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OECD Reviews of Pension Systems: Latvia



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Foreword

This Pension Review provides an assessment of Latvia's retirement income provision from an international perspective and focuses on the capacity of the pension system to deliver adequate retirement income in a financially sustainable way. The review highlights OECD best practices for the design of pensions by covering all components of pension systems: public, occupational and personal plans as well as schemes for public sector employees. The analyses are based on both OECD flagship pension publications: *Pensions at a Glance* and *Pensions Outlook* as well as the *OECD Roadmap for the Good Design of DC Pension Plans*, country-specific sources and research.

The report was prepared by a team of pension analysts from the OECD's Directorate for Employment, Labour and Social Affairs and Directorate for Financial and Enterprise Affairs: Pablo Antolin, Hervé Boulhol, Maciej Lis and Stéphanie Payet. Chapter 4 is based on a contribution by Edward Palmer, Professor at UCLS, Uppsala University (Sweden), who worked as a consultant. Editorial assistance was provided by Julie Harris and Lucy Hulett (ELS) as well as from Kate Lancaster (Public Affairs and Communications Directorate).

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Executive summary

This review assesses the Latvian pension system according to the OECD best practices and guidelines, and draws on international experiences and examples to make recommendations on how to improve it. Although these recommendations should be seen as a policy package, implementing each of them might not be possible in the short-to-medium term. There are two mandatory, earnings related pension schemes in Latvia: a pay-as-you-go non-financial (notional) defined contribution (NDC) and a funded defined contribution (FDC) scheme. Voluntary private pension funds complement the mandatory schemes. The main findings and recommendations are presented below.

Main findings

- The introduction of the NDC pension in 1996 and the difficult transitional issues involved in moving into the almost universal pension scheme were managed well.
- The relative old-age poverty rate is high, especially among those older than 75 years and among women. The level of the basic pension (*state social security benefit in the case of old age allowance*) is very low and has not risen in nominal terms for more than 10 years.
- The decreasing role of the contribution records prior to the 1996 reform and changes in the labour market are expected to increase the take-up rates of basic and minimum pensions in the coming years.
- In Latvia, low fertility and high emigration lead to a sharp decline of the labour force and a slight increase in the number of retirees. A declining labour force lowers the internal returns of pay-as-you-go pensions, and NDC schemes are not immune.
- NDC schemes automatically adjust pension benefits to changes in the size of the labour force and life expectancy. Increasing life expectancy without adjustments in retirement ages will lead to future pension replacement rate below the OECD average.
- Financial costs result from the conversion of pension rights from the Soviet area and the transition costs related to the building up of the FDC scheme.
- There are no survivor pensions for spouses in the NDC scheme.
- The default option in the mandatory funded pension scheme is only appropriate for very risk-averse individuals and those approaching retirement age. The conservative investment strategy is not appropriate for the entire investment horizon.

- Fees in the FDC scheme are high on an international comparable context. High fees may reflect the relatively recent introduction of the system, but mostly result from a lack of competition between pension providers. Recent reforms introduced in early 2018 go in the right direction. The new fee structure for the Latvian mandatory funded pension scheme, with a regressive scale and lower caps, should help drive fees more in line with those in comparable countries. However, there is still no regulation setting a fee structure or a cap on fees for voluntary private pension funds.
- Early retirement options at younger ages and higher benefits are provided for selected public sector employees – so-called service-pensions. This group has been expanding since 2000.

Main recommendations

Reduce old-age poverty and pension inequality

- *Increase substantially the levels of basic and therefore minimum pensions and use the same indexation rule as the one for NDC pensions in payment*. There is substantial room to increase the level of the basic pension from the current level of 8% of average wage towards the OECD average of around 20%. Solidarity concerns feature high on the political agenda.
- *Lower the minimum contribution period of 15 years required for the minimum pension. On top of the safety net available for someone who never contributed, ensure that each additional year of contribution results in a higher minimum pension benefit*. Currently, only an increase of the contributory period at specific points (15, 20, 30 and 40 years) generates additional benefits.
- *Introduce survivor pensions for spouses within the mandatory earnings-related schemes, based on a thorough impact assessment, in a way that does not create unintended redistribution*. Very high old-age poverty rates, especially among women, and a steep fall with age of the share of people living in a couple, to a very low level, imply that introducing survivor pensions for spouses will help reduce extreme vulnerabilities, even though based on available statistics it cannot be definitely concluded that older women are single mainly because their husbands die during the retirement phase.
- *Steadily increase contributions paid by employees of micro-enterprises and align pension contributions paid by the self-employed to those of dependent employment*. Allowing different contribution rules for different types of workers increases the risk of people switching from one status to another and having low contribution records. Until the end of 2017, the majority of the self-employed did not contribute to the pension system at all, which is likely to result in their reliance on safety nets when retiring.
- *Incorporate service pensions back to the main pension scheme.* Almost 40% of the recipients of service pensions are younger than 50 and most of them combine work with claiming pensions. There is little justification for these exemptions.

Enhance the non-financial (notional) defined contribution scheme

- *Link the official retirement age to future life expectancy gains.* With defined contribution schemes, higher life expectancy is automatically reflected in lower benefits at the same retirement age. If the official retirement age does not keep pace, many people might retire too early with too low pensions.
- *Stabilise the contribution rate going to NDC pension to 14%.* Frequent changes in the distribution of the 20% contribution rate between NDC and FDC is detrimental by creating uncertainty, which makes people feel insecure about their retirement prospects.
- *Index fully the NDC benefits in payment to the nominal growth of the contribution base and use cohort life expectancy in the NDC annuity divisor*. The financial stability of the NDC scheme would be enhanced by both indexing pensions in payment based on the same rate of return that is used to valorise notional accounts and by using cohort life expectancy to avoid underestimating the average duration of benefit payment.
- *Remove the option to convert the FDC accounts into an NDC annuity. The provision of annuities for the FDC should clearly be separated from the management of the NDC scheme*. The current practice of mixing NDC and FDC annuities is problematic as principles are totally different between the two schemes.

Improve the design of the mandatory and voluntary funded pension schemes

- *Introduce a default life-cycle investment strategy.* The conservative investment strategy, currently designed as the default option, does not accommodate for life-cycle strategies. The latter, which reduce the amount of assets invested in risky assets as the plan member gets closer to retirement, has the potential to enhance returns on pension assets while still protecting people close to retirement against extreme market swings.
- *Gradually relax quantitative investment limits to further encourage portfolio diversification*. Asset managers and voluntary pension funds do not use the whole range of financial instruments already allowed by regulation at their full potential. Increasing the skills of professionals in the investment teams of asset managers may be necessary to allow for appropriate portfolio diversification.
- *Address high fees in the pension industry.* Latvia could consider various policy options among those that have been put in place in different OECD countries to further reduce fees: disclose fees to participants, harmonise the fee structure for voluntary private pension funds, and introduce some risk sharing between asset managers and plan participants.
- *Balance market opportunities and increase competition.* The issues raised by the close link between asset managers and banks should be addressed. Increasing transparency requirements could also help foster competition in the industry.
- *Streamline the design of the retirement phase by:* eliminating the option to transfer assets to the NDC scheme; clearly separating life annuity products and drawdown products like the upfront-withdrawal annuity; and, by strengthening the supervision of insurance companies.

Chapter 1

Introduction

This chapter describes the objectives and context of the Latvian pension review. It briefly presents the historical evolution of the pension system and the structure of the review. The review assesses the performance of the Latvian pension system since the systemic reform in 1996, benchmarking it against OECD-wide indicators, and provides recommendations, using OECD best practices in pension design, for improvements.

1.1. Reviews of pension systems

Each report of the OECD Reviews of Pension Systems series delivers an in-depth analysis of the pension system in a selected country. The assessment focuses on the pension system's capacity to deliver adequate retirement income in a financially sustainable way and highlights OECD best practices for the design of pensions. The pension reviews examine how demographic, social and economic changes affect pension benefits and pension systems. They cover all components of pension systems: public, occupational and personal plans, as well as, when relevant, schemes for public-sector employees. The analyses draw on both OECD flagship pension reports: *Pensions at a Glance* and *Pensions Outlook* as well as country-specific sources and research. Finally, the reviews put forward policy recommendations on how to improve the pension system to better address country-specific challenges.

The Latvian review is the third in the series of pension system reviews, after those in Ireland and Mexico in 2014 and 2015, respectively. The reviews are jointly produced by the OECD Directorate for Employment, Labour and Social Affairs and the Directorate for Financial and Enterprise Affairs.

1.2. Why review the Latvian pension system now?

The Latvian retirement income provision relies on a combination of a mandatory non-financial (notional) defined contribution (NDC) scheme, which is pay-as-you-go financed, and a mandatory funded defined contribution (FDC) scheme.

Latvia was the first country worldwide to fully implement an NDC scheme whereas such schemes were implemented gradually in Italy, Sweden and Poland in the 1990s and in Norway in 2011. Latvia's more-than-20-year experience with NDC and more-than-15-year experience with the mandatory funded scheme provides insights about the benefits and costs of such a pension design. The lessons should be valuable for other countries, many of which are considering linking pensions to demographic and economic developments.

Some countries have opted for introducing automatic adjustment mechanisms into their pension systems, based on demographic and economic developments. Although these innovations are promising to reduce political risks their correct design and implementation still need to be worked out. Replacing defined benefit schemes with NDC schemes is one of the options that some countries have taken to secure the financial stability of their pay-as-you-go pensions.

Latvia has a specific mix of demographic trends, some of which are shared by other Central and Eastern European countries. During the last twenty years, the fertility rate remained at very low levels. As a consequence, the younger cohorts, which are entering labour market and paying social security contributions, are less numerous than the older ones. In addition, contrary to many other OECD countries, the impact of low fertility has not been reduced by immigration. Instead, strong emigration from Latvia accelerated population ageing and decline. The financial pressure on the pension system is currently mitigated by comparatively low life expectancy, but this is projected to increase at the average OECD pace.

According to the European Commission's projections, between 2013 and 2053, the average ratio of individuals' initial pensions and last wages is projected to fall to a particularly large extent among low earners in Latvia (EU, 2015). Moreover, Latvia has one of the highest old-age poverty rates among OECD countries and one of the lowest levels of incomes of older people compared to those of the working-age population (OECD, 2017). This social challenge may intensify in the next decades.

Pension systems in OECD and EU countries still face considerable social and economic challenges in the wake of the economic crisis. The Latvian economy, and the labour market in particular, was harshly hit by the crisis. Such severe difficulties posed serious risks to the pension system and showed the need for some temporary and permanent adjustments. In Latvia, the economic crisis affected newly-granted pensions considerably due to the valorisation of notional accounts while pensions in payment remained almost unaffected. Measures were taken in 2016 to increase pensions granted during the crisis and smooth the effects of sharp economic difficulties on future newly-granted pensions.

1.3. Historical background of the Latvian pension system

Latvia restored independence from the Soviet Union in 1991 facing many economic and social challenges. During the transformation from a centrally-planned to a market economy job destruction exceeded job creation which resulted in high unemployment. In addition, the finances of social insurance were stretched by a pervasive shadow economy and low contributions. Given the low effective retirement age and access to early retirement schemes, pension expenditures vastly exceeded revenues. Under strong financial and social pressure the fragmented DB schemes were replaced by an almost universal pension system in 1996.

Since 1996, new pay-as-you-go public pensions have been calculated according to the new NDC pension formula. The benefits are determined by the uprated past contributions divided by life expectancy. This formula mimics the actuarial formula that funded defined contribution (FDC) schemes use to convert a saved amount into a regularly paid annuity. By contrast to DB schemes, DC schemes do not guarantee any pre-determined level of replacement rate. Benefits evolve in line with underlying demographic and economic conditions. If parameters are set properly, the NDC formula helps achieve financial stability. It provides work incentives by automatically increasing benefits when a person postpones retirement.

In order to diversify the sources of retirement income and complement the NDC pension benefit, an FDC scheme was planned from 1996 and introduced in 2001. Part of the contributions that had previously financed NDC was diverted to the mandatory funded individual accounts; the total contribution rate to mandatory schemes was left unchanged at 20% by the 1996 reform and subsequent ones. By contrast, the NDC-FDC split has changed several times, ranging from 18%-2% to 12%-8%, since 2016 it has been set at 14%-6%.

Earnings-related pensions are complemented by first-tier (i.e. safety nets and minimum pensions) benefits, which cover almost the whole population. Minimum pensions are granted to people who fulfil the 15-year contribution condition for regular pensions but whose entitlements are low. Basic pensions are granted to those who do not fulfil the 15-year contribution condition but meet other criteria including a 5-year residency condition.

The full benefit from any of the schemes is granted at the same statutory retirement age. The official retirement age had been 60 years for men and 55 years for women until 1995, but women's retirement age converged to the men's level in 2008. In 2014, the retirement age started to increase again to 63 years and 3 months for both men and women in 2018; it will reach 65 years in 2025.

The mandatory schemes are complemented by voluntary private pensions which were introduced in 1998. Their popularity has been on the rise but active members represented only 12% of the working-age population in 2016. In practice, only DC plans with no guarantees are offered.

1.4. Structure of the review

The purpose of this review is to assess the performance of the Latvian pension system in terms of retirement income adequacy and financial stability in order to identify the areas for improvement. After a bird's-eye view of the system in Chapter 2 each of the following four chapters looks into the details of various components of the pension system and provides specific recommendations.

Chapter 2 provides an overview of the Latvian pension system and its recent changes. It starts with a brief description of the Latvian economic, social and demographic environment. It then describes the design of the Latvian pension system including the historical development of the key parameters. Finally, it compares future replacement rates with those in other OECD countries based on the models and indicators from Pensions at a Glance (2017).

The very high – although volatile –old-age poverty rate in Latvia makes the income adequacy of the benefits one of the focal points of the review. Chapter 3 analyses the first layer of protection against old-age poverty. It first discusses poverty rates by age and gender and analyses their determinants. Then, the design of first-tier pensions is compared to that of other OECD countries. In Latvia, individuals who have low contributions end up with benefits below the relative poverty line. Basic and minimum pensions provide almost universal coverage after the retirement age, but the relative level of benefits is very low compared to other OECD countries. Finally, other redistributive elements within the pension system are discussed, including the taxation of pensions, the indexation of pensions in payment and the (non-existent) survivor pensions for spouses. Chapter 4 analyses the NDC scheme and its long-term financial development, from its implementation in 1996. In particular, the chapter shows how the varying contribution rates and the deviations from the actuarial rules affect the current and future financial situation of the scheme. It shows how pensions granted and the entitlements earned before 1996 are financed. The chapter also addresses the adequacy of benefits paid to pensioners from the NDC scheme, taking into account the fact that the NDC component provides only a part of the overall pension benefits in Latvia. The chapter closes with policy recommendations to improve the functioning of the NDC component.

Chapter 5 focuses on the funded components of the Latvian pension system and argues that there is room to improve their design. It uses the *OECD Roadmap for the Good Design of DC Pension Plans*, approved and endorsed by OECD pension and insurance regulators. It examines both the mandatory and the voluntary arrangements. It analyses coverage, contribution levels and the investment regime. Competition in the pension industry is weak while fees charged to plan members are high. The chapter also discusses issues related to the options offered to members once they reach the retirement

age and the communication with plan members. It concludes with some policy options on how to improve the design of the mandatory and voluntary funded pension schemes.

Chapter 6 discusses early retirement options and disability pensions. Claiming these benefits affects the final old-age pension amount. In Latvia, claiming pension before the statutory retirement age is possible within the mandatory NDC-FDC scheme or through more generous provisions for selected occupations. Retiring two years before the statutory retirement age is possible and results in a large benefit reduction. Workers of occupations classified as arduous and hazardous and selected public-sector employees can retire even earlier; the benefit level and the eligibility conditions depend on specific arrangements. Disability pensions are granted only before the statutory retirement age, after which they are converted into old-age pensions.

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Chapter 2

Overview of the Latvian pension system

This chapter provides an overview of the Latvian pension system and recent changes. It starts with a brief description of the Latvian economic, social and demographic environment. It then describes the design of the Latvian pension system. Finally, it compares future replacement rates with those in other OECD countries based on the models and indicators from Pensions at a Glance (2017). Providing adequate benefit levels is a greater challenge for the Latvian pension system than ensuring financial sustainability.

Note: 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.

2.1. Introduction

As an open and converging economy, Latvia has been growing fast over the last decades. The country was, however, strongly affected by the global financial crisis in 2008. As in other countries, economic performance and demographics play an important role for the pension system. However, in Latvia more than elsewhere, population ageing is shaped by high emigration and low fertility. Moreover, social expenditures are relatively low in international comparison, even though pension spending as a share of GDP is close to the OECD average.

There are two mandatory, earnings related pension schemes in Latvia: a pay-as-you-go notional defined contribution (NDC) and a funded defined contribution (FDC) scheme. In both, financial sustainability is not affected by demographic shifts in the long run, as benefit levels are automatically adjusted. Given population ageing, delivering a high level of pensions remains the main challenge.

As an introduction to the more detailed analysis developed in the following chapters, this chapter provides some background, describing the economic, social and demographic context of pensions over last decades, as well as an overview of the pension system's design. Section 2.2 discusses the economic, social and demographic dimensions. Section 2.3 provides an overview of the design of the Latvian pension system. In particular, it describes the introduction of notional accounts in 1996 and funded schemes in 2001, while briefly presenting recent pension policy changes. Section 2.4 compares projected pension replacement rates from mandatory pensions with those in other OECD countries. The final section concludes.

2.2. Economic, social and demographic background in Latvia

GDP-per-capita is catching up with the EU average, but the economy strongly reacts to external shocks

Latvia has about two million inhabitants. It restored its independence in 1991 after the collapse of the Soviet Union. Rapid institutional changes resulted in joining the European Union in 2004 and the OECD in 2015.

Employment rates are close to the OECD average for men, but much higher among women. In 2016, the employment rates for 15-to-64 year-olds were 68% among women and 70% among men compared with the respective OECD averages of 59% and 75% . Employment rates among the 55-69 age groups are very close to the OECD averages.

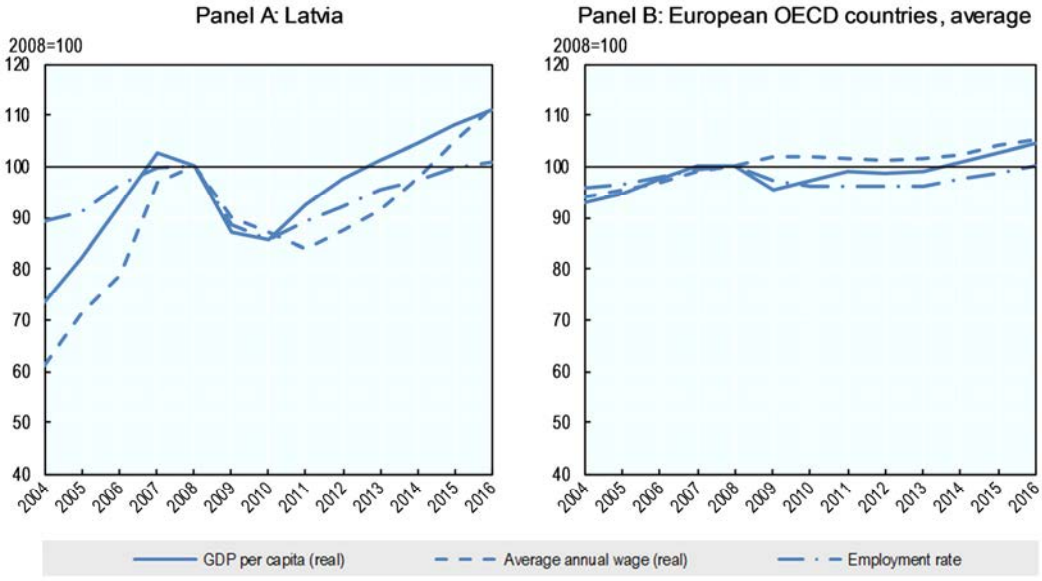
Latvia's GDP (PPP)-per-capita was 60% of the OECD average in 2016, compared with about 65% in Poland and Hungary, and 84% in the Czech Republic. Yet, Latvia is one of the fastest growing economies of the OECD, with an average annual real growth of 4% since 2000. Some countries in the region – Estonia, Lithuania, Poland and the Slovak Republic – experienced similarly high growth while the Czech Republic, Hungary and Slovenia had growth rates closer to the OECD average of 2.4%.

After a period of extraordinary GDP growth in the 2000s, exceeding 10% in real terms in 2005-2007, the Latvian economy was hit hard by the global financial crisis in 2008. Real GDP plummeted by over 18% in total between 2008 and 2010. The crisis affected both employment and wages, declining by 14% and 13%, respectively. However,

the economy bounced back quickly with real GDP growth being greater than 5% annually between 2010 and 2012, before stabilising at 2-3% a year. In 2015, the total employment rate returned to its pre-crisis level (Figure 2.1) of 68% for the 15-64 age group. But, at 10% the unemployment rate was substantially higher in 2016 than before the crisis; it was 6% in 2007. Such volatility can have large effects on the pension system, both in terms of retirement income adequacy as well as financial sustainability.

Figure 2.1. **The crisis affected harshly GDP, employment and wages in Latvia**

The dynamics of real GDP per capita, real wages and employment rate 2004-2016



Note: All series are normalised to 100 in 2008 when the crisis started; 2008=100.

Source: OECD National Accounts, OECD Labour statistics.

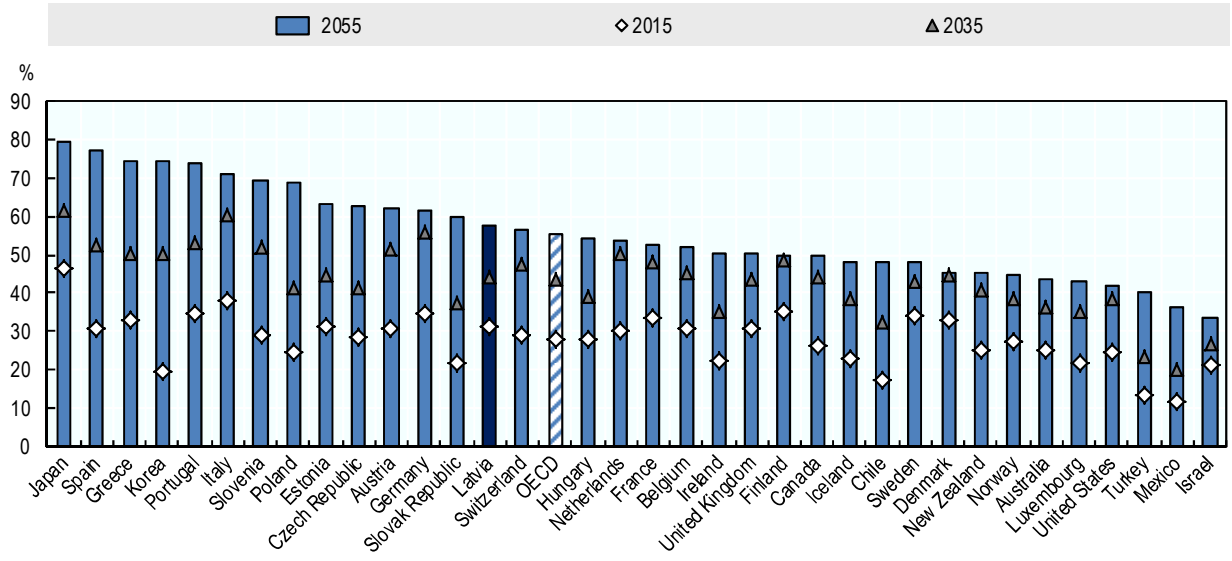
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Mortality rates are relatively high while migration has accelerated population ageing

All OECD countries are subject to strong changes in the population structure; the so-called old-age dependency ratio, which is the number of people older than 65 for every 100 people of working age (20-64), is expected to increase from 28% in 2015 to 43% in 2035 and 56% in 2055 on average in OECD. In some countries, this ratio will exceed 70% in 2055 while in others it will be lower than 45%.[1] In Latvia, the old-age dependency ratio is projected to rise from 32% in 2015 to 58% in 2055, close to the OECD average.

Figure 2.2. **Population is ageing at the same pace as the OECD average**

Old-age dependency ratio (population 65+ divided by the population 20-64) in OECD countries in 2015, 2035 and 2055



Source: UN (2017) population projections.

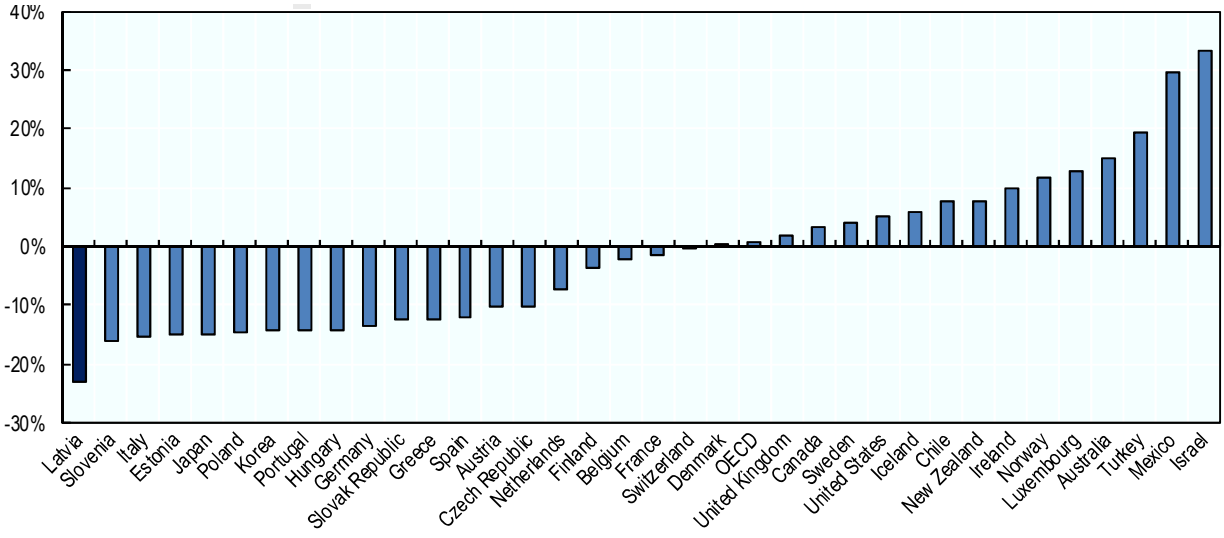
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The declining size of the working-age population is the main driver behind the population shift in Latvia (Figure 2.3). The Latvian population aged between 20 and 64 years is projected to shrink the most among OECD countries. It will decrease by 23% by 2035 whereas it will be broadly stable on average in the OECD. Other Central and Eastern European countries – Slovenia, Estonia, Poland and Hungary – will also experience a strong decline of the working-age (20-64) population, of about 15%. At the same time, by 2035 in Latvia, the number of people over 65 is expected to be 8% larger. However, the increase of the retirement age from 63 to 65 will result in a slight decrease of people over the retirement age, by 3%. This ageing pattern sets Latvia apart from other OECD countries; on average in the OECD, the number people over 65 is projected to increase by about 50% by 2035, but the size of the working-age population would hardly change.

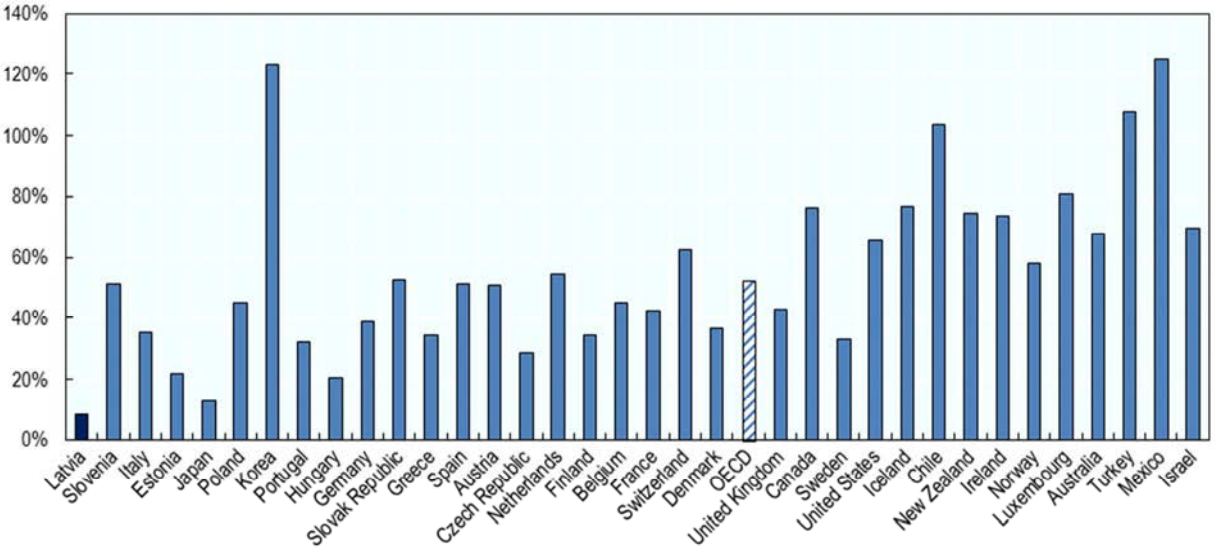
Figure 2.3. **The Latvian population is ageing due to the shrinking of the working-age population**

Projected change in the population size by age groups in OECD countries between 2015 and 2035

Panel A: 20-64



Panel B: 65+



Note: Countries are sorted by the values at Panel A.

Source: UN (2017) population projections.

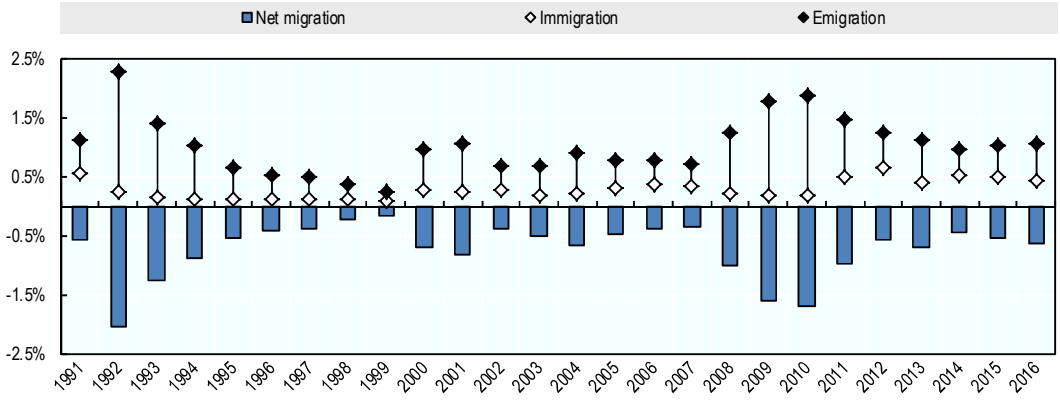
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Migration flows account for a large part of the projected shrinking of the working-age population. Between 1991 and 2016, the size of the total population fell by 26% (Figure 2.4), and emigration was responsible for more than two-thirds of this decline. Migration flows increased sharply during the financial crisis, including as migrants

returned, in some cases after a relatively short stay abroad. Even though emigration subsequently slowed down, over the last five years, the total population has been shrinking by around 0.5% per year due to emigration, which has been concentrated among the working-age population; in 2016, over 80% of emigrants were aged between 20 and 64 years. As a result, emigration has a knock-on effect on the population size through even further falling fertility rates because people of childbearing ages show a high propensity to emigrate.[2] The total fertility rate – the number of children per woman adjusted for age differences – has been below 2 since 1990, leading to a fall in the population size in the long run, and even dropped to 1.1 in 1997 and 1998. It recovered to 1.7 in 2015 and 2016 (Chapter 4 provides greater detail).

Figure 2.4. **Migration reduces the Latvian population considerably**

Emigration, immigration and net migration as % of population in Latvia, 1991-2016



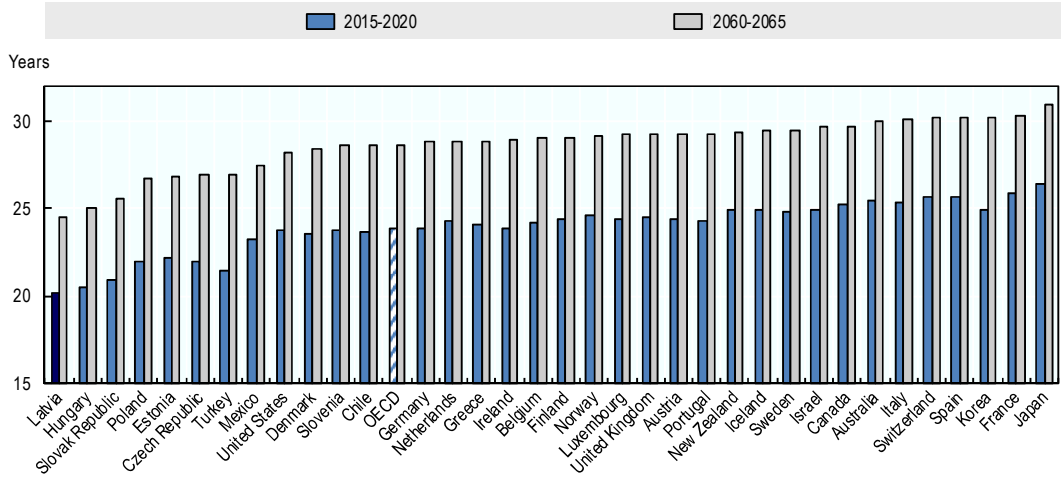
Source: OECD calculations based on data provided by Central Statistical Bureau of Latvia.

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The projected stability of the old-age population despite ageing is the result of high emigration and slow improvements in mortality in Latvia. Life expectancy at age 60 (20.2 years) is the lowest among all OECD countries; the average among OECD countries is 24.0 years (Figure 2.5). By 2060, life expectancy at age 60 is projected to reach 24.5 years in Latvia. Even then, it will still be the lowest among OECD countries, with the OECD average increasing to 28.7 years. In other Central and Eastern European Countries, life expectancy is higher than in Latvia, but still much below the OECD average.

Figure 2.5. **Life expectancy is low in Latvia, both currently and in the future**

Projected life expectancy at age 60 in OECD countries in 2015-2020 and 2060-2065



Source: UN (2017) population projections.

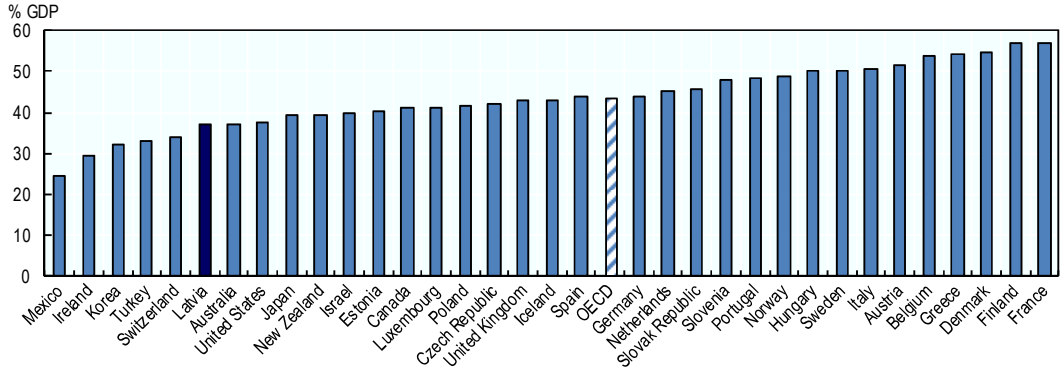
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Social expenditures are low as is general government spending more generally

In 2015, general government expenditures were 37% of GDP compared to the OECD average of 44% (Figure 2.6). Only Mexico, Ireland, Korea, Turkey and Switzerland had lower shares of public spending. The regional peers spend between around 40% of GDP (Estonia, the Czech Republic and Poland), 45% (Slovak Republic) and 50% (Slovenia and Hungary).

Figure 2.6. **Latvian public expenditure is among the lowest among OECD countries**

General government expenditure as share of GDP in OECD countries in 2015



Source: OECD Government at Glance 2017.

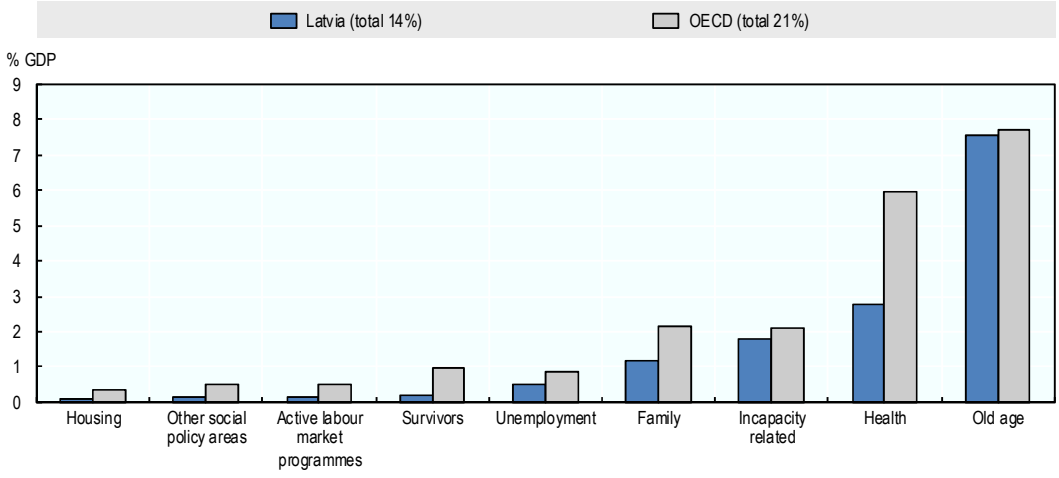
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Low public expenditure limits the pressure on public finances. In 2016, the general government debt was 38% of GDP in Latvia, roughly half the OECD average of 74% of GDP. During the crisis in 2009 and 2010, the general government deficit jumped to 9% of GDP, but since 2012 it has been around 1% of GDP, even dropping to zero in 2016.

Latvia's relatively low total public expenditure is associated with low social expenditure, especially on health care. In 2013, Latvia spent 14% of GDP on social expenditure compared to the OECD average of 21%. Public spending on healthcare of 2.8% of GDP was the lowest among all OECD countries and less than half the OECD average of 6.0% (Figure 2.7). Expenditure on family, housing and survivors benefits is also low. However, public spending on old age and disability benefits, at 7.5% and 1.8%, respectively, are close to the OECD average.

Figure 2.7. **Public expenditure in Latvia is very low in all social areas except for pensions and incapacity related benefits**

Public social expenditure by category in Latvia against the OECD averages, 2013.



Source: OECD social expenditure database.

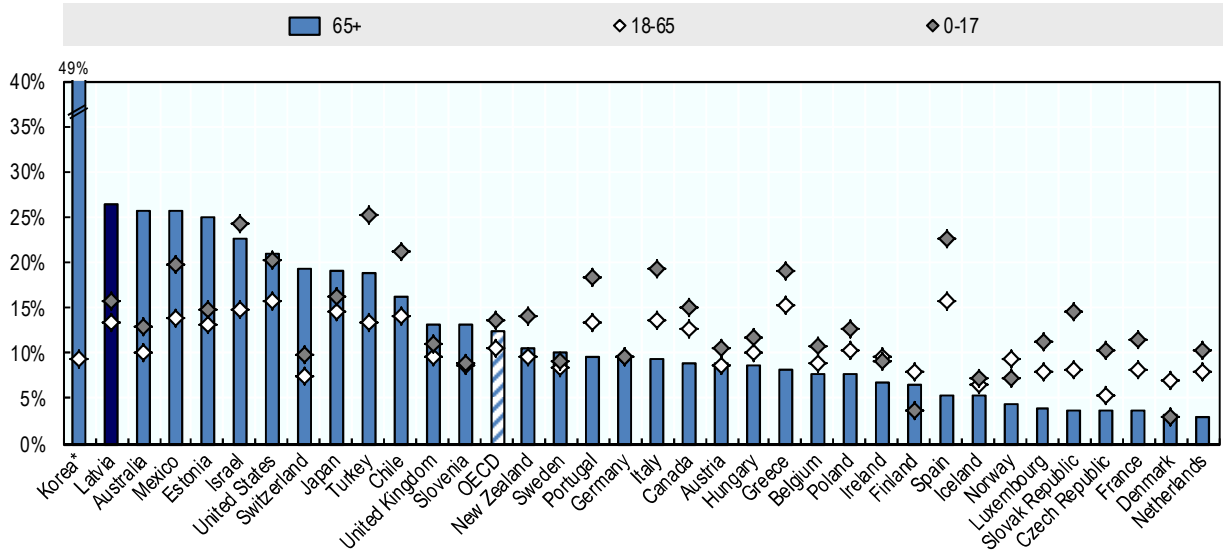
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Relative poverty is high, especially among the elderly

The poverty rates among the working-age population (13%) and children (16%) were slightly above the OECD average (11% and 14%, respectively) in 2014 (Figure 2.8). By contrast, the older population almost entirely depends on public benefits. As a result, in Latvia, the poverty rate among those aged 65 and over (27%) is double the OECD average (13%). The low level of expenditure on healthcare and other social benefits increases vulnerability risks in old age in Latvia.

Figure 2.8. **Old-age poverty is high in Latvia**

Relative poverty rate by age groups in OECD countries, 2014



Note: Relative poverty line is set at 50% of equivalised disposable income. Data for all countries refer to 2014 except for Chile (2015) and Japan (2012). For Korea (*) the data on the youngest age group is not available. Due to large economic cycles in Latvia, relative old-age poverty is very volatile as shown in Figure 2.9. On average since 2004, the old-age poverty rate was 20% against 27% in this chart.

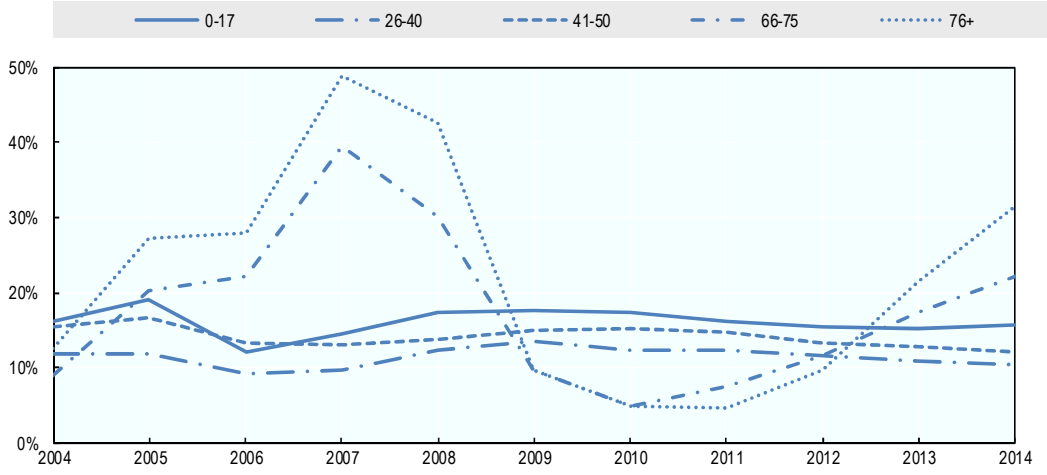
Source: OECD Income Distribution Database.

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Strong fluctuations of wages and employment before and after the crisis in combination with stable levels of pensions resulted in swings of the relative old-age poverty rate. When wages were growing strongly the relative poverty rate among those 76+ increased from 13% in 2004 to 49% in 2007. When the labour market collapsed, the relative poverty rate among those 76+ dropped to less than 5% in 2011. The subsequent economic recovery resulted again in increasing poverty among 76+, with rates increasing to 32% in 2014 (Figure 2.9). Relative poverty rates among other age groups below the retirement age are less affected by the cyclical fluctuations of the economy.

Figure 2.9. **Old-age relative poverty is highly volatile**

Poverty rates among selected age groups in Latvia in 2004-2014



Note: Relative poverty line is set at 50% of equivalised disposable income.

Source: OECD Income Distribution Database.

StatLink http://dx.doi.org/10.1787/888933656916

2.3. The Latvian pension system

Design of the pension system

The Latvian pension system includes first-tier benefits, earnings-related benefits from mandatory schemes and benefits derived from voluntary savings (personal and occupational). First-tier pensions consist of the minimum pension and the basic pension on top of the means-tested safety-net benefits available for all age groups (guaranteed minimum income, GMI) (Chapter 3). The Latvian mandatory earnings-related pension component has two parts: the public pay-as-you-go (PAYG) and the funded defined contribution (FDC) schemes. The PAYG part is a notional defined contribution scheme (NDC) that links pension benefits with the whole contribution history. The NDC-FDC schemes cover almost all workers; special regimes play only a minor role. Voluntary schemes are not very common and are only marginally important in providing income among the old-age population.

The earnings-related schemes were introduced sequentially. First, the NDC component was introduced in 1996 and the FDC in 2001. Latvia was the first country to fully implement an NDC scheme whereas such schemes were implemented gradually in Italy, Sweden and Poland in the 1990s and in Norway in 2011. In Latvia, the NDC scheme replaced and unified an unsustainable PAYG defined benefit system. After its introduction, almost all new pensions were paid according to the new rules following the conversion of past entitlements (see below).

Even though NDC schemes are unfunded, they possess automatic stabilisers that adjust the level of newly granted pensions to changes in aggregate employment, wages

and life expectancy. Moreover, by closely linking the uprated value of past contributions to the discounted value of future pension flows for each individual upon retirement, NDC schemes mimic the design of FDC schemes. If well designed a pure NDC scheme ensures financial sustainability and, as other DC schemes, is not meant to generate redistribution. However, redistributive components can be added within the NDC scheme. In Latvia, they take the form of NDC entitlements from pension contributions paid by either the central budget or other social security funds for specific non-employment periods: maternity, parental leave, unemployment, sickness, work injury and disability.

