mechanism to transfer the insurance portfolio of a company in insolvency, but there is a priority order established for companies in the insolvency process. A recent proposal establishes that the liabilities related to the credits of the insured or their beneficiaries are excluded from the balance sheet during this process in order to facilitate the transfer of the portfolio. If the transfer is not successful, the liabilities are integrated into the liquidation total and the order of priority of payments applies. It also proposes the exclusion of the total liquidation of assets and liabilities related to the insurance under the SPP in order to safeguard these obligations even during liquidation. While the proposal had the backing of the various institutions involved in addition to the Ministry of Economy and Finance and the Central Reserve Bank of Peru, the proposal was discarded. The SBS is now analysing the possibility of implementing an Insurance Policy Coverage Fund that includes annuities.

7.3. Policy options

Changes need to be made to the pension system that will allow it to achieve its objective of providing individuals with an income in retirement. First, and most importantly, incentives should be put in place to encourage people to take a pension rather than a lump-

sum to ensure that they will receive at least a minimum income in retirement. Second, the pay-out options to provide a pension income need to continue to be simplified and standardised so individuals are sure to understand the differences in the options and are able to make a well-informed decision. Finally, the continued security of benefits should be ensured by having a procedure in place to protect annuitants in the case of insolvency of the insurer.

7.3.1. Address poor incentives created by the lump-sum pay-out option

The introduction of the option to take assets accumulated in the SPP as a lump-sum at retirement has undermined the main objective of a pension system to provide a regular stream of income to people in retirement. Over 95% of people retiring now take the assets they have accumulated in the SPP as a lump sum. This means that the Peruvian pension system is no longer functioning in a way that will ensure that the assets accumulated will be used to finance individuals' retirement in old age. Furthermore, it provides incentives for individuals to take financial decisions for their retirement that are not in their best interest, and allows individuals to arbitrage the rules of the system in ways that are costly to both individuals and to the SPP.

First, people have an incentive to retire as early as they possibly can. This combined with the REJA regime has resulted in a huge increase in the number of people retiring since 2015. Over three-quarters of the people who have retired since 2005 have retired in 2016 through 2018 alone, and 69% of these have done so through the REJA regime. Often, these individuals have been able to continue working after they remove their pension assets from the system, but no longer save and accumulate assets to finance their old age.

Second, people may make financial decisions that are not in their best interest even at a normal retirement age. If people take all of their money up front, they are not taking steps that will protect them from the longevity risk of outliving their assets in retirement. Furthermore, even if they take their money out and invest it elsewhere, they will be losing out on the tax advantage offered on investment income.

Finally, people have an incentive to contribute only briefly to the system in order to be eligible for health coverage by EsSalud in retirement. The premium paid to EsSalud is 4.5% of the accumulated balance, regardless of the duration of contributions made and the level of assets accumulated. With a very small contribution to the SPP as they near retirement age, they can benefit from health benefits for life. This will be an unsustainable situation for the government to finance going forward, because the contributions going to pay for coverage by EsSalud will not be sufficient to finance the benefits that will need to be paid out.

Ideally, following the OECD Roadmap for the Good Design of Defined Contribution Pensions Plans, there should not be an option to take accumulated assets as a lump-sum at retirement. Nevertheless, this option was approved by the Peruvian parliament and remains popular. Therefore, as a second best, measures to provide incentives to individuals to choose a pension over a lump-sum need to be put in place.

Require a minimum pension to be paid

In order to ensure that individuals have a minimum protection from the longevity risk of outliving their assets in retirement, they should be required to take a minimum level of pension income from the system before being allowed to withdraw a lump-sum. This level could be set at the level of the minimum pension established for the system.

Under the proposed system, combining a public and private pension component, this requirement could be met with the public pension benefit alone if the individual has contributed a sufficient number of years. However, where the public component does not provide a pension of at least the minimum wage, a portion of the individual account savings would need to be used to top it up. This could be done by taking a life annuity or a programmed withdrawal, perhaps subject to certain amount thresholds to limit unjustified administrative expenses for very small accounts.

Introduce financial incentives to encourage individuals to take a pension instead of a lump-sum

To limit taking a lump-sum for the amount of assets exceeding the minimum required pension, financial incentives could be used to encourage individuals to take a regular income rather than a lump-sum. Financial incentives to not take a lump-sum already exist in the form of the exclusion from tax on investment income if the assets remain invested within the pension system. These incentives are prospective and only impact future investment income. However, people are likely not even aware of these incentives, and they do not seem to be effective as people return to insurance companies to invest after they have taken a lump-sum rather than purchase an annuity straight away within the system.

The purpose of financial incentives is to encourage people to save to finance a lifetime income in retirement. Taking a lump-sum does not fulfil this purpose. Therefore, it seems justifiable that incentives put in place to save for retirement be removed for lump-sums, making this option more costly to the individual. Moreover, removing the tax advantage already accumulated retrospectively could be more effective because the individual would immediately feel the impact of the reduction in the assets they are able to take. From a behavioural perspective, taking away what the individual feels is already theirs (in this case, accumulated non-taxed investment income) is more painful than taking away something that they do not yet have (future tax-free investment income).[3] Taking back this tax advantage would represent an additional tax withheld on their accumulated assets of 5.8% for the average earner with a full contribution history that would be felt immediately. If matching contributions or subsidies were also to be implemented, as suggested in this report, the assets accumulated as a result of these matching contributions should also be taken back. This will strengthen the financial incentive not to take a lump sum.

In addition to financial incentives targeting the members, financial incentives should also be in place to encourage the AFPs to promote the option of programmed withdrawals over the lump-sum option. The AFPs currently do not receive any management fee from pensioners taking programmed withdrawals, so have no incentive to talk individuals out of taking all of their assets out of the system. To better align incentives, the same fee structure should apply in the pay-out phase as applies to accumulation. Given that pensioners are expected to have a conservative investment strategy, the fee that is charged would not be expected to be very high.

Introduce incentives to limit gaming of the pension system

There should also be an incentive linked to health coverage. Individuals who have only contributed for a brief amount of time should not be entitled to receive full health coverage from EsSalud if they take a lump-sum. The eligibility for coverage should therefore be based on having achieved a minimum number and/or density of contributions.

Furthermore, the amount paid for coverage should not necessarily be independent of the age at which coverage begins. For individuals retiring early, excluding those who do so

because of disability or illness, the percentage of assets withheld could be increased. This increase would intend to compensate for the lost contributions and investment returns that would have been included if the individual had worked until the statutory retirement age, as well as to account for the fact that they would expect to be receiving this health coverage for a longer period.

7.3.2. Simplify the options available

The options that individuals have for pay-out of their pension are extremely complex, particularly for the various types of annuities that they can choose. The main features that individuals have to decide upon are whether they want the annuity payments to be adjusted annually, whether they want the annuity payments to begin immediately or be deferred, and in which currency they would like payments to be made. However, virtually any combination of these features is possible, and depending on how this choice is presented to the individual, the choice could easily overwhelm them.

Individuals do not opt to take the more complex annuities offering multi-currency options and options that layer programmed withdrawals on top of the annuity. Given the lack of interest and risk of confusion, such complex products should not be part of the main pay-out choices presented to individuals. In addition, multi-currency options in particular present additional currency risks to individuals that they may not understand. The complexity of the choice may provide additional impetus for them to leave the system with their money, even if they intend to go back to an insurance company to purchase a simpler fixed-term annuity.