In order to diversify the sources of retirement income, the FDC scheme was introduced in 2001. Parts of the contributions that had previously financed only NDC were diverted, such that mandatory contributions are split between the two. At 20%, the total contribution rate to mandatory schemes was left unchanged by the 1996 and subsequent reforms. Similar to other European countries with NDC-FDC earnings-related pensions a smaller share of contributions is channelled to the funded scheme; in Latvia, NDC receives a contribution rate of 14% and FDC the remaining 6%. By comparison, the total mandatory contribution rate is slightly lower in Sweden at 18.5%, split between 16% for NDC and 2.5% for FDC. However, in addition, 90% of Swedish employees contribute to funded occupational schemes. In Norway, the contribution rate to NDC is 18.1% while employers pay an additional 2% mandatory contributions to the funded scheme. In both Poland and Italy, the NDC contribution rates are 19.52% and 33%, respectively, and the funded schemes are voluntary.

The normal retirement age is 63 years and 3 months for both men and women in 2018 and it will reach 65 in 2025. The official retirement age had been 60 years for men and 55 years for women until 1995. In 1996, it increased by one year for women and continued to increase by half a year per year to reach 62 in 2008. For men, the retirement age increased gradually from 60 in 1999 to 62 in 2003, remaining constant until 2014. Since 2014, the retirement age has started to increase again by three months a year for both men and women.

Beyond the retirement age, the minimum contribution period to be eligible to earnings-related and minimum pensions also increased in 2014 from 10 to 15 years and it is legislated to increase to 20 years in 2025. Early retirement benefits are available two years before the statutory retirement age and the early retirement age moves in parallel with the normal retirement age (Chapter 6). Individuals can postpone retirement without any age limit and combine work with receiving pensions but not with early retirement; postponing retirement increases the initial pension in line with additional contributions and the decrease in remaining life expectancy.

Eligibility to the minimum pension is based on total pension being below a given threshold and having made at least 15 years of contributions. The basic pension (*state social security benefit*) is claimed when reaching the official retirement age and not meeting the minimum period requirement for minimum pension.

When claiming a pension the individuals have two options. The default option is to "transfer" the financial capital accrued under the FDC scheme to the NDC account, which includes the valorised (uprated) contributions accumulated under the NDC scheme. The sum of both accounts is then divided by the period, unisex life expectancy. Alternatively, while individuals still convert the value of their notional account into an NDC pension, they can purchase an annuity from their FDC assets, provided that the accumulated capital exceeds a certain threshold (Chapter 5). If below this threshold, the assets are added to the NDC account. Lump sum payments of FDC capital are not allowed, but 90%

of assets can be withdrawn within 6 years. Voluntary savings from occupational or personal accounts can be withdrawn from the age of 55 as programmed withdrawal or as a lump-sum payment.

Survivor pensions for spouses are not available within the NDC scheme in Latvia. However, when one opts for buying an annuity in the market with the assets accumulated in the FDC, a survivor option is available, but this of course applies to a small part of total pensions. Moreover, both notional and financial capital cannot be inherited when a person dies before claiming a pension. In the event of death after retirement, the retired spouse only receives a lump-sum payment equal to two months of pension benefits of the deceased person.

The conversion of pre-reform entitlements affects current pensions

In the NDC scheme, contributions are recorded and accumulated in individual notional accounts. The value of the accumulated 'capital' is uprated according to the growth rate of the economy-wide contribution base, which will evolve in line with the wage bill in the long term. This simple rule to compute pension entitlements needed some special transitional adjustments when the NDC scheme was introduced in 1996 as people's earnings histories were only partially available. To solve this problem, for people retiring after 1999 the initial notional capital was set equal to the individual employment periods prior to 1996 multiplied by the average contributions over 1996-1999, including intervals when no contributions were made.[3]

Such a formula for calculating initial notional capital raised questions of inter- and intra-generational fairness. Non-employment spells or low earnings during the 1996-1999 interval lowered the pension entitlements for the total pre-reform period. During 1996-1999, the Latvian economy was still undergoing a major structural transition towards the market economy. The bankruptcy of many public enterprises and the overemployment in various sectors including farming resulted in major job destructions. More generally, the calculation of the initial notional capital implies that the labour market situation experienced by individuals during this period, either good or bad, had a huge impact on their future pensions. In addition, in the first years after the reform, some people might not have well understood the penalties the new pension system imposed on non-contributory periods, whether spent without working or working in the shadow economy.

Benefit levels were boosted through the inclusive treatment of non-employment spells before 1996.[4] In particular, the spells spent in education or raising children up to the age of eight were accounted for as contribution periods. Despite the relatively generous treatment of non-employment spells pressure mounted to increase pensions, which resulted in two amendments. These amendments still affect the level and distribution of pensions today. The 2001 amendment raised low pensions mainly for people with a long contribution period before the reform.[5] The 2006 amendment raised the pensions for all retirees proportionally to their pre-reform contribution period; monthly pensions increased by EUR 1 for each year of the contribution record before 1996.[6] Initially granted only to persons with low pension benefits and long contribution periods, the one-euro-supplement was broadened to cover all retirees in 2009. In 2012, the supplement was phased out: those who retired before kept it, but the new retirees were not granted this supplement.

The funded scheme is still maturing

The FDC scheme was introduced in 2001. It is voluntary for those born between 2 July 1951 and 1 July 1971 (aged between 30 and 50 in 2001) and mandatory for those born after that. The first cohort that could opt for the FDC scheme reached the retirement age in 2013. The pensions paid by the FDC scheme therefore constitute only a fraction of total pension payments. The administration of pension accounts is the responsibility of the State Social Insurance Agency (SSIA). The State Treasury managed the FDC assets until 2003 after which private asset managers became available. Later on, the Treasury withdrew from this fund managing role completely. In 2017, 9 asset managers offered 23 different pension plans.

The total 20% pension contribution rate has been split between NDC and FDC, but the balance between both schemes changed several times in recent years. The share of FDC in total pension contributions rose gradually from 10% (i.e. two percentage points) in 2001 to 40% in 2008, and was scheduled to reach 50% in 2010. On top of the transition cost for the NDC scheme resulting from the building-up of the FDC scheme, the financial crisis undermined the finances of the SSIA: contributions to the NDC scheme collapsed while pension payments were not affected. The financial gap was partially covered by a decrease in the FDC share of contributions back to 10% in 2009. After the crisis, the FDC share rose again to 20% in 2013, 25% in 2015 and 30% in 2016. No further changes are scheduled.

Contribution ceiling, taxation and indexation of pensions in payment are redistributive

Regular contributions of 20% to the NDC-FDC schemes are paid up to a yearly earnings ceiling, which was slightly above four times the average earnings in Latvia in 2017. The government updates the ceiling in a discretionary manner, but it has stayed slightly above four times the average earnings since 2014. Before the 2018 tax reform, no pension contributions were paid for earnings above the ceiling, although a special solidarity tax applied and financed central government budget. From 2018, beyond the ceiling, contributions of 6% to the FDC and an additional 4% are paid to a private pension scheme (Chapter 5), reducing by ten percentage points the solidarity tax, which now finances total pension expenditure and central government budget.

The 2018 tax reform introduces a progressive taxation of personal income (including pensions) with three brackets, 20%, 23% and 31.4%, instead of the 23% flat-rate. The 23% and 31.4% rates apply to earnings higher than around two and five-and-a-half times the average earnings, respectively. The non-taxable minimum is higher for pensioners (EUR 235 per month in 2017 increasing to EUR 300 in 2020) than for the working age population (EUR 75 per month in 2017 up to EUR 250 in 2020).[7] Such a high non-taxable minimum (at 85% of the 2016 average pension) means that a large share of pensioners pay no or very low income taxes (Chapter 3). In addition, pensions granted before 1996 are completely exempt from the income tax.

The indexation of pension benefits has a redistributive feature. In the recent past, the indexation rule changed frequently.[8] Only the part of the pension below a threshold is now indexed to inflation plus 50% of the real wage-bill growth. This threshold was EUR 357 in 2017, which is around one-third of the average wage.[9] The amount above the threshold is not indexed at all, resulting in an effective indexation rate which decreases with the pension level. The indexation threshold does not apply to some pensioners:

those with disabilities, the politically repressed during the Soviet regime and the liquidators of the Chernobyl nuclear plant. Starting from 2018, pension indexation becomes more favourable for those with longer contribution records: it is inflation plus 50%, 60% or 70% of the real total wage bill growth for those with less than 30 years, between 30 and 39 years and 40 or more years of contribution period, respectively. This is a very complex way of indexing pensions.

Minimum pensions and safety nets

In Latvia, there are three sources of income to help older people meet a minimum standard of living: basic pension, minimum pension, and universal, age-independent guaranteed minimum income (GMI). The basic pension, of EUR 64 a month, is a tax-financed benefit for those who are, since 2017, over the retirement age and who fulfil the 5-year residency condition, but have less than 15 years of contribution to earnings-related pensions. Before 2017, the age threshold for being entitled to the basic pension was the retirement age plus five years.

Minimum pensions are granted to people who fulfil the 15-year contribution condition for regular pensions, but whose entitlements are lower than the minimum pension threshold. This benefit increases with the contribution period, from EUR 71 with 15 years of contributions to EUR 109 for at least 41 years of contribution. The total pension contribution rate was 24.5% in 2017, 6% of which were transferred to FDC schemes while the remaining 18.5% finance NDC pensions, minimum pensions, survivor benefits for children, some special pension entitlements and administrative costs.

The age-independent GMI benefit, which is provided by the municipalities, might complement the income of poor retirees. The GMI is paid to the households whose income per capita is below the GMI threshold at EUR 49.80 in 2017. This benefit covers the difference between income from other sources and the GMI threshold.

Special pension schemes

Special pension schemes for selected public sector employees, called service pensions, exist for the following occupational groups: judges, prosecutors, Constitutional Protection Bureau officials, diplomats, selected uniformed service members (Corruption Prevention and Combating Bureau, Ministry of Interior, Prison Administration, National Security, military personnel), artists employed in national institutions and Emergency Medical Service employees. Even though all employees contribute to the main NDC-FDC scheme, special pension schemes provide higher benefits and lower retirement ages (Chapter 6).

Workers of occupations classified as arduous or hazardous can retire, depending on the occupation, two-to-five years before the official retirement age without the 50% penalty for early retirement benefit that other workers face (Chapter 6).

In sum, the pension system has been subject to recent important adjustments

In the last ten years, pensions have been affected by structural and crisis-related changes. The retirement age has increased, the split of the contribution between NDC and FDC has evolved, pensions granted during the crisis have been gradually recalculated, pension coverage has been extended for the low-earnings self-employed and the taxation of personal income has become more progressive.

In 2014, the retirement age started to increase for both men and women to reach 65 years in 2025. In addition, the required contribution period was increased to 15 years and will increase to 20 years in 2025. Moreover, as discussed above, the Latvian pension system underwent many adjustments after the economic crisis that started in 2008.

The 2015 amendment to the pension law recalculated the pensions granted during and after the crisis: in 2016-2018, pensions granted in 2010-2015 are being recalculated to cancel out the effects of the negative valorisation of the notional accounts during the crisis. Moreover, this amendment will prevent negative valorisation of notional accounts in the future.

Between 2009 and 2014, the calculation of life expectancy (G-factor) in the NDC pension formula – the G-factor is used as the denominator to compute the value of the initial pension at the time of retirement, i.e. the higher the G-factor the lower the benefit – changed from cohort to period life expectancy. That is, since 2014, the expected improvements in life expectancy are no longer accounted for. This tends to underestimate effective life expectancy, thus leading to higher spending, but simplifies the computation of the initial benefit as this computation does not rely on modelling future mortality rates.[10]

On 28 July 2017, the Parliament approved a major tax reform that strongly affects the pension system. It increased the minimum wage by 13% substantially reduced the coverage gap among the self-employed and employees of micro-enterprises, raised the non-taxable minimum for pensioners and changed the solidarity tax. From 2018, the self-employed who earn less than the minimum wage, now pay a reduced 5% pension contribution to the NDC while, before, they paid no social security contributions. Those earning more than the minimum wage pay the full pension contributions up to the minimum wage and the reduced 5% for earnings above. A progressive personal income tax substitutes the flat personal income tax of 23%.

2.4. Future replacement rates are slightly lower than the OECD average

The NDC-FDC pension schemes are expected to deliver a future gross pension replacement rate of 48% for an average-wage worker with a full career from age 20 in 2016; it is lower than the OECD average of 53% obtained from mandatory schemes. In the OECD, the range goes from below 30% in Mexico and the United Kingdom to above 80% in Denmark, Italy and the Netherlands. Among regional peers, the replacement rate is higher in the Slovak Republic (64%) and Hungary (59%), similar in Estonia (50%) and the Czech Republic (46%) and significantly lower in Poland (32%) (Figure 2.10).

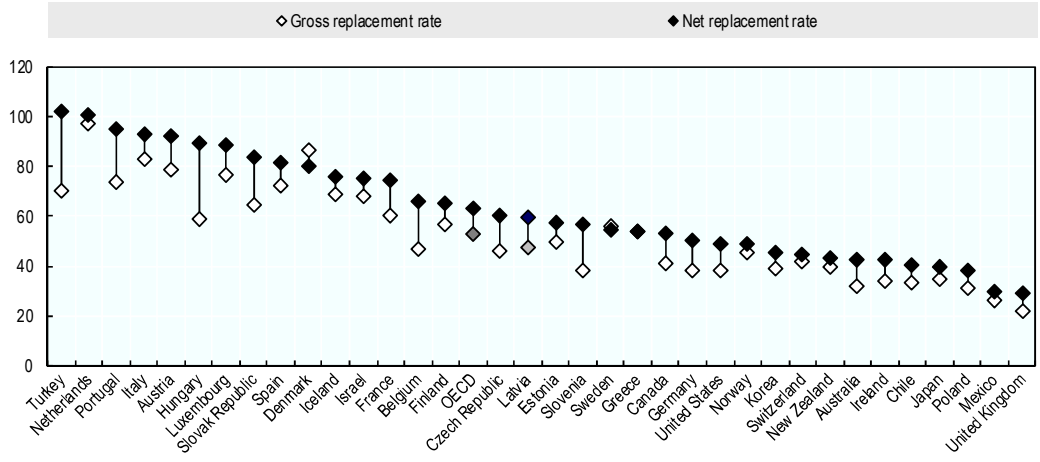
The relatively low expected benefit level in Latvia stems mainly from the automatic adjustments to indicators closely related to population ageing (life expectancy, wage bill) and from the absence of a link between the statutory retirement age and life expectancy. The exceptional projected decline of the working-age population, by around 1% a year in the forthcoming decades, automatically decreases the valorisation of notional accounts. As a result, the future replacement rate is 6 percentage points lower than if computed based on a stable workforce. The shrinking working-age population directly affects the NDC scheme and indirectly the rate of return of the FDC component – the extent of this indirect effect depends on how the return on Latvian pension assets are linked to the performance of the Latvian economy. Furthermore, the life expectancy at age 65 is projected to increase by almost four years by 2060. A parallel increase of the statutory retirement age – which, however, would imply that none of the life expectancy gains are

passed on into a longer retirement period – would increase pensions by about 8% (and the future replacement rate by 4 percentage points). Gains in life expectancy affect both NDC and FDC schemes to a similar extent.

The impact of income taxes on replacement rates is similar to what is found in the OECD on average. The net replacement rate for an average earner, at 60%, is 12 percentage points higher than the gross replacement rate due to the high non-taxable allowance that applies to pensions. In the OECD, the average net replacement rate is 63%, which is 10 percentage points higher than its gross counterpart.

Figure 2.10. **Gross and net theoretical replacement rates are below OECD average**

For an average earner, starting career in 2016 at age 20 and retiring at statutory retirement age



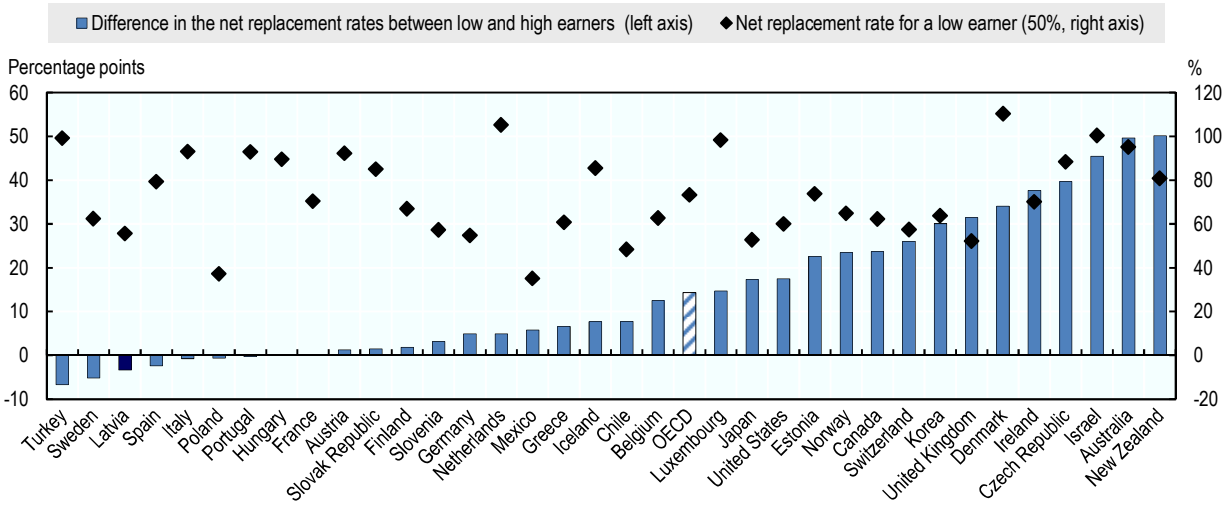
Note: Replacement rates are calculated according to the OECD (2017) methodology. Gross replacement rate is equal to the first pension from the mandatory schemes divided by the previous earnings for an average earner, who starts career in 2016 at age 20 and retires at statutory retirement age. The model assumes the following yearly growth rates: 1.25% for average wage and 2% for prices. The rate of return on private asset is assumed at 3% a year while the discount rate at 2% a year. GDP growth is determined by the difference in the growth of average earnings and the working-age population dynamics. Life expectancy is calculated in accordance with the UN population projections. The annuity in private defined contribution schemes are calculated using cohort life expectancy and discount rate while in the public schemes the benefit calculation depends on country-specific regulations.

Source: OECD (2017).

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The joint redistribution of the Latvian pension and tax systems is limited despite the recent tax reform. The net replacement rate is 3 p.p. lower for a full-career low earner, who earns 50% of average earnings, than for a high earner, who receives 150% of average earnings. In the OECD, a low earner can expect a net replacement rate which is 14 p.p. higher than a high earner (Figure 2.11). The difference is lower than 5 percentage points in 15 OECD countries. However, it is larger than 40 percentage points in Australia, Israel and New Zealand where progressivity is high.

Figure 2.11. **There is little pension progressivity in Latvia**



Note: Net replacement rates are calculated for a full career worker, entering labour market at 20 in 2016 and retiring with a full pension (i.e. at normal retirement age). High earner is defined as a worker earning 150% of average wage throughout the career, whereas low earner defined as a worker earning 50% of the average wage. The 2018 tax reform is accounted for.

Source: OECD (2017).

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2.5. Conclusion

Population ageing in Latvia results from low fertility and high emigration, which lead to both a sharp decline of the labour force and a slight increase in the number of retirees. NDC pensions generate an automatic adjustment of pension benefits, due to both shrinking labour force and increasing life expectancy. This is meant to maintain financial sustainability, but, especially in the absence of a link to life expectancy gains, the future pension replacement rate is below the OECD average.

The 2008-2011 financial crisis, which resulted in a severe 18%-drop in real GDP, affected the newly paid pensions while protecting the pension levels of people who had retired before. However, some elements of the pension system underwent some significant adjustments. Both the pension indexation and the contribution ceiling were suspended during the crisis. The FDC contribution rate was first lowered, and then increased, but to a level which will remain below its 2008 value. The pension formula was permanently adjusted to prevent a negative valorisation of notional accounts.

The NDC-FDC design of the earnings-related pensions provides limited redistributive mechanisms, and the relative old-age poverty rate is high. Although first-tier basic and minimum pensions cover almost the whole population, the level of first-tier benefits is low and pension contributions for employees of microenterprises and the self-employed are reduced. Chapter 3 focuses on the first layer of protection against old-age poverty while the following chapters provide detailed analysis of the NDC scheme (Chapter 4), the mandatory and voluntary funded defined contribution schemes (Chapter 5) as well as early retirement schemes and disability pensions (Chapter 6).

Notes

1. It is projected to exceed 70% in Korea, Italy, Spain, Portugal, Greece and Japan, while it would remain below 45% in Israel, Mexico, Turkey, Norway, Australia, Luxembourg and the United States.

2. In 2016, the share of individuals ages between 15 and 49 years in the total population was 45% while in it was 72% of the emigrating population.

3. There were a few exceptions concerning initial capital calculation. First, special retirement rights were valued and accounted for in the calculation of initial notional capital. Second, for persons claiming retirement in 1996 the average wage of 1995 was applied for calculation of initial notional capital. For those retiring in 1997 individual average earnings from 1996 were used as a reference. For those retiring in 1998 individual earnings from 1996-97 were used as reference and so on until 1999. For those retiring later, the average from the whole 1996-1999 period was used.

4. The treatment of some spells differed slightly before and after 1991.

5. For those with at least a 30-year contribution history, the initial notional capital was calculated with the higher of either their own wage or the countrywide average wage in the period 1996-1999. For those with an employment record shorter than 30 years the amendment was less favourable: when calculating initial notional capital, the valorised individual earnings from 1996-1999 were compared to 40% of economy-wide average earnings in the calendar year prior to their retirement. The higher of these two values applied.

6. The value of special supplement to pensions (EUR 1 per a year of contribution before 1996) is not indexed.

7. Moreover, while for the working-age population the non-taxable minimum is withdrawn when the monthly earnings exceed EUR 1000 in 2018, it is not withdrawn for pensioners.

8. Due to high fiscal pressure, the indexation of pensions was suspended between 2009 and 2013. In order to compensate for this suspension an ad hoc adjustment took place in 2014 applying to the part of pensions below EUR 285. In 2013, the indexation of pensions was restored at the inflation rate plus 25% of real wage bill growth; in 2017 indexation increased to inflation plus 50% of real wage bill growth.

9. The indexation threshold is set at the half the average wage subject to social security contributions in the previous year. In 2017, 84% of pensions were below the threshold.

10. Until 2008, the G-factor was derived from a predictive model that, at least partially, accounted for the expected changes in mortality. In 2009, the specification of the model changed. As a result, the G-factor at age 65 decreased slightly from 16.26 in 2008 to 16.23 in 2009. Between 2009 and 2013, this value was not updated, therefore remaining at 16.23, which allowed cushioning to a small extent the strong negative impact of the crisis on the level of newly-granted pensions. Since 2014, the G-factor

is the period life expectancy calculated by the Central Statistical Bureau. The 2014 change resulted in the increase of the G-factor from 16.23 in 2013 to 16.45 in 2014. Using cohort life expectancy from United Nations projections would result in an increase in the G-factor by around 1 year (OECD, 2017). This would result in a decline of newly-granted pensions by about 6%.

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Chapter 3

First layer of protection against old-age poverty

This chapter discusses Latvia's first-tier pensions and other measures that might limit old-age poverty. There is little redistribution within the earnings-related schemes. Individuals who have low contributions end up with benefits below the relative poverty line. In Latvia, basic pensions provide universal coverage after the retirement age, but the relative level of benefits is very low compared to other OECD countries. Moreover, there is no survivor pension for spouses. As a result, old-age poverty rates are high in Latvia, especially among those older than 75 years and among women.

The decreasing role of contribution records prior to the 1996 reform and changes in labour market conditions thereafter are expected to increase the take-up rates of basic and minimum pensions in the coming years. Individuals with short formal careers, the self-employed and employees of micro-enterprises are likely to rely on first-tier benefits, as they pay reduced pension contributions.

Note: 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.

3.1. Introduction

The defined contribution pension schemes (non-financial, NDC, or financial, FDC) directly links benefits with pension contributions provided that the minimum contribution period of 15 years is met. First-tier pension schemes – the first layer of social protection in old age (see Chapter 2 in OECD (2015)) – help protect those with short contribution periods or low contributions more generally against old-age poverty. In Latvia, the minimum pension and the basic pensions supplement the earnings-related schemes in providing almost every individual older than the retirement age with some income. However, their levels are very low compared to other OECD countries – in both absolute and relative terms – resulting in high poverty rates among pensioners.

This chapter focuses on Latvian first-tier pensions and other measures aimed at reducing old-age poverty. The next section discusses how poverty rates differ with age and across genders, and analyses their determinants. Then, the design of first-tier pensions is compared to that in other OECD countries. Section 3.4 discusses different factors generating coverage gaps. With the introduction of the NDC scheme in 1996 the treatment of non-employment spells became less generous, and the labour market became more volatile after 1990; both factors are expected to increase the take-up rate of basic and minimum pensions in the coming years.

Other redistributive elements within the pension system are then discussed in section 3.5, including the taxation of pensions, the indexation of pensions in payment and the (non-existent) survivor pensions for spouses.[1] The concluding policy section summarises the options to help tackle the current and future challenges to first-tier pensions in Latvia.

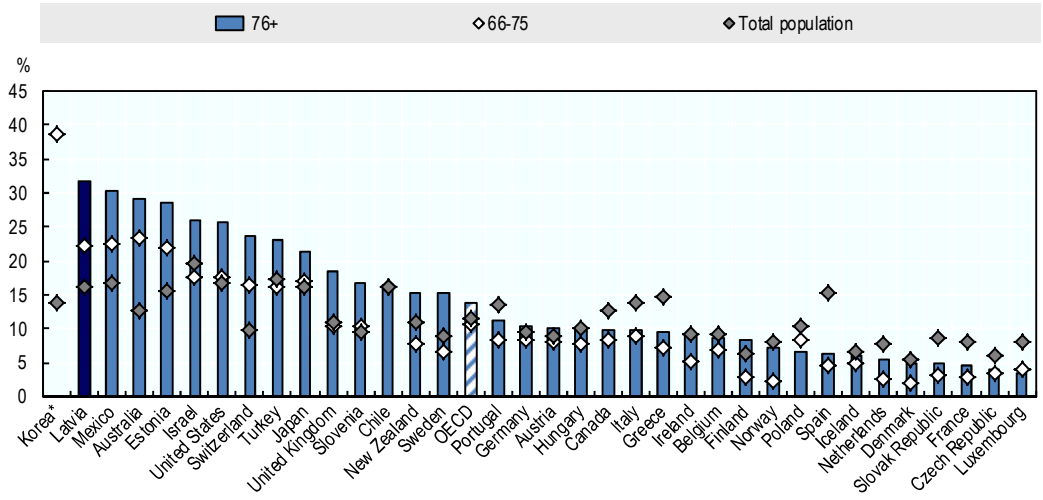
3.2. Old-age poverty

Latvia is one of the OECD countries with the highest old-age poverty rates (Figure 3.1). The relative poverty rate – defined as the share of individuals with income lower than half the median equivalised household income – among those older than 65 years was equal to 27% in 2014, which is slightly more than twice the OECD average. Only Korea has a higher poverty rate for this age group at 49%.

As in most countries, the prevalence of old-age poverty increases with age, from 22% among the 66-75 to 32% among the 76+ in Latvia. At 16% the poverty rate for the whole population is also higher, but closer to the OECD average of 12%. Compared to the regional peers, the increase in poverty rates at older ages is similar in Estonia but flatter in Lithuania, whereas in Poland poverty incidence decreases with age. The Czech Republic and the Slovak Republic have much lower levels of poverty for all age groups.

Figure 3.1. **Old-age poverty rate is very high in Latvia**

For selected age groups, 2014 or latest



Note: Poverty rates are defined at half the median-equivalised household income. Data are for 2014 for all countries, but for Japan (2012) and Chile (2015).

* Poverty rate of the 76+ age group is not available for Korea.

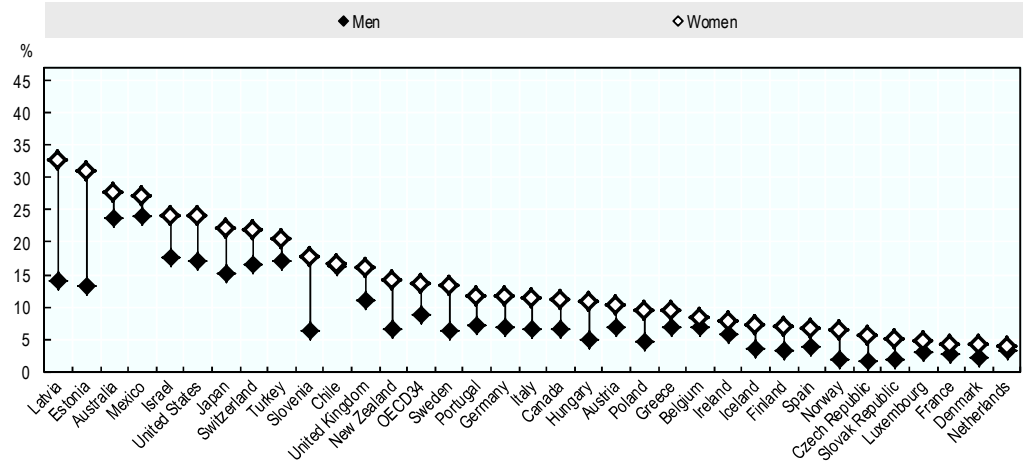
Source: OECD Income Distribution Database.

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Moreover, the poverty rate among older women is exceptionally high, more than twice the OECD average for women and twice the rate among men in Latvia. Estonia has only slightly lower poverty rates for older women, but the Czech Republic, Hungary, Poland and the Slovak Republic record female poverty rates below the OECD average (Figure 3.2). Gender differences in old-age poverty are driven both by the transmission of labour market gaps to pension levels and by more women living alone at very old age which is mainly the result of having higher life expectancy than men.

Figure 3.2. **The gender gap in poverty rates among people older than 65 is exceptionally high in Latvia, Estonia and Slovenia**

Poverty rates by gender at age group 66+, 2014



Note: Poverty rates are defined at 50% of the median equivalised income. The breakdown by gender is not available for Korea.

Source: OECD Income Distribution Database.

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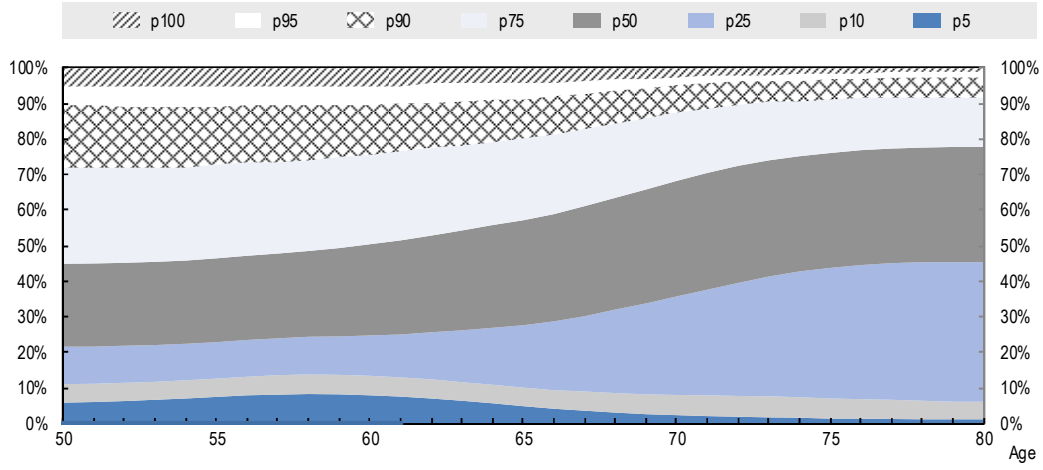
Figure 3.3 also illustrates how sharply the material situation declines with age. Almost 80% of people at age 80 live in households in which the equivalised income is below the median income (p50) for the whole population; it is the case for less than 45% of people at age 50. The share of those living with income below the lowest quartile of the income distribution also grows sharply with age from 22% at age 50 to 47% at 80.

Apart from being lower than labour market income on average, pensions are also less dispersed, only exceptionally reaching both very high and very low levels. In particular, the share of people in the top decile of the population-wide income distribution decreases from 10% at age 50 to 3% at 80; for the bottom decile, the share falls from 11% at age 50 to 6% at 80 (Figure 3.3).

As a result, pensioners' income tends to be concentrated around the poverty line defined at 50% of median household-equivalised income. Given that the overall poverty rate is 16%, the poverty line is equal to the 16th percentile of the population-wide distribution, i.e. between the p10 and p25 lines shown in Figure 3.3. At age 75, there are 37% of people between those two lines (i.e. around the poverty line) against 10% of the 50-year olds. This implies that small changes in income levels might translate into big swings in the relative poverty rate among older people (Chapter 2).

Figure 3.3. **Income and income inequalities decline with age in Latvia**

Share of the population by age between selected percentiles of the total population's income distribution, 2014



Reading note: Figure shows, for each age above 50 years, the share of persons with income between selected percentiles of the total population's distribution of equivalised disposable income.[2] At age 50, 22% of individuals have an equivalised income lower than the 25th percentile of the overall income distribution while 44% at that age have lower than median income (p50) against 73% at age 75.

Note: Distribution among age groups smoothed with a non-parametric kernel smoother. Equivalised income which is calculated at the household level is attributed to every member of the household.

Source: EU-SILC 2014.

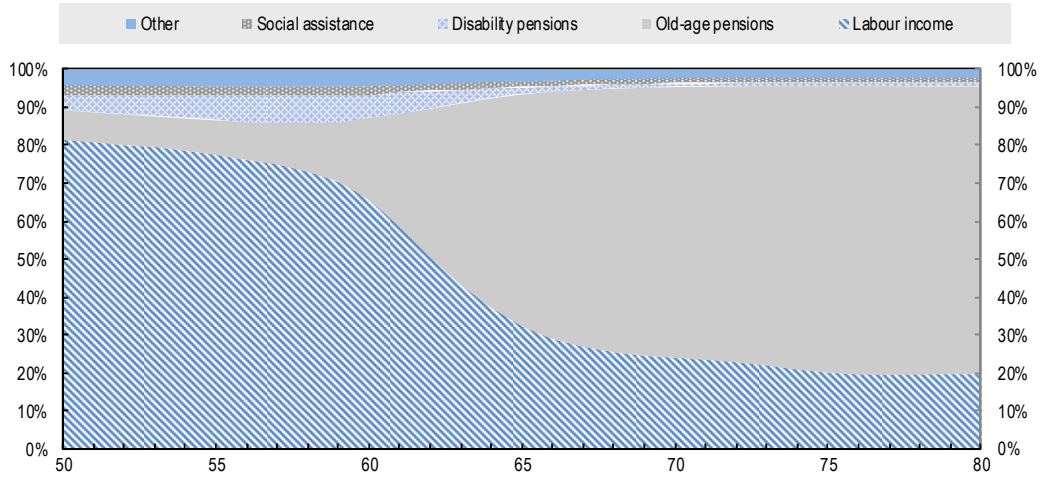
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When people retire, they tend to move down in the income distribution as the main income source shifts from wages to pensions (Figure 3.4). Among people of age 50, more than 80% of household income comes from labour earnings, while by age 64 pensions

become the dominant source. As some old people are in a household with another member who works, almost 20% of the household's income of the 80-year olds comes from wages. Social assistance benefits play a minor role accounting, on average, for less than 2% of the equivalised income of individuals older than the retirement age. Disability pensions increase in importance with age: for a 55-year old, disability pensions account for 7% of his or her household income compared to 4% for a 50-year old. However, when reaching the retirement age, disability pensions are transformed into old-age pensions and therefore their relevance automatically diminishes.

Figure 3.4. **Structure of households' income source by age groups in Latvia in 2014**

Average share of income from selected sources in the households' total income by age of a household member



Reading note: Each area represents the share of household income coming from a given source for people of a specific age. For example, for 80 year olds, 20% of household income comes from labour, 75% comes from pensions while remaining 5% come from social assistance, disability pensions and other sources.

Note: Distribution among age groups smoothed with a non-parametric kernel smoother. The age groups determined at the individual level which means that the structure of income at age x shows the structure of income of households with at least one member at age x.

Source: EU-SILC 2014.

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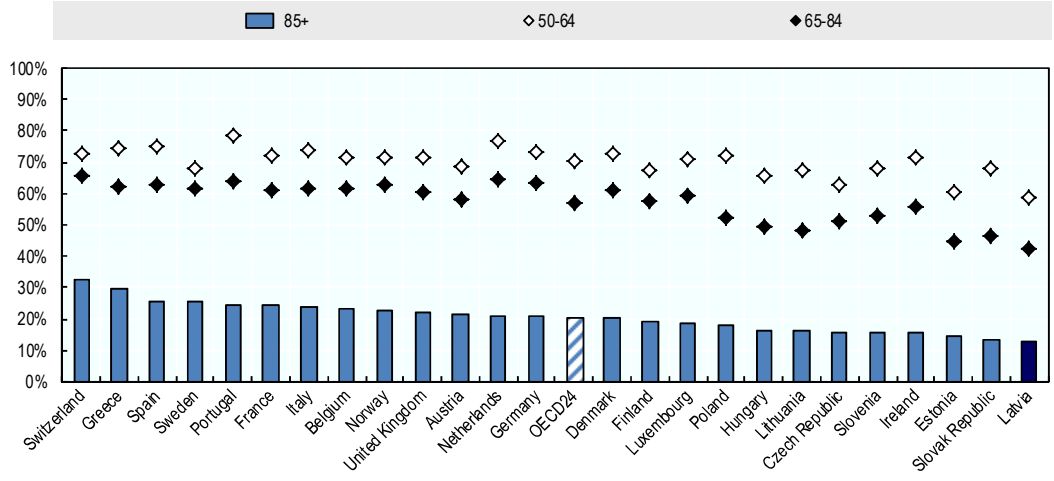
The size of households shrinks as people age in European OECD countries (Figure 3.5). On average across countries, the share of people living in a couple decreases from 70% in the 50-64 age group to 57% among those aged from 65 to 84, and then to 20% among those older than 85. Latvia has the lowest share of people living in a couple across European OECD countries in all groups older than 50: 58% at age 50-64, 43% at 65-84 and 13% for the 85+.

This pattern contributes to the particularly strong age and gender gradients of poverty in Latvia. Indeed, smaller households face higher poverty risks for the same per capita income. According to the OECD equivalence scales, a one-person household needs 70% of the total income of a two-person household in order to reach the same consumption (OECD, 2015b). Consequently, if an individual preserves only half of the income after the death of her or his spouse, consumption is expected to decrease. Hence, beyond

differences in the distribution of income by age, changes in poverty rates with age are influenced by changes in the household structure (between ages and across generations).

Figure 3.5. **Share of population living in a couple is relatively low in Latvia**

Share of population living in a couple in European OECD countries by age in 2011



Source: OECD calculations based on Eurostat data for 2011 Census.

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3.3. First-tier pensions

Benefit levels are low compared to other countries

There are three main ways in which countries provide retirement incomes to meet a minimum standard of living in old age: basic pensions, minimum pensions and social assistance. They all complement the benefits from contributory earnings-related schemes.

Basic pensions can generally take two different forms:

- A benefit paid to everyone irrespective of any contributions made, although beneficiaries might have to meet some residence criteria. In some countries, residence-based benefits are offset against other pension income.
- A benefit paid solely on the basis of the number of years of contributions, i.e. independently of earnings.

In Latvia, the basic pension is not contribution-based. It is a flat-rate tax-financed benefit of EUR 64 per month in 2017, called "state social security benefit (in the case of old age)". Meeting the following criteria is needed to be granted the basic pension:

- having reached retirement age (63 years in 2017)
- not being entitled to old-age pension from the state social insurance system
- not working

- permanently residing in Latvia
- having lived in Latvia for the last 12 months and for no less than 60 months in total
- having a personal identity number.

Before 2017, the eligibility conditions were stricter as individuals needed to have reached retirement age plus five years. Basic pensions are granted for life and are means-tested only against pension income from abroad.

Minimum pensions refer to the minimum of a specific contributory scheme or of all schemes combined. The benefit value takes only into account mandatory pension entitlements: unlike means-tested schemes, it is for example not affected by income from savings. Eligibility for the minimum pension in Latvia requires at least 15 years of contributions, which will increase to 20 years in 2025. If this criterion is not met, the NDC pension is not granted; the person then relies on the basic pension or social assistance.

In Latvia, minimum pensions are financed from social security contributions; the total pension contribution rate was 24.54% in 2017, 20% of which were transferred to mandatory NDC and DC schemes. Apart from minimum pensions, the remaining 4.54% finances survivor benefits for children, some special pension entitlements and administrative costs.

The minimum pension level depends on both the duration of the work history and the current value of the state social security benefit (basic pension). In 2017, the monthly minimum pension level is equal to:

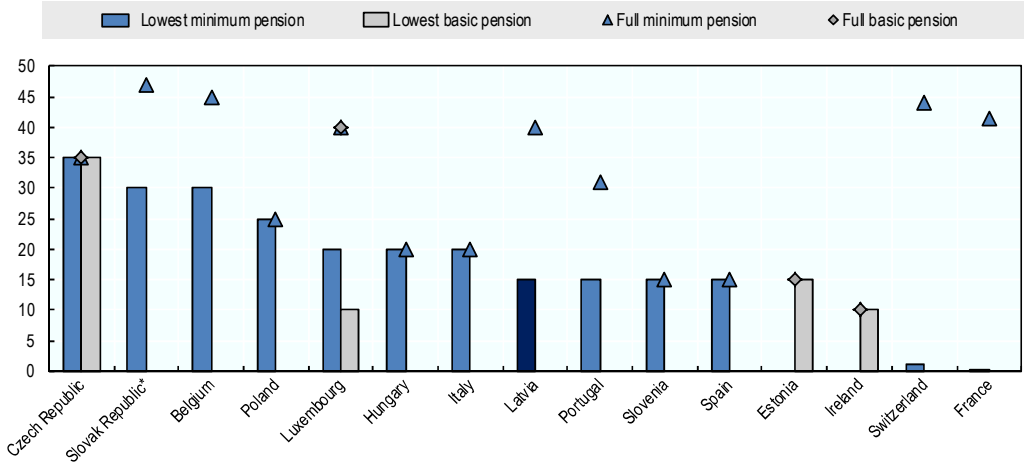
- 1.1 times the basic pension (EUR 71) if the employment record is between 15 and 21 years
- 1.3 times the basic pension (EUR 83) if the employment record is between 21 and 30 years
- 1.5 times the basic pension (EUR 96) if the employment record is between 31 and 40 years
- 1.7 times the basic pension (EUR 109) if the employment record is more than 40 years.

The contribution requirement for a minimum pension should be set in such a way that work is not discouraged. However, if the required period is too long, the scheme might fail to generate any work incentive for people who are, e.g. in the second part of their career and far from meeting the requirement. Figure 3.6 shows the contribution requirements for the minimum benefit as well as a full benefit from both the contributory basic and the minimum pension schemes in European OECD countries.

In eight countries out of the fifteen countries with such schemes, the benefit is flat. In the remaining seven countries, benefits increase with the length of the contribution period. Among the latter, the contribution period to be eligible to a minimum pension is 30 years or more in Belgium and the Slovak Republic, and lies between 10 and 20 years in most other countries, including Latvia with 15 years. By contrast, in Switzerland and France where minimum pensions are pro-rated the lowest level of the minimum pension requires only one year or less. Among these seven countries, only Portugal requires less than 40 years of contributions for the full minimum pension (Figure 3.6).

Figure 3.6. **The contributory period needed for minimum and contributory-based basic pensions varies widely across countries**

Contributory period needed to receive minimum or contributory-based basic pensions in OECD countries with such schemes in 2017



Note: The Czech Republic and Luxembourg have both contributory-based basic pensions and minimum pensions. (*) In the Slovak Republic there is no upper limit for the minimum pensions; it increases with each additional year of contribution.

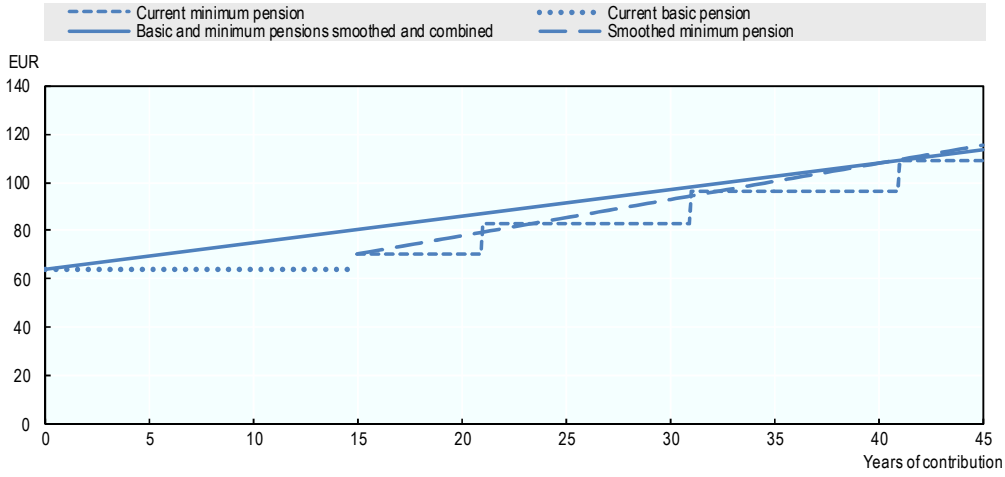
Source: OECD, 2015 and information provided by countries.

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In Latvia, the minimum pension does not reward each additional year of contribution by additional benefits, thereby provide limited employment incentives for low earners. Only those with contributory periods close to the thresholds of 15, 20, 30 and 40 years benefit from greater entitlement through the minimum pension scheme by working longer. This problem will be magnified by the enacted increase of the minimum contribution period from 15 to 20 years by 2025.

Such discontinuities in relation with the contribution periods could easily be smoothed, with a very limited if any impact on total pension expenditure.[3] For example, a minimum pension could start at the current level of EUR 71 for a 15-year contribution period and reach the current level of EUR 109 for a contribution period of over 40 years. A more comprehensive option would consist in combining basic and minimum pensions, starting to increment the benefit level from the basic pension amount (EUR 64) for people with even only one year of contribution and reach the current level of EUR 109 for a 40+ year contribution period. As a result, each contributed year would be rewarded with a benefit increase. Figure 3.7 illustrates these two options in comparison to the currently available pattern. Beyond enhanced work incentives, the implementation of these mechanisms would smooth the overall benefit pattern for low-income pensioners.

Figure 3.7. **Minimum and basic pensions can reward each additional year of contribution**



Note: The combined basic and minimum pension means that the minimum benefit would also be granted to those with no contributions.

Source: OECD calculations.

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All OECD countries have general social safety nets for older individuals. Old-age social assistance plans generally pay a higher benefit to poorer retirees. In these plans, the value of the benefits can depend on total income or on both income and assets. Such benefits are also granted for a specific time and eligibility is re-evaluated regularly.

In Latvia, the last line of income support for older people who do not qualify for earnings-related, minimum or basic pensions is the guaranteed minimum income (GMI). It is means-tested at the household level and does not depend on age. If monthly household income (per capita) during the last three months is below the threshold of EUR 49.80, the benefit is equal to the threshold minus income (per capita). Some municipalities increase this threshold up to the highest allowed level (needy person income level) of EUR 128.06. Even though the eligibility conditions for the basic pension are not strict (see above) and the GMI level is substantially lower than the basic pension level, some older people still receive the GMI. For example, if a person older than the retirement age does not meet the residence criteria, or meet all the basic pension criteria but lives with someone with low earnings, the per capita household income might drop below the GMI level.

A detailed comparative analysis of first-tier benefit values is complicated by the existence of multiple programmes in many countries. For example in Latvia, on top of GMI, housing allowances might also be granted to pensioners. In some cases, benefits under these schemes are additive. In others, there is a degree of substitution between them. In general, social assistance benefits are means-tested against other income but for basic and minimum pensions practices vary by country. The contributory-based basic pensions are similar in their design to the minimum pensions whereas the residence-based basic schemes are more comparable to the social assistance benefits.

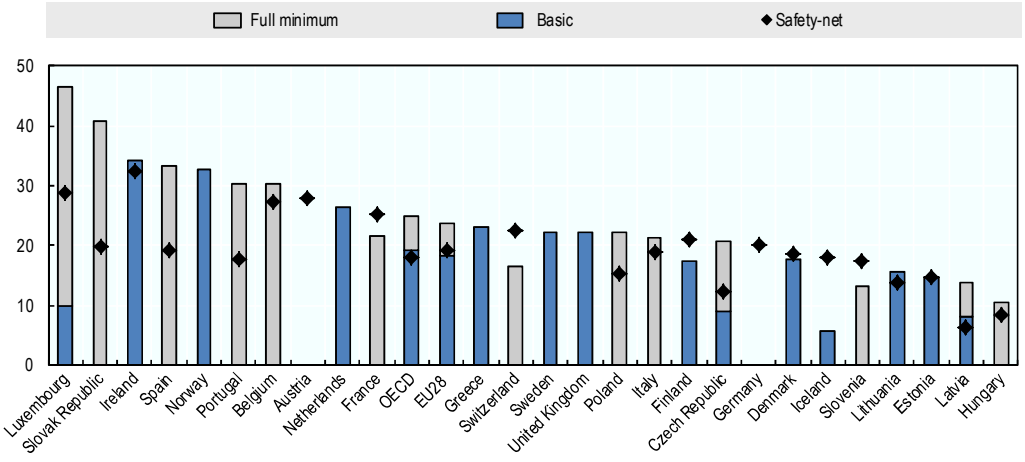
Figure 3.8 shows the value of benefits provided by different schemes for a single person, as a percentage of economy-wide average earnings.[4] Out of the 25 European OECD countries ("OECD25" hereafter), only Austria and Germany offer neither minimum nor basic pensions. By contrast, the Czech Republic, Latvia, and Luxembourg offer both a basic and a minimum pension. In Luxembourg and the Czech Republic, the minimum pension adds up to the contribution-based basic pension.

The levels of old-age safety nets and basic pensions vary substantially across countries, with an OECD average at 18% and 19% of the average earnings, respectively (Figure 3.8).[5] Among European OECD countries, Latvia has the lowest value of basic pensions (except Iceland) and safety-net benefits at 8% and 6% of the average earnings, respectively; that is lower than half of both the EU and OECD averages.

Minimum pensions are on average higher, reaching 25% of the average earnings in OECD countries. This reflects the desire in many countries to grant higher benefits to retirees who have made at least some contributions to the system. The value of full minimum pension ranges from 10% of average earnings in Hungary and 14% in Latvia to above 30% in Belgium, Luxembourg, Portugal, the Slovak Republic and Spain.

Figure 3.8. **First-tier benefits are low in Latvia compared to OECD countries**

As a percentage of average earnings, 2016



Note: The averages for EU and OECD are calculated only for the countries where the related benefits exist. Lithuania is included as it is an accession country and an important reference point for Latvia. Basic and minimum pensions adds up in Luxembourg and the Czech Republic, but in Latvia higher minimum pensions replace basic pension after reaching the 15-years of contribution period. The safety-net benefit for Latvia is the GMI. For the Slovak Republic, the full minimum pension is calculated for 40 years of contributions.

Source: OECD, 2017b and information provided by countries.

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Given the low levels of minimum pensions, take-up rates are small in Latvia (Figure 3.9). Indeed, the eligibility criteria to qualify for minimum pensions generally lead to higher earnings-related pensions (see below).The take up rate is equal to 12.5%, similar to Belgium's, but much lower than in other countries where it is around 30% or

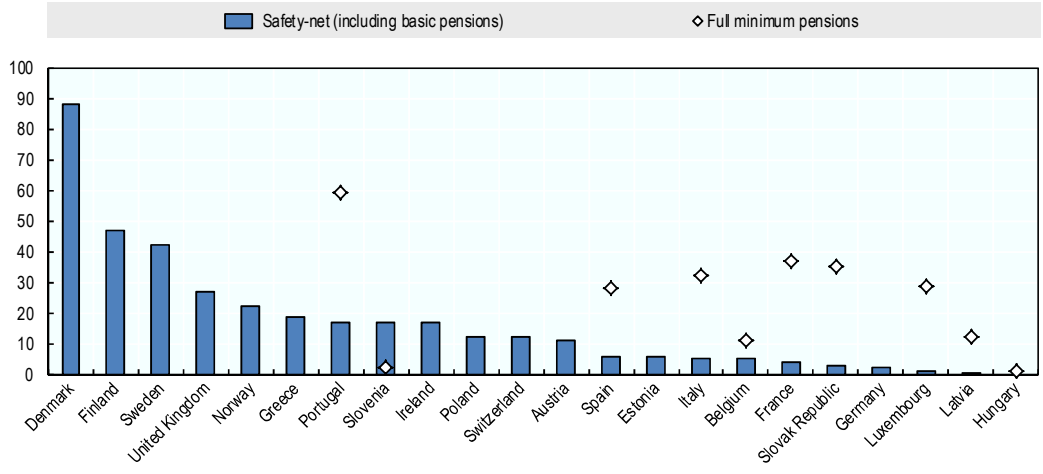
higher. In Slovenia and Hungary, which have a benefit level similar to Latvia, the role of minimum pensions is even less pronounced as take-up rates do not exceed 2%.

The take-up rate for basic pensions is negligible (below 0.1%) in Latvia for two main reasons: non-employment spells up to 1996 were quite generously included in the contributory record and the full-employment policy worked during the communist regime before 1990 (Chapter 2). In 2016, only 538 persons claimed this benefit. Moreover, before 2017, the eligibility age for the basic pension was five years higher than the official retirement age. By relaxing this eligibility condition, the number of recipients of basic pension almost doubled, reaching 1090 in 2017. The final impact of this change will take some time to materialise.

The take-up rate among retirees of the universal, means-tested safety-net benefit (GMI) that top-up the household income is also very low at 0.7% largely due to the fact that the basic pension is higher than the GMI level. A very small share of Latvians has to rely on GMI. Overall, the low take-up rates of first-tier pensions in Latvia sharply contrasts with countries such as Denmark, Finland, or Sweden, which have both take-up rates over 40% and more generous benefit levels.

Figure 3.9. **Take-up rate of the minimum pensions and old-age safety-net benefits is low in Latvia compared to OECD countries**

Number of benefit recipients divided by the population 65 and older in OECD countries, most recent data



Note: Take up rate for minimum pension in Latvia is calculated based on the newly granted pensions from 2008-2016. The take-up rate for in Latvia is 0.7% and 0.1% for GMI and basic pensions respectively and the higher is shown on the graph. Data on take-up rate of safety nets is not available for Hungary and Czech Republic whereas data on the take-up rate for minimum pension is not available for Czech Republic, Poland and Switzerland.

Source: OECD, 2015a and information provided by countries.

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The levels of social benefits are very low even based on Latvian standards

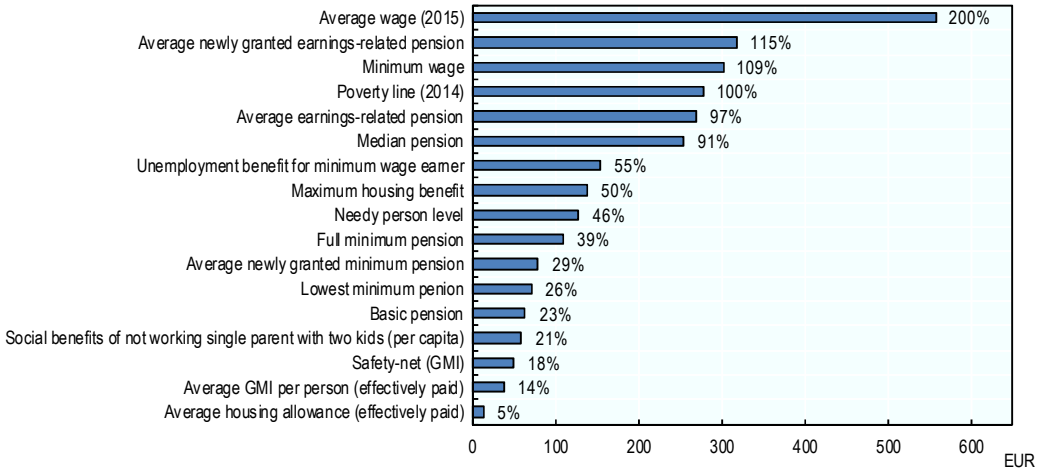
Pensions are low on average compared to wages in Latvia; the average net monthly pension is EUR 274 compared to the average net wage of EUR 557 (Figure 3.10). Hence,

the average pension is slightly lower than the net minimum wage of EUR 302. The net average pension is almost equal to the poverty line – at 50% of median equivalised household income in 2014 – of EUR 278, while the median pension (EUR 254 in 2016) is slightly lower.

First-tier benefits are therefore far from preventing old-age poverty. The full minimum pension at EUR 109 is equal to only 39% of the poverty line and the actual average level of newly granted minimum pensions is EUR 79 only. Furthermore, the basic pension at EUR 64 secures only an income at about one-quarter of the poverty line (Figure 3.10).

Figure 3.10. **First-tier pensions and other social benefits are low**

Levels of wages and benefits in net terms in 2016 or latest, in EUR (bars) and % of poverty line (numbers next to bars)



Note: Data refer to 2016 if not stated differently in the brackets. Percentage of poverty line next to bars. Poverty line defined as 50% of equivalised household income after taxes and transfers. Average net wage is for a single person household. The needy person is the level of the income that entitles to some social benefits: for example housing benefit and the upper bound of the GMI level. All values are net of taxes and social security contributions for a single-person household, if not stated otherwise. Average earnings-related pension calculated for all pensions paid by Social Insurance Agency; minimum pensions included but basic and third-tier pensions excluded.

Source: OECD calculations based on data provided by the Latvian Ministry of Welfare and the OECD Tax-Benefit Model.

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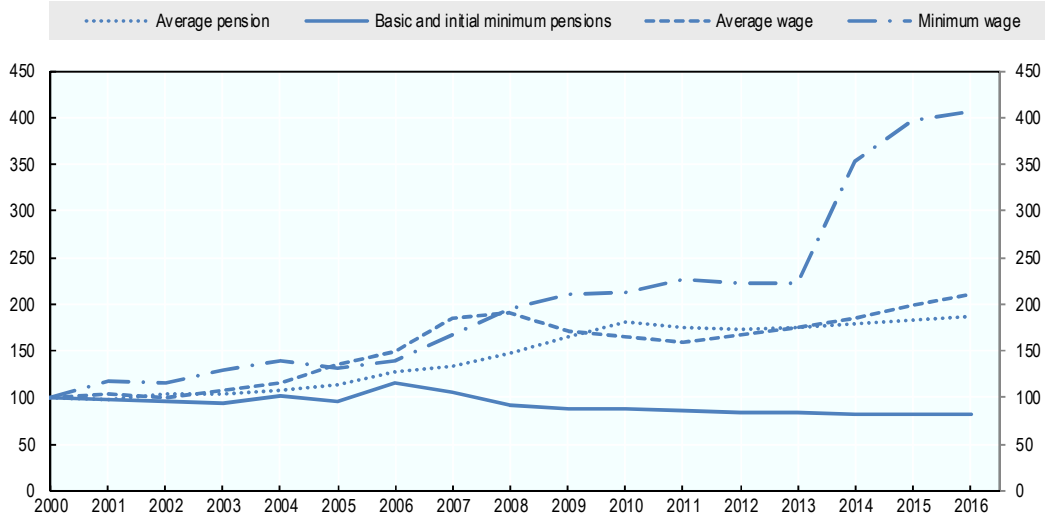
The levels of first-tier benefits are discretionally adjusted

In Latvia, both basic pensions and the initial level of minimum pensions are adjusted discretionally. Lack of automatic links to any economic measures means that pension benefits are likely to be targeted when fiscal difficulties arise, hitting those with the lowest incomes especially in already difficult times. Moreover, the level of newly granted minimum pensions has been falling in relative terms. Once granted, minimum pensions are indexed in line with the earnings-related pensions, which on average since 2000 increased slower than the average wage but faster than prices (see section 3.5 for details).

Since 2000, the basic pension level, and therefore the initial level of the minimum pension, has been adjusted only twice in nominal terms, in 2004 and 2006. On top of that, the average level of newly-granted minimum pensions decreased in nominal terms from EUR 140 in 2008 to EUR 80 in 2016, partly due to a large drop in 2012 when the special pension supplement of EUR 1 for each year of insurance record before the 1996 reform was withdrawn.[6] As a result, basic pensions and the initial value of minimum pensions were, in 2016, 29% lower in real terms than in 2000. By contrast, during the same period the average pension has increased by 80% in real terms. The real minimum wage also almost doubled between 2013 and 2016. The income situation of recent recipients of first-tier pensions therefore worsened sharply. Their income has also deteriorated compared to workers' as real average wage more than doubled since 2000 (Figure 3.11).[7]

Figure 3.11. **First-tier benefits decreased strongly relative to wages and earnings-related pensions in Latvia**

Real term trends since 2000



Note: Numbers are normalised at their 2000 real value (=100).

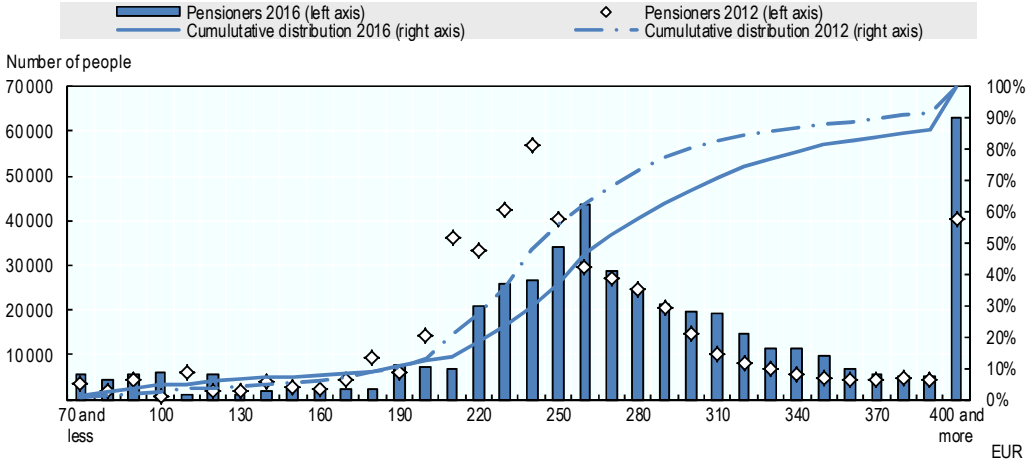
Source: OECD calculations based on data provided by the Latvian Ministry of Welfare and the OECD Labour Statistics.

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Income inequalities increased among pensioners between 2012 and 2016. The ratio of the 9th to the 1st decile of the pension distribution rose from 2.06 to 2.22. While the average old-age pension increased by 9% in nominal terms, 10% of pensions remained below EUR 190 (1st decile) in 2016 as in 2012. By contrast, the share of pensions higher than EUR 260 increased from 44% to 63%. Moreover, 14% of pensions were higher than EUR 400 in 2016 against 8% in 2012 (Figure 3.12).

Figure 3.12. **10% of pensioners received less than EUR 200 per month in 2016 as well as in 2012**

Histogram and cumulative distribution of pensioners by benefit level in Latvia in 2016 and 2012



Note. Basic pensions included in the category EUR 70 and less. Pensions for the last quarters of 2012 and 2016. Pension payments do not include pensions granted abroad. Values are presented in nominal terms; cumulative inflation over 2012 and 2016 was 1%.

Source: OECD calculations based on data provided by the Latvian Ministry of Welfare.

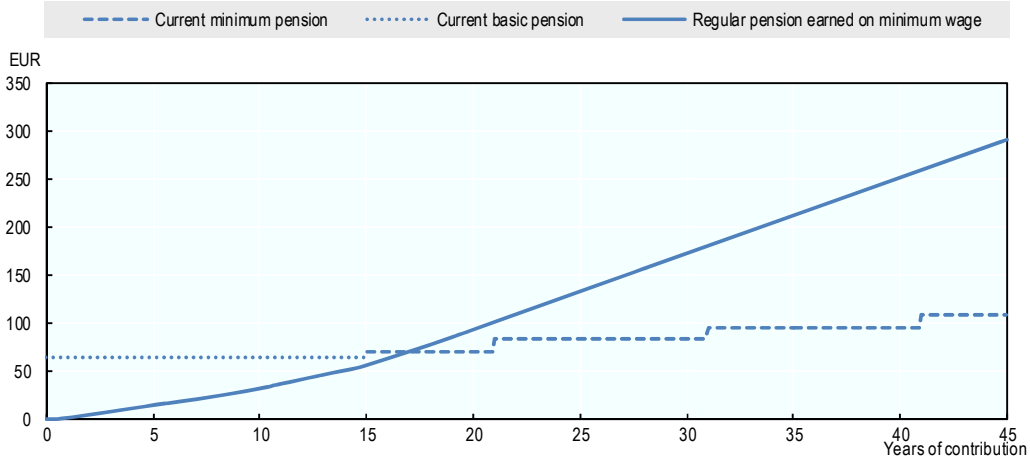
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More than 18 years at the minimum wage guarantees higher pensions than the minimum pension

People with less than 15 years contribution records obtain no earnings-related pensions even though their contributions – for earnings a little higher than minimum wage – would suffice for a benefit higher than a minimum pension. Working at the minimum wage and paying social security contributions results in pension entitlements higher than the minimum pension level for almost any career length greater than 15 years. Consequently, minimum pensions basically apply only to those paying contributions on less than the full-time minimum wage. Figure 3.13 simulates the level of the earnings-related pension that a person would receive after having worked at the minimum wage depending on the length of the career. It is assumed that: a person started working in 2000 at age 20; works for a number of years (x-axis) then quits the labour market and claims a pension at age 65 in 2045; the minimum wage is indexed after 2017 to average wage growth; and, the initial level of minimum pension is indexed after 2017 to inflation.[8] Based on these assumptions, it is enough to work for 18 years at the minimum wage to be entitled to an earnings-related pension at the minimum pension level, while the minimum pension can only be claimed after 15 years of contributions.[9]

Figure 3.13. **Minimum wage guarantees earnings-related pension higher than the minimum pension after 18 years of contributions**

Regular pension based on earning the minimum wage compared with minimum and basic pensions



Source: OECD calculations.

StatLink http://dx.doi.org/10.1787/888933657201

Still, in 2016, around 10% of newly granted pensions were minimum pensions. There are at least three reasons for that. First, the non-employment periods prior to 1996 were generously included into the insurance period, as for example higher education and up to 8 years of childcare, which made it easier to fulfil the contribution period criterion of 15 years. Second, part-time workers and employees of micro-enterprises pay contributions on less than the full-time minimum wage (see Section 3.4). Third, for some insurance periods, such as disability, unemployment and child-care, the contributions might be lower than those based on the minimum wage.

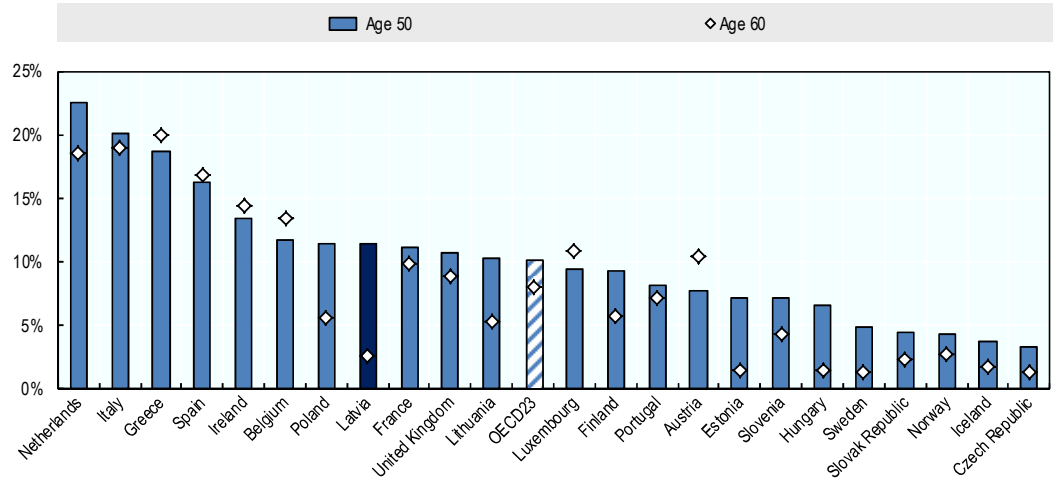
3.4. Coverage gaps

Share of people with short careers increases in Latvia

In 2016, the average insurance period when claiming initial pension was 37 years for women against 35 years for men.[10] As men's employment rates are higher, this reflects the role of pension credits for childcare. Moreover, survey data (Figure 3.14) reveal that the number of people with a work experience shorter than 15 years was 3% among people aged 60 in 2015 and 11% among people aged 50.[11] The OECD 23 averages are 8% and 10%, respectively.[12] This difference across age groups is the largest in Latvia although similar patterns are found in other Central and Eastern European countries.

Figure 3.14. **Share of population with less than 15 years of work experience**

At ages 50 and 60 in European OECD countries in 2015



Note: Share of people with specific work experience based on the survey data. This work experience might deviate from the social security contribution record as working in shadow economy or abroad does not induce any domestic social security contributions while some non-employment spells (childcare, unemployment, disability) do. Due to data availability, Germany and Denmark are excluded from the EU (unweighted) average.

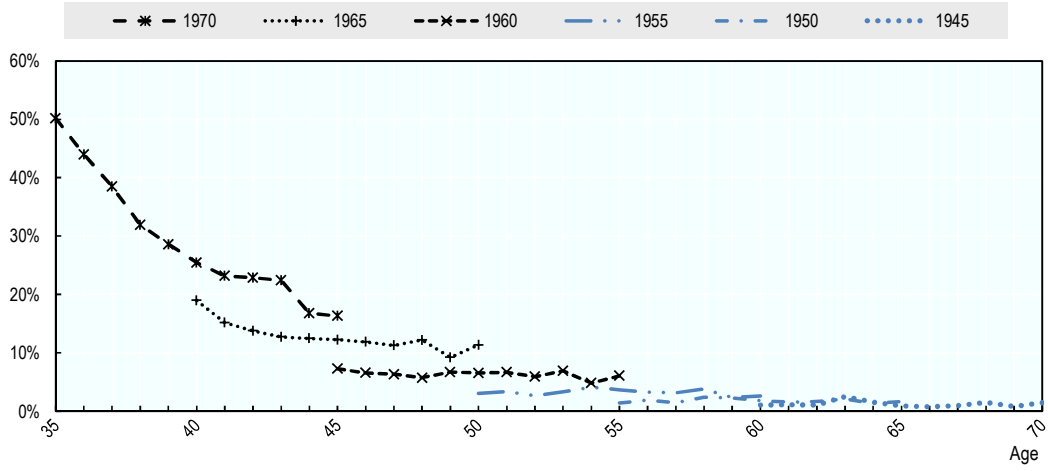
Source: EU-SILC, 2015.

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Such a difference reflects a change across generations rather than the effect of age within the same cohorts. Figure 3.15 shows that careers are less complete for the younger generations. For example, in the cohort born in 1965, the share of people with less than 15 years of work experience at age 50 was 11% against 3% for those born 10 years earlier.[13] Overall, for a given generation, that share declines very slightly only after age 50. The more patchy careers of younger cohorts are consistent with the transition from the centrally planned economy with full employment to the market economy with a more volatile labour market in the early 1990s.

Figure 3.15. **The share of people working less than 15 years is rising in Latvia**

For selected birth cohorts by age



Note: Age distribution of work experience smoothed with non-parametric kernel smoother.

Source: EU-SILC, 2005-2015.

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The rising share of people with short work experience might put additional financial and social pressure on first-tier pensions in coming years (Section 3.6). In the short term, the impact is still mitigated by the favourable treatment of non-working spells prior to 1996. However, when cohorts born in 1965 reach the retirement age (around 2030) Figure 3.15 suggests that the share of people receiving basic pensions could rise to around 10% and even higher for younger cohorts if the eligibility condition was maintained at 15 years, and therefore even further as it will be increased to 20 years. Currently, expenditures on minimum and basic pensions are below 0.5% of GDP in Latvia, with minimum pensions accounting for most of it.

Shadow employment

Latvia has a large shadow economy compared to other European countries. According to Schneider (2015), it represented 24% of GDP in 2015 compared to 18% on average in the EU; Putnis and Sauka (2016) estimated it at 21% of GDP in Latvia versus 15% in both Estonia and Lithuania. These estimates refer to employment, but also to misreporting of income and cost by companies, affecting capital and consumption taxes much more than social security contributions.

As for the underreporting of employment and wages, Latvia ranks better in international comparison. According to Putnis and Sauka (2016), the underreporting of the number of employees was 10% in Latvia in 2015, compared to 7% in Lithuania and 6% in Estonia. Hazans (2011) reached a similar assessment with the share of workers without contract among employees reaching 4% in Latvia in 2009, being slightly higher than the 2% in Lithuania and 3% in Estonia but lower than the average among 30 European countries of 7%.[14] As for the underreporting of wages only indirect and partial evidence exists. According to LFS data, 7% of workers report working part-time

(less than 30 hours), while 20% of workers report earnings below the full-time minimum wage based on tax-revenue data (OECD, 2016a, p. 157).

This limits detrimental effects on pensions. Indeed, when the shadow economy takes the form of unregistered employment and underreporting of wages, as opposed to VAT and CIT avoidance, the impact on pensions is particularly significant. Periods of unregistered employment do not accrue entitlements to earnings-related or minimum pensions. However, the underreporting of either wages by the employees or income by the self-employed still might enable eligibility to minimum pensions.

Self-employment and micro-enterprises

Even when working, a person might not acquire pension rights. The main gap relates to the self-employed for whom social security contributions are mandatory only if their income reaches the minimum wage level. Otherwise, paying social security contributions is a voluntary decision. The self-employed constitute 12% of employment in Latvia (OECD, 2016a), and less than one-fifth of the self-employed pay social security contributions according to social security data. Such a high frequency of people paying no contributions increases the risk of higher future take-up rates of basic pensions.

As an example, journalists and related professions is a group affected by the loosening of labour relations; they tend to become free-lance rather than occupying a regular paid job in many countries. Royalties, which are exempt from social security contributions in Latvia, have been an increasing part of their earnings, being transformed from a simple salary supplement in the past to the only source of income for many of them (EJO, 2013). Even though voluntary contributions are possible, they are not popular and only a minority of journalists might qualify for the minimum pension.

The tax reform that is coming into force in 2018 will partially address the issues raised by insufficient coverage. The self-employed who earn less than the minimum wage and all persons receiving royalties will have to contribute 5% of their earnings to the public NDC scheme. This will help the self-employed with low earnings qualify for the minimum pension. However, the self-employed who earn more than the minimum wage will pay the full regular pension contributions (of 20%) on at least the minimum wage and up to a threshold that they can choose freely, while the reduced pension contribution rate of 5% will apply to earnings above the freely chosen threshold.

Employees of micro-enterprises pay reduced pension contributions and, might therefore, even after a long career, end up claiming minimum pensions. The status of micro-enterprises was introduced during the economic crisis in 2009. In 2016, employees of micro-enterprises represented 13% of total employment.[15] A firm could become a micro-enterprise by meeting three criteria: total turnover is small (EUR 100 000 a year in 2017, EUR 40 000 from 2018); employment (including the owner) does not exceed five persons; and, the maximum wage does not exceed EUR 720 or about twice the minimum wage. Instead of paying the personal income tax, the corporate income tax and social security contributions, micro-enterprises can choose the single turnover tax, of 15% in 2018.[16] Contributions to the individual pension accounts are then paid from these tax receipts.[17] A 15% turnover tax falls well short of being sufficient to cover a 20% pension contribution rate as in regular companies (Leibus, 2014).[18]

Non-standard forms of work

The development of non-standard work is likely to increase the number of people relying on first-tier pensions. The broad definition of non-standard forms of work include self-employment, temporary contracts, temporary agency, dispatched work, casual work and working part-time; that is, all types of work that are not included in the full-time permanent job category (OECD, 2016c; Spasova et al., 2017). This broad category represents about one-third of jobs in the OECD (OECD, 2015c). Temporary and part-time workers are covered similarly to standard workers in most OECD countries, whereas the exemptions in social security coverage of the self-employed exist in the majority for the OECD countries, especially for insurance against unemployment and work injuries (OECD, 2015c).

The more commonly and narrowly used meaning of this phenomenon is linked to the digitalisation of work and the gig-economy, rather than to the contractual form of employment. In particular, this covers engagement in one-off transactions through internet platforms such as Uber, Airbnb, eBay, etc. Although this narrower type of non-standard employment has received increasing attention, it represents less than 0.5% of total employment in Europe and its future expansion is speculative (Eurofound, 2017). Moreover, the majority of gig-economy workers might have another job; it is for example the case for 75% of gig-economy workers in the United Kingdom (Eurofound, 2017).

Social protection systems can address the challenges posed by the changing nature of work in three ways (OECD, 2018): tie entitlements to individual workers rather than to specific employment relationships; untie benefits from contributions; and/or, incorporate non-standard workers into existing social protection systems. In terms of pensions, the first (individualised) approach might not be enough for low-earners to avoid old-age poverty. Untying benefits from contributions actually means that pensions granted are higher than those which would have been generated normally and are financed by general taxation. This solves the problem of coverage, but results in budgetary challenges and might reduce work incentives. In addition, it is difficult to justify why public policy should subsidy these activities if they are not economically viable when accounting for the true cost of social protection. Finally, incorporating non-standard work into the existing social protection systems results in either paying reduced pension contributions or having the contribution subsidised by general government budget.

In Latvia, the expansion of the gig-economy might increase the pension contribution gaps in two main ways. First, it might translate into an expansion of shadow employment. Second, these jobs might be declared as self-employment, which results in paying only reduced pension contributions especially when earning below the minimum wage. Eurofund (2017) confirms that the majority of platform workers in Europe are included in the category of self-employed. The expansion of the public pension coverage for low-earning self-employed in 2018 means that in Latvia the gig-economy workers are, most probably, widely incorporated into the existing pension system. However, due to low contributions, they will have to rely on minimum pensions.

Migration puts pressure on first-tier pensions

Chapter 2 shows that emigration is high in Latvia. At least 13% of the Latvian population live abroad and less than one-tenth plans to return to the country (OECD, 2016a). Emigration from Latvia affects the pension system directly, through lower contribution payments. The outflow of young people therefore undermines the current

finances of pay-as-you-go pensions and accelerates population ageing in the country. Moreover, emigration might also have an indirect effect as returning emigrants – many come back after a few years (see Chapter 2, and Zaiceva and Zimmermann, 2016) – might not meet the eligibility conditions for earnings-related pensions, potentially leading to a larger expenditure on first-tier pensions. However, this concern does not apply when emigrants return with pension rights from abroad.

3.5. Pension-related anti-poverty measures other than first-tier pensions

Beyond first-tier benefits, three redistributive measures influence strongly the disposable income of retirees. First, taxation of pensions influences the net value of granted pensions. Second, pension indexation is more favourable for lower pensions. Third, the lack of survivor pensions increases the poverty risk of retired widows/widowers.

Taxation of pensions is low

As most OECD countries Latvia provides a more favourable tax treatment to pension than labour income (OECD, 2015a). In 2017, pensions are taxed at the regular flat rate of 23% in Latvia but the non-taxable minimum for pensioners is EUR 235 per month, or about 80% of the average pension, compared to only EUR 75 for people younger than the retirement age. From 2018, the personal income tax is becoming progressive and the non-taxable minimum for pensioners will rise to EUR 300 in 2020 (see Chapter 2). Similar, effective tax exemptions of low pensions exist in Australia, Canada, the Czech Republic, Hungary, Mexico, the Slovak Republic, Slovenia and Turkey.

In 2016, 30% of pensioners had benefits below the non-taxable threshold, while 90% had an effective income tax rate lower than 10%.[19] The higher non-taxable threshold for pensioners has therefore a strong impact, resulting in all first-tier benefits being not taxed, thereby boosting net pension income relative to net earnings.

Pension indexation is less favourable for higher earnings-related pensions

The indexation of first-tier and earnings-related pensions in payment can either be discretionary or linked to the growth of prices, wages or a mix of both (OECD, 2015a). Indexation to prices secures the purchasing power of benefits over time whereas linking the benefits to wages maintains a stable pension-wage ratio and enables pensions to benefit from wage growth which tends to outpace price inflation in the medium run. As the relative poverty line is related to population income, an indexation to less than wage growth tends to raise relative poverty risk in old age.

Beside Latvia, Italy and Portugal also index lower pensions more favourably. In Italy, the indexation is linked to changes in the 'cost of life' which mimics prices. Pensions are indexed fully up to threefold the minimum pension (about 60% of the average wage), and then the indexation declines to less than half the changes in the 'cost of life'. In Portugal, all pensions are indexed to inflation, but pensions below about 40% the average wage are indexed more favourably (OECD, 2017b; SSPTW, 2016).

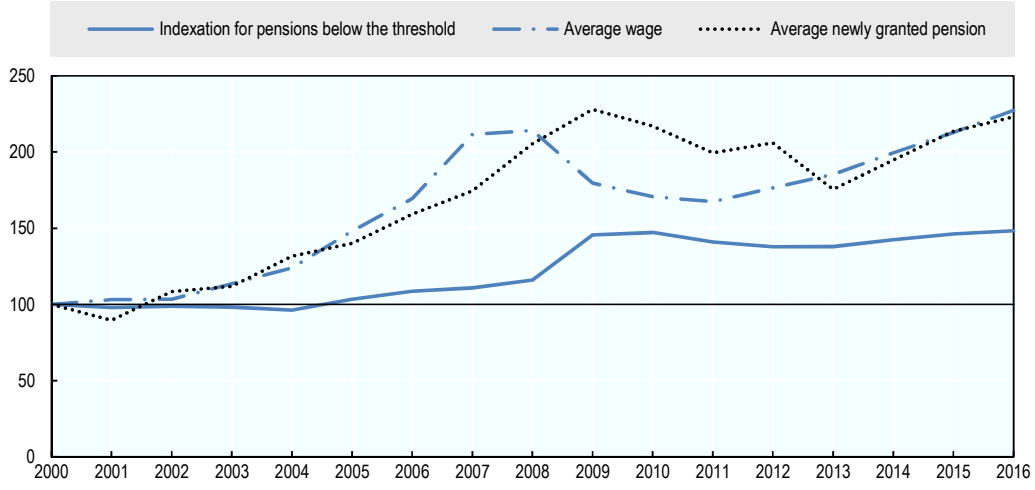
In Latvia in 2017, a pension amount below a threshold, set at half the average wage that is subject to social security contributions, was indexed to inflation plus 50% of the change in the total contribution wage sum, while there was no indexation – even to

prices - beyond the threshold. In 2017, the threshold was equal to EUR 357, which means that 84% of pensions, including minimum pensions, were fully indexed. The indexation threshold was substantially reduced in 2002 from 2.5 to 1.4 times the average pension, and is now close to 1.2 times the average pension. Indexation led to a gain of almost 50% in real terms for pensions below the threshold between 2000 and 2009, while real wages increased by slightly more than 100% over the period (Figure 3.16). Between 2009 and 2012, the indexation was suspended resulting in a 9% decrease in the real value of pensions.

From 2018, the value of indexation has been changed once again. It will increase with the number of contribution years: with a contribution period lower than 30 years the index remains at 50%, but is increased to 60% for contribution years in the interval 30-40 and to 70% for 40 or more contribution years. The part of the pension above the threshold will still not be indexed. The use of a threshold and of a more favourable indexation for longer contribution records makes the system complicated with limited expected impact (Chapter 4).

Figure 3.16. **Pensions in payment increased more slowly than wages and newly-granted pensions**

In Latvia, 2000-2016, in real terms



Note: Numbers are normalised at their 2000 value (=100).

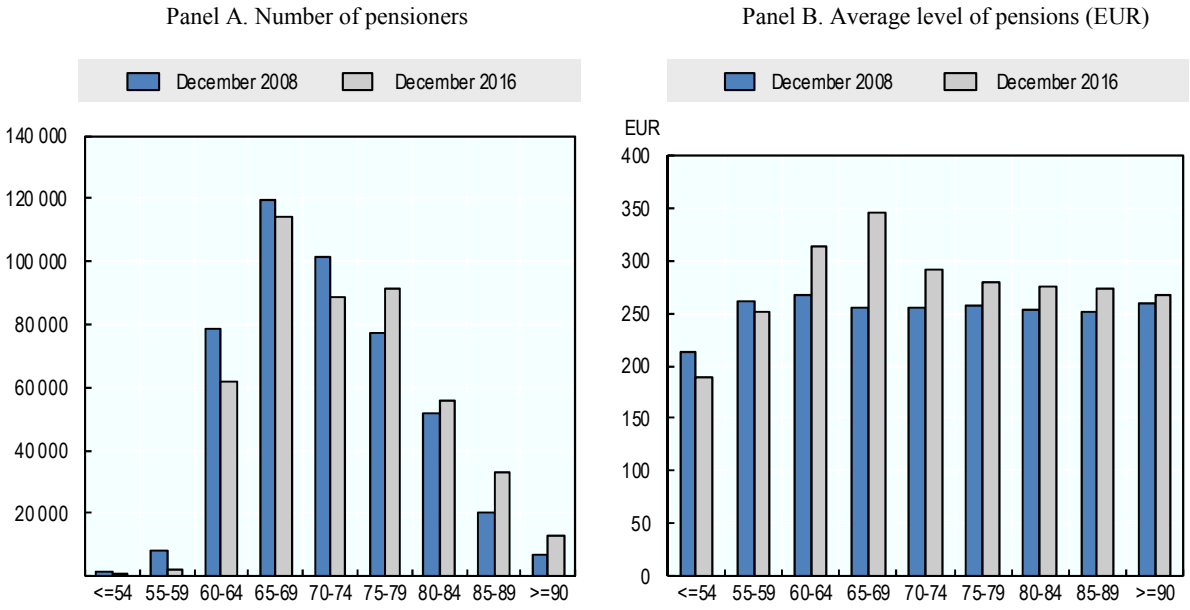
Source: OECD calculations based on data provided by the Latvian Ministry of Welfare and the OECD LFS database.

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Survivor pensions for spouses do not exist in Latvia

As shown before, poverty rates increase sharply with age and are higher among women in Latvia. However, these age and gender gradients are much weaker for the average pension (Figures 3.17 and 3.18). Yet, the indexation of pensions falls short of matching wage increases (Figure 3.16), which negatively affects the income of old pensioners.

Figure 3.17. **Pensioners got older and pensions increased steeply for those aged between 60 and 70 in Latvia, 2008-2016**

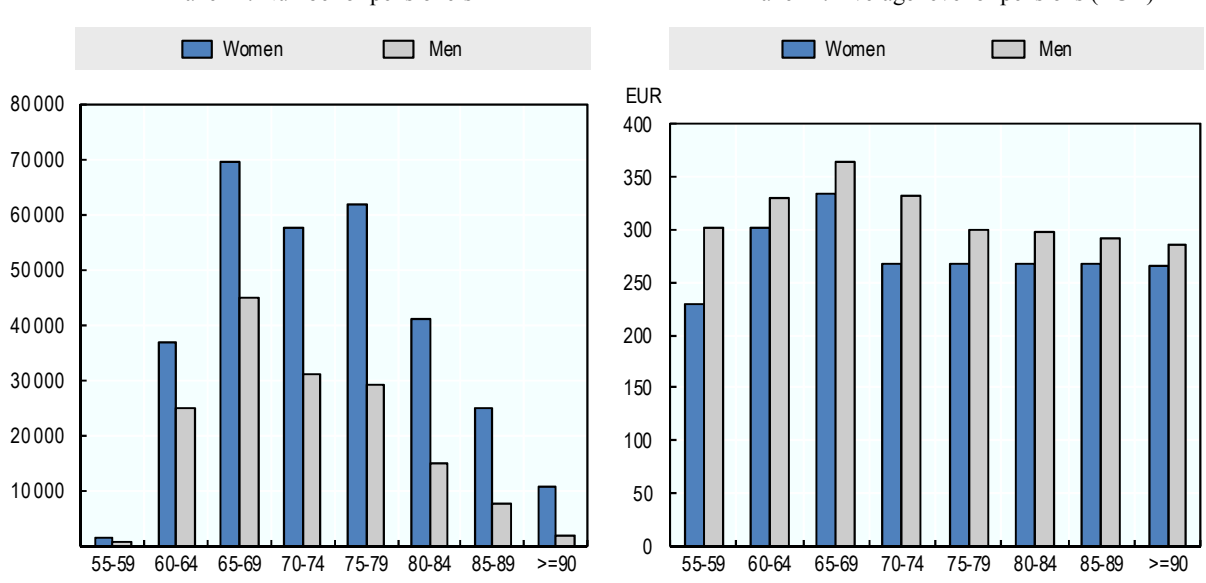


Source: OECD calculations based on data provided by the Latvian Ministry of Welfare.

StatLink http://dx.doi.org/10.1787/888933657277

Women benefit from higher survival rates at any age, which raises their share in older age groups. Two-thirds of pensioners are women in Latvia: their share is 60% among the 60-64 and rises steadily to 78% among those older than 85 years (Figure 3.18, Panel A). Moreover, the pension gender gap of 17% is significantly lower in Latvia than the EU average of 27%.[20] Pensions of both men and women are higher in the age group 65-69, and then fall for men with age but remain almost constant for women (Panel B). Also, as shown by Figure 3.5, Latvia has one the lowest share of people living in a couple in old age, falling from 58% for people aged 50-64 to 13% for those older than 85 years.

Figure 3.18. **More women among pensioners, and with lower pensions in Latvia**



Note: Calculated on the administrative data on the minimum and earnings-related pensions.

Source: OECD calculations based on data provided by the Latvian Ministry of Welfare.

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A survivor pension is typically granted to a surviving spouse or relatives as a part of the deceased's pension and helps maintain material living standards after the death of a partner or parent. The pension of the surviving spouse, for example, might be much lower than the one of the deceased person, as is often the case for women, especially among older generations. Both employment and wages of women tend to be lower than men's, women live longer on average and tend to be younger than their male partner. However, given societal evolutions, these factors might become less relevant in the future.

Due to the fixed costs of running a household, the income needed to maintain the level of consumption for a one-person household is more than half the income needed for a two-person household. Recent OECD publications (OECD, 2011; OECD, 2008) use the square root of the household size as an equivalence scale when calculating disposable income. According to this rule, preserving the same level of consumption requires that the survivor receives 70% of the income of the two-person household. Hence, for example, individuals in a couple with both partners getting the average pension would have an equivalised income substantially higher than the average pension, but if one person dies the survivor would fall very close to the poverty line.

Survivor pensions might generate work disincentives and unintended redistribution in defined benefit schemes including transfers from women with longer to those with shorter career, from singles to couples and from low- to high-earners (James, 2009). In order to limit distortions, survivor pensions might require meeting some age or income criteria.

In Latvia, there is no survivor pension for spouses in the NDC scheme. This means that a large risk for income in old age is left uninsured. It could be argued that in the absence of a mandatory life insurance the income impact of the partner's death occurs at any age. One specific justification for survivor pension schemes is, however, that after the

retirement age the capacity to adjust the participation to the labour market is limited. A survivor pension in the form of a joint annuity for couples can be built into the NDC scheme and if properly designed does not cause undesirable redistribution while limiting work disincentives. Introducing survivor pensions in the NDC scheme would help reduce the high poverty rates of older female retirees in Latvia.

A joint annuity is a form of survivor pension that limits distortions and fits very well within the design of financial or non-financial defined contribution schemes. Upon retirement, the joint annuity for a couple is determined by the joint accumulated (notional) capital and the expected mortality rates of each person. An important parameter is the reduction in the total household pension after the first person dies. For a couple with the same accumulated (notional) capital at retirement, the joint annuity means that the initial pension is lower than the individual pension, but that the pension received by the surviving partner is then larger.

However, the lower initial benefits due to the subscription of this insurance might be counterbalanced with a mix of various measures. First, only a part of the (notional) capitals might be transformed into a joint annuity, with the remaining part being used to calculate individual benefits. Second, pension contributions might be increased for couples. Third, the payment of survivor pensions should require reaching the statutory retirement age for the surviving partner. Moreover, the joint annuity should be mandatory or, at least, it should be the default option as short-sightedness would reduce the take-up rate if voluntary.

Many OECD countries offer a survivor pension for spouses, generally at 50-60% of the deceased's pension (James, 2009). Survivor pensions are available also in countries with NDC schemes. Survivor pensions are accounted for in the NDC design in Italy only: the value of life expectancy used in the pension formula is adjusted for all pensions to account for the aggregate cost of survivor pensions and to keep the NDC scheme in balance. By contrast, in Poland and Norway, survivor pensions are means-tested and financed from the general government revenues. However, in Sweden, survivor pensions are kept outside of the NDC scheme; additional contributions finance joint annuities within the funded DC scheme.