Significant progress has already been made to simplify the product offering. In 2010, the options available to cover retirement and survivor and disability risks reduced to 131 from 520. In 2018 this reduced further to only 28 products on average. The SBS's goal is to reach a level of only 18 product options. Of these 18 options, insurance companies will be obliged to provide quotes for three specific products as well as two additional products of their choice.

Optionality around product features should be limited to basic and simple components. Multi-currency options, in particular, are too complex and should not be offered within a system that should aim to limit risks to pensioners.

While a reduction in options is necessary, one additional option that could better meet the needs of the population may be considered. Individuals have been showing a strong preference for guaranteed term annuities. As such, a lifetime annuity with a guaranteed period could be a valuable option to include, as it would provide a guaranteed payment to beneficiaries in case of death while protecting the pensioner from longevity risk. This is also an option that limits risk to the pensioners and should be relatively easy to understand.

7.3.3. Ensure the security of pension benefits

The ability of the pension system to deliver on its intentions and for people to trust that they will continue to get the income that they expect to receive in retirement is important for the legitimacy of the system. This is not only true for those taking annuity payments but also for those with programmed withdrawals. Therefore, it is essential that the assumptions used to calculate benefits are appropriate and in line with the macroeconomic and demographic realities, and that there are mechanisms in place to safeguard pensioners' benefits, in particular in the case of insolvency of insurance companies.

Ensure the appropriateness of assumptions used to calculate benefits

One important aspect to ensure the security of benefits is making sure that the assumptions on which these payments are based are appropriate. Going forward, it will be important for the SBS to regularly review and update, if necessary, the mortality tables used for the calculation of annuity reserves and programmed withdrawal amounts. The Peruvian SPP is likely facing significant changes in the demographic composition of its retired population, as the majority of individuals retiring are now withdrawing their pension as a lump-sum. Those who choose to stay in the system and draw down their pension as income in retirement may represent a specific subset of the pensioner population whose mortality experience may be different from that of the current pensioner population. The impact of future changes to the retired population will therefore need to be accounted for in future revisions of the tables.

Product design should also aim to limit risks to pensioners. For example, the allowable deferral period for the option that combines a temporary programmed withdrawal with a deferred annuity needs to be extended in order to provide a higher and more stable income to pensioners throughout retirement. Currently, the accumulated assets are equally split between the temporary withdrawal phase and the purchase of a deferred annuity, and the annuity is only deferred from one to five years. This essentially functions as a mechanism to allow people to take half of their assets as a lump-sum while significantly reducing the income that the deferred annuity can provide. *The OECD Roadmap for the Good Design of Defined Contribution Pension Plans* suggests that an appropriate design for the pay-out phase could be a deferred annuity combined with a temporary programmed withdrawal, but the design referred to here is one with an annuity deferred to begin payments at an advanced age. The advantage of a longer deferral period is that a much higher level of income can be purchased with a given amount of assets. To purchase the same level of income beginning at age 80 that a nominal immediate annuity could provide at age 65, less than 25% of the assets are needed, and only 12% are needed to have the same level of income beginning at age 85.[4] An annuity deferred only five years with 50% of the assets, however, will pay nearly 25% less than an immediate annuity beginning payments at 65.

Ensure that appropriate mechanisms are in place to safeguard pensioners' benefits

A mechanism to protect the benefits that pensioners are entitled to should be in place. Two proposals have been considered, one within the wind-up procedure and one outside of it.

The first proposal to safeguard the assets backing the annuity books of insurance companies in the case of insolvency could be revisited. This would help to avoid any reductions in the benefits that pensioners are receiving if the insurance company providing them becomes insolvent.

Another option could be implementing an Insurance Policy Coverage Fund to insure a minimum level of benefits in the case of insolvency. Such schemes are relatively common in OECD jurisdictions. They can provide confidence in the pension system in a worst-case scenario of insurer insolvency, and they can help to promote competitive markets by providing a smooth procedure for unprofitable businesses to exit the market. One drawback of such arrangements, however, is the potential moral hazard for the company to take on more risks because they are insured and the insurance fund would pick up the resulting losses. In addition they present an added cost to the system, and an implicit subsidisation by well-managed companies to poorly managed companies (OECD, 2001[3]). The design of such schemes therefore needs to be carefully considered to limit these disadvantages.

Notes

[1] The OECD Roadmap was approved and endorsed by all OECD countries in June 2012.

[2] The OECD provided technical assistance to develop the mortality tables.

[3] This phenomenon is commonly referred to as the endowment effect.

[4] This calculation is for a male aged 65 and assumes nominal payments and a discount rate of 6% (consistent with prevailing discount rates) and the Peruvian mortality tables developed for the SPP.

References

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Chapter 8. Trust and confidence in the pension system

This chapter addresses the pervading lack of trust and confidence in the pension system. It concludes that low levels of understanding of the system and a mistrust of the institutions managing the system are at fault. Policy options discussed to improve understanding and trust include measures to increase financial education, to better align the accountability of both the private and public institutions with their responsibilities and to have an integrated regulation and supervision of the entire system.

In order for the Peruvian pension system to be able to meet its objectives of providing income in retirement for the Peruvian people, the population needs to have confidence that the system will deliver for them and trust that they will be treated fairly by the institutions running the system. The pervading lack of trust in the pension system seems to have two main drivers. First, that the population does not fully understand how the pension system works and how contributing to the system will benefit them financially in old age. Second, there is a perception that the institutions involved do not have their best interests at heart. This lack of trust is directed at both public and private institutions alike.

More needs to be done to improve the population's understanding of the pension system and demonstrate that there are appropriate controls in place, for both the public and the private institutions, to ensure that people will benefit from contributing to the system.

Furthermore, there needs to be assurance that the reforms implemented will maintain the long-term objective of achieving an improved pension system and not be swayed by short-term political pressures.

8.1. Measures to improve the understanding of the pension system

The regulators and financial institutions have made numerous efforts to increase the public's awareness and understanding of how the pension system works and the benefits that they will receive. Financial education is taught in schools, and the private sector and regulator have collaborated to develop educational programmes specific to pensions. Communication to members about their account and pension benefits has been simplified to facilitate understanding, and members have access to tools to show what benefits they can expect from the system. Access to services has also been facilitated for more remote regions to promote and improve access to the pension system.

Nevertheless, despite these efforts, the public's understanding of the pension system remains low and members are eager to exit the system as soon as possible rather than maximise the benefits they can receive.

8.1.1. Financial education efforts

Financial education has been incorporated into the national educational curriculum since 2009. The SBS along with the Ministry of Education have developed support for teachers and training programmes to rely on in their educational efforts (OECD, 2017[1]).

Specific to pensions, the government has created an Education Fund for the Private Pension System (FESIP) in order to promote higher levels of pension knowledge through the financing of educational projects about pensions. The resources of the FESIP are provided by donations from the AFPs and the insurance companies, as well as from the fines charged in relation to sanctions.

The FESIP oversees the Council for Citizen Participation in Social Security (COPAC), whose objective is to promote the participation of affiliates to the SPP in the educational efforts of the FESIP. The COPAC will provide a forum to centralise proposals by citizens on how to improve the SPP, in particular how to improve education and knowledge of pensions.

8.1.2. Communication on the pension system, pension accounts, and benefits

Ensuring that communication about the pension system and the options that individuals have are simple and easily understandable is crucial for the success of the system. Financial

education is important, but it cannot be relied upon alone to achieve the best outcomes for individuals in the pension system.