3.6. Policy options

This chapter discusses Latvia's first-tier pensions and other measures that might limit old-age poverty. There is little redistribution within the earnings-related schemes in Latvia. Individuals who have low contributions end up with benefits below the relative poverty line. Indeed, the basic pension provides universal coverage after the retirement age, but the level of this benefit – in absolute terms or relative to the average wage – is very low in comparison to other OECD countries. Moreover, there are no survivor pensions for spouses that would help preserve standards of living after the death of a partner. Consequently, old-age poverty rates are very high, especially among those older than 75 years and among women.

The decreasing role of contribution records prior to the 1996 reform and changes in the labour market are expected to increase the take-up rates of basic and minimum pensions in the coming years. Individuals with short careers in the formal sector, the self-employed and employees of micro-enterprises are likely to rely on first-tier benefits, in part because they pay reduced social security contributions (self-employed and micro-enterprises). The 2018 tax reform will include the self-employed into the public pension

scheme, but there will be a long transition given the accumulated gaps in contribution records.

There is substantial room to increase the level of the basic pension (*state social security benefit in the case of old age allowance*) towards the OECD average of around 20% of average wage, from the current level of 8% in Latvia. Moreover, the level of basic (and therefore initial minimum) pensions should be automatically linked to, at least, prices to preserve purchasing power. The level of these benefits has not risen in nominal terms for more than 10 years. As pensions in payment in Latvia are indexed to a mix of prices and the changes in the wage bill, linking the initial minimum pensions using the same index would ensure the compatibility of newly granted minimum pensions and minimum pensions in payment. Solidarity concerns feature high on the political agenda.

The minimum contribution period required for the minimum pension of currently 15 years and increasing to 20 years should instead be reduced, possibly even to one year, and the benefit should be pro-rated. This would ensure that each year of contribution leads to a benefit increase; currently, only an increase of the contributory period at specific points (15, 20, 30 and 40 years) generates additional benefits.

The reduced social insurance contributions for the self-employed and employees of micro-enterprises should be steadily increased. Until the end of 2017, the majority of the self-employed did not contribute to the pension system at all. This is likely to result in their reliance on safety nets when retiring. The recent tax reform introduces welcome mandatory contributions to the NDC pension scheme for the self-employed who earn less than the minimum wage. However, the 5% contribution rate will not be enough to secure adequate income when reaching the retirement age. Given their reduced contributions, many self-employed and employees of micro-enterprises will obtain low old-age benefits.

Very high old-age poverty rates, especially among women, and a steep fall with age of the share of people living in a couple, to a very low level, imply that introducing survivor pensions for spouses will help reduce extreme vulnerabilities. However, based on available statistics it cannot be definitely concluded that older women are single mainly because their husbands die during the retirement phase. Such a measure might be designed in a budget-neutral way and without any impact for singles, but this will then reduce the initial pension of couples.

Key recommendations

- Increase substantially the levels of basic and therefore minimum pensions.
- Use the same indexation rule for basic (and initial minimum) pension as the one used for NDC pensions in payment.
- Lower the minimum contribution period of 15 years required for the minimum pension. On top of the safety net available for someone who never contributed, ensure that each additional year of contribution results in a higher minimum pension benefit.
- Introduce survivor pensions for spouses within the mandatory earnings-related schemes, based on a thorough impact assessment, in a way that does not create unintended redistribution.

- Steadily increase contributions paid by employees of micro-enterprises and align pension contributions paid by the self-employed to those of dependent employment.
- Harmonise the pension rules for the new forms of non-standard work to those applying to self-employment.

Notes

1. In Latvia, the survivor pension might be granted only to dependent children up to the age of 24.
2. It is constructed as follows: first, percentiles of the income distribution for the whole population are calculated and then every person is attributed to a percentile group based on the income of her or his household.
3. The absolute level of these inefficiencies (i.e. discontinuities in euros) is low, however.
4. Although not shown on the figure, in some cases – usually applying to minimum pensions – each partner in a couple receives an individual entitlement. In other cases – especially for targeted schemes – the couple is treated as the unit of assessment and generally receives less than twice the entitlement of a single person.
5. The safety-net level in Figure 3.8 corresponds to the benefit allocated to someone who has never contributed to the pension system. The minimum pension level shown is the maximum entitlement under the minimum pension schemes; this can be seen as the minimum pension of a low-earning full-career worker. For Latvia, the numbers in the chart correspond to the residence-based basic pension, the universal safety-net benefit (GMI) and the full minimum pension.
6. Those who retired before kept the supplement and, hence, only new pensioners were negatively affected by this change.
7. Among all newly-granted pensions, the number of minimum pensions first increased from 11% in 2009 to 15% in 2013 and then declined to 10% in 2016. The unemployment rate surged during the crisis to 20% in 2010, encouraging older workers to retire earlier even with lower pensions (see Chapter 6). Moreover, changes in legislation might have speeded up the retirement decisions: special pension supplement was withdrawn in 2012 (see above) while the minimum contribution period increased from 10 to 15 years in 2014.
8. The following assumptions are made in order to calculate the pension benefit. For the period 2000-2016, historical data on the nominal minimum wage and valorisation of notional accounts are used. Starting from 2017, the notional accounts are valorised with the average forecasted GDP growth (Long-term baseline projections, No. 95, OECD 2014) of regional OECD countries (the Czech Republic, Estonia, Hungary, Poland, Slovenia and the Slovak Republic), since long-term forecasts for Latvia have not been published by OECD so far. The forecasted real GDP growth slows from 3% in 2018 to 1.5% in 2045; the average growth for the period is 2.2%. The real rate of

return in the DC scheme is assumed to be 3% throughout the period. Furthermore, the prices are fixed at 2016 level minimum wage is linked to average wage after 2018. The life expectancy at age 65 is assumed to equal the G-factor from 2016 at 17 years plus 4.2 years; it is a projected increase in the average life expectancy Latvia according to Europop 2015 projections (Eurostat).

9. If the minimum pension was indexed to wages rather to inflation, the basic pension would reach the level of EUR 122 in 2045. In this case reaching the level of regular pensions higher than the minimum pension would require 25 years of work at minimum pension. However, the minimum pension has not changed its nominal values since 2006, which makes wage-indexation in the future highly improbable. Moreover, a full career (45 years) at the minimum wage secures a pension of about EUR 300 (in 2016 EUR), more than twice the full minimum pension amount.

10. Based on data from the Ministry of Welfare.

11. Survey-based work experience deviates from administrative contribution record.

12. These averages are based on 26 EU countries as data on Germany and Denmark are missing.

13. These data might not coincide with the official contribution periods since they are based on personal declarations on the total duration of work for pay; in particular, they do not distinguish between jobs covered and not-covered by social security contributions, and do not include the non-employment contributory spells such as child-care or unemployment. However, the trends across cohorts are very likely to be robust to such discrepancies.

14. The numbers were calculated based on the European Social Survey.

15. SSA data, this means that 120,000 people were employed in micro-enterprises.

16. It was between 9% and 15% in 2017 depending on turnover and firm tenure.

17. In 2015, the minimum basis for these contributions was introduced at the minimum wage. The law were to come into force in 2017. However, under pressure by social partners, the planned changes were abandoned at the end of 2016 and no minimum basis for contributions was introduced

18. According to the new tax rules for micro-enterprises, the turnover tax is 15% and 80% of it goes for social security contributions. Individual pension contributions constitute about 60% of total social security contributions.

19. This is based on Figure 312. In 2016, the non-taxable threshold was equal to EUR 235 as in 2017.

20. OECD own calculations based on EU-SILC data.

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Chapter 4

The Latvian notional defined contribution scheme

This chapter presents a picture of the development of the NDC scheme from its implementation in 1996, and analyses its long-term financial development through 2060. The chapter also addresses the adequacy of benefits paid to pensioners from the NDC scheme, taking into account the fact that the NDC component provides only a part of the overall benefit from Latvia's combined NDC and FDC schemes. The chapter closes with conclusions and policy recommendations to improve the functioning of the NDC component.

Note: 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.

4.1. Introduction: Overview of the NDC scheme

The Latvian non-financial (notional) defined contribution (NDC) public pension scheme was introduced in 1996. Latvia was the first country to fully implement an NDC scheme while Italy, Poland and Sweden gradually implemented NDC schemes in the 1990s, and Norway in 2011. Personal accounts are the basic building block of an NDC scheme. Individuals, employees or employers on behalf of employees, and the self-employed pay contributions on earned income into the NDC scheme, and the amount is registered in personal accounts. The amount of the contribution is determined as a specific (legislated) percentage of total earnings up to a ceiling.

In 2001, the funded defined contribution (FDC) scheme was introduced. Since then the two mandatory schemes have shared a 20% contribution rate, although the split has changed in both directions between 2001 and 2017. The NDC contribution rate was initially set at 20% and since 2016 the split is 14% for the NDC scheme and 6% for the FDC scheme, with no foreseen further legislated changes.

At retirement, the amounts in personal accounts are converted into a life annuity. The initial (annual) pension is determined by dividing the account balance by the average (unisex) remaining life expectancy at the time of retirement ("G-factor"). During the retirement period, the individual benefit level changes based on an index which depends on price inflation and changes in total wages on which contributions are based. The index formula has varied over the years and still departs from the logic of a generic NDC system (see below).

Overall, the expected payments during the retiree's retirement period have a one-to-one relationship with the individual's lifetime earnings. Every unit of money paid into the individual's account corresponds to an equivalent pension right for the same individual, with a rate of return (the "internal rate of return") that helps keep the system balanced in the long-term.[1]

The NDC pension scheme is built on a simple foundation and, for this reason, it is transparent. First, the close relationship between individual contributions and benefits is meant to simplify the decision to participate in the formal labour market, hence lowering the distortions that would limit labour supply. As every euro of contributions paid into an individual's account contributes to the individual's own future pension, contributions are more likely perceived as personal savings for personal consumption in old age. Second, the impact of increasing longevity is built into the system. As life expectancy at a chosen time of retirement increases, individuals can assess the extent to which postponing retirement might counteract the effect of increased longevity on monthly pension payments. For these mechanisms to work efficiently, it is crucial that contributors are well informed and understand this feature of the NDC scheme.

Transparency results from the fact that the NDC scheme is relatively easy to understand. It functions like a virtual, albeit illiquid, bank account, where the sum of savings (with a rate of return) on the individual's account balance at retirement is distributed throughout all years of retirement. The Latvian State Social Insurance Agency (SSIA) has focused on developing easily accessible information for the participants.

Redistribution is pursued in the context of the Latvian NDC through "add-ins" to individual accounts, financed by money transferred to the NDC scheme from general revenues either from the central government budget or other social insurance sub-budgets

– since every pension right in the NDC scheme must have a financial source. Important examples are add-ins associated with the birth and care of young children and for periods of insured unemployment, sickness and disability insurance (see Chloń-Domińczak et al. (2012) for a cross-country comparison of these add-ins).[2] As a result, redistributive mechanisms are added into the Latvian NDC scheme.

Moreover, there is no NDC entitlement for those who have not reached the 15-year eligibility condition. This creates distortions (Chapter 3), and reduces NDC spending. If the benefit calculated from past individual contributions is below the minimum pension threshold, the top-up is also financed within the pension scheme. Another redistributive component comes from the penalty for early retirement, which is not actuarially neutral (Chapter 6), thus improving NDC finances.

Pension systems typically involve redistribution from people who die early to people who live longer lives. In Latvia, the absence of a comprehensive survivor pension scheme amplifies this mechanism. In particular, contributions made by individuals who die before retiring are not fully inherited (and not at all if the deceased has no child younger than 25 years). While it is not obvious whether all these deviations from the one-to-one relationship between the individual's lifetime benefits and earnings generate a surplus or a deficit in the scheme they provide redistribution.

This chapter presents a picture of the development of the NDC scheme from its implementation, and analyses its long-term financial development through 2060. The chapter also addresses the adequacy of benefits paid to pensioners from the NDC scheme, taking into account the fact that the NDC component provides only a part of the overall benefit from Latvia's combined NDC and FDC schemes.

The following section looks back at some key indicators and developments from the NDC's first two decades of operation. The long-run financial sustainability and adequacy of the Latvian NDC scheme are then examined. The chapter closes with conclusions and policy recommendations regarding the financial sustainability of the NDC scheme and income adequacy of the NDC and FDC schemes combined.

4.2. Looking back at the first 20 years of Latvian NDC: A dashboard view of issues

In this section, a number of issues are highlighted regarding the introduction and development of the Latvian NDC scheme over its first twenty years, from 1996 to 2016. It starts with an overview of the main determinants of the Latvian pension scheme's development. This is meant to provide an economic and demographic dashboard overview by presenting a number of key indicators. The analysis then turns to emigration and fertility, before highlighting the transition challenges related to the phasing in of the FDC scheme.[3]

Key economic indicators

Table 4.1 contains the main economic and demographic indicators that determined the NDC parameters for the last 20 years. The yearly real rate of growth in the wage sum, which is the basis for the growth in contribution revenues, has two components: real-wage growth (Row 1) and the growth of the contributing labour force (Row 2). Strong growth of both the number of contributors and per capita real wages resulted in a high growth of the contribution base (3rd row). Between 1997 and 2016, the latter averaged

5.6% per year, resulting from an average increase of 4.7% and 0.9% in the real wage and the number of contributors.

Row 4 shows the evolution of the inflation rate. The sum of rows 3 and 4 gives the nominal growth rate of the wage sum, i.e. the contribution wage base. Row 5 shows unisex period life expectancy at age 60, which increased by 2.3 years from 1997 to 2016. This is one of the reasons underlying the increase in the legislated retirement age, from 55 for women and 60 for men in 1996 to 65 for both in 2025. In line with the NDC design principles, the growth rate of the wage sum (the rate of return on individuals' NDC accounts) has been equal to a relatively high level of 5.6% in real terms on average over the last two decades (see above).

Table 4.1. **Key indicators for the NDC scheme**

Latvia, 1997-2016

	1997-1999 (average)	2000-2002 (average)	2003-2005 (average)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	1997-2016 (average)
1. Real average wage growth*	6.7%	3.4%	7.7%	15.7%	20.7%	4.8%	-12.7%	-3.3%	-2.5%	0.9%	5.1%	3.7%	6.6%	5.4%	**4.7%**
2. Growth of the number of contributors	2.2%	1.4%	2.4%	4.0%	3.5%	0.1%	-9.4%	-7.4%	1.0%	3.8%	2.8%	1.6%	0.5%	0.3%	**0.9%**
3. Growth of real wage sum**	9.1%	4.8%	10.3%	20.3%	24.9%	4.9%	-20.9%	-10.5%	-1.6%	4.7%	8.0%	5.3%	7.2%	5.7%	**5.6%**
4. Inflation rate	5.2%	2.3%	5.3%	6.5%	10.1%	15.4%	3.5%	-1.1%	4.4%	2.3%	0.0%	0.6%	0.2%	0.1%	**3.9%**
5. Unisex period life expectancy at age 60 (years)	18.0	18.3	18.4	18.4	18.5	19.0	19.3	19.3	19.8	19.8	20.1	20.2	20.3	20.4	**19.0**

Note: Real average wage growth is based on wages upon which contributions have been paid (*). Wage sum is the sum of all income on which contributions are paid (**).

Source: OECD calculations based on the data provided by Latvian Ministry of Welfare, Department of Social Insurance.

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Table 4.2 provides key demographic ratios. The Latvian population aged 20-64 is a useful benchmark for labour force growth. The ratio of the number of working-age persons to the number of 65+ persons (Row 1), which is the inverse of the so-called old-age dependency ratio, has been steadily declining. However, what is most important for pension finances is the number of employed persons in relation to the 65+ (Row 2), and the ratio of contributors to economically active persons (Row 3), even though some workers pay reduced contributions due to special provisions for micro-enterprises and the self-employed.

Row 3 attests to the remarkable increase in the covered population during the maturation of the Latvian NDC scheme, with an increase from 71 to 97%. This is in turn reflected in Row 5, the ratio of contributors to pensioners. Despite the decline in the working-age population since 1996, the share of the working-age population covered increased steadily. In fact, it can hardly increase more (although it may be the case that some are still underreporting their income). So, in the future the number of contributors will be driven more or less solely by the demographics. Row 6 is the ratio of contributors to old-age and disability pension recipients together, which is a broader definition of the (inverse of the old-age) dependency ratio.

The substantial increase in the covered population from a low level followed the disarray in the economy in the 1990s during the first years of the transition from the Soviet economy to a market economy. However, it is also consistent with the claim that

the design feature of DC schemes according to which "your income in old age depends on the money you put into the pension scheme" provides an incentive to contribute.

Table 4.2. **Key demographic ratios for the NDC scheme**

Latvia, 1997-2016

	1997-1999 (average)	2000-2002 (average)	2003-2005 (average)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	1997-2016 (average)
1. Ratio of working-age population (20–64) to population age 65 +	4.12	3.96	3.71	3.56	3.49	3.47	3.43	3.38	3.35	3.33	3.30	3.23	3.16	3.09	**3.61**
2. Ratio of persons in employment to population age 65 +	0.02	0.01	0.02	2.72	2.75	2.74	2.36	2.21	2.26	2.31	2.35	2.32	2.33	2.31	**2.55**
3. Ratio of contributors* to economically active persons	0.09	0.05	0.10	0.90	0.92	0.91	0.86	0.83	0.86	0.89	0.93	0.96	0.96	0.97	**0.86**
4. Ratio of contributors* to population age 65 +	0.05	0.02	0.05	2.65	2.70	2.69	2.44	2.27	2.31	2.41	2.47	2.50	2.49	2.49	**2.49**
5. Ratio of contributors* to old age pensioners**	18.03	18.33	18.40	2.12	2.22	2.23	1.99	1.83	1.83	1.90	1.97	2.02	2.05	2.09	**1.92**
6. Ratio of contributors* to old age and disability pensioners**	18.03	18.33	18.40	1.85	1.94	1.95	1.74	1.60	1.60	1.65	1.71	1.75	1.77	1.80	**1.66**

Note: Based on the average number of socially insured persons at throughout the year (*). Based on the number of pensioners at the end of the year (**).

Source: OECD calculations based on the data provided by Latvian Ministry of Welfare, Department of Social Insurance.

StatLink http://dx.doi.org/10.1787/888933657448

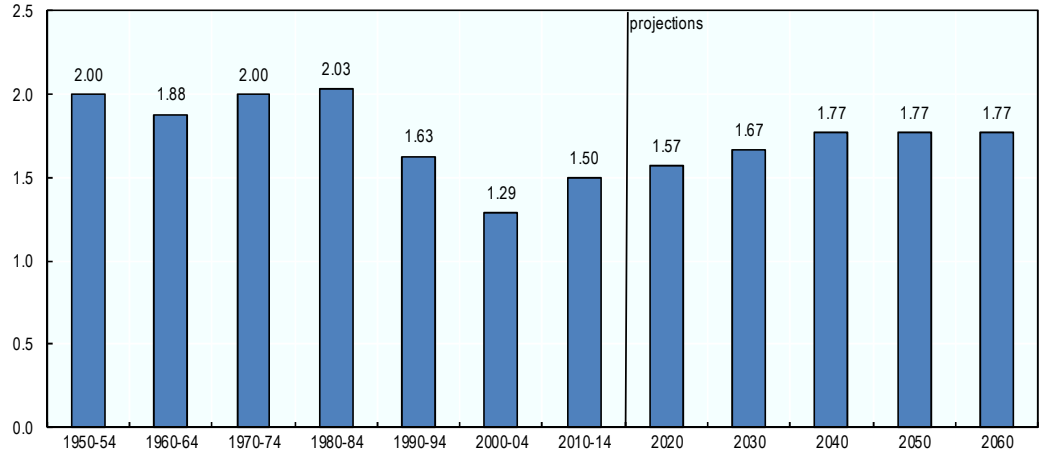
Low fertility rates and continuous emigration of the working-age population

From high levels in the 1970s and 1980s, fertility rates fell significantly from 1990. Neither economic stability nor security – among important drivers of fertility rates – was ensured in the 1990s, as the first half began with a drop of about 30% in GDP, a breakup of Latvia's market network to the East, and high unemployment within both industry and agriculture. All of this created personal economic insecurity for many families. As the economy clearly turned upward after 2000, so did the fertility rate, and the fertility rate climbed to around 1.7 in 2015. Figure 4.1 shows that the period 1970 – 1990 was characterised by high fertility rates. According to projections, the fertility rate will continue to increase, to about 1.8 children per woman by 2040.

Latvia's working-age population (20–64) declined from a high of almost 1.6 million in 1990 to just over 1.2 million in 2015, or a decrease of 23%. As fertility rates were close to or higher than 2.0 children per woman from 1950 to 1990, low fertility is not the explanation of this trend. Instead, this is the result of mass emigration of younger working-age individuals. Latvia's entrance into the EU in 2004 made it much easier for Latvians to work abroad within the EU, but the process started already in 1990, with the highest rates of decline among the age groups below 40 years (Chapter 2).

Figure 4.1. **Development of Latvia's total fertility rate 1950-2060**

Children per woman 15-49, adjusted for distribution of women by age groups



Note: The EC Ageing Report projections of fertility do not deviate systematically from the UN projections.

Source: OECD calculation based on UN World Population Prospects: The 2017 Revision.

StatLink http://dx.doi.org/10.1787/888933657315

The annex provides greater detail about demographics and in particular long-term projections. It highlights that a practically constant number of pensioners after 2020 will need to be supported by a steadily declining number of persons in the working-age population, i.e. an increasing so-called old-age dependency ratio. Based on the assumption of continued substantial emigration of the working-age population, the economically active population aged 20-64 will continue to decline substantially from about 950 000 to 700 000 persons between 2015 and 2060. The overall dependency ratio will be mildly cushioned by a small decline in the population of persons 0-19.

Latvia also loses a considerable portion of its male working-age population due to premature deaths. According to life tables from the UN World Population Prospects (2017), about 25% of males aged 20 die before they reach the age of 60, compared with 9% of females. The high mortality rates of men continue after age 60, and by the age of 70, about 45% of males have died, compared with 20% of females.

Transition challenges driven by pensions from the Soviet area and the introduction of the FDC scheme

As in several Central and Eastern European countries, at the time the Latvian pension reform was being discussed there were strong voices that favoured Funded Defined Contribution (FDC) schemes. Although planned from the beginning, the FDC scheme was introduced in 2001 only with a 2% contribution rate while NDC had 18%, but with a gradually planned shift to 10% FDC and 10% NDC.[4]

There is some transition cost with this approach as it generates a shortfall in public revenues, and has important implications for the financing of the overall pension system. The move from a pay-as-you-go to a pre-funded pension system involves a transition period during which it is necessary to finance the acquired rights earned by contributors

prior to the cutback, i.e. those based on a higher contribution rate. Savings in the form of FDC contributions are accumulated for decades in FDC financial portfolios without providing income transfers for current pensioners.

The most pressing issue arises because the reduction in the contribution rate of the pay-as-you-go scheme immediately creates a shortfall to finance current pensions: in that sense the introduction of the FDC scheme makes part of the implicit debt suddenly explicit. Initially in Latvia, implicit liabilities came mostly from pension rights "accumulated" during the Soviet era. Indeed, the NDC scheme is still partly honouring inherited rights from the generous, but unaffordable Soviet pension system; when the NDC was introduced, acquired rights by workers who had not retired before 1996 were converted into NDC rights (Chapter 2 provides details).

While in 2008, the FDC contribution rate was 8%, the financial crisis made the transition much more complicated than previously envisaged. Before the gradual increase to 10% was achieved, the deep recession, which began in 2008, resulted in a dramatic fall of one-third in contribution revenues in 2009-2011. In order to pay NDC commitments to pensioners, the contribution rate to the FDC scheme was reduced to 2% in 2009-2012, and the NDC contribution rate was raised to 18%. After the recovery of the economy, the FDC contribution rate was increased to 4% in 2013 and 2014, 5% in 2015 and 6% in 2016, where it is now scheduled to remain.

The analysis of the long-term financial stability in the next section shows that the remaining 14% contribution rate allocated to NDC is likely to be too low to cover the projected expenditure commitments for NDC pension rights, which consist of rights inherited from the old Soviet pension system and converted into NDC account values, and new NDC rights granted between 1996 and 2001, all based on a PAYGO contribution rate of 20%.

4.3. Long-run financial development of the NDC scheme[5]

This section examines the long-run financial sustainability of the Latvian NDC pension scheme up to 2060. The financial sustainability of a pension scheme is assessed based on the long-term demographic and economic projections. In principle, the long-run ratio of expenditures to revenues is the key variable to follow. Revenues are steered by demographic components, the fertility rate and net migration, which determine the size of the working-age population, and by the coverage ratio, i.e. the extent to which the working-age population not only works, but works in the formal sector and pays contributions (Annex).

As the pay-as-you-go Latvian pension scheme is NDC, contributions over time determine pension levels, and hence long-term expenditures. In addition, life expectancy determines the number of surviving working-age persons, as well as the length of time pensions are paid out on average from the age of labour market exit.

Maintaining financial stability in NDC pension schemes is helped by the automatic adjustment to increasing longevity. The pension is calculated as a life annuity based on the individual's account value at retirement divided by remaining life expectancy at the individual's retirement age. Hence, the age from which the pension is drawn directly influences the individual benefit based on actuarial rules, thereby avoiding financial disincentives to work longer.[6] However, to avoid that people continue to retire at the same ages despite gains in life expectancy, and therefore with steadily diminishing

pensions, a link between the statutory retirement age and life expectancy can be established.

Growth of the contribution wage base and indexation

In an NDC scheme, there is a constant built-in adjustment of the scheme's valuation of liabilities – the accumulated account values of workers and the present value of pensioners' benefits – to the system's capacity to pay them. This occurs through the valorisation of account values with the nominal growth of the contribution base, which itself embodies three components: the rate of growth of productivity as represented by the long-term evolution of the per capita real income of contributors (denoted *g* below); the rate of change in the number of contributors underlying the growth of the contribution wage base (λ); and, the rate of inflation (p). The rate of growth of the nominal contribution wage base, and system revenues, can thus be described by the sum of these three parameters, $g + \lambda + p$. In Latvia, this sum constitutes the rate of return used to index the accounts of contributors: from the very outset, Latvia has indexed accounts of workers with the full index of the growth of the contribution wage base, $g + \lambda + p$.

In generic NDC schemes, this index ($g + \lambda + p$) should also be employed to index NDC benefits, but Latvia still does not fully do this. This would help achieve financial stability because the same internal rate of return would then be used for individual pensions in payments and the valorisation of accounts in the accumulating phase.[7] Yet this is not sufficient to ensure the financial balance at least in the short term (Valdès-Prieto, 2000)[8], and complementary balancing mechanisms are needed (see below).

In practice the actual indexation of pensions in payment varied considerably. In 1996, the indexation of benefits began cautiously, first using only the rate of change in the CPI (p), since the benefits being paid out in the beginning were all granted prior to the introduction of the NDC scheme.[9] Gradually from the early-2000s, the government began to add a partial $g + \lambda$ component to indexation of pensions. However, the deep recession of 2009-2012 would have resulted in a large negative indexation, and it was instead decided to freeze pension in nominal terms. Thereafter price indexation with a part of $g + \lambda$ was employed for benefits, once again. In short, Latvia's NDC benefits have been consistently price indexed and, during some years, supplemented with partial indexation based on the real growth in the wage sum.

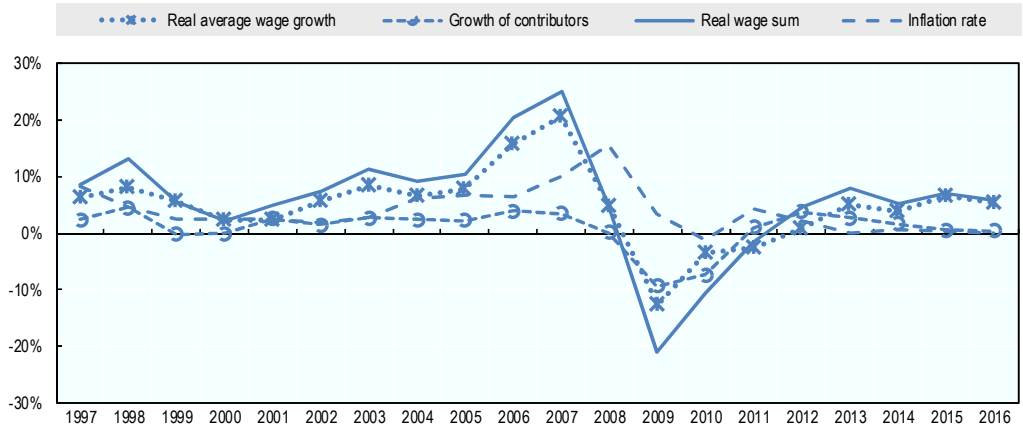
According to the 2017 legislation, NDC benefits lower than EUR 349 were indexed by half the real growth of the contribution base on top of inflation: $p + 0.50\ (g + \lambda)$ while for the part of pensions above this threshold was not indexed at all (see Chapter 3 for details). From 2018, the value of indexation has been changed once again. It will increase with the individual's number of contribution years: with a number of contribution years up to 30 the index remains at 0.50, but is increased to 0.60 for contribution years in the interval 30-40 and to 0.70 for 40 or more contribution years. The part of the pension above the threshold will still not be indexed. The intention of this rule is to create an additional incentive to postpone retirement. However, it is complex, its financial impact is limited and unlikely to be well understood, such that the effect on working behaviours will most likely be very modest.

Figure 4.2 plots the historical values of the overall rate of growth of the real contribution wage sum ($g + \lambda$) as well as the components p, g and λ, separately. First, there was a positive growth, of 0.9% on average per year, in the number of contributors during 1997 and 2016, despite the strong decline in the working-age population. Second,

the real per capita wage growth was high, at 4.7% per year on average, including the steep decline in 2009 – 2011 which followed a steep upturn. The recovery after the recession, during 2012 – 2016, was characterised by increasing real per capita wage growth at an average rate of 4.3% per year. However, as discussed above, given the applied indexation rule, pensions in payments only benefited marginally from more than price indexation.

Figure 4.2. **Annual changes in the components of the wage sum growth**

Latvia, 1997-2016



Source: OECD calculations based on the data provided by Latvian Ministry of Welfare, Department of Social Insurance.

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What are the future prospects? The coming four decades from 2020 are projected to bring a steady decline in the number of working-age persons, with a negative growth rate for λ of a little under 1% per year, unless something happens to raise the fertility rate further and lower the projected outflow of working-age persons from Latvia (Table 4.3). Given its high level, a significant expansion of coverage is improbable. In the European Commission's *Ageing Report 2015* calculations, the annual rate of real wage growth (g) is assumed to steadily decline from 4% in 2020 to 1.5% on 2060. Prices (p) are assumed to rise at an annual rate of 2% throughout the projection period.

Table 4.3. **Projections of the valorisation of NDC accounts**

Based on the EC 2015 Ageing Report assumption for Latvia, 2020-2060, yearly rates

	2020	2030	2040	2050	2060
Real average wage growth (g)	4.0	2.4	2.0	1.8	1.5
Change in the number of socially insured persons (λ)	-1.6	-1.5	-0.5	-0.9	0.1
Inflation rate (p)	2.0	2.0	2.0	2.0	2.0
Nominal wage sum growth (total valorization)	4.4	2.9	3.5	2.9	3.6

Source: OECD calculations based on the data provided by Latvian Ministry of Welfare, Department of Social insurance.

StatLink http://dx.doi.org/10.1787/888933657467

The large expected decline of the labour force over 2020–2060 has a detrimental impact on the pension replacement rate from the NDC scheme as it lowers the internal return and the valorisation index of notional accounts. However, as shown in Table 4.3, despite this effect, the full wage-sum valorisation would generate a positive real growth to NDC accounts overall. If fully applied, it would also give positive real indexation to pensioners. The question discussed hereafter is whether this is affordable.

As a result of the balancing mechanism built into the NDC scheme, a declining labour force has a direct negative impact on pension levels, rather than threatening financial sustainability. In countries where the valorisation of NDC accounts does not include the change in the number of workers (e.g. Sweden), it is actually the risk of a shrinking labour force that led to the idea of developing separate financial accounts for the NDC scheme in order to create a solvency (balance) ratio "mimicking" the actuarial practice employed in private funded DB pension schemes. This means that when the estimated liabilities of the NDC scheme become greater than the estimated assets, regardless of what is the cause, both individual accounts and pensions should be subject to a negative indexation.

Pension age and life expectancy

The role of the minimum pension age is to provide a lower bound so that someone who works and contributes to her NDC accounts during an average working career can count on receiving a sufficient pension in old age. However, this involves working enough years to create this sufficient NDC "savings" account balance. In the NDC scheme, postponing a benefit claim increases the benefits while being neutral to financial stability of the scheme. As a result, increasing the minimum pension age counterbalances the negative effects of increasing longevity on pensions.

From 62 years in 2014 the official retirement age has been increased by 3 months every year up to 2025, when it will become 65 for both men and women, which is the last legislated change. This will be closer to what is now a normal pension age in the EU. Life expectancy (unisex) at age 60 is projected to increase from 20.4 years in 2016 to 26.6 years in 2060 based on EC Ageing Report projections. This increase of 6 years is in line with what is expected for most European countries. Based on UN data (Chapter 2), improvements are not as great, however. Over the same period, life expectancy at age 60 is projected to increase by 4 years in Latvia.

In any case, it is very likely that Latvia will find it necessary to increase the retirement age beyond 65 by 2060. Faced with a similar need, many countries have recently introduced indexation or are considering indexing their statutory pension ages to life expectancy. Generally speaking this trend is motivated by considerable improvements in working conditions, living habits, medical technology and health.

The formula used to compute the initial NDC benefit simply divides the cumulated value of the individual notional accounts by the life expectancy at retirement age (G-factor). Conceptually, cohort life expectancy should be used in the formula as it takes into account the expected gains in longevity during the retirement period for the cohort of individuals who are just retiring at that age. By contrast, period life expectancy, based on current mortality rates at different ages (and therefore of different birth cohorts), ignores these expected improvements and thus tends to underestimate the effective life expectancy. Cohort life expectancy at retirement age is projected to be about one year

higher than period life expectancy in Latvia around 2060 based on UN projections (OECD, 2017).

While period life expectancy is based on observed mortality rates, cohort life expectancy implies projections of future mortality rates, which makes cohort life expectancy sensitive to various assumptions. Latvia, as other countries with NDC schemes such as Poland, Norway and Sweden, currently uses a moving average of yearly period life expectancy to compute initial pensions. The use of period instead of cohort life expectancy tends to boost pension benefits, by about 5% in Latvia, all other things equal.[10] This slightly offsets the use of partial indexation discussed above.

However, the first-best solution to avoid systematic biases in life expectancy measures and follow general NDC principles – along with the indexation of pensions in payment to the appropriate index in NDC pensions (wage sum) – is to adopt a cohort approach to life expectancy. OECD (2014) analyses issues related to mortality assumptions and longevity risk, and highlights the strengths and weaknesses of the different models to estimate improvements in life expectancy. Adopting a cohort approach is an important technical factor as the measure of life expectancy plays a crucial role for the transparency and financial balance of NDC schemes. Likewise, annuity providers in private DC schemes must rely on an unbiased estimate of life expectancy (that is, cohort life expectancy) to avoid overestimating the value of the annuities and possibly experience financial difficulties.

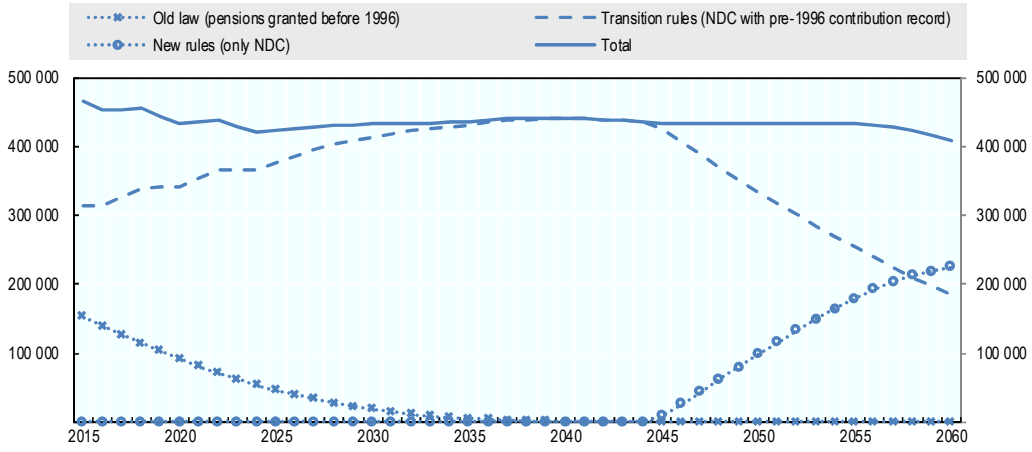
The phasing out of old-law and transition-rule pensioners

Figure 4.3 shows the projected total number of pensioners over 2015–2060, divided into three categories: persons who were already (Soviet) "old-law" pensioners at the time the reform was introduced in 1996; "transition rule" pensioners, i.e. pensioners whose work records in the Soviet system through 1995 were converted into an initial capital in individual NDC accounts by applying a 20% contribution rate to the "theoretical" past earnings; and, persons with their benefits computed solely from the new rules, in accordance with their NDC account values.

The total number of pensioners is projected to be more or less constant over the period 2015–2060. A large number of these are the relatively large birth cohorts born around 1975 and 1985, with the last large cohorts born in around 1985 remaining as pensioners in the system until around 2065. Their number is, however, reduced by the emigration wave from Latvia. Old-law pensioners – some based on special conditions in 1995 at an age as low as 40 and all women in general at age 55, such that the average retirement age was 56 in 1995 – will be mostly phased out by 2035. This group of pensioners, with pensions based on very lax old Soviet rules constitutes a legacy that complicates the transition to the NDC scheme introduced in 1996. Moreover, from around 2045, the number of transition-rule pensioners begins to decline while persons with pensions based solely on the new NDC law begin to enter the pool of pensioners at a fast rate.

Figure 4.3. **Projected number of pensioners by pension regime of pay-as-you-go schemes**

Latvia, 2015-2060



Source: OECD calculations based on data provided by Latvian Ministry of Welfare, Department of Social Insurance.

StatLink http://dx.doi.org/10.1787/888933657353

The NDC scheme as the provider of FDC annuities within the overall public pension system

Presently, people are offered the choice at retirement of moving their FDC account balances to the NDC scheme, where they provide the basis for the computation of an individual annuity based on the sum of both the individual's NDC and FDC accounts. To date the majority of new pensioners chose this option, but in 2016 about half of eligible pensioners did so (Chapter 5).

Private providers of annuities in the FDC scheme project changes in mortality rates across the different cohorts in order to avoid structural biases in the use of life-expectancy tables, which otherwise would create long-term financial imbalances and inefficient pricing of annuities. As discussed above, these problems also arise in NDC systems, if the NDC formula uses period life expectancy.

Moreover, the use of life expectancy as the annuity divisor is actuarially justified only if pension payments during retirement are indexed in line with the value of the rate used to discount future pension flows (the discount rate). In an NDC scheme, the discount rate is the internal rate of return which should be identical to the rate used to valorise the notional accounts during the contribution (accumulation) phase, which is the growth rate of the wage sum in Latvia. As a result, actuarial rules imply that NDC pension payments should be indexed using the growth rate of the wage sum.

In a DC system (both notional and funded), the net present value of future pension payments – i.e. their discounted value – should be equal to the value of savings, i.e. assets that have been accumulated. In an NDC system the value of savings is the accumulated notional amount, while in an FDC system the value of savings is the market price of accumulated assets. NDC annuities are computed based on internal NDC discounting, with the discount rates being disconnected from rates derived from financial market expectations, which are by contrast used for FDC annuities. This means that the

computation of NDC annuities is an integral part of the design of NDC and plays an important role in ensuring financial balance over time.

Because the discount rates used in the NDC and FDC systems are conceptually different, their level could differ substantially. The possible conversion of FDC into NDC accounts for annuitisation purposes thus creates consistency problems. Also, the transfer of FDC accounts into the NDC scheme for those who opt for NDC annuities generate cash-flow imbalances in the NDC accounts as e.g. it first creates a surplus with the inflows of FDC lump sums. It is therefore important to eliminate the option for people to move their balances from the FDC to the NDC so that both systems are kept separate.

It is too early to know whether the private annuity market will function efficiently in Latvia. In principle, if it does not function well the public pension administration might take on the role of the annuity provider. This should be separated from NDC as regards annuity creation through a distinct unit at the SSIA or a separate agency while the asset management could be outsourced. Such a set-up could be an attractive alternative to a private financial annuity market, especially in the start-up phase of the FDC scheme when accounts of retirees are still very small. This is how annuity provision is handled in the Swedish mandatory FDC scheme. In the Swedish model, the Premium Pension Authority administers the individual accounts and provides annuities while private asset managers invest the funds.

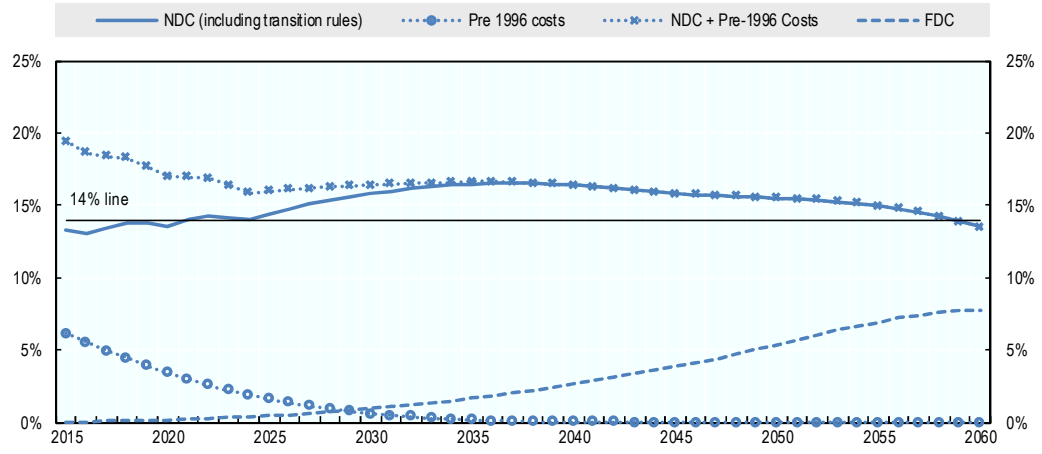
Financial prospects for Latvian NDC expenditures and revenues through 2060

The analysis of NDC financial balances is complicated as the overall payment system is still in transition. In 2016, the 14% contribution rate on individual earnings was sufficient to cover the total NDC expenditures – which exclude pensions of people having retired before 1996 – as these expenditures amounted to 13.25% of the contribution wage base (Figure 4.4). Revenues were sufficient despite 25 years with critically low fertility rates and large emigration flows, the lowering of the contribution rate in 2001 with the introduction of the FDC scheme, and the extreme volatility of the labour market in 2007 – 2012.

Expenditures on pensions granted prior to 1996 will decline rapidly in the coming years, from 6% of the contribution wage base in 2015 to 3% in 2020 and about zero shortly after 2035. NDC expenditures are projected to remain below 14% of the contribution wage base until about the mid-2020s. They will then continue to increase, reaching an estimated peak of about 16.5% in the late 2035 before starting to decline towards 14% in the early 2050s. This will create a deficit in the NDC scheme possibly during several decades given the current 14% NDC contribution rate.

Figure 4.4. **Pension expenditures by scheme**

Percent of the total sum of income subject to mandatory pension contributions, projected values, 2015-2060



Source: OECD calculations based on data provided by Latvian Ministry of Welfare, Department of Social Insurance.

StatLink http://dx.doi.org/10.1787/888933657372

In Latvia, the balancing of inflows and outflows of public unfunded pensions go beyond the NDC scheme itself. The inflows to the PAYGO scheme come from: the total public pension contribution rate at 18.54% in 2017, of which 14% generates NDC entitlements; additional flows from social security sub-schemes for contribution paid on parental, unemployment and disability benefits; special transfers from the state budget to finance for example pension supplements (Chapter 2); and, the transfers from FDC for those who do not opt for an FDC annuity. The outflows are the NDC pensions (including the annuities from converted FDC accounts), transition-rules pensions, the old-law pensions, pensions for selected public sector employees, minimum pensions and the survivor pensions for children. Therefore, deficits in the NDC scheme do not require additional financing as long as total expenditures do not exceed total revenues. Both the indexation and the total contribution rate have been and are likely to still be adjusted as they are the instruments providing the ultimate balancing mechanism. Additionally, the pension reserve fund, which was equal to around one fifth of the total pension expenditure in 2017, balances the transitory deficits and surpluses.

If the system is initially balanced, a decrease in the contribution rate must end up in the deficit of the NDC scheme in the medium term. The 14% NDC contribution rate will not allow to fully finance NDC pensions because the initial contribution rate of 20% and, more generally, the NDC contributions rates that have been higher than the long-term level of 14% have created liabilities that are carried forward on individual accounts, which are then "cashed in" when the contributors retire. Indeed, the NDC contribution rate has been higher than 14% throughout almost the whole period since 1996, averaging 17.4% between 1996 and 2017. Moreover, for transition-rule pensioners, the initial value of notional accounts was calculated assuming the 20% contribution rate on past (theoretical) earnings.

The reduction of the NDC contribution rate with the introduction of the FDC scheme could have been accompanied by a recognition bond credited on the asset side of the NDC accounts and guaranteeing previously acquired proportional rights prior to the

financial transition. Indeed, historical liabilities created by granting rights based on contribution rates higher than the 14% contribution rate used to cover these should be estimated. They should be made explicit in the complete accounts of the NDC scheme (statement of assets and liabilities), at the end of each accounting year, until they are eventually paid off.

The government debt to the NDC scheme can be considered as an asset (in principle a recognition bond) held by the "NDC fund". When the time comes to service the debt (finance a portion of the yearly payments of benefits), the bond is amortised in the NDC accounts with yearly payments from the government budget comparable to the underlying payment of liabilities (including the accumulated interest) to individual account holders.

Latvia did not use the recognition bond mechanism and did not record this implicit debt. In practice, already today the government is committed to paying these rights through general government revenues. What would be won by estimating the liabilities associated with the introduction of the FDC scheme is that by becoming known the liabilities receive a "name" and an explicit financial source in the yearly statement of the NDC scheme's assets and liabilities.[11] This would improve transparency and enhance the monitoring of NDC finances.