Regulation imposes requirements on AFPs to try to ensure that communication with affiliates is both comprehensive and effective. In general, communication with members should be done with the objectives of improving the information and guidance provided, ensuring that staff has the adequate knowledge to communicate accurately and effectively and to prevent conflicts between members and AFPs or insurance companies.

AFPs must have information sheets available in their branches and on their website that provide members information on the investment funds offered. These must contain information on the administrator, the responsibility of the AFP, the administrative structure, the main shareholders, a description of the investment process, the commission structure for the funds, the AFP's financial information, enquiry and complaints handling processes, and supervision and internal control policies. Specific information for each type of fund must also be provided, including the investment objective, the target demographic, the investment policy and profitability, financial information, historical performance, and the rights of the affiliate.

In order to facilitate meeting regulatory requirements, the SBS provides templates for specific communications such as for the contract of affiliation and communication on contributions. In most cases the AFP is not required to use this exact template, but they are required to provide the minimum level of information it contains, namely the type of fund in which contributions are invested, the total contributions accumulated, the total withdrawals from the account, the accumulated net returns, the commissions charged, and the balance of the individual's account.

All AFPs offer a pension simulation tool on their website for affiliates to estimate the amount of pension they can expect given a certain amount and number of contributions. The methodology used by these tools is subject to the approval of the SBS, and all providers must provide the same default scenario.

When affiliates reach retirement, the AFP is required to provide a consultation meeting to inform them of their benefit options and provide the insurance companies' quotations from MELER. The SBS establishes minimum standards with respect to the information that the AFP is required to provide to the affiliate. As proof that this meeting successfully occurred, the AFP must issue a certificate stating that the affiliate has obtained all of the necessary information regarding the options available to them and the implications of their benefit decision.

In September 2017, the SBS established new requirements for the pension benefit statements that intend to simplify the information provided, improve its transparency, and increase members' engagement with their accounts. The AFPs can develop their own templates for communication that the SBS approves if they follow seven principles:

- *Simplicity* - promote simplicity and clarity in pension and benefit communication
- *Opportunity* - provide information at the correct time for the individuals to use it to make decisions regarding their pension benefits
- *Objectivity* - provide accurate and objective information regarding the conditions under which pension benefits can be accessed
- *Security* - provide information on the correct process to follow to obtain pension benefits

- *Traceability* – implement a set of measures, actions, and procedures to register, identify and validate each stage in the process to obtain pension benefits
- *Accessibility* – make the process to obtain benefits easy for the affiliate to follow
- *Service orientation* – Provide pension benefits in framework that focuses on customer service

In order to reach geographic areas that do not have physical agencies, the AFPs can set up public information offices called Pension Advice Offices (OAPs). The OAPs are allowed to provide information and guidance to affiliates regarding their account and expected benefits, open new accounts, initiate benefit claiming procedures, issue official documents relating to accounts, update personal data and notification preferences, and carry out transactions.

For more remote regions, AFPs can send Mobile Offices (PM) that are able to provide the same services as OAPs, apart from the submission of requests for the affiliate's Private Security Code and initiating the process to claim pension benefits.

8.2. Trust and confidence in the institutions of the pension system

Individuals demonstrate low levels of trust in both the public and private institutions of the pension system that leads to a reluctance to participate in the pension system. Complaints about private institutions are particularly high with regard to the AFPs, and centre around efforts to get their money out of the system.

Peruvians do not have confidence in the public institutions involved in the pension system either. The regulator does not always enforce corrective measures for valid complaints, individuals can contribute regularly to the public system yet not receive any benefit if they have not contributed for 20 years, and examples of neighbouring countries show how the ownership of money within the pension system can be quickly changed through policy reversals.

This lack of trust leads members to take their money out of the system as soon as they can, and a preference to keep their money outside of the system even when saving for retirement.

8.2.1. Reasons for dissatisfaction with the financial institutions of the SPP

Complaints provide insight into what aspects of the pension system are causing consumers the most problems. SBS is responsible for resolving consumer disputes relating to AFPs, insurance companies, or products or services relating to the SPP. The SBS may impose precautionary measures to protect consumers as well as apply complementary corrective measures detailed in the Consumer Protection Code of the Law No. 29571. For the pay-out phase, the SBS is only responsible for complaints related to the interpretation of regulation, procedures or payments within the SPP.

Table 8.1 shows that the number of complaints has fallen from 2015 as a result of clearer requirements to make communications with individuals more simple and transparent and the enforcement of those requirements. The number of days to resolve disputes also reduced in 2017 due to procedural simplifications and improved claims handling process.

Table 8.1. Complaints received relating to the SPP

	2015	2016	2017
Number of complaints received	562	347	404
Days to resolve	91	106	52

Source: SBS.

The main reasons for complaints in 2015 and 2016 related to the process of transferring pension assets outside of the country for citizens not residing in Peru. Since 2017, complaints have also centred around the withdrawals of the lump-sum and reimbursement of contributions due to terminal illness or cancer. Since 2016, only 11% of claims were determined to be justified, and the SBS ordered corrective measures to be taken for 41% of these cases.

The complaints received in 2017 are broken down by financial institution in Table 8.2. 96.4% of these complaints related to AFPs, and only 3.6% related to insurance companies. This is reflective of the fact that only a minority of affiliates transfer their assets to an insurance company, and for those that do so the AFP remains the intermediary between the pensioner and the insurance company.

Table 8.2. Complaints by financial institution, 2017

	Number of claims	Proportion of total
Integra	138	37.5%
Profuturo	124	33.7%
Prima	87	23.6%
Habitat	6	1.6%
Interseguro	3	0.8%
Mapfre Peru	3	0.8%
Pacifico	2	0.5%
Rimac Seguro	2	0.5%
Seguoros Sura	2	0.5%
La Positiva	1	0.3%

Source: SBS.

The complaints data clearly show that consumers are caring most about the process to get their money out of the system, and that they blame the AFPs for the faults of the system. This observation indicates a low level of trust in the pension system, and in particular, though perhaps disproportionally, the AFPs.

8.2.2. Low levels of trust in public institutions

Anecdotal evidence of the reasons for the mass exodus of funds from the SPP through lump-sum withdrawals and early retirement points to a lack of trust that the pension system will deliver on its stated objectives. Procedural problems, such as disappearing contributions and waiting times to receive Recognition Bond payments, add to the disillusionment with the system and the belief that the system will not preserve members' savings and pay the benefits to which they are entitled. On top of this, examples in other Latin American countries such as Argentina, who renationalised private pension savings, demonstrate that their savings in the system are not necessarily theirs and can be taken by the government at will. At the same time, many individuals contributing to the SNP will

not achieve 20 years of contributions, and so will never receive any pension at all, adding to the sentiment that their contributions to the pension system will not result in a pension.

This low level of trust likely drives the observation that 44% of Peruvians who are saving for their old age choose to do so outside of the formal pension system, and 67% of those who do contribute to the system do so only because it is mandatory (SBS, 2018[2]).

8.3. Governance and supervision

The legally imposed framework for corporate governance in Peru aims to promote transparency, independence, and competence. It stipulates the requirements and responsibilities of the board of directors and CEOs, addresses conflicts of interest, and requires the financial institutions of the pension system to act in the best interests of members.