Financing the projected deficit in revenues 2030–2050

Although Latvia has not built an explicit reserve fund for the NDC scheme, the Ministry of Welfare has an explicit framework of budgets for the various expenditures within the overall pension system and other areas of social insurance. According to information provided by the Ministry of Welfare, in 2017 there was a sum of money equal to a contribution rate of 24.54% – this rate could be reviewed yearly and is included in a 34.09% overall social insurance contribution rate – budgeted for overall expenditures on pensions. This includes the 14% contribution to NDC, the 6% contribution transferred to FDC funds while the remaining part finances survivor pensions for children, some special pension rights and other benefits. This means that currently 18.54% (=24.54% – 6%) finance the pre-1996 pensions, NDC pensions and other pension expenditures. On top of the 24.54% contribution rate, the overall budget also includes budgeted payments of the tax-financed individual account add-ins, such as those granted in conjunction with the birth of a child or contributions for unemployed or those receiving disability pensions.

The Ministry already has a formal accounting structure for total pensions. There is a reserve fund for total pension budget within the social security budget. In principle, in the absence of a formal NDC reserve fund, the general government budget is the buffer funding source for an NDC scheme. So, it can be the case that a significant part of the upcoming 20-year deficit (2030–2050) can be financed by funds already within the overall social insurance budget. Italy, Latvia, Poland and Norway all implicitly use the state budget as the buffer fund. Only Sweden has an NDC scheme that is completely autonomous from the state budget in this sense.

However, transparency would be improved by the creation of formal accounting for the NDC scheme itself, in line with that used by the Swedish Pensions Agency for the Swedish NDC scheme, as part of total pension budget within the social security system. This means providing an accounting structure consisting of the end-of-year liabilities and assets of the NDC pension scheme, and financial income during the year. Liabilities consist of account values of contributors and pensions in payment to pensioners. As noted above, making transparent the uncovered liabilities created by the phasing in of the FDC

scheme (historical liabilities created by contribution rates higher than the 14% contribution rate) should be a part of this effort. Also, there has to be a procedure for estimating the "contribution" asset, i.e. the estimated value of future contributions for which there are well-known examples around the world.[12] If this balance is established dynamically, i.e. yearly into the future, with estimated values of the relevant variables, the result is a dynamic picture of the financial standing of the pension system. This includes determining the scale of the "right" contribution rate to guarantee the financial stability in the NDC scheme in the medium term, while in the future any contribution rate should affect long-term assets and liabilities similarly.

In Sweden, financial deficits in NDC pensions, as occurred in connection with the 2008-2009 recession, trigger a separate index, called the balancing index, which decreases the valuation of both the accounts of current contributors and the value of a pension. To date, Sweden is the only NDC country to employ this approach. This approach is not specific to NDC, and the solvency ratio can be created to maintain balance for any pay-as-you-go pension scheme. Settergren (2013) describes how the Swedish account system and how balancing works in practice in Sweden, while del Carmen Boado-Penas and Vidal-Meliá (2013) present and discuss alternatives in the context of NDC.

4.4. Adequacy of NDC benefits

A key objective of a pension system is to provide a sufficiently high replacement rate for workers who have paid contributions steadily during the working career. Neither NDC nor FDC schemes are designed, however, to provide substantial pensions for persons with very short working careers even though non-employment spells might raise some pension rights. Instead, the role of first-tier pensions, which is discussed in Chapter 3, is to provide the first layer of social protection in old age. In DC schemes, the level of pension depends on the individual's accumulated contributions during the working life, the internal or financial rate of return, and life expectancy at the time of retirement. Of course, the greater the number of years spent working and paying contributions the higher the pension. Solidarity concerns and strong motivation to contribute to the system feature high on the political agenda and might need to be strengthened.

Minimum age for claiming a pension

The minimum age for claiming a full pension in mandatory schemes is crucial for adequate income replacement. If people claim pensions too early, they fall into poverty in old age. One of the largest risk groups in Latvia is single female retirees. The death of their spouse increases risks by compelling them to live on their own, often lower pension. Avoiding that people retire with too low pensions was, in fact, a major reason for Latvia to gradually increase the pension age of women and men from its level of age 55 and 60 in 1995, respectively, first to the age of 62 for both, and then to 65 in the near future.

Current pension replacement rates

Overall, the current level of pensions relative to wages in Latvia is substantially below the EU average. The current gross average replacement rate, calculated as the average of newly granted pensions in a given year in relation to the economy-wide average wage – used in the European Commission's SPC Report on Pensions Adequacy and the European Commission's Ageing Report – was 33% in 2013 against 47% in the

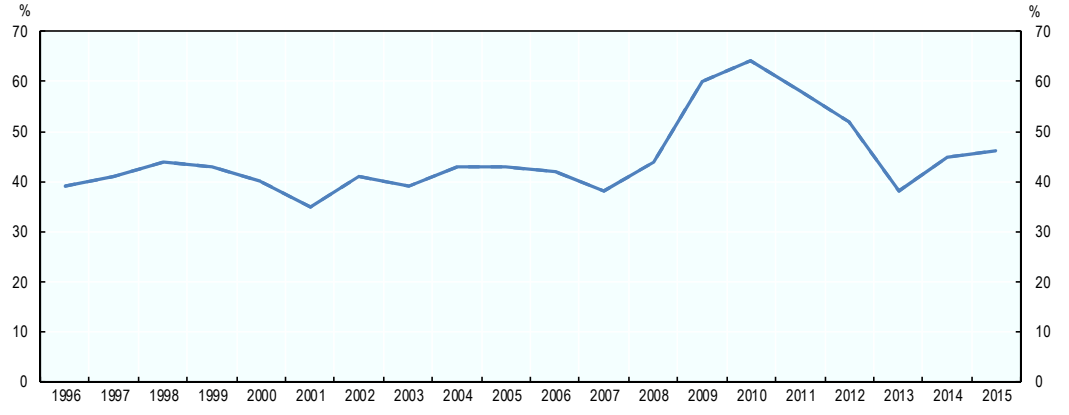
EU on average (EU, 2015). In Europe, the range was from a low of 28% in Croatia to 53% in Poland and 79% in Spain.

When related to the average wage subject to pension contributions (which is lower than the economy-wide average wage), the replacement rate for newly granted earnings-related pensions was equal to 46% in 2015. It had fluctuated around 41% between 1996 and 2008, before being subject to a high volatility during the crisis (Figure 4.5) due to three factors. First, changes in wages are directly transmitted to pension through the valorisation of notional accounts but with a short lag, which implies that an abrupt fall in wages, as in 2009, is immediately reflected in a temporary higher ratio. Second, changes in employment affect, with the same lag, the numerator through the valorisation of accounts, but not individual wages on the denominator. Third, the average pension in 2013 was exceptionally lower as 2012 was the last year the special supplement for long contribution periods was applied. Some people with a long contribution history and, consequently, higher than average entitlements chose to retire in 2012 rather than postponing claiming their pension. As a result, the effective replacement rate jumped to about 60% in 2009 – 2011, before returning to its pre-recession level, with a slightly higher average of 43% in 2013-2015.

When focusing on pension levels only (rather than relative to wages), pensions granted during the crisis were significantly lower than those granted a few years earlier or later due to the effect of the sharp fall in the wage sum. As these extreme repercussions on newly granted pensions were perceived as unfair, pensions from these years are being gradually recalculated. The recalculation cancels the impact of the negative valorisation of notional accounts. In the future, the valorisation of changes in notional accounts will not be allowed to fall below zero if the wage sum index becomes negative. In that case, instead of falling, notional accounts will be flat until the wage-sum index recovers its previous peak level. This mechanism will provide some potentially significant smoothing for individuals during volatile episodes, departing from the level of newly granted pensions solely based on notional accounts valorised with the total unsmoothed wage sum. As a result, it will increase pension expenditure temporarily, which might weigh on the finances of the NDC scheme.

Figure 4.5. **Average newly granted NDC pension as a percentage of the average contribution wage**

Latvia, 1996-2015



Source: OECD calculations based on data provided by Latvian Ministry of Welfare, Department of Social Insurance.

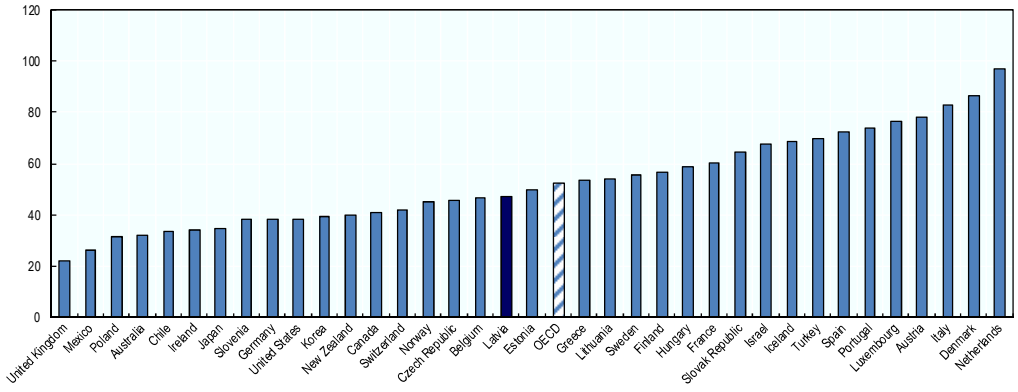
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Future replacement rates

Projected future replacement rates are substantially below the OECD average. The mandatory pension schemes, including both NDC and FDC, are expected to deliver a future gross replacement rate of 48% in Latvia in the baseline case used in *Pensions at a Glance*, i.e. an average-wage earner with a full career from age 20 in 2016 up to the retirement age of 65 in Latvia. The average future replacement rate in the OECD is 53%. Among regional peers, the projected replacement rate is higher in the Slovak Republic at 64%, Hungary at 59%, Lithuania at 54%, and similar to Estonia at 50% and the Czech Republic at 46%, but significantly lower in Slovenia at 38% and Poland at 32% (Figure 4.6).

Figure 4.6. **Gross theoretical replacement rates are below the OECD average**

Mandatory pension schemes for an average-wage earner full-career worker from age 20 in 2016, %



Note: Lithuania added for comparison.

Source: OECD (2017).

StatLink http://dx.doi.org/10.1787/888933657410

The relatively low expected replacement rate in Latvia stems mainly from the projected fall in the labour force and the projected increase in life expectancy. The projected reduction in the working-age population, by around 1% a year, will reduce the "internal" rate of return of the NDC pension and will negatively affect the valorisation of notional accounts. If instead the working-age population was projected to be stable, the future replacement rate from NDC pensions would be six percentage points higher. In the OECD pension model where the real rate of return on financial assets is set at 3%, FDC benefits are not affected in the projections by the fall in the labour force. However, if financial assets are insufficiently diversified internationally, domestic demographics which will impact GDP growth are likely to also affect domestic financial returns. At the end of 2016 though, foreign assets represented about two-thirds of pension plans' portfolios (Chapter 5).

The relatively low retirement age also affects the benefit calculation for both the NDC and the FDC pension through the computation of annuities. According to the current legislation, the normal pension age to get a full pension will be 65 after 2025, compared to the OECD average of 66.0 for men entering the labour market now. If the retirement age was 66 in Latvia by 2060, this would lead to an increase in the total gross

replacement rate of three percentage points, closing part of the gap with the OECD average. However, in international comparison, low life expectancy in Latvia might signal a lower health-related capacity to work at the same age compared to other OECD countries.

By breaking down the contribution coming from the NDC and FDC, Table 4.4 shows how the future replacement rate in the baseline case varies with different assumptions regarding average real-wage growth and annual real rate of return on financial assets. The central assumption in the OECD pension model for all countries is 1.25% and 3%, respectively. Through this exercise the other economic assumptions related to the real discount rate of 2% and the inflation rate of 2% are left unchanged. Based on central assumptions used in *Pensions at a Glance*, the 47.5% replacement rate comes from a contribution of 25.1 percentage points from the NDC scheme and 22.3 percentage points from the FDC.[13] As these are based on contribution rates of 14% and 6%, respectively, the contribution from the NDC component is relatively modest due to the impact of the decline in the labour force, which is assumed not to affect the return of the FDC scheme.

The impact of productivity growth assumption, which is reflected in the wage growth assumption, on the replacement rate of the NDC component is zero. Indeed, higher wage growth increases pensions proportionally due to valorisation of NDC accounts, which leaves replacement rates unchanged. However, with unchanged financial returns, replacement rates from the FDC scheme falls with higher wage growth as the key parameter here is the difference between the rates of financial returns and wage growth (OECD, 2015, Chapter 4). With a real-wage growth rate of 2.75% more in line with assumptions used for the EC Pension Adequacy Report, the contribution of the FDC component falls by about one-third from 22.3% to 15.5%.

Moreover, a real-wage growth of 2.75% implies a growth in the real-wage bill of 1.75% given the projected fall in the working age population, which is the real-GDP growth rate when assuming a stable wage share in GDP. This would be more consistent with a similar level of the domestic rate of financial return, which would then put the FDC contribution close to 12.5%. While these assumptions of 2.75% for real-wage growth and about 2% for the real rate of return would lead to a much lower total replacement rate of 38%, the contributions of the NDC and FDC components will be more aligned with the respective contribution rates. In short, the comparison of effective returns in NDC and FDC depends on the specific assumptions made regarding the various parameters. As discussed in Chapter 5, however, if properly designed the FDC component might achieve a larger real average return than 2% per year.

Table 4.4. **Sensitivity of replacement rates to real-wage growth and real financial returns assumptions**

Gross theoretical replacement rates, baseline case

rate of return→	NDC	FDC				Total			
wage growth↓	-	1%	2%	3%	4%	1%	2%	3%	4%
0.50%	25.1%	16.5%	21.0%	27.2%	35.5%	41.6%	46.1%	52.3%	60.7%
1.25%	**25.1%**	13.9%	17.5%	**22.3%**	28.9%	39.0%	42.6%	**47.5%**	54.0%
2.00%	25.1%	11.8%	14.7%	18.5%	23.7%	36.9%	39.8%	43.6%	48.8%
2.75%	25.1%	10.1%	***12.5%***	15.5%	19.6%	35.3%	***37.6%***	40.7%	44.7%

Source: OECD pension model.

StatLink http://dx.doi.org/10.1787/888933657486

As there is a close link between pension contributions and benefits, there is no progressivity in the Latvian pension for full-career workers. The projected net replacement rate for low earners – full-career with half the average wage – is similar to that for high earners – twice the average wage (Chapter 2). In the OECD a low earner can expect a net replacement rate 14 percentage points higher than a high earner on average. The difference in the net replacement rates between low and high earners is larger than 10 percentage points in 16 OECD countries (OECD, 2017). Overall in Latvia, low earners can therefore expect even after a full career a pension close to 30% of the net average wage only (Chapter 2).

4.6. Conclusion and policy recommendations

The introduction of the NDC earnings-related scheme as part of the pension system reform in 1996 was successfully implemented. Pensions became a transfer of one's own resources from working years to financing consumption in retirement while relying on pay-as-you-go financing. The difficult transitional issues involved in moving into the almost universal pension scheme were managed well by the government and pensions' administration. This happened in a context where the point of departure was the dysfunctional Soviet pension system, with low pension ages and a plethora of separate rights for "special" groups, usually providing justification for retirement earlier than the normal retirement ages of 55 for women and 60 for men.

While the Latvian NDC scheme can be enhanced through some technical adjustments, which are summarised below, it generally meets its objective of delivering, in a financially sustainable way, pension benefits that are commensurate to contributions levels within a pay-as-you-go scheme facing challenging demographics. For full-career workers, there is a close relationship between past earnings and NDC pensions such that there is no progressivity. Redistribution operates through adds-in which are financed by general government resources. For example, social insurance budget pays pension contributions for periods when social benefits – such as maternity, unemployment, sickness or disability – are claimed. The coverage and extent of these add-ins is a political choice.

According to demographic projections, the size of the working-age population will be in a downward trend for the next decades. A declining labour force lowers the internal returns of pay-as-you-go pensions, and NDC schemes ae not immune. Projected low fertility rates and high emigration of the young working-age population will continue to be a challenge for Latvia. As opposed to the past 20 years, a continued outflow of the working-age population can no longer be balanced by an increase in the "formal" labour force. The challenges that go well beyond the realm of pension policies are to provide a supportive environment to increase the birth rates and take up the challenge to foster a labour market that offers sufficient opportunities to young working-age Latvians so as to lower the share of the working-age population projected to emigrate in the coming decades.

The current legislation specifies a gradual increase in the retirement age up to age 65 in 2025. What remains, however, is to chart out the path for the period beyond 2025. Linking the official retirement age to life expectancy is the best solution to lessen political pressure in dealing with increasing longevity. With NDC schemes, higher life expectancy does not threaten financial sustainability. It is automatically reflected in lower benefits at the same retirement age while providing financial incentives to postpone

retirement. However, if the official retirement age does not keep pace, many people might retire too early with too low pensions.

The ratio of NDC expenditures to the contribution base is projected to exceed the 14% contribution rate presently allocated for NDC revenues from around 2025. This ratio is projected to be around 16.5% in 2035, and then gradually fall back to 14% in the 2050s. So far, NDC pension liabilities have been accumulated based on an NDC contribution rate higher than 14% for most of the time. Financial costs result from the conversion of pension rights from the Soviet area while unfunded liabilities will materialise with the building-up of the FDC scheme and might need to be covered by general government revenues. Indeed, as various recent experiences have shown, the move from a pay-as-you-go to a funded pension scheme generates imbalances and transition costs.

Moreover, frequent changes in the distribution of the 20% contribution rate between NDC and FDC is detrimental. It creates uncertainty which typically makes people feel insecure about their retirement prospects. This in turn undermines the trust individuals have on the ability of the pension system to deliver adequate outcomes. In order to implement such a shift between NDC and FDC efficiently, transparency is needed about the medium-term burden for public finances as implicit pension liabilities steadily become explicit. Such a clear, needed communication about transition costs is part of the assessment about whether there is public support for changing the source of finances towards a larger funded part.

However, while the stability of the 14% contribution rate for NDC pensions is crucial at the current stage in Latvia, it is still possible to increase the FDC contribution rate if there is a political willingness to improve pension income prospects. As shown in the simulations in the previous section, demographic and economic projections in Latvia imply that any increase in the contribution rate should be allocated to FDC schemes provided that the main recommendations to improve them in Chapter 5 are taken on board.

The financial stability of the NDC scheme would be enhanced by some technical adjustments in the formula used to compute pension benefits from the accumulated capital in notional accounts. The indexation of pensions in payment should be based on the same rate of return that is used to valorise notional accounts, i.e. the growth rate of the wage sum. Currently, only part of the increase in the real growth of the wage sum is reflected in pension payments while, on top of this, the formula is complex. Moreover, to avoid creating biases by underestimating the average duration of benefit payment, cohort instead of period life expectancy should be used based on the guidelines provided by OECD (2014). These adjustments will reduce the gap between contribution revenues and pension payments over time, and actually help making the expected gap close to zero. However, random noise will always exist, and the general government budget can continue to be used as the buffer fund.

Yet, creating a formal NDC sub-fund within the total pension fund in the form of an accounting procedure would improve both transparency and the monitoring of NDC finances. This means providing an accounting structure consisting of the estimated liabilities and “contribution” assets of the NDC pension scheme. This structure also makes it possible to introduce a balancing mechanism in a second step, once the full accounting structure has been established.

In as much as a formal accounting isolating the NDC scheme enhances pension management, the current practice of mixing NDC and FDC annuities through the choice left to new retirees to convert their FDC funds into an NDC annuity is problematic. Principles are totally different between the two schemes. In both cases, the pricing of annuities is guided by actuarial rules, but in FDC this is based on market rates while in NDC this is based on internal rates which are on purpose disconnected from financial markets. In short, NDC annuities cannot be separated from the whole nexus of the NDC accumulation phase. The current conversion either means that opting for the NDC annuity is costly for the public purse if NDC annuities are cheaper or for the retirees – then making a bad choice – if they are in fact more expensive overall. However, if the private annuity market does not function well (see Chapter 5) then until remedies are found, the state can step in as an alternative annuity provider, but this function should be kept separate from the NDC scheme.

- Link the official retirement age to future life expectancy gains.
- Stabilise the contribution rate going to NDC pension to 14%. If the decision to improve future pension prospects is taken, this should be achieved through increasing the contribution rate to the FDC scheme provided that the main recommendations in Chapter 5 are implemented.
- Index fully the NDC benefits in payment to the nominal growth of the contribution base.
- Adopt a methodology to estimate cohort life expectancy and use it in the annuity divisor instead of period life expectancy.
- Create an accounting NDC sub-fund within the (special) pension budget to record NDC assets and liabilities.
- Remove the option to convert the FDC accounts into an NDC annuity. The State could still provide annuities for the FDC scheme as needed, but the pricing might not be the same as for the NDC annuity, and in any case this function should clearly be separated from the management of the NDC scheme.

Notes

1. In the steady state, Samuelson (1958) show that in a two-period framework, the internal rate of return of a pay-as-you-go scheme is the growth rate of the wage bill. Settergren and Mikula (2006) derive a more general expression of the internal rate of return of pay-as-you-go systems and the conditions under which it coincides with the growth rate of the contribution base. This occurs under steady-state conditions in terms of workforce-age distribution and mortality rates. Palmer (2006) provides further details. Valdès-Prieto (2000) discusses the capacity the indexation in NDC pensions has of ensuring financial stability.

2. In addition, since the money within the birth-cohort-based pool of pensioners is redistributed according to the basic principle of insurance – i.e. from those whose life is less than average to those whose life is longer than average – the use of unisex life expectancy at retirement redistributes money from men, who on average die about five years earlier than women, to women. This is, in fact, the only redistribution of money within the NDC pension scheme.

3. The data behind the demographic projections are from the 2017 United Nations projections, which embody assumptions about the development of the total fertility rate and net immigration. The assumptions regarding the development of labour force participation, wages and prices are the most recent assumptions employed by the Social Insurance Department at the Latvian Ministry of Welfare used for the European Commission's Ageing Report 2015. The results presented in this chapter also embody the most recent legislation on the legal retirement age which will be raised further to 65 in 2025, with no planned increases after that.

4. The initial plan stated that when directing part of the contributions to FDC, the resources in NDC must be sufficient to cover the pensions for current pensioners.

5. The assumptions underlying the calculations presented in this chapter are those applied to "the case" of Latvia in the Latvian Ministry of Welfare's calculations for the European Commission's *Ageing Report 2015*.

6. The effect of the use of life expectancy in computing the pension can operate in two ways: first, for any given life expectancy factor, by postponing retirement, for example, a year or two, the yearly amount paid will increase. Secondly, as life expectancy increases the yearly benefit level available from a fixed age decreases. This mechanism provides an incentive to work longer in order to get the same payment as would have occurred prior to the change in life expectancy, all other things equal.

7. See endnote 1.

8. Friedrich Breyer pointed out some mistakes in the original paper by Valdès-Prieto (2000), which have been corrected (http://onlinelibrary.wiley.com/doi/10.1111/j.0347-0520.2004.00366.x/full).

9. Wage indexation was judged not to be affordable at the outset, since it was a challenge to simply finance total pensions inherited from the old Soviet system. During the first five years preceding the introduction of the NDC scheme, the government had been required to lower pension benefits to make ends meet, given an approximate fall in revenues of 30%. Consequently, in the late 1990s (1997-1998), in order to compensate for the reduction of benefits and absence of indexation in the years 1990-1995, the government granted an extra ad hoc indexation of all pensions at the time greater than the indexation warranted by the growth of the CPI.

10. The difference between period and cohort life expectancy will be about one year in Latvia (OECD, 2017). The Latvian NDC pension formula results in pensions decreasing by around 5% when life expectancy (G-factor) increases from about 20 to 21 years.

11. This also recognises that those participants affected by the transition also hold a share in an NDC bond.

12. A comprehensive discussion with references to methods and a number of leading countries in this area is del Carmen Boado-Penas and Vidal-Meliá, (2013).

13. It is assumed (OECD, 2017) that the FDC accounts are transformed into an inflation-indexed annuity with a 2% real discount rate, 90% conversion factor and a cohort life expectancy. If instead the FDC balances are moved to the NDC scheme with the pension being calculated according to the NDC formula the future gross replacement rate for FDC drops from 22.3% to 20.7%.

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Annex

Latvia's demographics

The NDC public pension scheme is a pay-as-you-go pension scheme, and as such is sensitive to the demographic and economic developments of a country. The key population group is the working-age population, which itself reflects the development of the number of children born per female, i.e., the fertility rate, and net immigration into the country. The sum of persons working, together with their average wage, determines a country's contribution base and overall revenue-generating capacity. And, the rate of growth of real wages is determined by the country's capacity to produce more with given inputs, i.e., productivity, and the demand for the country's production. Latvia is an emerging economy, and as such, has a lot of room to both accommodate a growing labour force and realize productivity gains. And, as a part of the European Union and member of the EURO-group, Latvia has a large potential market for exports, and with a stable currency.

The demographic projections from the United Nations presented in this chapter, are clearly based on the assumptions that, first, the Latvian fertility rate will remain well below 2.1, and, second that net migration from the country will remain a more or less permanent feature for the foreseeable future. Clearly, this not a truth written stone. Instead, it is a development that in principle is possible to influence with creative economic and family policy. This section nevertheless focuses on the demographic background as foreseen in the most recent UN demographic projections.

Latvia's fertility rate

Both the United Nations and the EC Ageing Report contain population fertility rate projections, and the projections from these two organisations largely agree (Table A4.1): the projected fertility rates 2015-2060 are assumed to remain considerably short of the 2.1 births per female needed to reproduce the population. The projections assume a slight improvement in the total fertility rate from the present level of around 1.5 to about 1.75 by 2050. Needless to say, this is a help, but is not enough.

As shown above, Latvia maintained a fertility rate in the vicinity of 2.1 from 1950 to 1989, which was sufficient to reproduce the population. As the country regained independence in 1990 the economy entered a period of economic chaos marked by extreme economic uncertainty, and with this the total fertility rate began a long period of decline (Table A1.1). Total fertility plummeted from 2.1 children per female right before 1990 to around 1.2-1.3 children per female, where it stayed until around 2005. The beginning of the new century saw a period of high economic growth for Latvia – albeit interrupted by an extreme fall in GDP, including overall in employment and the country's wage sum by 33% in 2009-2011, and consequently the revenues of the pension system.

Latvia recovered relatively quickly from this with economic growth and employment opportunities, and, reflecting optimism, the total fertility rate climbed to 1.5 children per female, still well below the pre-1990 level, and the norm of 2.1 to maintain a stable demographic composition of the population.

The low fertility rates during the period 1990–2017 began and will continue to have repercussions on the working-age population twenty years later from around 2010. Importantly, even if the fertility rate were to improve more in the coming decade to 2030, this cannot provide a strong injection into the working age-population until 2050 and beyond.

Latvia's working-age population, 1950-2015, and future prospects to 2060

The working-age population declined by about 370 000 persons during 1990-2015 – i.e. by 23% in total, and at yearly rate of about 1%. And, the decline was the strongest (about 30%) among persons 20-39. With the steadily high fertility rate prior to 1990, including the peak years of 1975-1985, the population 20-39 should have remained unchanged, and, in fact, increased somewhat.

Table A4.1. **Latvian working-age population by age groups, 2015-2060**

1 000's of persons

year	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	20-64 (total)
2015	146	137	130	138	133	146	142	122	103	**1 198**
2020	115	138	131	125	133	128	139	132	110	**1 151**
2025	72	111	135	128	122	129	122	130	120	**1 068**
2030	82	71	109	133	125	118	123	115	119	**996**
2035	100	81	70	108	130	122	114	117	106	**948**
2040	96	99	80	69	106	127	118	108	108	**911**
2045	90	95	98	79	68	104	123	112	100	**869**
2050	83	89	94	97	78	67	101	118	105	**829**
2055	74	82	88	93	96	76	65	97	111	**780**
2060	70	73	81	87	92	94	74	62	91	**724**

Note. The change 2015-2060 is -0.3955. This is a rate of -0.9 % per year.

Source: United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2017 Revision.

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The combination of low birth rates from 1990 and continued net immigration of the working-age population will lead to a further decline in the working-age population 20-64 in the period 2015-2060 by an additional half million persons (Table A4.1). This is a continued rate of decrease of about 1% per year, with the greatest decline projected to come in the period 2020–2040.

The population 0–19 and 65+ from 2015

The development of the fertility rates is directly reflected in the growth of the population of persons age 0–19. The effect of the assumption of fertility rates of 1.5-1.6 in the coming decades is a steady decline the population under 20 years of age (Table A4.2). As time goes on the number of persons in each age group gradually decreases, and the number decreases from approximately 100 000 persons to approximately 75 000 persons during the period 2020-2060 – which is a total decrease of about 25%.

Table A4.2. **Projection of Latvian population 0–19 by age groups, 2015-2060**

1 000's persons

Year	0-4	5-9	10-14	15-19	0-19 (total)
2015	107	94	87	125	413
2020	99	106	88	77	370
2025	93	99	103	83	378
2030	86	93	98	102	379
2035	77	85	92	97	351
2040	72	77	85	91	325
2045	75	72	76	84	307
2050	77	74	72	75	298
2055	76	77	74	71	298
2060	72	76	77	73	298

Source: United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2017 Revision.

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As it turns out this segment of the population 65+ (Table A4.3) is projected to increase only slowly until 2035, when growth tapers off. Overall, the underlying rate of change in unisex life expectancy at birth is an increase in one year every ten years – from 74.7 in 2015-20 to 79.3 in 2045-50, which means that a potential fall is levelled off through increasing life expectancy.

Table A4.3. **Projections of the population 65+ by age groups, 2015-2060**

1 000's of persons

year	*65-69*	*70-74*	*75-79*	*80-84*	*85-89*	*90-94*	*95-99*	*65+*
2015	97	88	55	31	9	1	0	**282**
2020	89	79	63	32	12	2	0	**278**
2025	97	74	58	37	13	3	0	**282**
2030	106	81	55	35	16	3	0	**297**
2035	106	90	61	34	16	4	0	**311**
2040	95	90	69	39	16	4	1	**312**
2045	98	81	70	44	18	4	1	**316**
2050	91	84	64	46	21	5	1	**313**
2055	96	80	67	43	23	7	1	**316**
2060	102	84	64	46	22	7	1	**326**

Source: United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2017 Revision.

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Chapter 5

Mandatory and voluntary funded defined contribution schemes

This chapter focuses on the funded components of the Latvian pension system. It examines both the mandatory and the voluntary arrangements. It analyses coverage, contribution levels and the investment regime. It then considers the lack of competition in the pension industry and the high fees charged to plan members. It also discusses issues related to the options offered to members once they reach retirement age and the communication with plan members. The chapter concludes with some recommendations.

Note: 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.

Latvia has two funded pension arrangements that complement the pay-as-you-go notional defined contribution system: the mandatory state-administered funded defined contribution scheme and voluntary private pension funds. The administration of the pension accounts in the mandatory scheme is the responsibility of the State Social Insurance Agency. The asset management is handed over to 9 private investment management companies (also called asset managers) that offer 23 different investment plans with different risk profiles. In the voluntary arrangement, individuals can choose from 18 investment plans offered by 6 pension funds.[1] Asset managers in the mandatory funded pension scheme and voluntary private pension funds are subject to different regulations.

This chapter examines the funded components of the Latvian pension system and argues that there is room to improve their design. The chapter considers the different facets of both components as regards coverage, contribution levels, investment regime, competition, fees, retirement phase and communication with plan participants, and assesses their success using international comparisons as benchmarks. The chapter ends with some policy options on how to improve the design of the mandatory and voluntary funded pension schemes. The policy messages draw from the OECD Roadmap for the Good Design of Defined Contribution Pension Plans and the OECD Core Principles of Private Pension Regulation (OECD, 2012, 2016a).

5.1. Coverage and contribution levels

Mandatory funded pension scheme

The mandatory funded pension scheme has reached a universal coverage of the working-age population even though the system is mandatory only for individuals born after 1 July 1971. At the end of Q3 2017, there were 1 268 265 participants in the scheme.[2] Of those, 35.9% have joined voluntarily.

Some of the participants are non-active. Non-active participants are individuals who are not currently paying contributions to the system but have done so in the past, and thus retain deferred rights. These include individuals who have moved to the informal sector or have emigrated. They also include the long-term unemployed. Non-active participants represented 22.2% of all participants at the end of 2016. The share of active participants has declined sharply during the economic crisis, from 89% in 2007 to 75% in 2011. Since then, the proportion of active participants has increased, but still remains well below pre-crisis levels.[3]

Individuals contribute 6% of earnings to the mandatory funded pension scheme. Of the total social insurance contribution, 35.09% of earnings as of January 2018, 20% of earnings finance both the mandatory pay-as-you-go (PAYG) notional defined contribution (NDC) and the mandatory funded schemes. The distribution of that total pension contribution between the two schemes has however varied over time. When the mandatory funded pension scheme was introduced in 2001, the contribution rate to the mandatory funded pension scheme was initially set to increase from 2% to 10% by 2010 when the total pension contribution rate of 20% would have been equally divided between the NDC and the funded schemes. In May 2009, a law temporarily reduced the contribution rate to the funded scheme from 8% to 2%. Since the total pension contribution rate of 20% of earnings remained the same, contributions to the PAYG NDC scheme increased proportionally. The aim of this measure was to reduce the financial

pressure on the state budget and allow the government to meet its obligations to current pensioners under the PAYG scheme. Since 2013, the part of the total pension contribution flowing into the mandatory funded scheme has increased again, to reach 6% of earnings from 2016 onwards (see Table 5.1).

Table 5.1. **Legislated distribution of mandatory pension contributions between the NDC and funded schemes for participants born 2 July 1951 or later**

As a percentage of gross earnings

	Pay-as-you-go notional defined contribution scheme	Mandatory funded defined contribution scheme
2001-2006	18%	2%
2007	16%	4%
2008	12%	8%
2009-2012	18%	2%
2013-2014	16%	4%
2015	15%	5%
2016 onwards	14%	6%

Source: State Social Insurance Agency.

A solidarity tax applies to all individuals paying social insurance contributions whose income exceeds a ceiling of EUR 52 400 a year in 2017. Social insurance contributions are levied on total employment income, but, up to the end of 2017, those levied on the part of income above the ceiling do not accumulate pension rights (either notionally or financially). Instead, these contributions constitute the solidarity tax, which is part of the general budget. The solidarity tax was reformed in 2017 (new Tax Reform Law approved by the Latvian Parliament on 28 July 2017). As of 1 January 2018, contributions above the ceiling continue not to accrue rights in the NDC account, while ten percentage points of the contributions levied on the part of the income above the ceiling are transferred to the funded pension arrangements, with the following split:

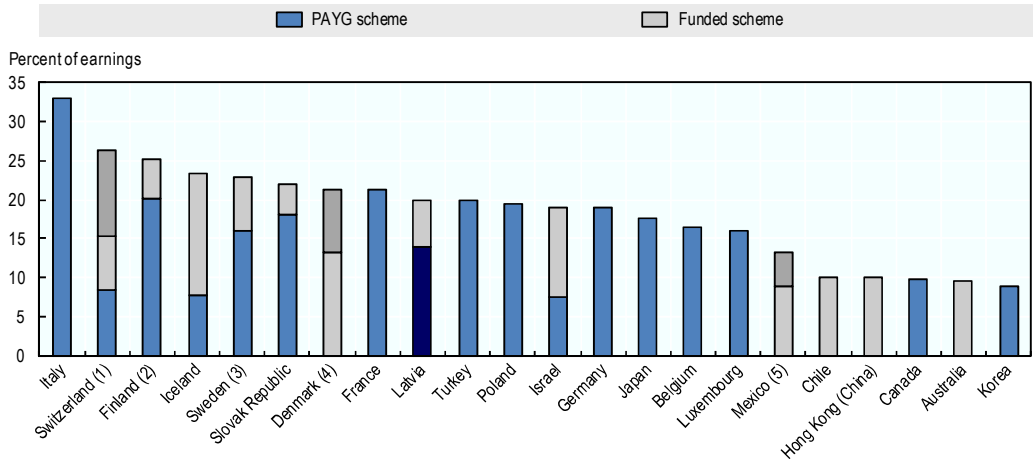
- if the individual is a member of the mandatory funded pension scheme: six percentage points to the mandatory funded pension scheme and four percentage points to the voluntary private pension plan chosen by the individual
- if the individual is not a member of the mandatory funded pension scheme (i.e. someone born before July 1971 who did not joined voluntarily the funded scheme): ten percentage points to the voluntary private pension plan chosen by the individual.

The total contribution rate to the Latvian mandatory pension system (both NDC and funded schemes) is in the middle of the range of selected countries.[4] Figure 5.1 shows contribution rates to mandatory pension systems, either PAYG-financed or funded, in a selection of countries. In some countries, contributions to the funded pension system depend on different factors, such as age (e.g. Switzerland), income (e.g. Sweden) or sector (e.g. Mexico). The graph shows the full range of pension contributions (the minimum contribution to funded schemes is in light grey and the maximum is the sum of light and dark grey bars). Total mandatory pension contributions range from 9% of earnings in Korea, where the mandatory pension system is only PAYG-financed, to 33% of earnings in Italy. The average contribution rate tends to be higher in countries with a

mixed system (22%) than in countries with PAYG-financing only (18%) and countries with funded pensions only (11%).[5]

Figure 5.1. **Mandatory pension contributions in selected OECD and non-OECD countries**

As a percentage of earnings



Notes: The minimum contribution rate to funded schemes is in light grey and the maximum is the sum of light and dark grey bars. (1) The contribution rate to mandatory occupational plans varies across age groups, from 7% between 25 and 34 years old to 18% beyond 55 years old. (2) Employers contribute 18% of their monthly payroll and employees younger than 53 contribute 5.7% of their gross monthly earnings (7.2% for employees aged 53 and above). Part of those contributions goes to the pre-funded part of the system (around 20%). The graph shows the contribution rate for employees aged above 53. (3) Contribution rates to quasi-mandatory occupational plans vary according to the income level: 4.5% for earnings under 7.5 income base amount (IBA) and 30% for earnings over 7.5 IBA. The graph shows the contribution rate for the average earner which has earnings below 7.5 IBA. (4) Contribution rates to quasi-mandatory occupational plans vary between 12% and 20% of wages depending on the income level. (5) The contribution rate is higher for public sector workers than for private sector workers. It includes state contributions and the social quota for workers with a wage equivalent to 3 times the minimum wage.

Source: ISSA Social Security Country Profiles.

StatLink http://dx.doi.org/10.1787/888933657562

Unfortunately, some workers contribute less than 20%, while others do not contribute at all. First, the calculation of social insurance contributions is different for employees in micro-enterprises from that for employees in larger enterprises.[6] Micro-enterprises pay a 15% tax on turnover. Of that tax, 70.4% is used to calculate social insurance contributions. That amount is then proportionally distributed between the employees according to their respective income for the different types of social insurance benefits (old-age, unemployment, sickness, disability, etc.). According to the State Audit Office, social insurance contributions collected for employees in micro-enterprises do not reach even one third of the contributions made for other employees receiving the same remuneration. Second, self-employed persons can freely select the income subject to social insurance contributions, and do not need to contribute if that income is lower than the minimum wage, EUR 4 560 a year in 2017. Third, individuals receiving royalties (e.g. journalists) do not pay social insurance contributions on those royalties. In 2016, 16 430 persons have worked as self-employed (1.3% of the working-age population) and 117 650 persons have worked in micro-enterprises (9.4% of the working-age population), at least

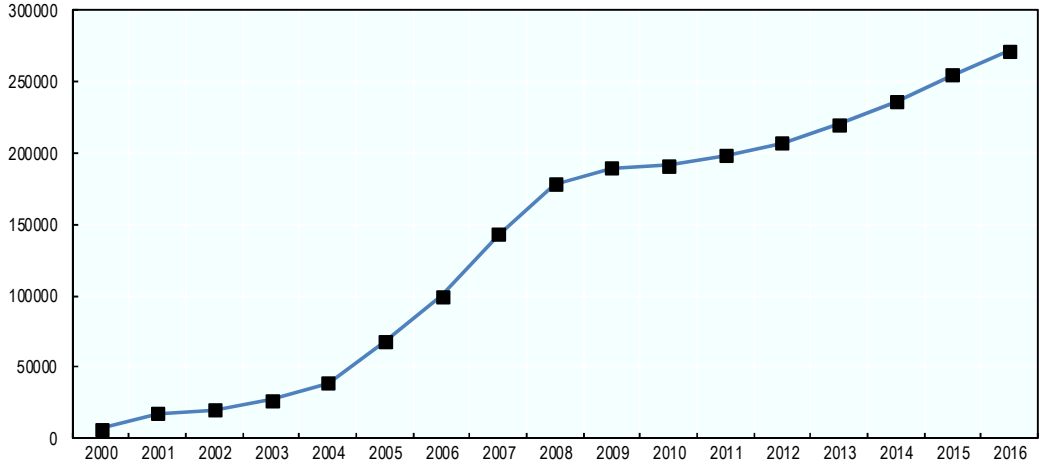
once during the year. Therefore, many people pay no or low social insurance contributions, translating eventually into lower pension benefits from the mandatory pension system.

The new Tax Reform Law to some extent improved the situation as of 1 January 2018. It increased contributions to the pension system for those categories of workers, although their contributions remain below those paid on behalf of employees. Indeed, for employees in micro-enterprises, the part of the tax on turnover that is used to calculate social insurance contributions increased from 70.4% to 80%. Self-employed persons with an income below the minimum wage have to contribute at least 5% of their annual taxable income to the NDC scheme. For those earning more than the minimum wage, the social insurance contribution rate is 32.15% for the part of income up to the minimum wage (financing pensions, invalidity, maternity, sickness and parental insurance) and 5% for the part of income above the minimum wage (financing pension insurance only and split between the NDC and funded schemes).[7] As for individuals receiving royalties, a new 5% pension insurance contribution is paid to the NDC scheme. If the royalty receiver's income is above the minimum wage, the social insurance contribution rate is 32.15%.[8]

Voluntary private pension funds

The membership of the voluntary private pension system has been growing since its introduction in 1998. As of the end of Q3 2017, there were 280 980 participants. As shown in Figure 5.2, the voluntary private pension system has gained popularity between 2005 and 2008, which was a period of favourable macroeconomic developments (GDP growth and wage growth). The rate of increase in the number of participants is lower since then, for example 6.7% between 2015 and 2016.

Figure 5.2. **Number of participants in voluntary private pension funds, 2000-2016**



Source: Financial and Capital Market Commission.

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The coverage rate of voluntary private pension funds was 21.7% of the working age population at the end of 2016. However, active members only represented 11.7% of the

working-age population.[9] Participants in voluntary private pension funds can be split between three categories: active members making contributions (54% of all participants), deferred members who have left the pension plan but retain deferred rights (30%) and retired persons who have reached their retirement age and receive programmed withdrawals (16%).

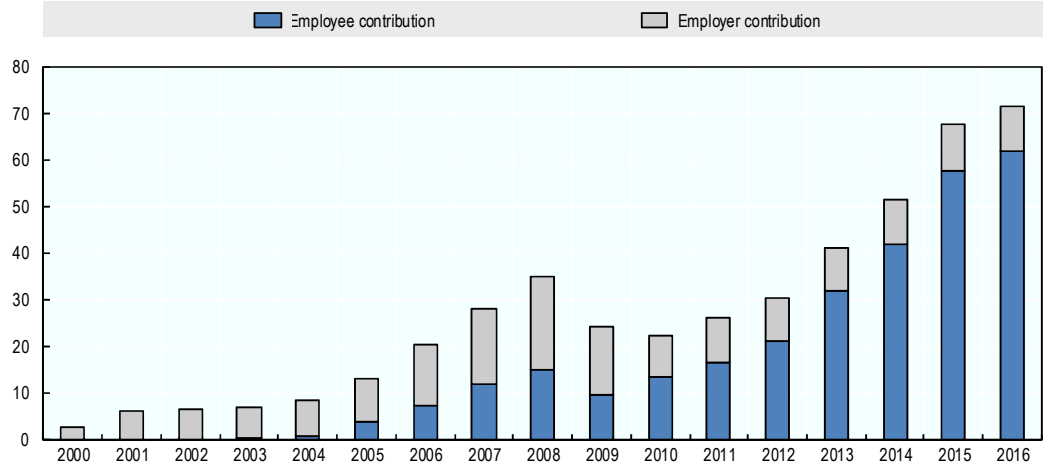
Participation in voluntary private pension funds can be established through personal or occupational plans. Personal plans are offered by open private pension funds and have no restrictions on membership. Occupational plans can be offered by employers in open or closed funds, with membership in a closed occupational fund limited to employees of a specific employer. Although there are regulations for defined benefit plans or defined contribution (DC) plans offering guarantees, in practice, only DC plans with no guarantees are offered by private pension funds in Latvia where all the risks are borne by members. Currently, there are 5 open pension funds providing 17 different pension plans and 1 closed pension fund offering 1 pension plan.[10]

Occupational pension plans are underdeveloped in Latvia and mostly offered by large employers. About 900 large employers offer an occupational pension plan. At the end of 2016, only 18% of all participants in the voluntary private pension system were in an occupational pension plan (including 5% in the closed pension fund).

Contributions to the voluntary funded system remain low despite an increasing trend. The total amount contributed to voluntary private pension funds in 2016 reached EUR 71.8 million, of which 13% was paid by employers. The average annual contribution level per active participant's account (including contributions by participants and contributions by employers) was EUR 488 in 2016, representing around 5% of the average annual gross wage only. The contribution level has significantly increased over time (Figure 5.3). However, since 2010, employer contributions have remained constant just below EUR 10 million and only the part paid by individuals has increased.

Figure 5.3. **Contributions to voluntary private pension funds, 2000-2016**

In millions of Euros



Source: Financial and Capital Market Commission.