The SBS is independent and has regulatory, supervisory and sanctioning powers with respect to pensions, but these powers could be strengthened. Furthermore, given the split of the system between the public and private pension systems, the scope of its responsibility remains limited.

8.3.1. Corporate Governance

The legally imposed framework for corporate governance establishes a list of requirements for financial institutions that intend to guarantee the moral and economic solvency of the responsible organizers, shareholders, directors, managers and senior managers and the conditions to assure transparency of corporate actions and to eliminate potential conflicts of interest.[1]

The board of directors and the CEO are responsible for ensuring that banks, insurance companies and AFPs implement best practices around corporate governance.[2] At least two members of the board of the AFP must be independent. The governance principles that the board should enforce include the establishment of internal policies to support good governance, the review of the external audit process, and transparency around conflicts of interest, in particular the relationship that directors have with the AFP.

The independent directors will be required to issue an annual report to the Council for Citizen Participation in Social Security (COPAC) that details the work that they have done in the AFP in which they serve as directors, that contains, at a minimum:

- An opinion on the level of compliance with the policy and rules of transparency of the information provided by the AFP;
- Mechanisms implemented to ensure the transparency of the engagement and communication with affiliates;
- Evaluation of the proposals by the COPAC, as well as the level of implementation of the suggestions and/or citizen proposals generated in the COPAC;
- Opinion on the level of compliance with good corporate governance in the AFP, in accordance with the law;
- Acknowledgement of the sanctions imposed on the AFP for infractions relating to the transparency of information, as well as the proposed or implemented measures to address the problem;
- Other issues that are considered relevant for compliance with the requirements around transparency.

AFPs have full fiduciary responsibility to the affiliates in their objective as institutional investors to provide adequate resources to finance retirement, disability and survivor pensions.

The SBS has the power to sanction infringements, according to the severity, without prejudice to applying civil and penal sanctions in accordance with the General Companies Law (Ley General de Sociedades).[3]

Depending on the severity of noncompliance, fines, temporary or permanent suspensions, removal and even disqualification of directors and managers will be imposed.[4] The Directors or managers that have been disqualified or removed cannot be organizers, responsible organizers, shareholders, directors or managers of any supervised institution during the period indicated in the Sanctioning Regulation. In the case of recurrence, disqualification becomes permanent.

8.3.2. Supervision of the SPP

The SBS exercises control over banking and insurance companies, private pension fund managers and other companies that receive deposits from the public or perform related operations. It was created by law as a decentralized public institution of the Economy and Finance sector, following internal public law and with functional, administrative and financial autonomy. The Superintendent is appointed by the President for a term of five years. SBS is financed through contributions from the AFP that are based on the amount of assets under management as well as other voluntary donations from non-supervised entities.

The law establishes the organisational and functional autonomy of the SBS and contains its objectives and powers. In particular, the SBS has the power to approve or amend the necessary regulation for the financial and insurance operations and complementary services of these companies' activities and to supervise these entities and enforce compliance with the regulation. As such, the SBS has regulatory, inspection, control, and sanctioning powers.

The SBS is in the process of transitioning towards risk-based supervision (RBS) of AFPs following international guidelines (e.g. the IOPS Toolkit for Risk-based Pensions Supervisors). They expect to finish developing their methodology by the end of 2020. The RBS framework seeks to address the following issues relating to the investment supervision process: 1) supervision of the investment regime; 2) on and off-site review process; and 3) aligning supervision and sanctions with the RBS matrix.

The RBS framework aims to control investment risk while allowing for some flexibility of the investment regime. In order to achieve this, the SBS has expanded the allowable investment in alternative assets. It has transferred the registration process for traditional investments to investment managers and established a general authorization process for non-traditional investments such as derivatives and alternatives, replacing the evaluation process for each individual investment. At the same time, it has strengthened the requirements for the management of investment risk, and investment managers have been allowed to implement a wider range of tools to manage the volatility of the funds through the investment in derivatives for the purpose of hedging portfolios and efficient portfolio management.

In order to classify the on-site or off-site review of processes as relevant or critical, the SBS has established criteria relating to the evaluation of the investment decision, the risk control system, the performance measurement methodology and the process of recording the

information in the Daily Investment Report. The SBS makes the decision to conduct on-site and off-site reviews according to the priorities based on the results obtained in the quantitative and qualitative indicators of management monitoring of investments and risks of the AFPs. In order to detect weaknesses in the investment process in a timely and accurate way, the supervisors rely on both daily and periodic information.

The RBS matrix, when completed, will allow the supervisor to concentrate only on the relevant activities and better align the supervision processes and sanctions imposed by the SBS within the RBS framework.

For the pay-out phase, the supervisor evaluates all risks taken by the AFP and how they are managed in order to assess the inherent risk. If needed, the supervisor asks the AFP to implement risk mitigating actions in order to assess the residual risk. Depending on the level of residual risk, the supervisor may require the process owner, the COO, internal audit, or the CEO to initiate a period of self-control.

An additional body that plays an important role in ensuring employer participation in the pension system is the Superintendencia Nacional de Fiscalizacion Laboral (SUNAFIL). SUNAFIL is responsible for ensuring employers' compliance with labour laws and regulations, including pensions.

8.4. Policy options

Unless actions are taken to improve the Peruvians' understanding of the pension system and their trust in the institutions managing it, the pension system will fail to meet its objectives to provide pensions for the majority of the people. To improve understanding, financial education about the pension system needs to be broadened. To improve trust in the private institutions, a centralised public-private platform that manages administrative processes should take the place of the AFPs as the face and contact point of the system. The corporate governance framework should adequately address any conflicts of interest, and consumer interests should be more represented in decisions on how the AFPs are being managed. To improve confidence in the public institutions, members who have had contributions misdirected need to be made whole and regulation and supervision should be integrated across all components of the pension system.

8.4.1. Promote financial literacy and education about the pension system

Efforts to educate the public about the pension system and help them to understand how to benefit from it are moving in the right direction. The creation of the FESIP will contribute to furthering educational efforts, and the simplification of communication will help to make the aspects of the system easier to understand.

However, despite efforts to promote knowledge of the pension system, more than one in four people expect that they will be able to rely on Pensión 65 as their primary source of income in retirement. This compares to only 15% of the population that expects that the main source of income will be from either the SNP or the SPP (SBS, 2018[2]). Therefore, the role of Pensión 65 to provide a very low benefit to alleviate poverty for the most disadvantaged of the population is clearly not understood by a large proportion of the population.

Education on the pension system needs to be incorporated into the financial education programmes in schools in order to promote saving for retirement from a young age, and to help students understand how the pension system can help individuals achieve their

financial goals for retirement. Programmes should teach students how the different components of the pension system work together to provide a retirement income. Currently, 48% of 15 year olds in Peru perform at the lowest level in financial literacy, which is below the baseline level of proficiency that is required to participate in society. This compares to the OECD average of 22% of students functioning at this level. Students in low socioeconomic groups are more than twice as likely as advantaged students to perform at Level 1 when controlling for other variables (OECD, 2017[1]).

The dissemination of information relating to the pension system could also be done through public awareness campaigns to educate the general public about the system. The OECD Recommendation on Good Practices for Financial Education Relating to Private Pensions recommends that campaigns should "*explain public policy clearly (particularly where mandatory savings are involved), including pension reform, the pension environment, increase individual responsibility, and demographic changes that require individuals to save more.*" (OECD, 2008[3]). These campaigns should be designed with the collaboration of the SBS and key stakeholders such as the Asociación de AFP (AAFP) and the Consumer Association (ASPEC), and delivered in a way that will reach a large portion of the population, such as through radio programmes. Specific campaigns could also target more vulnerable populations, such as informal workers or women in order to tailor the messages more effectively to these different population segments (OECD, 2014[4]). Public sentiment indicates that such information could be effective in getting people to save for retirement by reminding them of the importance of saving and how the pension system can help them to do so. Indeed, 71% of Peruvians think that it is very important to save for old age but 62% of people do nothing about it. Of those who do nothing, 22% have no particular reason for not saving, implying that there is an opportunity to get these people to save more (SBS, 2018[2]).

In order to be most effective, programmes should also target specific populations, for example informal workers. Informal workers are much less likely to take any steps to financially prepare for old age (Arellano marketing, 2017[5]).

8.4.2. Improve confidence in the private financial institutions of the SPP

AFPs seem to be the most dis-trusted institution of the SPP, and indeed were the target of the highest level of complaints compared to insurance companies. This is partly driven by the fact that AFPs have the responsibility of acting as the intermediary for the affiliate for every interaction they have with the pension system, even where they are not the main actors in the process. In addition to fulfilling their role as investment managers for the contributions paid into the system, AFPs are responsible for ensuring that the employer is paying the employee's contributions, for the application process to receive Recognition Bonds from the ONP, and for the benefit payments paid by the insurance companies.

Public perceptions of the AFPs are that they will lose the public's money and that there are no protections in place for consumers. Nevertheless, only 0.3% of people report having had a problem with an AFP in the last year, and when they do it is often related to returns on contributions or to the receipt of recognition bonds (Arellano marketing, 2017[5]). These complaints therefore seem misplaced, as returns have objectively been good on average (see Section 6.1.2), and the long waiting period to receive the payment of the Recognition Bond from the ONP is not within the AFPs' control.

Provide a centralised and neutral contact point for the affiliate to file requests, initiate procedures and manage payments

The AFP should not be obliged to bear the responsibility for procedural failures that they are not in control of, as this will unjustifiably undermine consumer confidence in their competence. Ensuring that the responsibilities of the AFP are appropriate (see also Section 6.3.5) and improving the transparency of the processes of the pension system for consumers could help to mitigate the perception that the AFPs are responsible for all of the ills of the system. In order to have confidence in the pension system, consumers need to have confidence in the institutions that are managing their money and believe that the AFPs are acting in their best interest.

Making the centralised platform PensionsNet (see Sections 4.5.2 and 6.3.5) the point of contact for affiliates of the pension system, would help to mitigate the public's perception that the AFPs are responsible for all of the procedural failures of the system. This should be achieved without impeding on the AFPs' relationship with affiliates for the services they provide. In addition, the centralised platform, PensionsNet, should have the mandate to enforce the payment of contributions that have not been paid. To the extent that this platform will be better placed to manage and enforce cash flows between institutions, the risk of procedural errors should also be reduced. In order to ensure that it is being managed with the appropriate objectives and in an efficient manner, the board of directors of the platform should have representatives from both the public and private institutions.

Improve accountability and governance of AFPs

To improve public perceptions that the AFPs are acting in their best interests for the responsibilities that are within their control, the AFPs should be held accountable to the public. Measures have already been taken to do this, as currently the Board is required to issue an annual report to the Council for Citizen Participation in Social Security (COPAC). This objective could be advanced further by ensuring regular reporting to consumer interest groups regarding decisions made by, and the performance of, the AFPs.

In addition, the SBS should ensure that the legal framework for corporate governance is in line with the G20/OECD Principles of Corporate Governance and the OECD Core Principles of Private Pension Regulation to effectively address the potential conflicts of interest that AFPs that are subsidiaries of larger banking or financial institutions could face (OECD, 2015[6]) (OECD, 2016[7]). Advisors from the AFPs need to manage and minimise the conflicts of interest that they face, for example if they would be incentivised to encourage the affiliate to take a lump-sum to invest in a banking product. In addition, any fees paid for intermediary services provided by the bank need to be made transparent.

8.4.3. Improve confidence in the public institutions of the SNP

The Peruvians' perception of public institutions may also be harming their trust in the rules of the pension system. In many cases, individuals who have contributed to the system will not receive benefits from those contributions, either because they were directed to the wrong institution or because they did not achieve 20 years of contributions in the public system. Having an integrated supervision of the entire pension system would help to ensure that it is functioning properly and in the interests of the people, thereby promoting trust in the system. In addition, the reforms needed to ensure the long-term sustainability of the pension systems and the adequacy of the retirement income that it provides should be implemented by an independent committee free from the political process.

Improve transparency and governance of the management of contributions

The disappearance of contributions that individuals have paid to the system seriously undermines the trust and confidence that the public can have in the system. Improved information sharing and collaboration across institutions would help to eliminate the procedural errors of misdirected contributions (see Section 4.5.2), but additional cooperation will need to be put in place to correct past mistakes and ensure that members do not lose the pension rights that they are entitled to. The Fiscal Responsibility and Transparency Framework of Regional Governments and Local Governments allowing the ONP to return mistaken contributions made since 2012 is only a first step to rectifying the problem. Additional solutions will need to be found to address the contributions that are not returned as a result of this Legislative Decree and restore trust that the pension system will make good on its obligations and commitments.

One potential solution would be to allow these individuals to recoup lost benefits would be to pro-rate a pension entitlement from the SNP. This solution would limit the immediate fiscal impact to the ONP of returning the contributions, while allowing the member to receive some benefit from the contributions to the SNP even if they did not achieve the minimum contribution period of 20 years. Otherwise a solution should be found to return lost contributions to affiliates with interest.

Strengthen regulatory and supervisory powers of the SBS

The law empowers the SBS with regulatory, inspection and control, as well as sanctioning powers. The SBS uses preventive supervision to establish corrective measures for which the severity is based on the potential impact of the identified weaknesses on the overall risk profile of the supervised entity. The SBS also imposes sanctions in the cases that are allowed within the regulatory framework. Nevertheless, the SBS does not have supervisory and regulatory powers for the entire pension system, nor do they have sufficient regulatory powers to address the problems that they identify in the system. For example, the SBS has the responsibility to handle requests from affiliates who want to disaffiliate from the SPP to go back to the SNP, but they do not have decision-making power regarding disaffiliation. They also are not able to obtain all of the information needed to ensure that the system is working properly (see Section 4.5.2), such as the employment information of affiliates to ensure that owed contributions have been paid. In order to ensure that the entire system is well integrated and functioning properly, a single body needs to have supervisory and regulatory powers for the entire system. This will allow the supervisor to ensure that the different components of the system are operating in harmony, improve their effectiveness in addressing any problems, and facilitate the enforcement of sanctions where needed.

Establish broad based and comprehensive reforms and implement them gradually without losing sight of their long term horizon

Providing a regular stream of income in retirement is a long-term challenge. Therefore, any reform of the pension system needs to take a long-term vision that goes beyond short-term considerations. Pension reforms intending to improve the sustainability of the system and the level of pensions that it can provide can only garner the favour of the public and thus succeed when they are broad based and comprehensive. Broad based and comprehensive reforms provide a balanced approach to avoid winners and losers. Piecemeal reforms based on short-term considerations will jeopardise the overall pension system. Changes to pension systems have sometimes catered to these pressures and as a result have undermined their main objective of providing a regular stream of retirement income to people in old age.