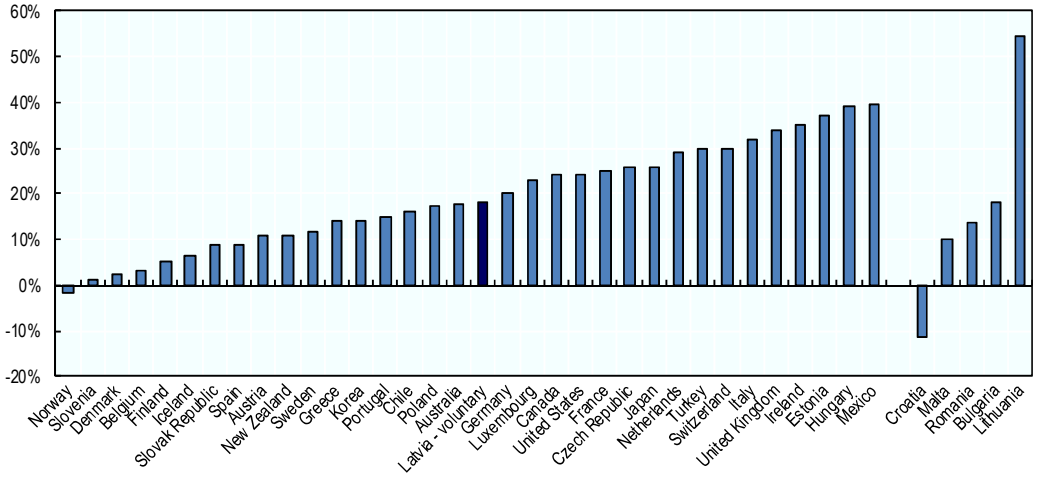
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The new Tax Reform Law reduces tax incentives for contributions to voluntary private pension plans for high-income earners. Contributions are tax deductible up to 10% of the individual's annual taxable income. Employer contributions are counted as income to the employee and are therefore deductible within the limit mentioned above. Up to the end of 2017, the overall tax deductibility when incorporating insurance premiums could not exceed 20% of income.[11] In January 2018, the joint limit for contributions to private pension funds and insurance premiums fell from 20% to 10% of the individual's annual taxable income, with a cap at EUR 4 000. This reduces the amount that high-income earners can contribute tax free. The tax treatment of returns and withdrawals has not changed. Returns on investment are taxed at 10%. Withdrawals are partially taxed as pension income from employees' contributions is tax free while pension income from employers' contributions is taxed at the individual's marginal income tax rate. Some studies suggest that reducing tax incentives reduces individuals' participation in the affected plans (Harju, 2013; Chetty et al., 2014).

This tax treatment leads to a tax advantage for individuals, putting Latvian voluntary private pension plans in the middle of the range when compared to other voluntary arrangements in OECD and EU countries (Figure 5.4). An individual contributing to a voluntary private pension fund rather than to a traditional savings account would save in taxes paid, over his/her lifetime, an amount equivalent to 18% of the present value of all contributions made.[12]

Figure 5.4. **Tax advantage for individuals related to the tax treatment of voluntary retirement savings in OECD and EU private pension plans**

Taxes saved over a lifetime, as a percentage of the present value of contributions



Note: Average earner, main voluntary pension plan in each country.

Source: OECD (2016b) and authors' calculations based on rules applying in 2018 for Latvia.

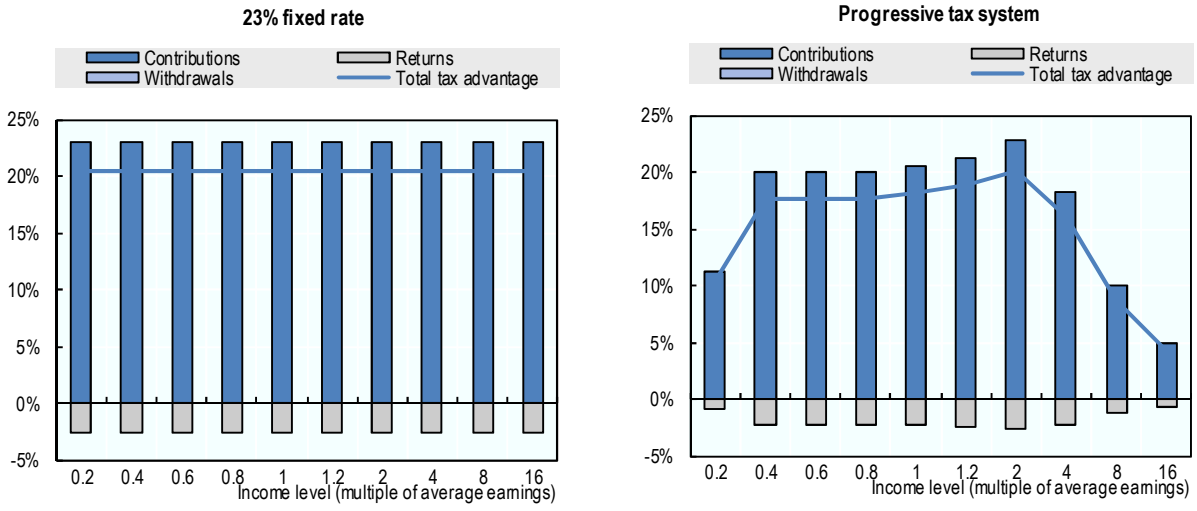
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In addition, the change to a progressive personal income tax system has removed the neutrality of the tax advantage with income. Up to the end of 2017, a fixed tax rate of 23% applied to all income sources. Since 1 January 2018, income up to EUR 20 000 is

taxed at 20%, income between EUR 20 000 and EUR 55 500 is taxed at 23% and income above EUR 55 500 is taxed at 31.4%. As shown in Figure 5.5, the amount saved in taxes paid does not vary with the income level of the individual under the tax rules that applied up to the end of 2017. With a progressive income tax system, the tax advantage on contributions first increases with income due to the tax deductibility of contributions. Indeed, the tax that would have been paid on contributions made into a traditional savings account increases as the individual reaches higher income tax brackets. The cap of EUR 4 000 on the tax deductibility of contributions then reduces the tax advantage for higher-income earners because they are more likely to contribute over the limit and to pay taxes on excess contributions.

Figure 5.5. **Tax advantage for individuals related to the tax treatment of Latvian voluntary private pension funds, by income level and personal income tax system**

Taxes saved over a lifetime, as a percentage of the present value of contributions



Source: Authors' calculations based on tax rules applying in 2017 (23% fixed rate) and in 2018 (progressive tax system and cap on deductible contributions).

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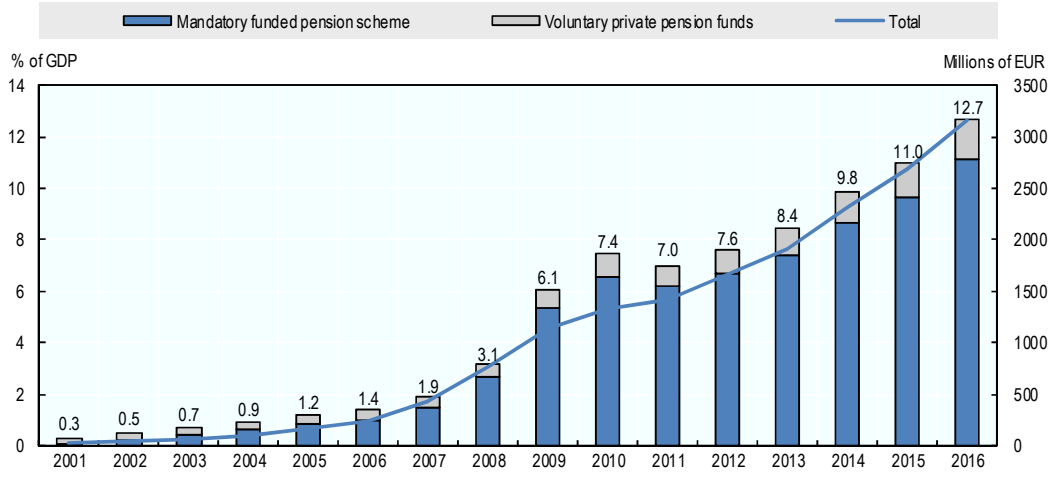
5.2. Investment regime

Assets under management

The Latvian funded pensions market is relatively small. Total assets under management represented only 12.7% of GDP at the end of 2016, split between 11.1% of GDP for the mandatory funded pension scheme and 1.5% of GDP for voluntary private pension funds (Figure 5.6). The growth of the market would have been higher had the government maintain its commitment to increase the contribution rate to the mandatory funded pension to 10% instead of reducing it to only 2% between 2009 and 2012. The fall in GDP between 2008 (EUR 24.3 billion), 2009 (EUR 18.8 billion) and 2010 (EUR 17.9 billion) explains why assets expressed with respect to GDP grew faster than assets expressed in Euros during these years.

Figure 5.6. **Assets under management in the Latvian funded pension system, 2001-2016**

As a percentage of GDP and total in millions of Euros



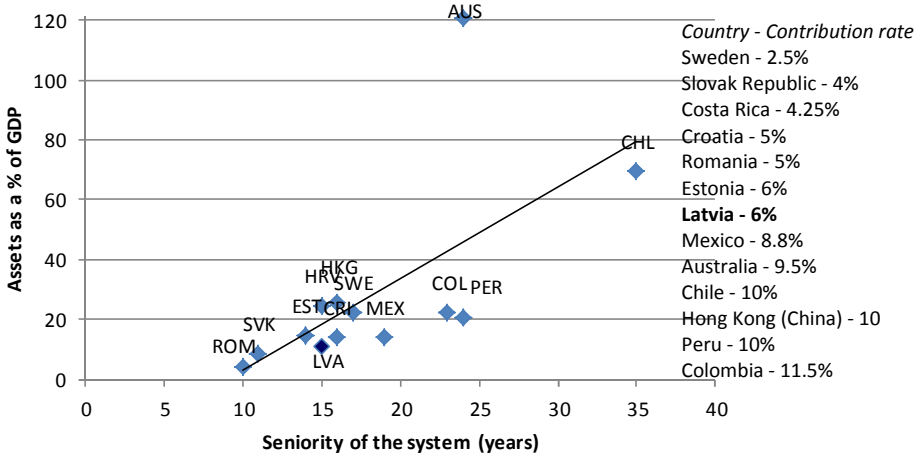
Source: OECD Global Pension Statistics.

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The Latvian system lags slightly behind other countries in terms of assets under management after 15 years of operations. Indeed, Figure 5.7 compares the mandatory funded pension scheme to other similar systems in selected OECD and non-OECD countries (i.e. mandatory DC funded pension systems). The two parameters that may explain this are the contribution rate and the average investment performance.

The contribution rate of the mandatory funded pension scheme in Latvia tends to be lower than in other countries. It is currently 6%, but was as low as 2% during certain periods, while the average contribution rate in the countries presented in Figure 5.7 is 7.1%.

Figure 5.7. **Assets under management and seniority of the mandatory funded DC pension system in selected OECD and non-OECD countries, 2016**



Source: OECD Global Pension Statistics.

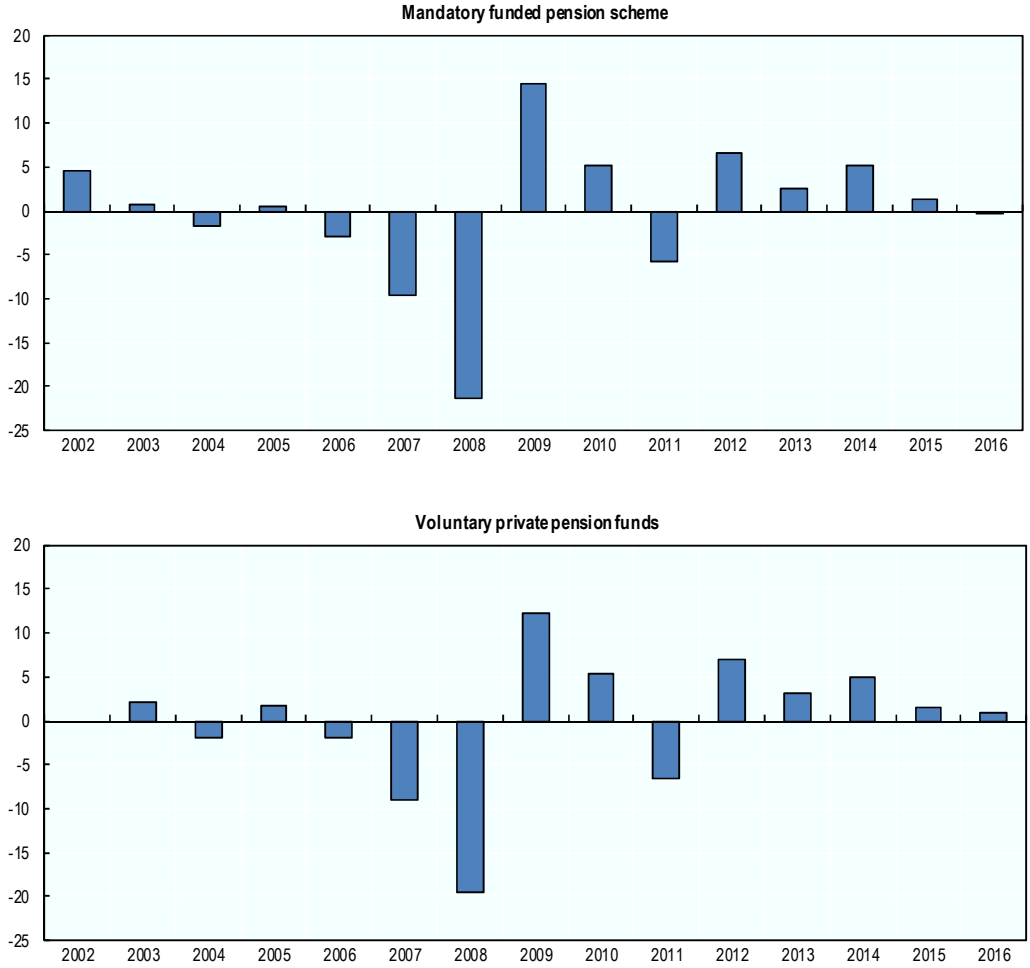
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Investment performance

The average real performance of asset managers in the mandatory funded pension scheme over the last five years was positive at 3.1% (December 2011 - December 2016). It was however slightly negative over the last 10 years (-0.6%) and the last 15 years (-0.4%), as shown in Figure 5.8. Voluntary private pension funds also achieved a positive 5-year average real return, at 3.5%, but over the last 10 years (December 2006 - December 2016) their performance was slightly negative, at -0.4%. It is important to continue monitoring the investment performance of funded arrangements, as what really matters for future pension benefits is the long-term performance, over 20, 30 and even 40 years.

Figure 5.8. **Real investment rates of return, net of investment expenses, 2002-2016**

In per cent



Note: Real investment rates of return are calculated as the ratio between the net investment income at the end of the year and the average level of assets during the year, and using the variation of the end-of-year consumer price index.

Source: OECD Global Pension Statistics.

StatLink http://dx.doi.org/10.1787/888933657695

So far, the average nominal returns achieved in the mandatory funded pension scheme have been lower than the rates at which the NDC capital has been valorised. The notional capital in the NDC scheme is valorised every year according to changes in the sum of all wages in the economy subject to social insurance contributions. That index has been negative only three years since 1996, between 2009 and 2011, due to large emigration combined with increased unemployment and wage cuts. Outside this period, the index has been largely positive, leading to an average indexation of the notional capital of 6.8% over the last 5 years to December 2016 (compared to 3.9% average nominal return in the funded scheme), 6.6% over the last 10 years (2.6%) and 9.5% over the last 15 years (3.5%).

As shown in Table 5.2, the performance of the Latvian funded system is rather low in comparison with other countries over the 5 and 10 years to December 2016. The nominal return of the mandatory funded pension scheme reached 3.9% over the five years to December 2016, while on average, similar systems reached a nominal return of 6.1%. Among voluntary systems, only pension funds in Italy, Korea and the Czech Republic reached a lower performance than Latvian private pension funds.

Table 5.2. **Pension providers' nominal and real 5-year and 10-year geometric average annual return in selected OECD and non-OECD countries, as of December 2016**

In per cent

Country	5-year average		10-year average	
	Nominal	Real	Nominal	Real
Mandatory/Quasi-mandatory DC				
Costa-Rica	9.7	6.9	8.6	3.2
Colombia	7.9	3.6	10.3	5.8
Australia	7.7	5.8	5.3	2.9
Romania	7.6	6.4	..	..
Chile	7.3	3.9	5.5	1.8
Sweden	6.9	6.5	..	..
Denmark	6.0	5.1	5.4	3.8
Peru	6.7	3.3	5.5	2.1
Israel	6.4	6.0	5.5	3.6
Mexico	5.7	2.3	5.8	1.8
Switzerland	4.9	5.3	2.5	2.4
Bulgaria	4.8	4.5	2.3	-0.5
Estonia	4.3	3.2	1.1	-1.8
Latvia - mandatory	3.9	3.1	2.6	-0.6
Hong Kong, China	3.6	0.3	..	..
Slovak Republic	2.4	1.7	1.3	-0.4
Mandatory/Quasi-mandatory DB				
Netherlands	8.2	6.7	5.5	3.8
Iceland	7.9	5.2	5.5	0.3
Finland	6.4	5.3	..	..
Voluntary				
Serbia	11.2	7.1	8.1	1.7
Canada	8.3	6.9	5.2	3.5
Turkey	8.3	0.5	10.6	2.3

Table 5.3. **Pension providers' nominal and real 5-year and 10-year geometric average annual return in selected OECD and non-OECD countries, as of December 2016** *(cont'd.)*

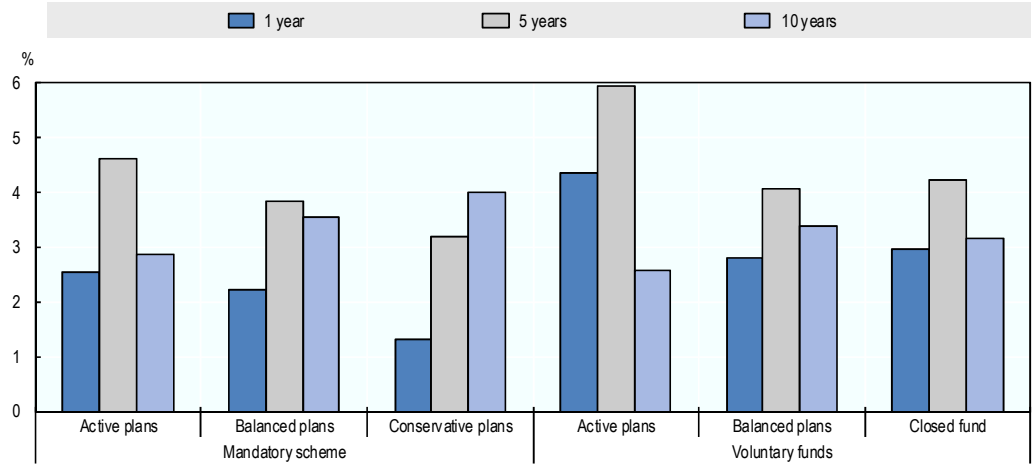
In per cent

Country	5-year average		10-year average	
	Nominal	Real	Nominal	Real
Hungary	8.1	6.6	..	..
Belgium	7.8	6.5	4.6	2.6
Norway	6.9	4.6	5.1	2.9
Slovenia	6.7	5.9	7.0	5.2
Lithuania	6.0	5.1	..	..
Austria	5.3	3.7	2.5	0.5
United States	5.1	3.7	1.5	-0.3
Spain	5.0	4.2	..	..
Luxembourg	5.0	3.9	2.7	0.9
Portugal	4.7	4.1	2.4	1.2
Latvia - voluntary	4.3	3.5	2.9	-0.4
Italy	4.2	3.5	3.0	1.5
Korea	3.5	2.3	4.2	1.8
Czech Republic	1.5	0.3	1.9	-0.2

Source: OECD Global Pension Statistics.

Performance by type of investment plan varies according to the period analysed. Participants in the mandatory funded pension scheme and in voluntary open pension funds can choose to invest their contributions in different investment plans with varying risk exposures. Three categories of investment plans exist: active, balanced and conservative. Each asset manager and pension fund can offer one or more investment plans of each type and are not obliged to offer all types of plans. The largest performance in 2016 was achieved by active plans on average, followed by balanced and conservative plans (Figure 5.9). However, when looking at performance over the last 10 years, the ranking is reversed. The largest performance was achieved by conservative plans on average (4.0%), followed by balanced plans (3.5% in the mandatory scheme and 3.4% in voluntary funds) and active plans (2.9% in the mandatory scheme and 2.6% in voluntary funds).

Figure 5.9. **Weighted average performance (nominal) by type of investment plan, as of December 2016**



Note: Average performance weighted by total assets in each investment plan at the end of 2016.

Source: My pension website.

StatLink http://dx.doi.org/10.1787/888933657714

Investment performance is the result of asset allocation strategies, themselves potentially constrained by quantitative investment limits.

Investment allocation

Active investment plans are the preferred choice of participants in the mandatory funded pension scheme. At the end of Q3 2017, 64.5% of assets of the mandatory funded pension scheme were invested in active plans, 10.5% in balanced plans and 24.9% in conservative plans. Among voluntary open pension plans, 56.5% of the assets were in a balanced plan and 43.5% in an active plan.[13]

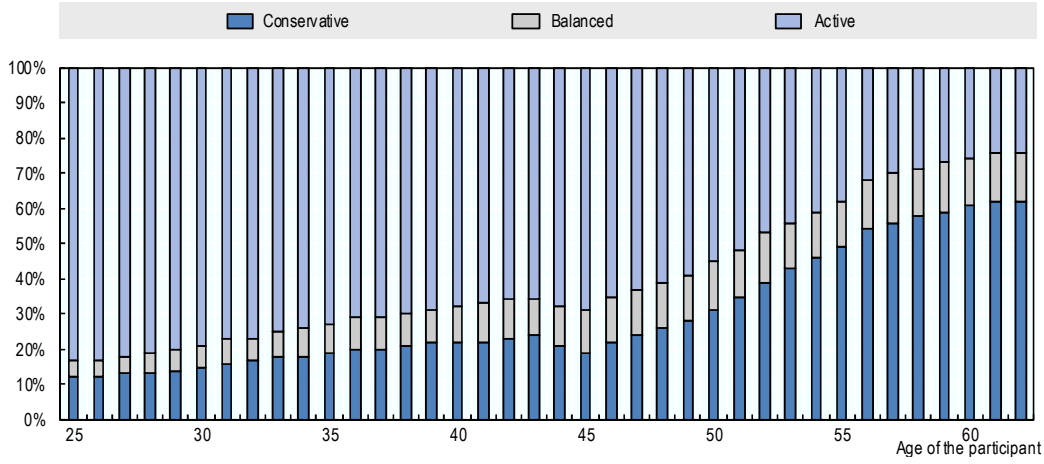
It is recommended to individuals who have 10 years or less until retirement to transfer from active to conservative investment plans. However, there are no life-cycle investment strategies or approaches proposed to participants, in either of the systems. The fact that asset managers in the mandatory scheme do not know who their members are make it impossible for them to propose life-cycle investment plans on top of other types of plans.

Most participants in the mandatory funded pension scheme make an active investment choice which is consistent with a life-cycle approach. When entering the labour market, members who do not make an active investment choice are randomly allocated to one of the conservative investment plans as a default option. The risk with a conservative default is that, because of behavioural biases such as inertia and procrastination, individuals may remain in the conservative plan until retirement and miss out on potential higher returns. Fortunately, most people make an active investment choice in Latvia, as data show that only 25% of the members of the mandatory funded pension scheme had a conservative investment plan at the end of Q3 2017. In addition, Figure 5.10 shows that, as participants get closer to retirement, they tend to select one of the conservative or balanced plans. On average, participants in conservative plans are older (47.2 years old) than those in

balanced plans (45.8) and active plans (37.4).[14] However, more than 20% of participants older than 60 are in an active investment plan, which can invest up to 75% in equities since 1 January 2018. These people therefore run the risk of large losses just before retirement in case of a negative shock in stock markets, without having the time to recover from those losses.

Figure 5.10. **Distribution of participants in the mandatory funded pension scheme by type of investment plan and age, December 2015**

As a percentage of total participants



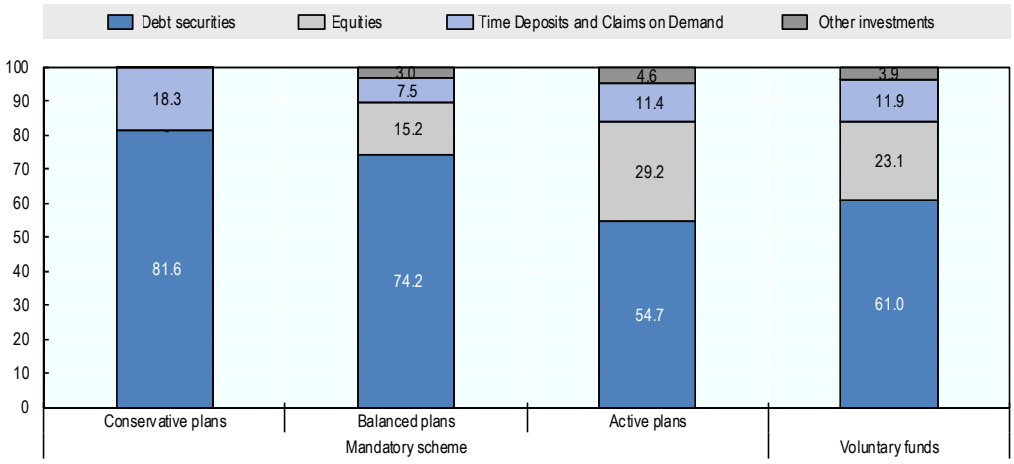
Source: State Social Insurance Agency.

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As shown in Figure 5.11, asset managers in the mandatory funded pension scheme and voluntary private pension funds invest primarily in debt securities or bills and bonds issued by public and private entities (64% and 61% of total investment respectively at the end of 2016). Equity investment is not allowed in conservative plans and represents 15% of the portfolio for balanced plans, 29% for active plans and 23% for voluntary pension funds. Other investments include time deposits, claims on demand, investment funds (other than fixed income and equity funds), risky capital and derivatives.

Figure 5.11. **Investment allocation of investment plans, December 2016**

As a percentage of total investment



Source: Financial and Capital Market Commission.

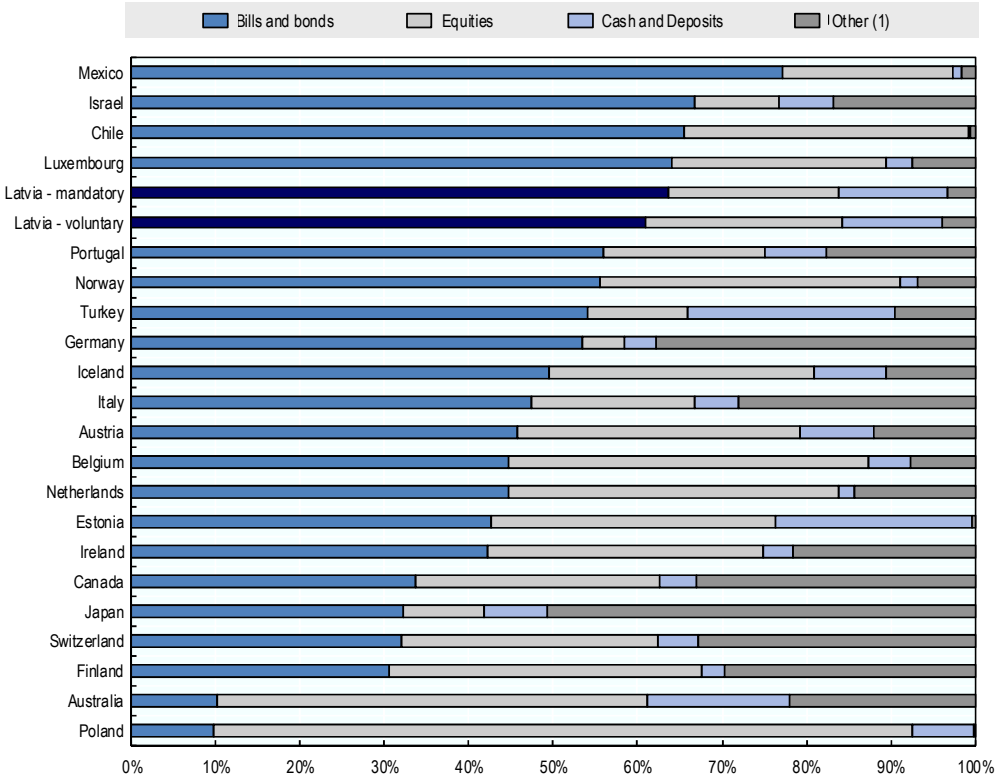
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The share of funded pension assets invested outside Latvia has steadily increased over time. At the end of 2016, foreign assets represented 66% of pension plans' portfolios in the mandatory scheme. Conservative plans invest less abroad (46%) than do balance plans (65%) and active plans (74%). Private pension funds invest slightly more abroad than do asset managers (71%). In addition, the bulk of foreign assets are issued by entities located in the European Economic Area (95% of all foreign investment), and in particular in Ireland (19%), Lithuania (20%) and Luxembourg (30%).

Latvian funded pensions are rather conservative when comparing with other countries. Out of 22 OECD countries represented in Figure 5.12, only pension providers in four countries had an allocation in bills and bonds greater than the one used by Latvian asset managers and private pension funds at the end of 2016.

Figure 5.12. **Investment allocation in funded and private pension arrangements in selected OECD countries, 2016**

As a percentage of total investment



Note: (1) The "Other" category includes loans, land and buildings, unallocated insurance contracts, hedge funds, private equity funds, structured products, other mutual funds (i.e. not invested in cash, bills and bonds, or equities) and other investments.

Source: OECD Global Pension Statistics.

StatLink http://dx.doi.org/10.1787/888933657771

Investment allocation does not seem to be much constrained by investment regulation. The mandatory funded pension scheme and the voluntary private pension funds are subject to different quantitative investment regulations (Table 5.4). Equity investment (Figure 5.11) is well below the regulatory limits: 29% for active plans (50% limit), 15% for balanced plans (25% limit) and 23% for voluntary plans (no limit).[15] In addition, although asset managers can invest up to 30% of their assets in instruments issued in foreign currencies (10% in a single currency), at the end of 2015, only 1.4% of the assets were denominated in a foreign currency.

Table 5.4. **Quantitative investment limits, 2016**

		Mandatory funded pension scheme	Voluntary private pension funds
Asset class limits	Equity	50% total exposure for active plans (75% as of 2018), 25% for balanced plans and 0% for conservative plans	No limit
	Real estate	0%	15% direct exposure
	Bills and bonds issued by public administration	No limit	No limit
	Bonds issued by the private sector	No limit (listed bonds)	No limit
	Retail investment funds	No limit (UCITS)	No limit
	Private investment funds	10% direct exposure (non-UCITS)	No limit
	Loans	0%	0%
	Bank deposits	No limit	No limit
	Overall	At least 90% of all investments in financial instruments shall be invested in securities or MMIs traded on a regulated market	At least 70% of all investments in financial instruments shall be invested in securities or MMIs traded on a regulated market
Foreign investment limits	Equity	No specific limit for securities listed on a regulated market in OECD and EU/EEA	No specific limit for securities listed on a regulated market in OECD and EU/EEA
	Real estate	0%	0% outside EU/EEA
	Bills and bonds issued by public administration	- EU/EEA and OECD member states' bonds and MMIs with qualified rating: No limit; - Other countries' bonds and MMIs listed on a regulated market in EU/EEA and OECD: 10%; - Other countries: 0%	- EU/EEA and OECD member states' bonds and MMIs with qualified rating: No limit; - Other countries: 0%
	Bonds issued by the private sector	No specific limit for bonds and MMI listed on a regulated market in EU/EEA and OECD	No specific limit for securities listed on a regulated market in OECD and EU/EEA
	Retail investment funds	No limits (UCITS)	No limits (UCITS)
	Private investment funds	10% (non-UCITS)	10% (non-UCITS)
	Loans	0%	0%
	Bank deposits	- EU/EEA and OECD member states which are considered as countries applying supervisory and regulatory arrangements to credit institutions equivalent to those applied in the EU: No limit; - Other countries: 0%	- EU/EEA and OECD member states which are considered as countries applying supervisory and regulatory arrangements to credit institutions equivalent to those applied in the EU: No limit; - Other countries: 0%
	Foreign currency	- 30%; - Investments in currencies unmatched to the obligations in single currency: 10%	- 20%; - Net foreign exchange position in single currency: 10%
Investment limits in single issuer/issue	Equity	5%	10%
	Real estate	0%	10% in a single undivided property
	Bills and bonds issued by public administration	- 35%. This limit may be exceeded in relation to State issued securities if the pension scheme has securities from six or more issues of one issuer and the value of securities of each issue separately does not exceed 20%; - Securities issued by a local government: 5%; - Securities issued by the central or local government of Latvia: No limit	35%. This limit may be exceeded in relation to State issued securities if the pension scheme has securities from six or more issues of one issuer and the value of securities of each issue separately does not exceed 20%
	Bonds issued by the private sector	10%	10%
	Retail investment funds	10%	10%

		Mandatory funded pension scheme	Voluntary private pension funds
	Private investment funds	10%	10%
	Loans	0%	0%
	Bank deposits	- 10% - Total investments in deposits and securities issued by a single credit institution or within the same group: 15%	20%
	Overall		Limit for investments in a single group of companies: 25%
Other limits and rules	Self-investment / Conflicts of interest	- Limit for investments in securities issued by the companies belonging to the same group as the manager of the funded pension scheme (in regulated markets traded only):5%; - Limit for total investments in investment funds and AIFs managed by a company belonging to the same group as the manager of the funded pension scheme: 15%; - Limit for total investments in investment funds and AIFs managed by the manager of the funded pension scheme: 10%	- Limit for investments in securities issued by the companies belonging to the same group as the manager of pension funds (in regulated markets traded only): 5%; - Limit for investments in financial instruments issued by the companies that have a collective agreement with the pension fund: 5%; - Limit for assets invested in companies belonging to the same group as the sponsoring employer (in regulated markets traded securities only): 10%
	Derivatives	Derivative transactions for hedging purposes only	Limit for risk exposure by a single counterparty: 5%
	Repo transactions	Up to 50% for the liquidity purposes only (up to 3 months)	Up to 50% for the liquidity purposes only (up to 3 months)
	Ownership concentration limits	- Limit for ownership in equity capital and number of all voting shares of a single company: 5%; - Limit for investment in debt securities of one issuer: 10%; - Limit for investments in a single UCITS or non-UCITS: 30% of its NAV	- Limit for ownership in equity capital and number of all voting shares of a single company: 10%; - Limit for investment in debt securities of one issuer: no limit; - Limit for investments in a single UCITS or non-UCITS: 10% of its NAV

Note: "AIF" means alternative investment fund; "MMI" means money market instrument; "NAV" means net asset value; "UCITS" means undertakings for the collective investment of transferable securities.

Source: OECD Survey of Investment Regulation of Pension Funds.

Latvia is among the OECD countries with the stricter investment limits on equities. At the end of 2016, 18 OECD countries had no quantitative limit on the equity investment of pension funds and 17 countries had limits, at least for some types of plans (Table 5.5). Despite the increase in 2007 (when the limit was 30%), Latvia is at the bottom of the ranking with a 50% maximum limit on equity investment. This limit increased to 75% in January 2018 and is more in line with other similar countries. Chile, Mexico and the Slovak Republic also have different limits for different investment plans in their mandatory funded DC system. In Chile and the Slovak Republic, the more dynamic plans are allowed to invest up to 80% of the assets in equities (but only 40% in Mexico). In Latvia's neighbour, Lithuania, conservative funds cannot invest in equities, but there is no limit on equity investment for all other types of plans.

Table 5.5. **Limits on equity investment in OECD countries at the end of 2016**

As a percentage of total investment

Countries with no limit on equity investment	Australia, Belgium, Canada, Hungary, Ireland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Poland, Slovenia, Spain, Sweden, United Kingdom, United States	
Countries with limits on equity investment	Chile (Fund A)	80%
	Slovak Republic (non-guaranteed fund)	80%
	Estonia (mandatory)	75%
	Austria	70%
	Czech Republic (transformed funds)	70%
	Denmark	70%
	Greece	70%
	France	65%
	Chile (Fund B)	60%
	Iceland	60%
	Portugal (personal)	55%
	Finland (voluntary)	50%
	Latvia (active)	**50%**
	Switzerland	50%
	Chile (Fund C)	40%
	Mexico (SB4)	45%
	Germany (Pensionskassen)	35%
	Korea (occupational DB)	30%
	Turkey (personal)	30%
	Mexico (SB3)	35%
	Latvia (balanced)	**25%**
	Mexico (SB2)	30%
	Chile (Fund D)	20%
	Chile (Fund E)	5%
	Mexico (SB1)	10%
	Czech Republic (conservative fund)	0%
	Korea (occupational DC)	0%
	Latvia (conservative)	**0%**
	Slovak Republic (guaranteed fund)	0%

Source: OECD Survey of Investment Regulation of Pension Funds.

Risk-based supervision

The FCMC has a formalised risk-based supervisory approach. The FCMC considers four risk categories (market, operational, strategic and compliance risks) and four risk levels for each category (from low to high) to assess the risk profile for each pension plan. The FCMC still has rules-based elements but those are integrated into the risk-based system as quantitative indicators. The supervisory actions that should be taken are subject to the calculated risk level (the risk matrix indicates which actions should be taken for each risk level).

The risk-based supervision process is however not transparent to asset managers and private pension funds. Although the FCMC uses risk-based facts in their on-site audit

reports and during discussions with market players, they do not communicate their risk level to market players. The FCMC uses risk-based supervision internally only. Market players are not familiarised with the FCMC's risk model and do not know which indicators are used to assess their risk level. Therefore, asset managers and private pension funds cannot mirror the FCMC's model for their own risk model.

In summary, investment performance in Latvia is lower than in most other OECD countries. This could be explained by the use of quite conservative investment strategies, although there is room within regulatory limits to increase equity exposure. Another potential factor may be an insufficient competition among asset managers and voluntary private pension funds.

5.3. Competition and fees charged to members

Ownership structure in the funded pension markets

The funded pension industry is concentrated in Latvia. Two of the existing nine asset managers in the mandatory pension system have 65% market share in terms of both assets and members (Table 5.6).

Table 5.6. **Market share of asset managers and their mother banks', September 2017**

Asset managers	Percent of total assets	Percent of total members	Mother bank's market share (assets)
Swedbank Investment Management Company	41.8	42.5	18.2
SEB Investment Management	24.2	22.6	13.1
CBL Asset Management	13.2	13.8	9.2
Luminor Asset Management	9.0	7.5	8.2
Luminor Pensions Latvia	5.2	3.0	8.5
NORVIK Investment Management Company	4.0	6.5	3.2
INVL Asset Management	1.9	3.8	Not applicable
INDEXO	0.6	0.2	Not applicable
ABLV Asset Management	Started operation in October 2017		13.0

Source: My pension website and Association of Latvian Commercial Banks.

The majority of asset managers are subsidiaries of banks operating in Latvia. INVL Asset Management and INDEXO are the only asset managers not owned by banks and had the lowest market shares at the end of Q3 2017. INDEXO was licensed only recently, in May 2017, and offers only one investment plan so far (active) with low fees (fixed management fee of 0.75% of assets, no performance fee), transparent operations and investments in indexed funds. It is not owned by a bank and was founded by more than 30 Latvian entrepreneurs and managers to address issues of high fees and low profitability in the mandatory funded pension scheme. It remains to be seen how this asset manager, operating with a different business model, will develop.

Most asset managers are also present in the voluntary private pension fund market with their own open pension fund. Swedbank and SEB are again the main market players with more than two-thirds of the market (Table 5.7).

Table 5.7. **Market share of voluntary private pension funds, September 2017**

Pension fund	Percent of total assets	Percent of total members
SEB open pension fund	35.0	30.5
Swedbank open pension fund	32.4	39.6
First closed pension fund	16.3	4.6
CBL open pension fund	10.5	18.9
Nordea Latvia open pension fund	5.5	5.5
INVL open pension fund	0.3	0.8

Source: My pension website.

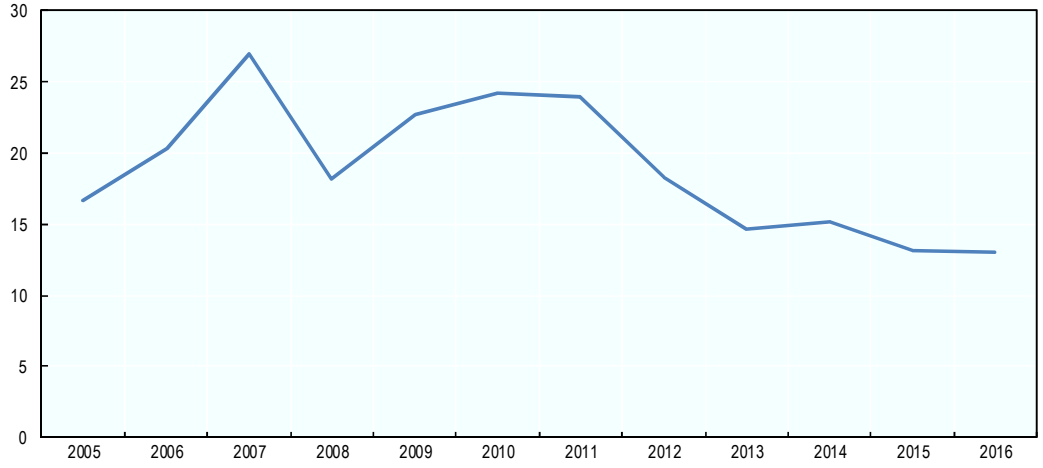
The link between asset managers and banks may create barriers to entry in the market. First, brand recognition may play against potential new entrants in the market if they are not already operating in Latvia. Similarly, convenience of pooling different financial services (e.g. loans, pension savings, etc.) into one institution may also play against potential new entrants that are not bank subsidiaries. Second, asset managers' mother banks are also their custodian. All financial transactions in voluntary and mandatory schemes are carried out through the intermediation of a custodian bank although the funds of the pension plans are separated from those of the custodian. Asset managers therefore pay fees to their custodian bank. In return, a bank can advertise to its clients the plans of the asset manager for which it is the custodian. Third, conflicts of interest may arise between the asset manager and its mother bank. Shareholders of the pension funds and asset managers are often the mother banks in the financial group. In addition, board members are generally chosen by the shareholders. In this context, the fiduciary duty of the governing body of private pension funds or asset managers to pension plan members may be compromised.

Switching between asset managers

There is competition between asset managers to attract new members. In the mandatory funded pension scheme, an individual has the right to switch between asset managers once a year and between investment plans within the same asset manager twice a year. Individuals may switch between voluntary personal plans as often as they want. Figure 5.**13** shows the proportion of participants in the mandatory funded pension scheme who switched investment plans in each year between 2005 and 2016. The proportion of participants switching plans has declined, from 24% in 2011 to 13% in 2016.

Figure 5.13. **Participants in the mandatory funded pension scheme who have switched investment plans during the year, 2005-2016**

As a percentage of total participants



Source: Financial and Capital Market Commission.

StatLink http://dx.doi.org/10.1787/888933657790

Individuals can only switch after they see which asset manager they have at that moment. Switching can only be requested either online via the SSIA e-service www.latvija.lv or the website www.manapensija.lv ("My pension"), or in person at the SSIA. Through that process, individuals are informed about their current asset manager and switch only if necessary.

Fees charged to participants

Two types of fees are charged to participants respectively for the administration and management of the mandatory funded pension scheme. The SSIA charges fees for administering the system and the pension accounts. These fees are deducted from contributions and cannot exceed 2.5% of contributions. In 2016, the SSIA's fee amounted to 0.2% of contributions. It has lowered regularly since 2013 when the fee was 0.37% of contributions.

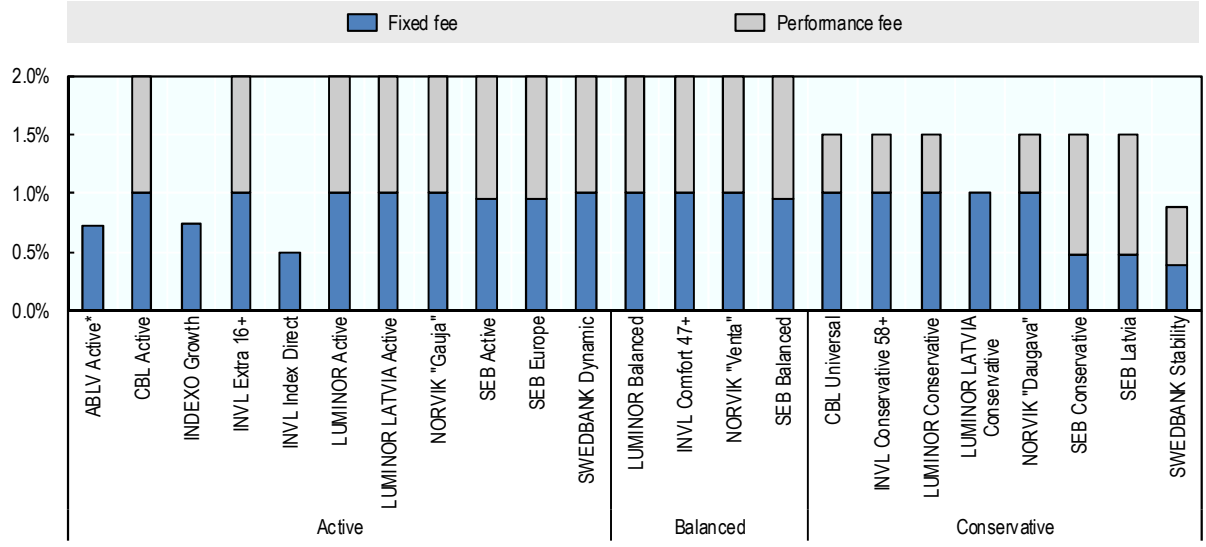
Fees that can be charged by asset managers follow a mixed structure. There is a fixed fee and a variable fee linked to performance. Both fees are based on assets under management. The regulation for the mandatory funded pension scheme establishes a cap on fixed fees. Up to 2018, it was 1% of the average value of an investment plan assets. Since January 2018, the fixed fee cap varies with the amount of assets under management: it is 0.8% (0.6% as of 2019) for assets up to EUR 300 million and 0.6% (0.4% as of 2019) for the part of assets above EUR 300 million. The fixed fee covers a fund manager fee and a custodian fee. In addition, total fees (i.e. including fixed fee and performance fee) cannot exceed 1.05% of assets for conservative plans (it was 1.5% up to 2017 and will be further reduced to 0.85% as of 2019) and 1.3% of assets for active and balanced plans (it was 2% up to 2017 and will be further reduced to 1.1% as of 2019). The performance fee is not charged if the investment return of the plan during the year is negative or if the investment return of the plan is below the benchmark which combines a

debt securities index and an equity securities index. The detailed rules referring to the composition and structure of the benchmark are not yet set at the time of writing the report.