In order to ensure that the pension reform maintains this long-term view, an independent committee of experts could be established. This committee of experts will be responsible for the implementation of the reform. This committee should be charged with reaching the agreed upon objective of a reformed pension system in a gradual manner, taking into account fiscal capacity, institutional capability, regulatory powers and labour market developments. This long-term and independent process will also help to promote trust in the system and avoid frequent changes that create additional risk and uncertainty for the population.

Notes

[1] The articles 20, 51 to 59 and 79 to 94 of the amended Text of General Law of the Financial and Insurance Systems and Organic Law of the Superintendence of Banking and Insurance (General Law), approved by Law N° 26702, lay out these requirements.

[2] Resolution SBS N° 272-2017.

[3] Article 87 of the *Ley General del Sistema Financiero y del Sistema de Seguros y Orgánica de la Superintendencia de Banca y Seguros.*

[4] The General Law and the Sanctioning Regulation (*Reglamento de Sanciones*) approved by Resolution SBS N° 816-2005 and its amending regulations.

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Chapter 9. Summary of recommendations from the OECD review of the Peruvian pension system

This chapter presents the main policy options discussed in this pension review to improve the pension system of Peru and ensure that it will be able to achieve its objectives of diversifying the sources of retirement income and providing pension benefits in retirement.

The Peruvian Pension System has undergone many changes to improve its sustainability over the last several decades. Nevertheless, there are still significant issues to address in order to effectively tackle old-age poverty, have a unified and coherent system, and to improve both coverage and the pension benefit level the system is able to provide. Additionally, elements of the design of the private pension system and its regulation should be adjusted in order to further improve outcomes for pensioners. Furthermore, people need to have confidence that the pension system will deliver for them, and have trust in the institutions responsible for doing so. This will require efforts going beyond the design of the system itself. The population needs to better understand how the system works and the importance of contributing for their financial well-being in old age. Moreover, both the public and private institutions responsible for delivering pensions need to be trustworthy and individuals need to understand that the institutions are acting in their best interest.

Any reform of the pension system needs to take a long-term vision that goes beyond short-term considerations. Providing a regular stream of income in retirement is a long-term challenge. Reforms of pension systems need to be broad based and comprehensive. Piecemeal reforms create winners and losers, and sometimes undermine the main objective of providing a regular stream of income in retirement. Broad based and comprehensive reforms will also help to promote trust in the system and avoid frequent changes that create additional risk and uncertainty for the population. Once a package of comprehensive reforms is agreed upon, reforms can be implemented gradually, taking into account fiscal capacity, institutional capability, regulatory powers and labour market developments.

The policy options put forward in this report provide a comprehensive framework to improve the Peruvian pension system. Implemented together, they should put the Peruvian Pension System in a better position to achieve its objective of ensuring the financial well-being of the elderly.

9.1. Tackle old-age poverty

Poverty rates have been declining in Peru, but it remains a much larger problem in rural areas and for the elderly in particular. The programme Pensión 65, that provides a flat-rate benefit for the elderly in extreme poverty, has largely been a success, with 1 in 4 elderly Peruvians now receiving benefits. Nevertheless, benefit levels remain extremely low compared to the level of safety-net benefits provided in OECD countries, even when accounting for the difference in economic development. Furthermore, the benefit level has not been adjusted in nominal terms and has therefore been declining in real terms.

The coverage of Pensión 65 should be expanded to better tackle old-age poverty. There is some evidence that not all eligible individuals are receiving benefits. Therefore, the coverage of the programme can be expanded through publicity campaigns to make people more aware of the programme and its eligibility criteria in order to encourage those who are eligible to apply for benefits. In order to address poverty and not only extreme poverty, eligibility criteria can also be expanded to reach a larger population.

Benefit levels should also be improved. This could be achieved by adjusting benefit levels upward in a one-off increase to make it more meaningful as a mechanism to address poverty. They should also be indexed going forward so that they retain their value in real terms. This could be done by indexing the benefit level to inflation, for example.

Finally, the benefit should be better integrated with the minimum pension in the contributory system, and take the form of a top-up payment rather than a flat-rate payment, as discussed later on.

9.2. Establish a solid framework for the contributory pension system to meet its objectives

The design of the current pension system is not conducive to achieving its objectives. The public and private pension systems operate in parallel rather than being complementary, competing with each other to provide not only old-age pensions but also disability and survivor benefits. While in total the private system has more affiliates than the public system, more new affiliates have been joining the public system recently. The main benefit of joining the public system as opposed to the private system is the provision of a minimum pension benefit if twenty years of contributions are achieved. However, low contribution densities on average and the ability to access the capital accumulated in the private system has induced a large number of individuals to switch from the public to the private system, even though any benefits accumulated since 2001 are not recognised when switching.

These trends imply that pensioners are losing out. Individuals unable to achieve twenty years of contributions will receive no benefits from the public system, and will lose any benefits accumulated since 2001 if they switch to the private system. They will also lose access to minimum pension benefits. In addition, if individuals decide to take a lump-sum instead of a programmed withdrawal or life annuity product, they may be at increased risk of old-age poverty.

The fragmented pension system also results in processes that are not integrated and a significant lack of coordination among the public institutions overseeing the system. This has led to costly errors that further harm pensioners in terms of lost benefits. One such error has been the mismanagement of contributions that have been mistakenly sent to the public system rather than to an AFP. Those affected have not been compensated for this error.

The public PAYG and the private funded pension systems should be complementary to each other. In order to have a more coherent pension system, the competition and duplication in the benefits provided by the public and private system need to be removed, and the two sources of pensions and related benefits should be designed to be complementary. While the system could rely primarily on either public or private provision, combining both a mandatory public system and individual capitalisation accounts would result in a more robust pension system that is more resilient to the many risks that can threaten the sustainability and adequacy of retirement income. In addition, retaining both systems would minimise the implementation costs and smooth the transition to the improved new system.

The new framework for the complementary public and private pension provision needs to adhere to the principles of complementarity, accessibility, sustainability, and equity.

First, the design of the pension system needs to make both components complementary, take into account the different sources of pensions, and provide the proper incentives to contribute. Eligibility requirements will need to be coordinated with the safety net in order to avoid duplicating pension provision, particularly with respect to the minimum pension. The minimum pension should also be designed so as to provide both proper incentives to contribute to the pension system and higher pension benefits as the number of years of contributions increases.

The eligibility requirements should make the pension system accessible. For the individual accounts in the private system, this is automatic, as individuals will eventually receive the assets that they have accumulated in their account. For the public benefit, however, the current requirement to contribute 20 years makes benefits inaccessible to a significant

proportion of affiliates. The minimum number of years required to contribute before being eligible for benefits needs to be significantly reduced so that most people who contribute to the system can expect to receive benefits in return.

Financial sustainability should be ensured. The level of benefits that affiliates can expect to receive needs to be linked to the contributions made to the system to make sure that contributions will be sufficient to finance the benefits. In individual accounts, this link is automatic, as the accumulated assets will directly finance the benefits. However, the PAYG public component will need automatic mechanisms to ensure this balance now and going forward, both in accumulation by linking the accrual of benefits with the macroeconomic situation, and in pay-out by accounting for the length of time that payments are expected to be made.

Finally, the transition to the new improved system will need to ensure that the current members of the pension system are treated fairly and will not receive significantly lower benefits than those that they have already been promised. Regardless of how this is done, all future entitlements should accrue under the new rules so as to limit the length of this transition process and the related costs.