Asset managers barely compete on fees, as most of them charge the maximum allowed by regulation for each of their investment plans (Figure 5.14). In December 2017, the only exceptions were for the last entrant in the market, ABLV, the passively managed active investment plans (INDEXO and INVL), as well as two conservative plans managed by Luminor Pensions Latvia and Swedbank. In addition, SEB had a fixed fee below 1% for its four investment plans, but charged a higher performance fee.

Figure 5.14. **Fees for management costs charged by asset managers**

As a percentage of the average value of investment plan assets



Note: Information collected on 15 December 2017. The performance fee for ABLV is not applicable until December 2019.

Source: My pension website.

StatLink http://dx.doi.org/10.1787/888933657809

There is no regulation setting a fee structure or a cap on fees for voluntary private pension funds. Fees are usually levied on the average value of assets. CBL uses performance-based fees and INVL charges only on the contributions made during the first year of participation for some of its plans (Table 5.8). This variety of fee structures makes it difficult for individuals to compare across funds.

Table 5.8. **Fees charged by voluntary pension funds**

As a percentage of the average value of assets (specified if otherwise)

Pension fund	Name of the plan	Pension fund's administration costs	Fund manager's commission	Custodian bank's commission
CBL open pension fund	CBL Active	1.5%	Fixed fee: 0.9%; Performance fee: 10% of the investment income in excess of the 12-month RIGIBID	0.20%
	CBL Active USD	1.5%	Fixed fee: 0.9%; Performance fee: 10% of the investment income in excess of the 12-month RIGIBID	0.20%
	CBL Balanced	1.5%	Fixed fee: 0.75%; Performance fee: 10% of the investment income in excess of the 12-month RIGIBID	0.20%
INVL open pension fund	INVL Pension plan "DZINTARS - Conservative"	2.0%	0.7%	0.50%
	INVL Pension plan "JŪRA - Active"	1.0%	1.0%	0.50%
	INVL Pension plan "SAULE - Balanced"	1.0%	1.0%	0.50%
	INVL Pension plan "Active 16+"		30% of contributions during the first year of participation	
	INVL Pension plan "Conservative 58+"		30% of contributions during the first year of participation	
	INVL Pension plan "Balanced 47+"		30% of contributions during the first year of participation	
LUMINOR Latvia open pension fund	LUMINOR Progressive pension plan	0.75%	1.6%	0.15%
	LUMINOR Balanced plan	0.75%	1.1%	0.15%
SEB open pension fund (1)	SEB-Active	1.5%-0.5%	0.9%	0.13%
	SEB-Balanced	1.5%-0.5%	0.9%	0.13%
Swedbank open pension fund	SWEDBANK Pension plan dynamic +(USD)	0.6%	0.9%	0.18%
	SWEDBANK Pension plan dynamic +100	0.6%	0.9%	0.10%
	SWEDBANK Pension plan dynamic +60	0.6%	0.9%	0.10%
	SWEDBANK Pension plan balanced +25	0.6%	0.5%	0.10%
First closed pension fund	First pension plan	1.5%	1.3%	0.20%

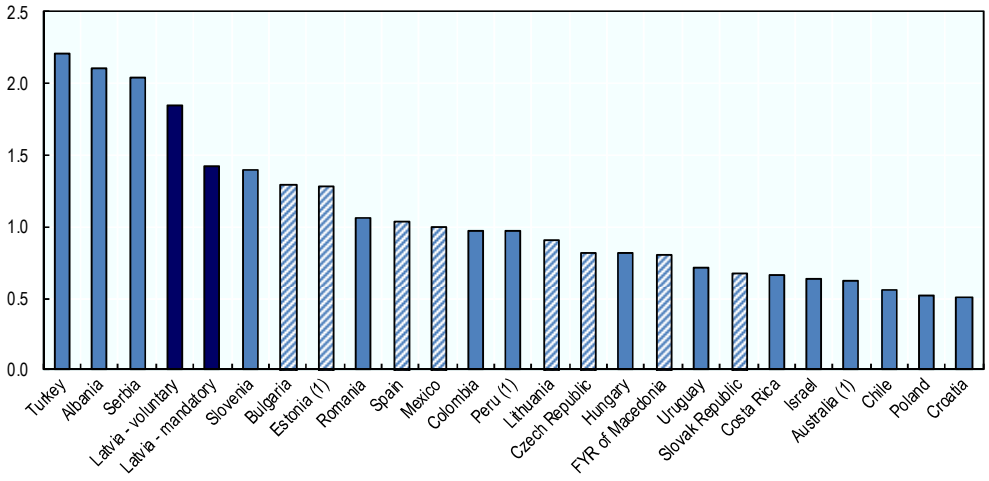
Note: Information collected on 15 December 2017. (1) The fee for administration costs varies between 0.5% and 1.5% of the average assets of the plan depending on the amount of savings at SEB pension fund. The commission fee is reduced by 25% if the plan member uses at least one other pension savings product offered by the SEB Group administrated by SEB Investment Management (2nd pillar pension, life insurance with saving of funds for at least 10 years, or life-time pension insurance).

Source: My pension website.

The fees charged by asset managers and voluntary private pension funds are high when comparing internationally. Indeed, Figure 5.15 shows that in 2016, fees in Latvia represented respectively 1.4% and 1.8% of total assets under management, putting Latvia close to the top. Pension funds in most of the countries with comparable assets under management as a percentage of GDP (striped columns in Figure 5.15) charge lower fees than Latvian plans. Even after taking into account the maturity of the system, the mandatory scheme is still relatively expensive compared to other countries with mandatory DC systems. Fifteen years after the inception of the system, fees charged by asset managers (1.4% of assets under management) were higher than in Mexico (1.31%) and much higher than in Sweden (premium pension system: 0.38% for private funds and 0.12% for the publicly-managed default fund), but lower than in Chile (1.94%). The reduced fee caps introduced in January 2018 should help bring fees down in the mandatory funded pension scheme to levels more in line with international practice.

Figure 5.15. **Total fees charged in 2016 in selected OECD and non-OECD countries**

As a percentage of assets under management at the end of 2016



Note: Countries with striped columns have pension funds managing comparable assets as Latvian funds as a percentage of GDP. (1) Data refer to 2015.

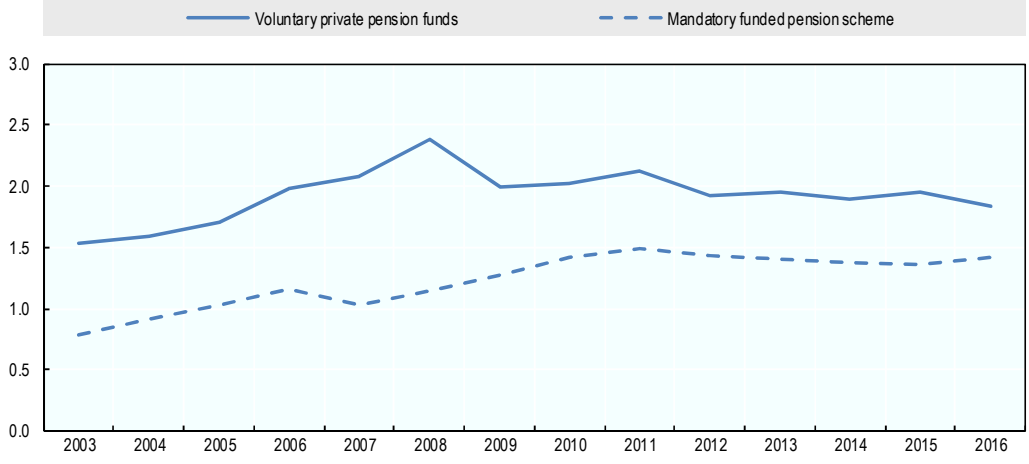
Source: OECD Global Pension Statistics.

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In addition, it is interesting to highlight that fees have followed an increasing trend up to 2011 and have remained quite constant since then (Figure 5.16). Since assets under management keep growing, asset managers' and pension funds' revenues also grow.

Figure 5.16. **Total fees charged by asset managers and voluntary private pension funds in Latvia, 2003-2016**

As a percentage of assets under management at the end of each year



Source: Financial and Capital Market Commission.

StatLink http://dx.doi.org/10.1787/888933657847

5.4. Retirement phase

Retirement age

The retirement age in the mandatory pension system is set to increase from 62 years old to 65 years old for both men and women. The increase is 3 months every year between 2014 and 2025. Therefore, the retirement age in 2018 is already 63 years and 3 months.[16] Individuals have the possibility to defer retirement without an age limit and to combine retirement and work. Since 2014, the early retirement age also increases by 3 months every year to reach 63 years by 2025. The minimum contributory period to qualify for an early pension is 30 years.[17] Individuals can use the assets accumulated in the mandatory funded pension scheme upon claiming the NDC pension or later.

Voluntary private pension assets can be accessed by anyone from the age of 55.

Retirement options

At retirement, individuals can choose between two options regarding how to use the assets accumulated in the mandatory funded pension scheme. First, individuals can add those assets to the notional capital accumulated in the NDC scheme and get a public pension based on the total (notional plus financial) capital. In that case, the pension is calculated by dividing the total capital at retirement by the remaining life expectancy (16.89 at age 65 in 2017). When the assets are transferred to the NDC scheme, the money becomes part of the social insurance budget. The government may have an incentive to have the assets moved to the NDC scheme in times of budgetary constraints.

The second option is to purchase a life annuity from a life insurance company. Each life insurance company can freely set up the level of assets above which this option becomes available to individuals. This minimum accumulation is EUR 3 000 since 1 August 2016 for the four companies operating in the market. The current minimum accumulation is relatively low. It would provide an annuity payment about five times less than the minimum pension.[18] Only insurance companies having a license for life insurance and having concluded a contract with the SSIA are allowed to offer annuity products to participants in the mandatory funded pension scheme.

The two options differ on a number of aspects that can influence the choice of individuals, such as the risk-free rate, mortality tables, indexation, flexibility, inheritability and access to information.

Pension benefits may be higher when purchasing a life annuity than in the case of transferring the assets to the NDC scheme. This is the result of whether assets during retirement earn a return, as well as the type of mortality tables used, which affects the actuarial neutrality between the two options.

The calculation of pension payments in the NDC scheme implicitly assumes that the notional assets during retirement earn a real return equal to part of the real growth of the wage sum. The total capital in the NDC account at retirement, whether it includes the funded assets or not, is divided by the remaining life expectancy. Hence, the actuarial formula has an implicit rate of return equal to the indexation of pensions in payment, which is inflation plus part of the real growth of the wage sum (up to a threshold). In contrast, insurance companies providing traditional life annuities calculate annuity payments by assuming that the assets remaining in the individual's account each year in

retirement earn at least the risk-free rate of return. Consequently, the amount of retirement income paid regularly from the same pot of money would be different with a traditional life annuity and with the NDC scheme. The annuity factor (i.e. the divisor of the accumulated capital at retirement to calculate the first payment) is likely to be larger in the case of the NDC scheme than in the case of a life annuity, leading to a lower pension payment.[19] The first five rows in Table 5.9 illustrate this and show that the annuity factor implicitly assumed in the NDC scheme (the life expectancy at retirement, 16.89) is higher than the annuity factor calculated by annuity providers (13.06), even in the case of inflation-indexed payments (15.27) or payments indexed in the same way as in the NDC scheme (full indexation to inflation plus 70% of real wage growth for a contribution record of 40 years) (16.45).[20]

Table 5.9. **Annuity factor and first pension payment derived from assets accumulated in the mandatory funded pension scheme at retirement, according to the option used**

Use of assets in the mandatory funded scheme	Annuity factor	First pension payment (EUR)
Transferred to the NDC scheme	16.89	7 173
Mortality table without improvement in life expectancy		
Purchase fixed-payment annuity	13.06	9 278
Purchase inflation-indexed annuity	15.27	7 936
Purchase NDC-indexed annuity w/ threshold	14.51	8 351
Purchase NDC-indexed annuity w/o threshold	16.45	7 363
Mortality table with improvements in life expectancy		
Purchase fixed-payment annuity	14.09	8 596
Purchase inflation-indexed annuity	16.72	7 244
Purchase NDC-indexed annuity w/ threshold	16.13	7 513
Purchase NDC-indexed annuity w/o threshold	18.16	6 670

Note: The calculations assume that the average earner enters the labour market in 2017, contributes from 25 to 64 years old and retires at age 65. Inflation is set at 2%, productivity growth at 1.25%, the real rate of investment return at 3% and the real discount rate at 2%. In the case of an annuity purchase, the insurance company is assumed to use a mortality table without or with improvements in life expectancy and to charge a fee that increases the annuity factor by 5%. In the later, the mortality table includes two years of improvement in life expectancy at age 65. There are four types of life annuity products. The first one is a life annuity that pays a fixed or constant amount of money throughout retirement. The second one pays a stream of income that increases with inflation. The third one assumes the same indexation than in the NDC scheme (inflation plus 70% of real wage growth) up to a threshold (EUR 357 monthly in 2017 adjusted yearly in line with nominal wages). The fourth one assumes the same indexation than in the NDC scheme (inflation plus 70% of real wage growth), without threshold.

Life tables used to determine the NDC pension payments and the life annuity payments are different. For the NDC scheme, the SSIA uses period mortality tables provided by the Central Statistical Bureau to calculate the remaining life expectancy (called "G" factor), meaning that they do not include future improvements in life expectancy. In contrast, life insurance companies account for future improvements in life expectancy in order to comply with Solvency II.[21] According to the Latvian Actuarial Association, tables used by insurance companies have approximately two more years of life expectancy compared to those used by the SSIA. This reduces the regular annuity payments provided by life insurance companies because they account for the fact that they have to pay benefits for a longer period. Table 5.9 show that the annuity factor for the fixed payment annuity increases when accounting for future improvements in life expectancy, from 13.06 to 14.09; and the initial payment falls from EUR 9 278 to

EUR 8 596. It is also the case for inflation-indexed annuities and annuities using the same indexation as in the NDC scheme. The annuity factor still remains below the one implicitly assumed for the NDC scheme, and the pension payment from a life annuity remains higher than that from the NDC scheme for the same pot of money. The only exception is when assuming a life annuity fully indexing by inflation and 70% of real wage growth (i.e. the NDC indexation formula without the threshold above which pensions are not indexed). In that case, the annuity factor is bigger than the one implicitly assumed for the NDC scheme (18.16). In addition, the use of period mortality tables by the SSIA implies that the PAYG system will have to pay pension benefits for a longer period than what has been notionally accounted for, which may have a negative impact on the financial sustainability of the NDC system.

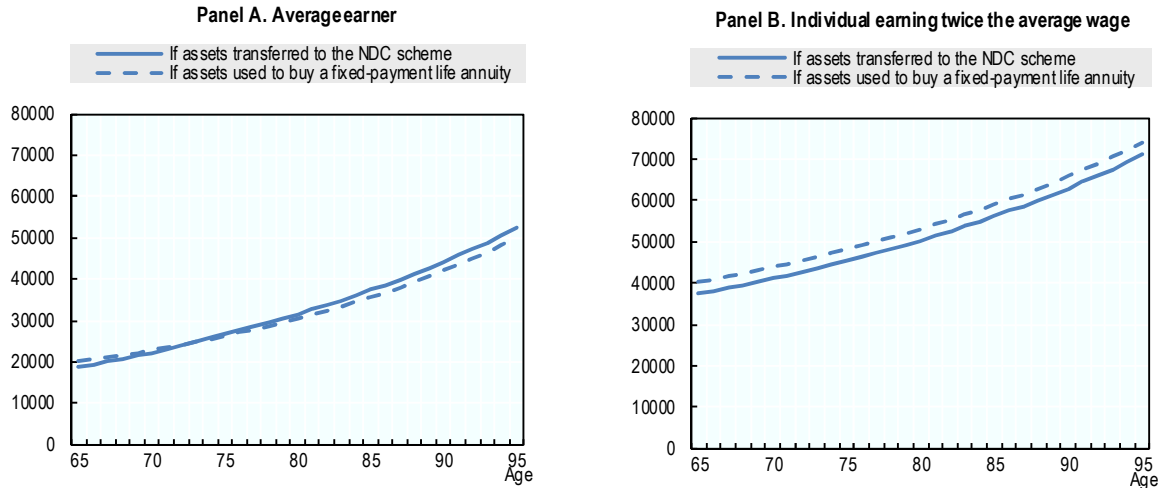
Additionally, there is no minimum requirement for mortality tables, life insurance companies use their own mortality tables, and the FCMC does not supervise the tables used. According to the Latvian Insurers Association, in practice, the tables used include mortality improvements. However, the population on which the tables are based varies across companies (some companies use mortality data based on foreign populations) and the data used can be outdated (some companies use data from 2007).

The indexation of pension payments in the NDC scheme also affects the incentives to move the funded assets to the NDC scheme. However, the effect depends on the income of the individual.

Pension benefits in Latvia are indexed, but only partially. On the one hand, NDC public pension benefits paid by the SSIA are indexed, but only for amounts up to a certain threshold (EUR 357 monthly in 2017). That threshold corresponds to 50% of the previous year's national average wage subject to social insurance contributions. The indexation takes place once a year in October and uses actual consumer price index plus 50% of the real increase in the national average wage subject to social insurance contributions. Since 2018, individuals with longer contribution periods have a better indexation. Individuals with 30 to 39 years of contributions are granted 60% of the average real wage increase, while individuals with 40 or more years of contributions are granted 70% of the average real wage increase (instead of 50%). On the other hand, life insurance companies do not offer inflation-indexed annuities, although they could.

The indexation rule of NDC public pension benefits may act as an incentive for low and middle-income earners to transfer their funded assets to the NDC scheme. Figure 5.17 takes the example of two individuals, one earning the average wage and the other one earning twice the average wage, and compares total pension payments over time when transferring funded assets to the NDC scheme or when buying a fixed-payment life annuity. The average earner will have all of his/her pension benefits from the NDC scheme below the threshold and therefore indexed to inflation and wages. Transferring his/her funded assets to the NDC scheme will allow having part of the pension benefits from those assets, up to the threshold, to be indexed. Overtime, the pension payments when transferring the funded assets to the NDC scheme will become larger than the pension payments when buying a life annuity. On the contrary, an individual earning twice the average wage will already have the pension benefits from the NDC scheme being above the threshold. Therefore, the pension benefits from the funded assets transferred to the NDC scheme will never be indexed. There is therefore no incentive to transfer them.

Figure 5.17. **Total pension payments according to the option chosen for the funded assets and the income level**



Note: The calculations assume that the individual enters the labour market in 2017, contributes from 25 to 64 years old and retires at age 65. Inflation is set at 2%, productivity growth at 1.25%, the real rate of investment return at 3% and the real discount rate at 2%. In the case of an annuity purchase, the insurance company is assumed to use a mortality table with improvements in life expectancy (2 years) and to charge a fee that increases the annuity factor by 5%.

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The combination of both effects, i.e. the lower annuity factors offered by insurance companies and the indexation of NDC pension benefits, still provides higher incentives to buy a life annuity. However, it is now only for high-income earners and for middle-income earners up to certain life expectancy (Figure 5.17).[22]

In addition to the issues already discussed related to the risk-free rate, the mortality tables used and indexation, the flexibility of how to structure the payments when buying a life annuity affects the incentives to choose between the two options, buying a life annuity or transferring the assets to the NDC scheme.

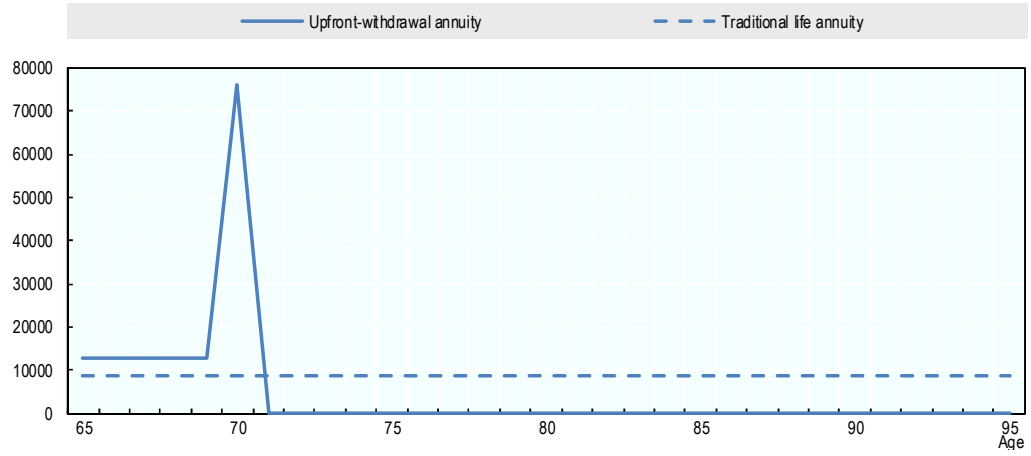
Insurance companies offer more flexibility for the payment of the life annuity than is available with pension payments in the NDC scheme. Individuals can choose the frequency of the annuity payments (monthly, quarterly, semi-annually or annually). They can also defer the start of the life annuity payments for up to ten years.

Insurance companies can also establish up to three periods for the payment of the annuity. The first period cannot be shorter than five years and cannot use more than 50% of the transferred assets. The second period cannot be shorter than a year. The third period lasts until the death of the insured person. Some companies restrict the length of and the proportion of assets used in the second and third periods by setting a minimum payment (e.g. EUR 10 per month). With this type of arrangements however, protection from longevity risk is mostly assured by the NDC scheme, as the bulk of the funded assets can be withdrawn during the first six years after retirement (first and second periods) and little may be left for the remaining lifetime (third period). Figure 5.18 compares the payments received under this type of "upfront withdrawal" annuity and under a traditional life annuity, assuming that the second period lasts only one year and a minimum payment of EUR 10 per month for the third period. Under these assumptions, less than 1% of the assets are used to finance the life-long component (third period) and the rest is used during the first six years following the retirement age. Although there is a

lifelong payment in the third period, this product hardly qualifies as an annuity product. It is more like a drawdown product.

Figure 5.18. **Upfront-withdrawal annuity versus traditional life annuity**

In Euro



Note: The calculations assume that the average earner enters the labour market in 2017, contributes from 25 to 64 years old and retires at age 65. Inflation is set at 2%, productivity growth at 1.25%, the real rate of investment return at 3% and the real discount rate at 2%. The insurance company is assumed to use a mortality table with improvements in life expectancy (2 years) and to charge a fee that increases the annuity factor by 5%.

StatLink http://dx.doi.org/10.1787/888933657885

This upfront-withdrawal annuity may increase tax payments under the new Tax Reform law that came into effect in January 2018. Indeed, as in many other countries, pension payments are taxable in Latvia. In addition, the personal income tax system became progressive in 2018 (income up to EUR 20 000 is taxed at 20%, income between EUR 20 000 and EUR 55 500 is taxed at 23% and income above EUR 55 500 is taxed at 31.4%).[23] Large annuity payments in the sixth year may therefore move people's income in the last tax bracket and make them pay tax at the maximum rate.

Neither the assets nor the benefits of the mandatory funded pension scheme are inheritable. In case of an individual passing away before retirement, assets are moved to the PAYG overall pension budget. They will be used to finance survivor's benefits for dependent family members (e.g. children), but spouses have no right for survivor's benefits. However, individuals choosing to buy a life annuity can opt for a guaranteed disbursement period. In that case, the beneficiary specified in the insurance contract receives the annuity payments from the day the insured person passes away until the end of the guaranteed period, which cannot exceed 20 years. This option has a cost that reduces annuity payments with respect to a traditional life annuity without guaranteed period.

Information about the option whereby the individual transfers the assets to the NDC scheme is more readily available, affecting the incentives to choose between the two options. Upon retirement, the SSIA must send the following information to individuals:

- the amount of assets accumulated in the mandatory funded pension scheme and the proportion of the corresponding old-age pension that the scheme participant could receive when adding these assets to the NDC scheme
- the contact information of the insurance companies offering life annuity products
- the websites of the insurance companies where individuals can find the calculators for the forecast of the annuity payments[24]
- the minimum accumulation amount to purchase a life annuity
- the procedure by which individuals can enter into an insurance contract.

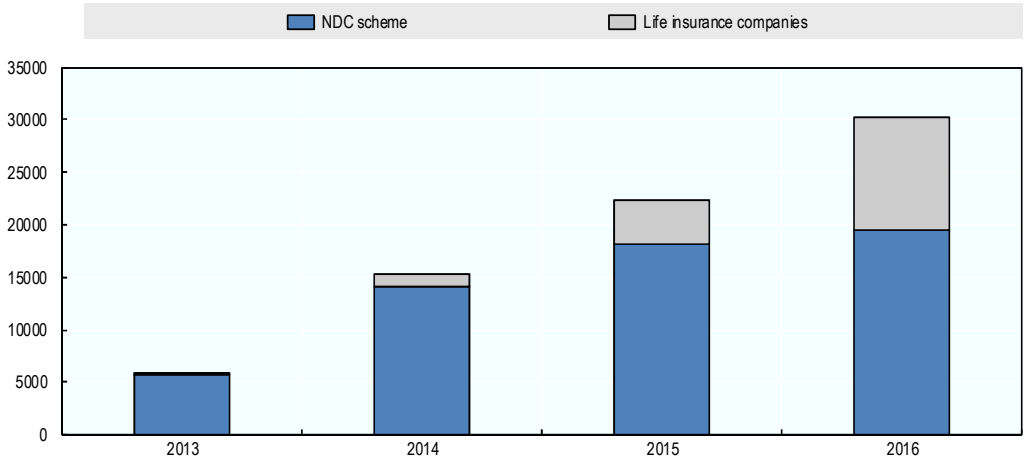
Therefore, individuals have a direct knowledge of the amount of pension they can expect if they choose to transfer their assets to the NDC scheme, while they need to shop around to compare offers from different insurance companies if they choose to buy an annuity.

In addition, behavioural biases such as inertia and simplicity play in favour of transferring the assets to the NDC scheme. Indeed, if the SSIA does not receive confirmation of a contract being signed between the individual and an insurance company within the six months following receipt of an application to use the assets in the funded scheme, the SSIA considers that the individual has chosen to transfer the assets to the NDC scheme. Inertia and simplicity therefore play against buying an annuity, even though the combination of a NDC public pension and a life annuity may better suit the needs of some individuals.

The amount of assets transferred to insurance companies and used to buy a life annuity has increased over time (Figure 5.19). The option of buying a life annuity is available to more and more participants in the mandatory funded pension scheme. Indeed, only 4% of newly retired reached the minimum accumulation amount to buy an annuity in 2013; they were 30% in 2016. In addition, among those who are entitled to buy an annuity, the proportion of individuals choosing this option has also increased, from 19% in 2013 to 49% in 2016, which can be explained by some of the incentive effects discussed above related to the risk-free rate, mortality tables, indexation, flexibility, inheritability, and access to information.

Figure 5.19. **Total assets transferred to the NDC scheme and to life insurance companies from individuals retiring, 2013-2016**

In 1 000 Euros



Source: State Social Insurance Agency.

StatLink http://dx.doi.org/10.1787/888933657904

Finally, the most common forms of receiving benefits from voluntary private pension funds are as a lump-sum payment or as programmed withdrawals. There are no legal restrictions on the amount of the benefits which may be taken as a lump sum, and the tax regime does not discourage lump sums either, as pension income is mostly tax free.[25] There are no legal requirements for indexation of pension benefits.

5.5. Communication with plan participants

There is a need for a more structured communication programme with plan participants. Individuals need to go and access information, which is not provided automatically. They cannot easily compare all the features of the investment plans. Finally, there is no integrated dashboard where people can see all of their pension accounts and simulate their total pension income.

People can consult different websites to get information about the pension system, either general or personalised. For those not having internet access, personalised information can be obtained from any department of the SSIA by presenting a personal identification document. However, no information is sent automatically by mail or e-mail, implying that individuals need to be proactive in order to access information about the pension system and their pension rights.

The website www.manapensija.lv ("My pension") provides general information on the three pension pillars in Latvia. This website contains information available in Latvian, Russian and English. Since 2013, it includes complete information on the three pension pillars. It is funded by commercial banks and investment companies in cooperation with the SSIA. Individuals can compare the performance of the different investment plans, on a daily basis for mandatory plans and on a monthly basis for voluntary plans.

Since 1 April 2015, participants in the mandatory funded pension scheme have access to a document called "Basic Information" for each investment plan. This document, developed by asset managers, provides information about investment risks and management costs of the investment plans. There is however nowhere in the website to compare management costs across investment plans in one look (one needs to download each "Basic Information" document).

In addition, the website includes a calculator to estimate the expected amount of individual pension. Individuals need to enter personal data about their age, net salary, capital accumulated in the NDC, funded and voluntary schemes, and monthly contributions to voluntary plans. Information about the capital already accumulated in the different pillars needs to be collected by the individual from different sources (the website www.latvija.lv for the mandatory schemes and the website of the bank managing the voluntary private pension fund). The expected pension is estimated based on current laws and regulations, as well as assumptions regarding the capital indexation in the NDC scheme, the rate of return of investment plans, the average wage growth and inflation.

The website of the SSIA (www.vsaa.lv) provides explanations about the mandatory funded pension scheme, including reports and statistics regarding the operation and performance of this scheme, as well as links to other relevant websites ("My pension" and websites of the asset managers).

The educational website www.klientuskola.lv/lv/ ("Client school") enables clients of financial institutions to obtain detailed information and description of the main financial products, including the state funded pension and voluntary pensions. This website was launched in 2011 by the FCMC and allows individuals to assess potential risks that may arise when using financial products and to evaluate their readiness to bear those risks.

The only website providing detailed personalised information on accrued rights in the mandatory pension system is the joint state and local government services portal www.latvija.lv, in the section "E-services". Information for the NDC and funded schemes are provided in two separate documents:

- For the NDC scheme, the document is entitled "Information on the expected old-age pension" and includes:
  - work record and capital accumulated before 1996
  - indexed pension capital accumulated since 1996
  - total insurance record
  - estimated old-age pension amount.
- For the funded scheme, the document is entitled "State funded pension scheme participant's account statement" and includes:
  - starting date of participation in the scheme
  - history of investment plan switches
  - name of the asset manager and of the investment plan
  - contributions paid
  - administration costs paid (SSIA's commission only)
  - number of shares of investment plans and their unit value

– funded pension capital.

Although the account statement provides useful information to participants in the mandatory funded pension scheme, very few read it. For example, in 2016, 89 690 account statements have been downloaded from the "E-services" section of www.latvija.lv. Assuming only one download per year and per person, at most 7% of participants have accessed their account statement that year.

5.6. Policy options to improve the design of the mandatory and voluntary funded pension schemes

This section presents a series of policy options to address the issues identified previously in order to improve the funded schemes of the Latvian pension system. The options presented are in line with the main OECD guidelines regarding funded DC pension arrangements, the OECD Roadmap for the Good Design of Defined Contribution Pension Plans and the OECD Core Principles of Private Pension Regulation (OECD, 2012, 2016a).

There is no need to increase the contribution rate to the mandatory pension system or to adjust the split between the funded and the NDC components. A contribution rate of 20% of earnings may theoretically lead to a replacement rate that could be considered adequate. For example, an average earner contributing from age 25 till 64 at a rate of 20% of earnings to a funded DC plan returning 3% real per year would get a replacement rate of around 80% assuming a fixed-payment life annuity at retirement.[26] This replacement rate would be lower when accumulations are rewarded with a lower rate of return of investment, and the annuity payment is based on a zero real rate of return. There could be arguments calling for shifting some of the total pension contribution to the mandatory funded pension scheme, for example, diversification and investing contributions in the economy. However, this may lead to budgetary problems in the NDC system.

Additionally, policy makers and regulators need to address beforehand the issues identified that affect the well-functioning of the funded pension system in Latvia. The main recommendations to improve the design of the funded pension schemes, further developed below, are:

- Make sure all individuals contribute to the mandatory pension system based on the same rules.
- Introduce a default life-cycle investment strategy and relax investment restrictions.
- Address high fees in the pension industry.
- Balance market opportunities and increase competition.
- Streamline the design of the retirement phase.
- Improve communication within the system.

Make sure all individuals contribute to the mandatory pension system based on the same rules

Self-employed persons, employees in micro-enterprises and workers receiving royalties are covered by the mandatory funded pension scheme, but do not contribute as

much as other employees. This reduces their future pension income and increases their chances to become eligible for the minimum pension.

Harmonising contribution rates and considering workers' full income, independently of the source of that income, to calculate mandatory pension contributions would help increase pension levels.

Allowing different contribution rules for different types of workers increases the risk of people switching from one status to another and having low contribution records.

The obligation to fully contribute could be introduced in a gradual manner to allow self-employed workers, employees in micro-enterprises and workers receiving royalties to adjust to the change. For example, the share of covered earnings taken into account for pension contributions could be increased over a certain period. This mechanism has been used in Chile when they first tried to introduce mandatory pension contributions for the self-employed. The share of covered earnings taken into account for pension contributions increased gradually over three years, from 40% in the first year to 70% in the second year and 100% as of the third year.[27]

Introduce a default life-cycle investment strategy and relax investment restrictions

Latvia should consider establishing a life-cycle investment strategy as a default option to protect people close to retirement against extreme negative market swings. The mandatory funded pension scheme offers choice between investment options with different risk profiles (conservative, balanced and active). It also designates the conservative investment strategy as the default option. However, it does not accommodate for life-cycle investment strategies because asset managers do not know who their clients are.

The default option in the mandatory funded pension scheme is only appropriate for very risk-averse individuals and those approaching retirement age. It could be interpreted as a transitory investment option when people join the pension system, to give them time to figure out which of the balanced or active investment plan best suits them. The Latvian authorities also recommend switching to the conservative plans for participants who have ten years or less until retirement. However, the conservative investment strategy is not appropriate for the entire investment horizon. Indeed, this strategy accounts neither for the existence of an equity risk premium, nor for the principle that younger individuals are able to assume greater risk than older individuals because the former have more time to recover from periods of low returns and have more human capital. In addition, there is no assurance that individuals in an active plan at the beginning of their career will switch to a more conservative option when nearing retirement.

A life-cycle investment strategy that reduces the amount of assets invested in risky assets as the plan member gets closer to retirement would be a more appropriate default option. This type of strategy provides protection for those close to retirement in the case of a negative shock to the stock market just before retirement. The life-cycle investment strategy would come as a complement to the already existing strategies and therefore increase the variety of investment strategies proposed to participants in the mandatory funded pension scheme.

The SSIA should improve its information sharing with asset managers, so that the latter would know at least the age structure of their clients. This information is required

for asset managers to adjust the portfolio allocation over time along a life-cycle investment strategy. The exchange of information between the SSIA and the asset managers would need to be in line with personal data protection laws.

Three main categories of life-cycle investment strategies exist: multi-funds, a mix of funds and target date funds. Several Latin American countries follow a multi-fund system, with members assigned to one of the funds by default according to their age (e.g. Chile and Mexico). Members' assets are transferred from one fund to the next (more conservative) when they hit the age thresholds. The age thresholds are determined considering the investment horizons of members, that is, the time remaining until they reach the retirement age, and their likelihood of recovering from periods of low returns.

In some countries, like Hong Kong (China) and Sweden, the default life-cycle investment strategy uses a mix of funds, the proportions of which evolve as members reach a certain age. For example, the Default Investment Strategy (DIS) in Hong Kong (China) uses two mixed assets funds, the 'Core Accumulation Fund' (CAF) and the 'Age 65 Plus Fund' (A65F). The legislation requires 60% of the CAF to be invested in assets with higher risk, mainly global equities, and 40% in assets with lower risk, mainly global bonds. The A65F holds 80% in lower risk assets and 20% in higher risk ones. When members are younger than 50, all of their assets are invested in the CAF; once they turn 50, their portfolio is automatically adjusted every year to reduce their investment in the CAF and increase that in the A65F; when they turn 64, all of their assets are invested in the A65F. In the case of the Swedish default fund in the premium pension system (AP7), the cut-off age between the Equity Fund and the Fixed Income Fund is 55 and the adjustment is made up to age 75, at which time two thirds of the capital is invested in the Fixed Income Fund and one third in the Equity Fund.

The third category of life-cycle investment strategies, target date funds, is more common in the United States. These are multi-asset funds that reduce their weighting in riskier asset classes as a specific event – in this case the retirement date – approaches. Individuals with the same retirement date are pooled and allocated to the same target date fund.

Market conditions can be taken into consideration when adjusting the part of risky assets along the glide path of the life-cycle investment strategy. With multi-funds, the transition from one fund to the next can be smoothed out over several years. For instance, in Chile, 20% of the balance is transferred at the time of the age change, and then 20% per year over a four-year period until all resources are transferred. NEST in the UK uses target date funds and actively manages asset allocation along the glide path within pre-set risk budgets, taking account of economic and market conditions.

Finally, quantitative investment limits could be gradually relaxed to further encourage portfolio diversification. Asset managers and voluntary pension funds do not use the whole range of financial instruments already allowed by regulation at their full potential (e.g. equity and foreign currency investments) but investment restrictions may become binding in the future. It may be necessary therefore to increase the skills of professionals in the investment teams of asset managers to allow for appropriate portfolio diversification.

Address high fees in the pension industry

The amount of fees that asset managers and pension funds charge to plan members can have an important negative impact on pension benefits. Fees reflect the price of the

services offered by pension providers, such as account administration and investment management. They affect the benefits that plan members receive in DC pension arrangements as the higher the fee, the lower will be the benefits that members receive for a given contribution, or the higher will be the total contribution required to achieve a certain level of benefits. High fees may sometimes be worth paying for a better quality service or for higher risk-adjusted returns. However, more often, they are symptomatic of a lack of competition in the pension industry.

Latvia could consider various policy options among those that have been put in place in different OECD countries to reduce fees in the pension industry. These policy options can be divided into three groups: disclosure-based initiatives, pricing regulations and structural solutions.

Disclosure-based initiatives

Disclosure-based initiatives aim at encouraging plan participants to react to differences in cost and fee levels by ensuring that they receive timely information on the fees they pay. For example, the Danish government-backed site www.pensionsinfo.dk provides individuals with comprehensive information on their own pension accounts including direct and indirect administration and investment costs, and past returns. Individual pension statements in Mexico include information on fees paid by the worker and compare net-of-fees returns across pension funds. In the United States, participant disclosure regulation 404(a) requires plan sponsors to ensure that participants and beneficiaries receive sufficient information on fees, expenses and performance to make informed investment decisions.

The main limitation of these initiatives is that pension statements and information websites do not always succeed in prompting members' action regarding their retirement savings. This is particularly the case for people with low financial knowledge. Indeed, as people do not always have a good understanding of the effect of compounding, they may not realise that small differences in fees (a few basis points) may translate into large differences in assets at the end of the accumulation period.

Despite this caveat, fee disclosure should be implemented in Latvia for the mandatory funded pension scheme. Today, although participants can see the fee level of their investment plan expressed as a percentage of the assets under management in the "Basic Information" document, they do not see how it translates concretely in their account. The State funded pension scheme participant's account statement indeed only stipulates fees paid for the administration of the account (the SSIA's commission), but fees paid for the management of the account are not readily available. They are hidden in the change of the unit value of the shares of investment plans. The account statement should at least include the overall Euro amount of management fees paid during the period covered by the statement, ideally broken down between the asset manager's commission, the custodian's commission and the performance fee. This would increase people's awareness of the fees they pay and could put further pressure on asset managers to lower fees.

Pricing regulations

Pricing regulations include allowing a single charge structure, setting a cap on the fees that pension providers can charge and adopting a regressive scale for management fees as assets under management grow. Latvia has room to improve its pricing regulations based on international practices.

The Latvian authorities should consider harmonising the fee structure for voluntary private pension funds. Voluntary private pension funds can use a mix of fees charged on asset, contributions and performance. This complicates the comparison of pricing policies of pension plans by participants. As shown in Table 5.10, single fee structures can be found in several other countries, within and outside the OECD. In Chile, pension fund managers in the mandatory system can only charge fees on salaries. Pension funds are only allowed to use a single, asset-based fee in Estonia, Mexico, Spain, Albania, Armenia, Costa Rica and Croatia. Fees can only be charged on contributions in Colombia. A harmonised fee structure would contribute to disclosure efforts by making it easier for participants to compare fees across pension funds and would help individuals select the most appropriate fund for them. It could also increase confidence in the system as people may wonder why the same company uses different pricing policies for mandatory and voluntary pension plans.

Introducing caps on fees as a complement to a single charge structure can help when competition is not sufficient by itself to bring down prices. However, caps can also have unintended consequences. First, if the cap is set too high, fees tend to rise to the level of the cap. Second, if the cap is set too low, plan providers may try to cut costs by offering lower-quality plans or by reducing the number of transactions they undertake, even when the trades would be in the best interests of members. Third, if the cap does not include all costs, providers may have an incentive to exaggerate uncapped costs in order to compensate for any lost profits in areas that do fall within the scope of the cap.

The new fixed fee caps of 0.8% for assets up to EUR 300 million and 0.6% for the part of assets above EUR 300 million are more in line with those used by countries having a similar fee structure to the Latvian mandatory funded pension scheme (fees based on assets, with or without a performance fee).[28] Countries with similar caps include the Czech Republic (0.4% for conservative investment plans and 1% for the other plans), Sweden (0.89% for equity funds, 0.62% for mixed funds and 0.42% for fixed income funds in the premium pension system), Turkey (0.85% for the new automatic enrolment scheme), the United Kingdom (0.75%), Costa Rica (0.7%, going down to 0.35% by 2020) and Croatia (0.45%). Some countries are also more expensive: Spain (1.75%), Albania (3%) and Armenia (1.5%). The last two countries however have much smaller pension systems, with assets under management representing less than 1% of GDP.

Table 5.10. **Fee structure and fee caps in selected OECD and non-OECD countries**

Countries with no restriction on fee structure	Australia (except MySuper), Denmark, Ireland, Portugal, the United States				
Countries with restricted fee structure	Fees on salaries	Fees on contributions	Fees on assets	Fees on returns / performance	Other fees (e.g. exit fees, entry fees, switching fees)
Chile	No cap	×	×	×	×
Czech Republic - Transformed funds	×	×	Up to 0.8% of the average annual value of the funds	Up to 10% of profit	×
Czech Republic - Participants funds	×	×	Up to 1% of the average annual value of the fund (0.4% for conservative funds)	Up to 15% (10% for conservative funds) of (average value of the pension unit in t – highest annual average value of the pension unit since t_0) × the average number of pension units in t, where t is the current period and t_0 is the time since the creation of the fund	×
Estonia – 2nd pillar	×	×	No cap but management fee must decline by 10% after each EUR 100 million managed by all pension funds of the same management company	×	Redemption fee: up to 0.1% of the net value of a unit (0.05% for conservative funds)
Estonia – 3rd pillar	×	×	No cap	×	No cap (redemption fee and unit issue fee)
Korea	×	×	No cap	×	×
Latvia - Mandatory	×	Up to 2.5% (SSIA)	Up to 0.8% of average value of assets for assets up to EUR 300 million (0.6% as of 2019) and 0.6% for the part of assets above EUR 300 million (0.4% as of 2019)	Total fixed fee plus performance fee: Up to 1.3% of average value of assets for active and balanced plans (1.1% as of 2019) and 1.05% for conservative plans.(0.85% as of 2019).	×
Mexico	×	×	No cap	×	×
Poland - Open pension funds	×	Up to 1.75%	Up to 0.54% of net assets annually (regressive fee algorithm, bigger funds charge smaller percentage), no more than PLN 186 million annually	Set at 0.06% of net assets annually multiplied by the percentage premium ratio = (Ri-Rmin)/(Rmax-Rmin)	×
Poland - Occupational plans	×	×	Up to 0.6% annually	×	×
Poland - Voluntary personal plans	×	No cap	No cap	×	×
Slovak Republic - 2nd pillar	×	Up to 0.25% (SIA) + 1% (maintaining the account)	Up to 0.3% annually of the average annual net asset value	Up to 10% of net asset value × (value of the pension point/highest value of the point - 1) The highest value of the point is calculated over the last 3 years	×
Slovak Republic - 3rd pillar	×	×	- Supplementary pension funds: up to 0.8% annually of the average annual net asset value - Contributory pension funds: up to 1.6% annually of the average annual net asset value	Up to 10% of net asset value × (value of the pension point/highest value of the point - 1) The highest value of the point is calculated since 01/01/2010	- Switching fee: up to 5% of the member s account balance in the first year after concluding a contract - Termination settlement fee: up to 20% of the member s

Countries with no restriction on fee structure	Australia (except MySuper), Denmark, Ireland, Portugal, the United States				
Countries with restricted fee structure	Fees on salaries	Fees on contributions	Fees on assets	Fees on returns / performance	Other fees (e.g. exit fees, entry fees, switching fees)
					account balance (only for old contracts)
Slovenia - Insurance and pension companies	×	Up to 1%	×	×	- Entry fee: up to 3% of assets - Exit fee: up to 1% of contributions - Switching fee: up to EUR 15 per switch
Slovenia - Mutual pension funds	×	No cap	No cap	×	No cap (exit fee, % of withdrawal)
Spain	×	×	Up to 1.5% for the managing entity fee and 0.25% for the custodian fee (calculated daily) The previous limits can be replaced by 1.2% of the total assets (on an annual basis) + 9% of the profit and loss account	×	×
Sweden - Premium pension	×	×	- Equity funds: up to 0.89% - Mixed funds: up to 0.62% - Fixed income funds: up to 0.42%	×	×
Turkey - Personal plans	×	No cap	Up to 1.7% of assets annually	×	No cap
Turkey - Auto-enrolment plans	×	×	Up to 0.85% of assets annually	Up to 0.2% of return in excess of 2% + index (repo and banking account)	×
United Kingdom - Default funds	×	×	Up to 0.75% of assets annually	×	×
Albania	×	×	Up to 3 % of the net value of the pension fund annually	×	Switching fee up to 0.5% of the amount transferred
Armenia - Mandatory plans	×	×	Up to 1.5% of the average annual net asset value	×	Redemption fee up to 1% of NAV of redeemed units
Armenia - Voluntary plans	×	×	Up to 5% of the average annual net asset value	×	No cap
Bulgaria - VPFOS and VPF funds	×	Up to 7%	×	Up to 10% of the return (in any) accumulated from the start of the year, calculated daily	- Entry fee: up to BGN 10 - Switching fee: up to BGN 20 - Other fees: up to BGN 20
Bulgaria - UPF and PPF funds	×	Up to 4.5%	Up to 0.9% of the net assets calculated daily	×	Up to BGN 10 when transferring funds from UPF/PPF to a pension scheme of the EU, ECB or EIB
Colombia	×	Set at 3% (including insurance)	×	×	No cap (switching fee and fee on passive members)
Costa Rica	×	×	Up to 0.7% of assets (going down to 0.35% by 2020)	×	×
Croatia - Mandatory plans	×	×	Up to 0.45% of total assets	×	- Entry fee: up to 0.8% of contributions

Countries with no restriction on fee structure	Australia (except MySuper), Denmark, Ireland, Portugal, the United States				
Countries with restricted fee structure	Fees on salaries	Fees on contributions	Fees on assets	Fees on returns / performance	Other fees (e.g. exit fees, entry fees, switching fees)
					- Switching fee: may be charged in the first three years of membership, up to 0.8% of assets in the first year, 0.4% in the second year and 0.2% in the third year
Croatia - Voluntary plans	×	×	No cap	×	No cap
Liechtenstein	×	No cap	No cap	×	No cap
Lithuania - 2nd pillar	×	Up to 0.5%	Up to 0.65% for bond pension funds, 1% for other pension funds	×	Switching fee up to 0.05% of assets
Lithuania - 3rd pillar	×	No cap	No cap	No cap	×
FYR of Macedonia - Mandatory plans	×	Up to 3%	Up to 0.04% of assets monthly	×	Switching fee up to EUR 15 per member if membership is less than 720 days, otherwise is free of charge
FYR of Macedonia - Voluntary plans	×	Up to 7%	Up to 0.15% of assets monthly	×	Switching fee up to EUR 10 per member if membership is less than 240 days, otherwise is free of charge
Maldives	×	×	Up to 0.8% of assets monthly	×	×
Peru	No cap	×	No cap	×	×
Romania - 2nd pillar	×	Up to 2.5%	Up to 0.05% of net assets monthly	×	Switching fee for transfers taking place earlier than 2 years after joining the plan, no cap
Romania - 3rd pillar	×	Up to 5%	Up to 0.2% of net assets monthly	×	Switching fee for transfers taking place earlier than 2 years after joining the plan, no cap
Republic of Serbia	×	Up to 3%	Up to 2% of net assets annually	×	No cap (switching fee)

Note: × = The type of fee does not exist/is not allowed in the country.