Duplication will also need to be removed with respect to the disability and survivor pension benefits. Benefits may continue to be provided by the public and private system for their respective portion of retirement benefits. However, for those in risky occupations, competition between the public and private sector should be removed for SCTR insurance. Having the private sector only providing this insurance would help to align the incentives employers have to ensure the safety of their employees and to ensure that premiums continue to be in line with the underlying risk. Nevertheless, the ONP may still have an important social supplementary function to fulfil in the context of workers in risky occupations that the private sector does not cover because the risk is too high for the premium to be affordable.

Finally, in order to have a coherent system in which all institutions work together to achieve the objectives of the pension system, there needs to be better coordination and cooperation among these institutions. All institutions should have access to timely and accurate data on the pension system, and the processes to share information need to be more flexible and adaptable to ad-hoc needs. This could be accomplished through a centralised platform jointly operated by the public and private sector, PensionsNet. This platform could centralise the collection of information and the administrative tasks such as the collection and enforcement of contributions for both the public and the private components of the pensions system, and capitalise on the efficiency gains brought with the existing AFPnet platform.

9.3. Improve the coverage and level of pensions

Coverage of the Peruvian pension system remains low, with less than two-thirds of the economically active population (PEA) affiliated with either the public or private system, and only around a quarter of the PEA are actively contributing. These low levels of coverage are driven primarily by the high levels of informal employment, which includes the self-employed and independent workers, as they are not required to contribute to the system. Over 70% of the workforce is in informal employment, but in rural areas, the problem is much larger with the level of informality at over 95%. Most of those in informal employment do not choose to contribute to the pension system, with recently less than 6% of new affiliates joining voluntarily.

Efforts to increase coverage will need to focus on reducing the high levels of informality and promoting participating in the pension system by informal workers.

One way to reduce levels of informality would be to increase the relative cost of being informal compared to being formal. Because of the high cost of becoming formal, particularly for low-income workers, these workers have more of an incentive to remain in informal employment. To reduce this cost, the government could subsidise the pension contributions of low-income workers.

Otherwise, providing incentives for informal workers to contribute or making it compulsory could increase the coverage of the pension system. For low-income workers, matching contributions where the government matches a certain proportion of contributions made by the individual can be an effective incentive to contribute. However, this would have to be coordinated with the financial incentives provided to formal workers in order to avoid creating incentives to remain informal. For independent workers, the requirement to contribute to the system could be reintroduced. To make it more effective this time, this measure could be accompanied by the possibility to have a more flexible contribution schedule and innovative collection mechanisms such as through utility bills. Behavioural nudges that increase the likelihood that they will contribute could accompany those measures.

Improving the levels of pensions given the low level and density of contributions will require raising the amount and frequency of contributions made. However, any increase in the level of mandatory contributions for individuals should ensure that these increases do not result in an immediate reduction of nominal wages. The increase could be implemented gradually over time and linked automatically to wage increases. Alternatively or in parallel, the additional contributions could come from the employer, who currently does not share the social security contributions of its employees.

There is also a need to improve incentives to increase voluntary contributions. As a starting point, everyone should be able to open up a voluntary pension account if they want to, which is not currently the case. Once this is allowed, financial incentives for voluntary contributions could be improved. In order to ensure that low-income individuals benefit from these incentives, a flat subsidy or matching contributions that are paid directly into the affiliate's account (as discussed for providing incentives for informal workers to contribute) could be implemented. In order to also promote more frequent contributions to pension accounts, such incentives could be linked to contribution density. Automatic enrolment could also be introduced to nudge individuals into saving more.

Another way to improve the level of pensions would be to limit the early withdrawal of assets from the pension accounts. Currently, individuals can withdraw 25% of their assets before retirement for the purchase of a first home, and retire from the age of 50/55 for females/males if eligible for early retirement.

To address early withdrawals from the SPP before retirement, withdrawals could be limited to assets accumulated from voluntary contributions, though a higher rate could be allowed. However, any matching contributions or subsidies provided on these contributions would need to be removed to avoid adverse incentives to game the system.

With respect to early retirement, first the gender gap in the early retirement age should be eliminated. While the legal retirement age is the same for both genders, there remains a difference of five years for early retirement, which puts women at a disadvantage in retirement given their lower average wages and higher life expectancies. Secondly, the criteria for early retirement should be more restrictive for those who are able to continue

working. Minimum income requirements should be imposed, and benefits should be adjusted downward in an actuarially fair manner to reflect the longer expected time in retirement.

9.4. Optimise the design of the private pension system to improve outcomes

The AFPs are required to offer four investment funds of varying levels of conservatism, from mostly equities to mostly cash and deposits. The default investment strategy for new affiliates is a balanced risk fund. At age 60, their assets are automatically moved to the conservative fund, and at age 65 to the most conservative cash and deposit fund until they make a decision regarding pay-out.

While it is common and considered best practice for default funds to de-risk as individuals approach retirement, it would be more appropriate to gradually de-risk the investment rather than immediately when individuals reach the specified age. Furthermore, individuals could be allowed to invest different sources of pension savings into different funds and providers in order to better diversify their risk exposure according to their preferences.

To promote better value from investments with the AFPs, the fee structure could be adjusted to better align the interests of the AFPs and the members. Charge structures are now in the process of transitioning from upfront charges based on salaries to ongoing charges based on assets under management (AUM). However, the AUM-based fee structure does not necessarily provide incentives for the AFPs to improve efficiency or reward performance.

Moving towards a performance-based fee structure, where providers receive more fees if the funds outperform the market, would better align the incentives of the fund managers with the interest of the affiliates. Independent performance benchmarks could be relied upon to this effect in order to reduce the incentives for herding that a peer-based benchmark could present.

There is a need to revisit the minimum return guarantee required from AFPs. AFPs are required to guarantee a minimum return for each fund calculated as a percentage of the average returns of that fund for all AFPs over the last 36 months. Having a minimum guaranteed return that references the returns of other AFPs provides an incentive for AFPs to adopt similar investment strategies, and indeed, there is evidence of investment herding behaviour.

Alternative mechanisms exist to achieve the objectives of the minimum return that would reduce the incentives for herding, eliminating the need for an investment guarantee. The purpose of this minimum return seems to be two-fold. Firstly, it serves as a peer benchmark to judge the performance of funds, and secondly it effectively puts limits around the volatility of the fund and how much it can deviate from the expected average returns.

To benchmark performance, independent investment benchmarks that are tailored to each fund could provide a benchmark that would be independent of the other AFPs' strategies. A common, independent benchmark could also be established for each fund to promote comparability and provide a reference for performance-based fees.

To limit fund volatility, imposing explicit limits on the funds as opposed to the indirect limits from the minimum return guarantee would also reduce incentives for herding. This could be done, for example, through targets around the probability of achieving a certain level of retirement income.

Measures have been taken to improve the competitive landscape for pensions, namely through the introduction of a tender mechanism through which AFPs compete to receive all new affiliates over a period of two years. While this has reduced fees charged on average, there is room to go further.

Improving the disclosure of the costs and fees is a key policy tool to reduce costs and fees where market mechanisms have been less effective. The resulting transparency can increase competitive pressure on providers as affiliates can more easily compare the fees they are paying and change providers if they choose. In addition, more granular disclosure can also help the providers themselves to better understand all the costs they incur, allowing them to take action to reduce these costs.

The fees charged on voluntary contributions should be aligned with those for mandatory contributions in order to promote voluntary contributions and ensure that these contributions are just as valuable for pension savings as mandatory contributions. While the tender mechanism has brought down the charges for mandatory contributions, the fees charged for voluntary contributions remain significantly higher on average. Average fees charged on voluntary contributions, weighted by the asset allocation to each fund, are over 50 basis points higher than fees on mandatory contributions. These high fees may act as a disincentive for individuals, especially those in informal occupations, to contribute voluntarily to the pension system. It also means that individuals who do decide to save more are getting much less out of their additional savings than they would otherwise.

The ability for affiliates to switch providers is a positive aspect of the system to promote healthy competition, however there should be mechanisms in place to prevent negative consequences such as excessive marketing expenditure or market instability. One approach is to impose limits on the frequency with which affiliates can change providers or investment funds. Another option would be to limit commissions that AFP representatives receive for getting an affiliate to frequently switch providers.

The rules in place should also ensure that the responsibilities of the AFP are appropriate and promote effective governance and resource allocation. Several mechanisms have been introduced that go in this direction, namely the introduction of AFPnet to improve the efficiency of the management of contributions and the introduction of SISCO that improves the transparency and governance around disability and survival insurance.

Having a centralised platform, PensionsNet, managing the administration of the entire pension system would streamline the system. It could also incorporate validation checks and a collection of the information necessary to enforce contribution payments to the system. AFPs do not always have the mechanisms to carry out their responsibilities effectively. This is the case particularly in determining whether employers owe contributions of their employees, as AFPs do not necessarily have information on employers.

In other cases, AFPs could allocate some responsibility to promote more balanced outcomes. For example, AFPs are the sole representative from the private sector in determining the validity of disability claims. Decision-making responsibility could be shared with the insurance industry, which should be involved in such processes as they are directly impacted.

Once an individual reaches retirement, the options they have to take their accumulated assets should be aligned with the pension system's objective of ensuring people's financial well-being throughout their retirement. The option that affiliates have had since 2016 to

take their assets as a lump sum increases the risk that this objective will not be met and provides harmful incentives to members.

Ideally, the ability to withdraw pension assets as a lump-sum should be eliminated. As a second-best option, the pension system should at least be required to pay a minimum level of income in retirement. This minimum could be met through a combination of both the public and private components, and set at a level such as the minimum pension paid to everyone contributing.

Another way to encourage the uptake of a pension income rather than a lump-sum could be to remove the accumulated financial advantage that individuals have received on the preferential tax treatment of their pension savings. Under the current tax regime where investment returns on pension savings are tax exempt, this would represent an additional tax that would need to be paid back of nearly 6% of the account value. Any matching contributions or subsidies that are adopted as a way to encourage savings could also be taken back if individuals opt to take a lump-sum.

Other incentives to encourage the uptake of a pension income and prevent gaming the system could be linked to the eligibility or cost of health coverage in retirement from EsSalud. This could be done by linking the eligibility of coverage to a minimum number or density of contributions. Health coverage when taking a lump-sum option should also be linked to the age of retirement. Those retiring early should be required to pay a higher contribution to be covered or not allowed to take a lump-sum at all.

Even if the individual decides to not take a lump-sum, however, the alternative options for pay-out that are available are overly complex and present a risk of confusion and choice overload. This could lead even more people to choose the lump-sum option, which is arguably the easiest option to understand. Given this observation combined with the lack of demand for more complex products, the options available to individuals at retirement should be restricted to the simplest products available.

When individuals choose to draw a pension from the system, the security of these benefits should be ensured through appropriate assumptions and product designs that aim to reduce risks for pensioners.

The pay-out option combining programmed withdrawals and a deferred annuity should also be modified to better protect individuals from the longevity risk of not having sufficient income for life in retirement. The current annuity purchased with 50% of accumulated assets and a deferral period of five years will result in a significantly lower income than pensioners could otherwise obtain. The deferral period for this option should therefore be extended to increase the amount of income that the deferred annuity will provide.

The SBS should also continue to regularly update the mortality tables for the private pension system to ensure that these assumptions continue to be in line with actual mortality experience. This will help to ensure that insurance companies have sufficient reserves to back the annuity payments that are promised to pensioners.

In the event that an insurer does become insolvent, however, the appropriate mechanisms should be in place to safeguard pensioners' benefits. This can be done through the wind-up procedure, or alternatively through an Insurance Policy Coverage Fund.

9.5. Improve trust and confidence in the pension system

Efforts need to be made to improve trust and confidence in the pension system. Unless the Peruvian people understand how the pension system can benefit them and trust that the institutions involved in the system will ensure that it does so, the system will fail to achieve its objective of ensuring the financial well-being of retired Peruvians regardless of the improvements that are made to its design.

First, more efforts need to be made to promote knowledge of the pension system and how it works. More Peruvians expect to rely on Pensión 65 in retirement than the contributory pension system, demonstrating a significant lack of understanding of the benefits that the system can provide. Education about the pension system should be incorporated into the financial literacy programmes in schools. For adults, public awareness campaigns should be used to educate the general public and encourage them to save into the system.

The public also needs to trust the financial institutions that are managing their pension savings. The public tends to distrust the AFPs, who take the blame for failures in the system that they do not necessarily have any control over such as missing contributions or the late payment of recognition bonds. The responsibility that the AFPs have relating to the pension system therefore needs to be better aligned with the responsibilities over which they have control, and for these responsibilities only should they be held accountable to the public. Making the centralised platform PensionsNet the main point of contact of affiliates would help to mitigate the public's perception of who is responsible for errors, and minimise the opportunity for procedural failures. In addition, while there are rules requiring AFPs to avoid and/or manage the conflicts of interest they face, more could be done to ensure that these conflicts are not inappropriately affecting business decisions.

Trust and confidence are also low with respect to the public institutions responsible for overseeing the pension system. These institutions therefore need to take concrete steps to demonstrate that they are acting in the best interest of affiliates and pensioners. One such step would be to ensure that pensioners are compensated for any contributions to the private system that were misdirected to the public system. Another would be to strengthen the independence and enforcement power of the SBS to show the public that the institutions operating within the pension system are subject to the rules in place and that there will be consequences if the best interests of the people are not put first.

Finally, an independent committee of experts could be established that would be responsible for the implementation and monitoring of the reform. This committee should be charged with reaching the agreed upon reform package and objective in a gradual manner and, hopefully, independently from the political process.

Implementing comprehensively the recommendations laid out in this report would put the Peruvian pension system in a much stronger position to achieve its objectives and improve the financial outcomes of the Peruvian population during retirement.

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PERU

This review assesses Peru's pension system in its entirety, looking at both public and private, pay-as-you-go (PAYG) financed and funded pension provisions. The review then provides policy options to help tackle old-age poverty; establish a solid framework for the contributory pension system to meet its objectives; improve the coverage and level of pensions; and optimise the design and improve the regulation of the funded private pension component. A further goal of these proposals is to improve the Peruvian population's trust that the country's pension system will be able to deliver secure retirement income in old age.

The review is the fifth in a series of country reviews of pension systems [Ireland (2014), Mexico (2016), Latvia (2018), and Portugal (2019)]. These reviews provide countries with policy options that will help them improve the functioning of their overall pension system. Tailored policy options are proposed based on the specificities of the national pension system, and on international best practices regarding reforms, design and regulation of pension systems.

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