Source: OECD Global Pension Statistics.

Fixed fees based on assets under management alone may not provide strong incentives for asset managers to act in the best interest of plan participants. Indeed, the fixed fee structure predominantly incentivises asset managers to increase assets, as it then increases the base for calculating the fees. Having good performance is one way to achieve this goal, but attracting new members has larger effects. In turn, while good performance can attract new members, marketing the fund may be more powerful. For example, in Mexico, between 2001 and 2014, the majority of the workers who switched did so to a pension fund providing a lower net return (negative switch). This is because pension funds increased their marketing costs and hired a greater number of sales agents that try to convince workers to switch (OECD, 2016c). Clare et al. (2014) claim that a fixed fee as a proportion of assets under management is generally the best structure for

fund managers (in terms of total fee income) but the worst for investors (in terms of wealth accumulated). Depending on how it is structured, a performance fee can help better align asset managers' and participants' interests. For example, Hamdani et al. (2017) use a regulatory experiment from Israel and show that funds with performance fees exhibit higher risk-adjusted returns than funds with asset-based fees operating in different competitive environments. However, they also find that competition is associated with reduced fees.

When designing a performance fee, one has to be careful about the design and clearly specify the following features:

- The fee base (e.g. assets under management or returns).
- The fee rate.
- The benchmark against which the performance of the fund is compared. The benchmark can be defined with respect to the performance of competitors, to an external index or to a fixed rate (also called "hurdle rate"). The benchmark defines the minimum return a pension fund must earn before it can charge a performance fee.
- The horizon against which the performance of the fund is compared to that of the benchmark.
- The presence of a high-water mark. A high-water mark is the highest value that a pension account has ever reached. The purpose of the high-water mark is to make sure that any losses occurring after the last high-water mark will be compensated before the pension fund is paid a performance fee.
- The symmetric or asymmetric nature of the fee. A symmetric fee rate means that underperformance is penalised as much as outperformance is rewarded. In case of underperformance compared to the benchmark, the fund must compensate participants through lower fixed fees, cash refunds or credits against future fees. With asymmetric performance fees, outperformance is rewarded but underperformance is not penalised.

As shown in Table 5.10, the design of performance fees varies across countries. Some countries have a performance fee whose payment is triggered by achieving a positive nominal rate of return. This is the worst performance fee structure from the point of view of plan members because it is asymmetric (the pension plan is not penalised in case of negative returns), has a low hurdle rate (0% nominal return) and has no high-water mark (the pension plan can get the fee even if past losses have not been recouped). This fee structure simply encourages asset managers to take risks. If the risk pays off, the asset manager receives a larger fee, while in case of negative returns the asset manager still receives the fixed fee. All the risk of underperformance therefore falls on the plan member. This structure can still be found in several countries, like the Czech Republic for transformed funds (which are closed to new entrants since November 2012) and Bulgaria for voluntary pension funds (VPF and VPFOS).

The use of high-water marks by pension funds is limited. Only two countries in Table 5.10 use them: the Czech Republic and the Slovak Republic. In the Czech Republic, if the average value of the pension unit is lower than its historic maximum, the pension fund does not receive any performance fee. Otherwise, the performance fee is a percentage of the outperformance compared to the high-water mark. The Slovak Republic uses a similar

formula, but the high-water mark definition varies for funds in the 2nd and 3rd pillars. The high-water mark is the highest value of the pension point since 1 January 2010 for funds in the 3rd pillar, while for funds in the 2nd pillar the high-water mark is the highest value of the pension point over the past 3 years only.

Some countries use the performance of competitors as a benchmark. For example, in Poland, the performance fee is set at 0.06% of net assets multiplied by the so-called "percentage premium ratio". This ratio is calculated as $(R_i-R_{min})/(R_{max}-R_{min})$ where R_i is the rate of return of the pension fund, R_{min} is the rate of return of the pension fund with the worst performance and R_{max} is the rate of return of the pension fund with the best performance. The percentage premium ratio varies between zero for the worst performer and one for the best performer. The worst performer therefore does not receive any performance fee, while the best performer gets 0.06% of net assets and the other pension funds get only a part of the maximum fee, depending on their relative performance.

The main issue with benchmarks based on the performance of competitors is that they encourage herding around the median asset manager (Blake and Timmermann, 2002). Because the payment of the fee depends on the asset manager's relative performance against others managers, they all converge in terms of their asset allocation strategies. This reduces the incentive to actively manage the assets and reduces potential returns.

Finally, some countries use an external index as a benchmark to define the performance fee, such as Latvia and Turkey. For pension fund management companies operating in the mandatory funded pension scheme in Latvia, the benchmark combines a debt securities index and an equity securities index. Pension funds operating in the new automatic enrolment scheme in Turkey must beat a benchmark equal to 2% plus the performance of an index comprising repos and banking accounts. In case they beat that benchmark, the performance fee cannot exceed 0.2% of the excess return.

The OECD Secretariat finds the proposal by the Bank of Latvia to introduce different benchmarks for different investment plans when calculating the performance fee worth pursuing. Given the current environment of low interest rates, all investment plans in Latvia outperform the benchmark used up to 2017 (3-month Euribor rate) and can charge the maximum fee. This does not encourage asset managers to actively manage the assets. The Bank of Latvia therefore proposes to tighten the definition of the benchmark and of the benchmark horizon. Instead of a single benchmark for all investment plans, there would be a different benchmark for each type of investment plan: a fixed income index for conservative plans and a mix of fixed income and equity indexes for balanced plans (80% fixed income and 20% equity) and active plans (60% fixed income and 40% equity). In addition, in order to encourage asset managers to adopt more long-term strategies, the horizon for the comparison of the asset manager's performance against the benchmark's would be lengthened, from two to eight years. The detailed rules on the estimation of the benchmark have not been approved yet at the time of writing the report.

Since 2018, the Latvian authorities have adopted a regressive scale for management fees as assets under management grow. This model is used in Estonia. The management fees of mandatory pension funds in Estonia are not capped but must decline as the total value of assets under the management increases. The management fee must decline by 10% after each EUR 100 million of assets under management. For example, if a management company charges 1% of assets and manages EUR 220 million, the actual fee will be 1% on the first EUR 100 million, 0.9% on the second EUR 100 million and 0.81% on the last EUR 20 million, thus an overall fee rate of 0.937% (=(100×1%+100×0.9%+20×0.81%)/220).

The new fee structure for the Latvian mandatory funded pension scheme, with a regressive scale and lower caps, is well reasoned. It could be combined with a high-water mark or a symmetric mechanism to increase risk sharing between the asset managers and the plan participants.

Structural solutions

Structural solutions entail an intervention in the structure of the market. A structural solution may involve the establishment of a centralised institution that is in charge of either delivering the various pension services, directly or via an outsourcing arrangement, or of negotiating better terms (lower fees) on behalf of plan participants (e.g. the Swedish premium pension system or NEST in the United Kingdom). This policy solution can be very effective in achieving low fees as it ensures economies of scale and can avoid the marketing expenses of the retail model. However, it may be difficult to implement once a DC industry of competing providers is established. A centralised institution can also raise governance challenges that call for effective and independent oversight.

There are other structural solutions which can also be conducive to lower fees that may work better when a DC industry of competing providers is already established. This includes establishing a tender process, for example by the regulator, for assigning new or undecided workers to a single pension provider. For example, Chile introduced an auction process in 2008. The auction applies to the fees charged for the management of the individual accounts for new members. New members are automatically enrolled in the pension fund administrator which charges the lowest fees and they are required to remain with this administrator for at least 24 months. The fees cover administration costs and internal investment costs. There have been four auctions since the reform was enacted. The first auction took place in 2010 and it allowed a new pension fund administrator to enter the market starting from August of that year, offering the lowest fee of the system equal to 1.14% of salary. The same administrator won the second auction in January 2012, decreasing the fee offered to 0.77% of salary. As a result, another administrator decided to lower its fees from June 2012, the first reduction by any of the incumbents since 2009. During the last two auctions, carried out in January 2014 and January 2016, the administrator previously with the highest fee won the auctions by lowering the fee to 0.47% of salary and then 0.41% of salary. Again, such a solution calls for strong public sector governance and institutional capability. The auction should also include other criteria than fees, including the provider's organisational and investment capabilities, to ensure that quality standards are kept for plan members.

The Latvian authorities could consider establishing a tender process to assign new participants in the mandatory funded pension scheme to the asset manager charging the lowest fees for the same services. All new entrants in the labour market could become members of the winner asset manager, without the possibility to switch to another asset manager during a given period. It would be important to make sure that lower fees do not translate into lower services and hidden costs, leading for example to lower investment returns.

Balance market opportunities and increase competition

The high fees in effect in the Latvian pension industry relative to other countries reflect the relatively recent introduction of the system but also a potential lack of competition between pension providers. Market opportunities need to be balanced across

asset managers by addressing the issues raised by the link between asset managers and banks. In addition, reforming the switching mechanism and increasing transparency requirements could also help foster competition in the industry.

The Latvian authorities could reduce the comparative advantage of assets managers that are bank subsidiaries with respect to independent asset managers by ensuring that individuals have access to complete and comparable information about all asset managers' pension plans. Today, banks can advertise their asset managers to their clients, creating a competitive advantage for asset managers that are bank subsidiaries. It is therefore difficult for asset managers not related to banks to get a sizeable share of the market. Requesting banks to provide complete and comparable information about all asset managers' pension plans to their clients when the bank provides them information on their own asset manager will put all asset managers on a more equal level playing field. This information could be in line with what is available at the My pension website.

According to the OECD Core Principles of Private Pension Regulation (OECD, 2016a), the governing body of a pension entity must ensure the protection of the best interests of plan members and beneficiaries. In the case of Latvia, most of the time, the custodian bank and the shareholder of the asset manager are the same entity, and in turn, that entity selects the members of the governing body of the asset manager. This may create conflicts of interest. Independent members not representing the shareholders (for example individuals representing the plan participants) are only requested for voluntary private pension funds and for asset managers also providing UCITS funds.[29] Independent members could be introduced in the governing body of asset managers in a more systematic manner to help reinforce its commitment to act in the best interests of participants only. Independent members should be subject to the same fit and proper standards as other members of the governing body.

The reformed switching mechanism will improve its efficiency at fostering competition between asset managers. The fact that individuals are informed of their current asset managers before requesting to switch will avoid unnecessary costs from the side of both the SSIA (when processing the switching requests) and the asset managers (when attracting new members).

Lengthening the period during which people cannot switch between asset managers would further help reducing costs. For example, plan members could be allowed to change asset manager only every three years, instead of every year. Alternatively, switching could be allowed anytime, with a fee for people requesting a switch before three years of membership. In both cases, individual choice regarding the asset manager would remain but would be more constrained. As less people every year would be allowed to switch, asset managers would have to spend less on marketing costs to attract new clients, thereby reducing costs. In addition, giving more certainty to asset managers as to their client base would help them better align their investment strategy with the long-term horizon necessary to manage pension assets. This would also lead to lower costs.

Finally, in OECD countries, transparency is seen as a key element to encourage competition and aims at changing the behaviour of pension plan providers through peer pressure. In the Netherlands for example, pension plans are required to provide very detailed and granular information on administration and investment costs. This has led to greater cost awareness, resulting in better outcomes for members. Table 5.11 indicates that pension providers in the Netherlands had an incomplete picture of their costs before reporting requirements were introduced in 2011. For example, ABP understated its 2010

costs and revalued them from 0.39% to 0.70% of assets under management. The data also show that pension funds were able to take action on the basis of the new information, as PME and PMT both reduced their costs over the period 2011-2013. It should be noted that the other funds took similar action, but made other changes that mean that overall costs did not decline.

Table 5.11. **Asset management costs in selected Dutch pension funds, 2010-2013**

In basis points of assets under management

Pension fund	2010	2011	2012	2013
ABP*	39	64	73	76
PFZW	48	55	57	61
PMT	17	62	54	40
BPF Bouw	52	46	50	58
PME	70	53	37	29

Note: ABP restated the 2010 figure to 70 basis points.

Source: Pension Federation (2016).

Streamline the design of the retirement phase

The Latvian authorities should streamline the design of the retirement phase by eliminating the option to transfer assets to the NDC scheme; by clearly separating life annuity products and drawdown products like the upfront-withdrawal annuity; and by strengthening the supervision of insurance companies.

The information provided by the SSIA to choose between the two options available at retirement is distorted. At retirement, individuals can choose between transferring the assets to the NDC scheme and purchasing a life annuity from a life insurance company. The information disclosure by the SSIA and the default option tend to favour the transfer of the funded assets to the NDC scheme, even though some population subgroups may be better-off with a traditional life annuity. Regulators should eliminate the possibility to transfer the assets to the NDC scheme and keep the funded and NDC schemes separated for the retirement phase.

In order to help people to compare different life annuity offers, the Latvian authorities could consider implementing an electronic platform where participants in the mandatory funded pension scheme about to retire could see the bids from all life insurance companies in one place. Chile for example has such a system in place called the Online Pension Consultation and Bidding System (Sistema de Consultas y Ofertas de Montos de Pensión in Spanish, or SCOMP). Upon retirement, people can choose from four different options: programmed withdrawal, life annuity, programmed withdrawal with immediate life annuity and programmed withdrawal with deferred life annuity. In order to make that choice, all members that are eligible for life annuity must consult the SCOMP. Life insurance companies and pension funds respectively transmit bids for life annuities and pension payments under the programmed withdrawal option. In this way, individuals simultaneously receive and compare all available retirement bids. In the case of Latvia, a similar system could be put in place where individuals could enter their preferences (e.g. existence of a guaranteed disbursement period, frequency of the payments, or

number of payment periods) and receive the bids from all life insurance companies simultaneously.

The FCMC should strengthen the supervision of life insurance companies regarding the mortality tables used for reserving. Today, there is no minimum requirement for mortality tables and life insurance companies use their own mortality tables. As discussed in OECD (2014a), the regulatory framework should ensure that annuity providers use appropriate mortality tables. In particular, mortality tables should include expected future improvements in mortality; be regularly updated to accurately reflect the most recent experience; and be based on the mortality experience of the relevant population.

Finally, regulators should consider allowing clear distinct products for the retirement phase. In particular, traditional life annuity products (paying fixed or indexed payments until the person dies) should be proposed separately from drawdown products like the upfront-withdrawal annuity. With the former, individuals are fully protected from the longevity risk, while with the latter individuals bear much of the longevity risk and have to rely on the NDC scheme alone to get lifelong payments. Individuals need to understand the different features of the products they can choose from for retirement. Mixing annuities and drawdown into one product may lead to confusion.

Improve communication within the system

There is a need to improve communication within the pension system, between the SSIA and the asset managers, and also between the SSIA and the plan participants. This would improve public understanding of and confidence in the pension system, as well as increase efficiency.

The fact that the SSIA administers the accounts of the mandatory funded pension scheme while asset managers manage those accounts should not prevent an efficient functioning of the system. Allowing the SSIA to communicate to the asset managers information related to their respective plan members would allow asset managers to propose more varied investment options to their members, including life-cycle investment strategies. The exchange of information between the SSIA and the asset managers should respect the framework in place in Latvia regarding personal data protection.

Public confidence in the system could be increased by emphasising to participants in the mandatory funded pension scheme that the amount accumulated in their pension account is their money. In a funded DC system, it is easy to show that assets grow as the individual contributes to the system. If people realise that this is their money and that they have some discretion on how to use it once they have reached retirement age, they may have a greater interest and confidence in the system.

Finally, the account statement should aim to engage workers and encourage them to take active steps to improve retirement income adequacy (OECD, 2014b). The State funded pension scheme participant's account statement provides useful information to participants, but very few download and read it. The Latvian authorities should therefore consider sending it to participants, at least in an electronic form. As argued before, the account statement should include information on the Euro amount of management fees paid during the period covered by the statement, ideally broken down between the asset manager's commission, the custodian's commission and the performance fee. The account statement could also merge with information on the NDC scheme and include projections of future total pension benefits under different scenarios for the age of retirement and the level of voluntary contributions. This would help individuals realise

about the impact of postponing retirement and making additional contributions in voluntary pension funds and may prompt them to react by adjusting their expected retirement date or increasing their voluntary contributions. As projections are uncertain (they depend on a number of factors such as investment returns, discount rates, inflation, wage growth, employment and life expectancy), individuals should be informed that those projected pension benefits do not represent a promise. In any case, changes to the account statement should come with clear and measurable objectives and their impact on participants' behaviour should be assessed to continuously increase the usefulness of the document.

Notes

1. The number of asset managers, pension funds and investment plans refers to 15 December 2017.
2. Retirees are not counted in the number of participants.
3. Active participants are those who made at least one contribution during the year. These include participants who retired or died during the reporting year and were no longer considered as participants at the end of that year. Source: 2003 to 2016 reports from the State Social Insurance Agency "Overview of the state-funded pension scheme activity".
4. Only countries having distinct pension contributions are included. For example, in Norway, social insurance contributions amount to 22.3% of earnings, but it is not possible to separate the pension contributions from the other parts of social insurance such as survivor's benefits, disability benefits, unemployment, sickness, etc.
5. The calculation of the average contribution rates assumes a 45-year-old average earner working in the private sector.
6. A micro-enterprise is defined as a sole proprietorship, an individual enterprise, a farm or fish farm, any natural person who has registered with the State Revenue Service as a performer of economic activity, or a limited liability company, if they meet a number of criteria, including that all members of the business are natural persons, that the turnover in a single year does not exceed EUR 100 000 (EUR 40 000 from January 2018), that there are no more than five employees at any time, and that any board members are also employees.
7. As of 1 January 2018, the total social insurance contribution is 35.09% for employees (24.09% paid by employers and 11% paid by employees).
8. If an individual receives royalties and is simultaneously employed, with a wage above the minimum wage, he or she only has to pay a 5% contribution from the royalties.
9. As individuals can join more than one private pension fund and be members of several pension plans at the same time, information on the number of pension plan participants includes multiple counting.
10. The number of pension funds and investment plans refers to 15 December 2017.

11. More precisely, the total of donations and gifts, payments into private pension funds, insurance premium payments and purchase costs of investment certificates of investment funds could not exceed 20% of the amount of the individual's taxable income.

12. The methodology for calculating the tax advantage is the same as described in OECD (2016b). Tax treatment of a traditional savings account: contributions are not tax deductible, investment income is taxed at 10% and withdrawals are tax free. The calculations for Latvia account for the changes introduced by the new Tax Reform Law (progressive personal income tax system and cap for tax-deductible contributions).

13. There is also a conservative plan offered by one open pension fund, with only six members at the end of Q3 2017.

14. Source: 2016 report from the State Social Insurance Agency "Overview of the state-funded pension scheme activity".

15. The latest entrant in the market, INDEXO, has a target allocation to equities of 47% for its active plan (IPE). This is just under the regulatory limit. See Start-up pension provider aims to cut costs in Latvia.

16. There is a minimum contributory period to qualify for a pension from the NDC scheme. However, it is not clear what happens to the funded assets when an individual retires without qualifying for an NDC pension.

17. In case the assets accumulated in the mandatory funded pension scheme are transferred to the NDC scheme upon early retirement, the early pension is initially 50% of the full pension (calculated based on the total notional plus financial capital) and is restored to the full pension after reaching normal retirement age.

18. A minimum pension for someone having contributed at least 40 years is EUR 109. Calculations of the annuity payment corresponding to the minimum accumulation of EUR 3 000, given standard Latvian mortality tables, will come out to be around EUR 20.

19. The analysis first compares the different options based on the annuity factor and the first pension payment and then examines the profile of pension payments for individuals in different income groups, see Figure 5.17.

20. Please see the note below Table 5.9 for all the assumptions made for the calculations.

21. Under the Solvency II framework, the solvency capital requirement is defined as the amount that the insurer must hold so as to remain solvent over the forthcoming 12 months and maintain its default probability below 0.5% (i.e. ruin occurs no more often than once every 200 years). Longevity risk is considered as a sub-module of the life underwriting risk and is defined as "the risk of loss, or of adverse change in the value of insurance liabilities, resulting from changes in the level, trend, or volatility of mortality rates, where a decrease in the mortality rate leads to an increase in the value of insurance liabilities". In this framework and according to the standard formula, the longevity solvency capital requirement corresponds to the change in net asset value (i.e. market value of the assets minus liabilities) resulting from a 25% immediate and permanent decrease in mortality rates.

22. For a middle-income earner, the net present value of pension benefits when transferring the funded assets to the NDC scheme will become higher than in the case of a life annuity purchase after age 80+.

23. Up to the end of 2017, a fixed tax rate of 23% applied to all income sources.

24. Insurance companies must ensure that the amount of life annuity payments indicated in the contract does not differ from the amount forecasted with their calculator.

25. Pension income formed from contributions made by an individual is not taxable. Pension income formed from contributions made by an employer is taxed at the individual's marginal income tax rate. As 87% of contributions to the voluntary system are done by individuals, most of pension income will be tax free.

26. This is the result of using a mortality table with improvements in life expectancy (2 years) and a charge that increases the annuity factor by 5%, an average real rate of return of 3%, a real discount rate of 2%, productivity growth of 1.25% and inflation of 2%.

27. The success of this policy has however been limited, as most of these people used the possibility to opt out of the scheme.

28. The caps will be reduced to 0.6% and 0.4% of assets respectively as of 2019.

29. Asset managers managing only mandatory pensions can choose whether or not to introduce independent members in their governing body. If not, an external auditor has to check that there are no potential conflicts of interests.

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Chapter 6

Early retirement and disability schemes

In Latvia, claiming pension two years before the statutory retirement age is possible within the mandatory NDC-FDC scheme, but this results in a large benefit reduction. Workers of occupations classified as arduous and hazardous and selected public-sector employees can retire early based on more generous provisions. Disability pensions are granted only before the statutory retirement age, after which they are converted into old-age pensions. This chapter discusses these schemes and highlights some policy options to improve their coordination.

6.1. Introduction

Working until the statutory retirement age, or later, and then claiming a pension is only one way to transit from work to retirement. Alternative possibilities may involve claiming other social benefits: minimum income, unemployment benefits, early retirement benefits and disability pensions. In general, the level of these alternative benefits is lower than old-age pensions and eligibility depends on income, assets, health conditions, work capabilities as well as past employment and earnings records. The generosity, eligibility conditions and interdependence of these benefits vary between countries. Moreover, regimes covering selected groups of workers tend to offer possibilities to retire before the statutory retirement age of the main pension scheme.

In Latvia, retiring before the statutory retirement age is possible within the main pension scheme. The main NDC scheme offers an option to retire two years early with a large penalty until reaching the statutory retirement age. Moreover, workers in arduous and hazardous occupations can claim their old-age pension earlier without being penalised. Conversely, special defined benefit (DB) schemes for selected employees in the public sector offer higher pensions at younger ages, with the top-up to the benefits from the main scheme being financed by taxes. Disability pensions constitute a separate scheme. Access to disability benefits requires an assessment of the ability to work, and disability pensions are converted into old-age pensions upon reaching the retirement age, with the old-age benefit not being lower than the previously granted disability pension. Other alternatives to leave the labour market early are rare: the level of the safety net for working-age individuals (GMI) is very low (Chapter 3) while unemployment benefits can only be claimed for nine months.

The rest of the chapter is structured as follows. Section 6.2 describes the eligibility conditions and the prevalence of early retirement in the main pension scheme. The next section discusses early retirement options for selected public-sector employees and workers of arduous and hazardous occupations. Section 6.4 describes the prevalence of disability pensions and the transition from disability to old-age benefits. The final section provides a summary and highlights policy recommendations that follow.

6.2. Early retirement in the main pension scheme

Early retirement age

In Latvia, the early retirement age is 61.3 years in 2018, i.e. two years before the official retirement. Any changes in the latter automatically affect the former. Hence, as the normal retirement age will increase to 65 by 2025, the early retirement age will reach 63. By comparison the earliest possible retirement age was 61.9 on average across the OECD in 2016 and will be 63.5, based on all currently legislated measures (OECD, 2017a), for those having entered the labour market in 2016.

To be eligible for early retirement, at least 30 years of contributions are required, whereas eligibility for an old-age pension at the official retirement age requires only 15 years in 2018, increasing to 20 years by 2025. Early retirement cannot be combined with work whereas there are no restrictions after the official retirement age.

Retiring before the retirement age strongly lowers benefits

In all OECD countries that provide an early retirement option, specific components of pension benefits are reduced permanently. The severity of the penalty differs widely across countries (OECD, 2017a). Moreover, in a few OECD countries early retirees face a temporary reduction of their benefit until reaching the normal retirement age: in Australia, Canada, Denmark and Iceland, the early-retirement option applies only to some pension components, still leading to a much lower overall benefit until reaching the normal retirement age (OECD, 2017a). Latvia is the only OECD country that temporarily reduces – and at a high level of 50% - the benefit from the main earnings-related scheme until reaching the official retirement age, thereby providing an effective strong disincentive to early retirement. This temporary penalty does not apply to the annuity purchased with the capital from the mandatory funded scheme (funded defined contribution, FDC).[1] The minimum pension is also available from the early-retirement age, with a reduced value of 50%.

The early-retirement benefit is lower than the normal pension through two mechanisms, in addition to the temporary 50% reduction and missing contributions. First, as the remaining life expectancy is higher at lower ages, pensions are automatically reduced in both NDC and FDC schemes (by 7% when retiring at 61 instead of 63 in 2017).[2] Second, the indexation of pensions in payment is less favourable than both the valorisation of notional accounts and the expected financial returns on funded pension assets (Chapter 2), leading to an additional permanent decrease (estimated at about 3% of the pension at age 63). Hence, on top of the 50% temporary reduction, retiring two years before the normal retirement age results in a total permanent decrease of about 10% in total (i.e. 5% per year).[3]

Early-retirement options were extensively used during the crisis

The prevalence of the early-retirement scheme is high. In 2016, about 5 800 people received early pensions from the main scheme, including about 3 200 which were newly granted. This means that about one-fifth of the new retirees from the main pension scheme used the early-retirement pathway.[4]

There are three explanations for this high take-up rate despite the significant penalties. First, for those having poor work opportunities or working in the shadow economy claiming even a reduced benefit as soon as possible might still be attractive, at least in the short term. Second, some people with poor health, who are not entitled to disability pensions, might have no other choice. Third, some individuals might have a strong preference for the short term and highly value the option to retire early, for example due to low life expectancy. Given considerable public support for the early-retirement option, the government dropped the plan to eliminate it in 2012 and 2014 (SSA, 2010, 2012 and 2014).

The early-retirement option was extensively used during, and a few years after, the crisis. In 2009, about 10 700 people claimed an early pension for the first time, a sharp increase from about 6 400 in 2008, while the ratio of newly granted early pensions to all newly granted pensions increased from 22% to 28%. The economic crisis contributed to this increase in two ways. First, the unemployment rate bounced from 8% to 20% between 2008 and 2010. Second, employment and wages dropped resulting, with a lag, in a negative valorisation of notional accounts of 20% in 2010 (Chapter 4). Therefore, retiring in 2009 instead of 2010 was attractive. An additional reason to advance claiming

pension was the withdrawal of the special supplement to newly granted pensions in 2012 (Chapter 2). Moreover, the number of contribution years needed to be granted a pension increased from 10 to 15 years in 2014. The anticipation of these changes might have been a strong incentive to speed up the retirement decision. Consequently, and given subsequent labour market improvements, the number of newly granted early pensions decreased gradually from about 10 700 in 2009 to about 3 200 in 2016.

6.3. Early retirement options for selected occupations

Countries often provide special pension schemes for two types of occupations: civil servants and/or the arduous and hazardous occupations. These categories partly overlap as soldiers, policemen or artists are sometimes included in both categories. These special regimes tend to provide more generous pensions, shorter vesting periods and lower retirement ages than the main schemes covering private-sector workers.

Schemes for public-sector workers

Some rationale that has been put forward to justify the existence of a separate scheme for government workers refers to the need to secure their independence and integrity while making a public career more attractive through shifting the remuneration costs to the future (OECD, 2016; Palacios and Whitehouse, 2006). However, the potential advantages of having separate schemes for civil servants have become less obvious, whereas their disadvantages, such as lack of transparency of separated pension systems, disincentives to move between the public and private sectors and inequity, remain. If needed, increasing gross or net wages of the population concerned is preferable to maintaining separate schemes.

Latvia almost fully unified all pension regimes into the NDC scheme in 1996, but over the last fifteen years special defined benefit (DB) schemes have expanded to cover more occupations. Meanwhile, schemes covering arduous and hazardous occupations are being eliminated.

Recent reforms of civil servant pensions reduced the differences between these special schemes and their private-sector counterparts in some OECD countries. The reforms included measures such as tightening the pension eligibility criteria (pensionable age, career length), reducing benefit generosity or raising contributions. Still, considerable differences between pension schemes for civil servants and private-sector employees remain in many countries (OECD, 2016).

Schemes for workers in arduous and hazardous occupations

The rationale for special pension rights for workers in arduous and hazardous occupations is the shorter and less healthy life in retirement due to higher mortality and morbidity risks (Zaidi and Whitehouse, 2009). Special pension provisions for broad categories of workers exist in all EU countries except for the Czech Republic, Germany and Hungary where only one or two occupations are given some special treatment according to Natali et al. (2016). Between 5% and 8% of current pensioners retired in such schemes in EU countries.

Occupational health risks can be better addressed by disability benefits and labour market measures that allow for individual assessment, rather than through separate

pension schemes. The recent reforms in EU countries were directed to limit access to the special schemes through introducing more individualised assessment for eligibility and through means-testing (Natali et al., 2016). On top of that, pension contributions were increased to help finance higher pension entitlements from remaining schemes.

In many countries, active labour market policies (ALMPs) include individualised measures that can help workers from arduous and hazardous occupations to retrain at older ages. ALMPs are not widespread in Latvia, however, and both participation in ALMPs and related expenditures are low by international standards. However, recent reforms have made ALMPs more individualised and market oriented, which is expected to increase their effectiveness (OECD, 2017c).

Increasing number of occupations covered by service pensions

In Latvia, a few DB schemes for selected public-sector employees survived the 1996 reform. These schemes are called service pensions, covering only a fraction of civil servants (while the rest are covered by the main NDC-FDC scheme). Service pensions grant possibilities to retire earlier than in the main pension scheme, require shorter vesting periods and provide higher pensions with the same contributions.

There are two categories of service pension schemes, one shrinking and one expanding. The shrinking one is financed from the social security fund and applies only to rights acquired before 1996. In the expanding one, pensions are fully financed from the general taxation up to the official retirement age, and afterwards taxes cover the gap between the benefit from the main scheme and the actually granted one. All employees pay regular social security contributions.

After the 1996 reform, only soldiers and policemen retained their separate DB schemes financed from taxes. Later, other groups gained special pension rights: prosecutors (from 2000), officials of the Office for the Protection of the Constitution (2004), selected groups of artists (2005), judges (2006), diplomats (2007), officials of the Corruption Prevention and Combating Bureau (2009), officials of state security institutions (2015) and employees of the State Emergency Medical Service (2016). There is a constant political pressure to extend these entitlements to other occupational groups (State Audit Office, 2017).

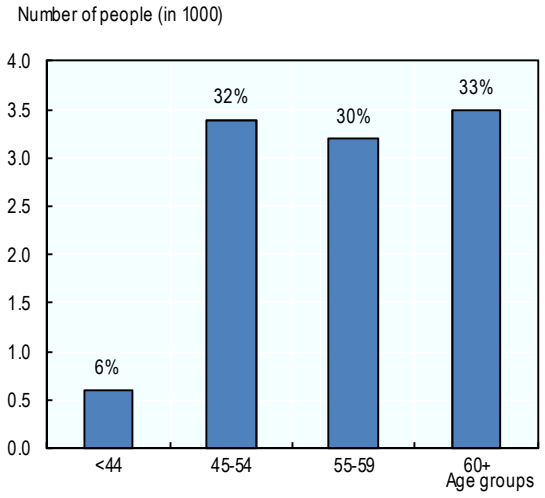
Pension entitlements of almost all of these categories are regulated by separate laws, hence, the level of benefits, retirement age and minimum vesting periods vary between them. Depending on the category the retirement age for service pensions is between 38 and 55 years whereas the minimum vesting period ranges from 10 to 20 years; the artistic professions have the lowest retirement ages. By comparison, early retirement in the NDC-FDC scheme can only be taken from the age of 61 and 3 months with a 30 years contribution record in 2018.

People retire on service pensions very early and can then combine claiming pension with work. Only one third of recipients of service pensions were older than 60 in 2016; 38% were younger than 55 years and even 6% were younger than 45 years (Figure 6.1). State Audit Office (2017) shows that 70% of recipients of service pensions work while claiming pension.

Even though it is granted at a much earlier age, the average service pension of EUR 329 was 18% higher than the NDC-FDC one in 2016. Moreover, 20% of service pensions were above EUR 500 compared with only 7% among all pensions in 2016

(Figure 6.2). In addition, past contributions finance only about two-thirds of service pensions on average while taxes finance the remaining third (State Audit Office, 2017).

Figure 6.1. **Recipients of service pensions by age in Latvia in 2016**

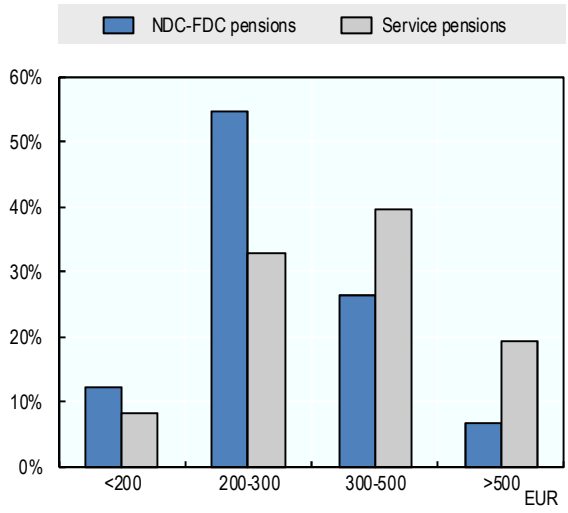


Note: Per cent of all service pension recipients above the bars. The recipients of service pensions include recipients of service pensions transformed into old-age pensions.

Source: OECD computations based on data provided by the Central Statistical Bureau of Latvia.

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Figure 6.2. **Distribution of service pensions and NDC-FDC pensions in Latvia in 2016**



Note: The recipients of service pensions include recipients of service pensions transformed into old-age pensions.

Source: OECD computations based on data provided by the Central Statistical Bureau of Latvia.

StatLink http://dx.doi.org/10.1787/888933657942

In 2016, 10 600 pensioners, i.e. 2.3% of all pensioners, received service pensions. This share has been slowly increasing from 2.1% in 2011. In 2016, expenditures on service pensions (0.2% of GDP) represented 2.7% of total pension expenditures. In the future, these schemes are expected to rely more and more on transfers from the general budget due to both the expanding number of occupations covered and population ageing (Chapter 2).

Special arrangements for arduous and hazardous occupations are being eliminated

In Latvia, the employees of arduous and hazardous occupations have retained their pre-reform rights to retire earlier without the 50% penalty provided that they worked before 1996 for a specific period in one of the listed occupations. The last workers with such an arrangement will retire in 2036; thereafter arduous and hazardous occupations will have no special pension rights.[5] The list of occupations, which was approved by the government, covers over 150 detailed categories including selected employees of chemical and metallurgy industries but also selected professional sportspersons and teachers.

The special rights for workers in arduous and hazardous occupations mainly include the early retirement option with only benefit adjustments through the pension formula; they do not face the 50% temporary penalty (Section 6.2). They can retire after working

between 15 and 25 years depending on the occupations,[6] compared to 30 years required for the early retirement option in the main scheme. Still, retiring earlier lowers the pension due to lower contributions and higher life expectancy. In addition, special provisions allow to work without any limitations when receiving pensions before the normal retirement age and to withdraw savings from the voluntary private scheme before age 55, which is not the case for other workers.

In 2016, there were 31 000 pensioners, i.e. 6.7% of all pensioners, from arduous and hazardous occupations. Even though they retired at an early age, their average pension of EUR 282 is roughly equal to the average pension of other pensioners.

6.4. Disability pensions

Disability benefits provide payments to those who – partially or fully – lost their work capacity, be it temporarily or permanently. They require a formal assessment and, in most cases, regular reassessment of work capacity, to ensure that: (1) payments are granted for as short as possible and are compensating the inability to work; and, (2) service needs are properly identified for the person to be able to use her capacity in the labour market. The insurance feature of disability benefits in many countries implies that payments typically replace, at some rate, previous incomes.

OECD (2010) argues that disability benefits should become more similar to unemployment benefits: they should be granted for a specific period of time rather than for the entire lifetime and be accompanied by the activation and reintegration measures that help people return to the labour market. For example, in Austria, Denmark, Germany, Hungary and Switzerland the disability benefits are granted only after the rehabilitation options have been exhausted. What is more, the work capacity assessment should shift towards identifying capacity and ability rather than incapacity and disability.

OECD (2015) emphasises that people with mental illnesses should be granted disability benefits only if fully and permanently unable to work. Those with remaining work capacity should be rather offered individually suited medical and vocational rehabilitation measures as early as possible rather than receiving passive benefits.

Total expenditures

Past trends in OECD countries show that the reforms to disability benefits lagged behind the employment-oriented reforms of unemployment benefits and old-age pensions (OECD, 2010). Consequently, the disability-related expenditure increased, but more recent cross-country analyses are missing.

Total expenditures on incapacity-related benefits at 1.8% of GDP were slightly lower in Latvia than the OECD average of 2.1% in 2013 (Chapter 2). Beyond disability pensions, incapacity-related expenditures include other categories, such as paid sick leave, benefits granted in relation to occupational injuries or rehabilitation services.[7] Compared to other countries, disability pension spending, of 0.6% of GDP, in 2015 was lower than the OECD average of 1.0% (in 2013). Spending on paid sick leave (including those due to occupational injury and disease) was in Latvia equal to the OECD average of 0.4% of GDP. In Latvia, disability pensions are financed from social security contributions at a rate of 3.11% (in 2016), which also finances the contributions to individual old-age pension accounts for the recipients of disability pensions.

Eligibility conditions

In Latvia, on top of the work capabilities examination, being eligible to a disability pension requires having contributed to social security for at least three years and being younger than the official retirement age.[8] Similar to other countries, separate schemes cover benefits for the loss of work capacity resulting from work accidents and occupational diseases; such benefits are excluded from the following analysis of disability pensions due to their temporary character and weaker relation with old-age pensions.

Work capacity is assessed by the State Medical Commission for the Assessment of Health Condition and Working Ability and the disability pension is granted until a person reaches the retirement age. There are three categories of disability in Latvia, depending on the degree of work incapacity: moderate (Group III), severe (Group II) and very severe (Group I). In 2016, the number of disability pensions' recipients was 74 501, with the above categories representing 43%, 50% and 7%, respectively. Particularly, the recipients with moderate work incapacity (Group III) should benefit considerably if receiving individualised rehabilitation and activation measures on top of or instead of passive benefits.

Benefit level

Depending on their level compared with wages, minimum income provisions, unemployment and (early) retirement benefits, disability benefits might create incentives for workers to give up working if only a minor reduction of work capacity results in being eligible to the benefit. Countries differ a lot in terms of the relative levels of specific schemes, the loss in work capacity that is needed to be granted a benefit and labour market activation measures.

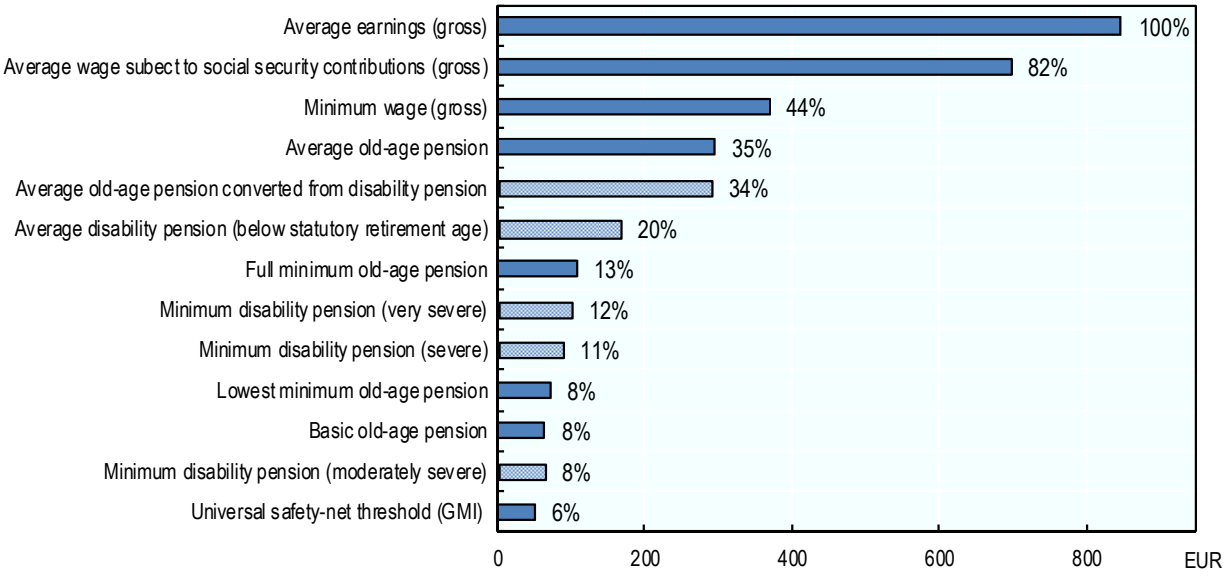
In Latvia, those assigned to the moderately sever category (Group III) receive a flat rate benefit equal to the basic pension of EUR 64. Severe (Group II) or very severe (Group I) incapacity results in the disability pension being determined based on the earnings average over the best three years out of the last five years. The benefit replaces between 40% and 55% of labour income depending on both the degree of work capacity loss and total contribution period. However, there exists a minimum disability pension benefit, which provides a lower bound for the two more severe categories.

The level of the minimum disability pension is linked to the state social security allowance.[9] Depending on the degree of the loss of work capacity, the minimum benefit varied between EUR 90 and EUR 102 in 2016 (Figure 6.3). This compares with a range of EUR 71 to EUR 109 for the minimum old-age pensions. All disability pensions are indexed in the same way as NDC pensions, but the initial level of minimum benefits is determined discretionally.

Replacement rates of around 50% and the low level of minimum disability pensions make them poor alternatives to work, thus limiting disincentives to participate in the labour market when possible. Moreover, in 2016, the average level of disability pensions at EUR 168 was much lower than the minimum wage of EUR 370 (Figure 6.3). However, disability pensions are higher than the safety-net levels for the working-age population (GMI, EUR 50). In addition, disability status gives access to some in-kind benefits such as free public transport, exemption from patients' co-payments for healthcare or reduction of the electricity bills. Furthermore, disability pensions can be claimed for years while an unemployment benefit cannot be received for more than nine months.

Figure 6.3. **Levels of disability pensions compared to other social benefits and wages**

Wages and selected benefits in EUR in Latvia in 2016, % of average earnings next to the bars



Note: Gross values, average earnings include all labour income.

Source: OECD (2017b), Ministry of Welfare of Latvia.

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Claiming disability pensions affects the old-age benefits

In Latvia, disability pensions affect old-age pensions in two ways. First, when claiming a disability pension, the social security budget pays old-age pension contributions to the NDC and FDC accounts, hence accruing old-age pension entitlements. These contributions are based on half the average wage that is subject to social security contributions. That is, a contribution basis of EUR 350 in 2016, which was slightly lower than the minimum wage (EUR 370). Therefore, the benefits provide limited work disincentives as the old-age pension entitlements increase faster when working even at minimum wage than when claiming disability pension.

Second, upon reaching the retirement age, disability pensions are converted into old-age pensions according to NDC rules, but the old-age pension cannot be lower than the granted disability benefit. The converted disability pensions might generate higher old-age pensions for some individuals than retiring at the official retirement age. The replacement rate of disability pensions at around 50% is similar to what will be delivered by old-age pensions but after 45 years of contributions (Chapter 2). Moreover, this around-50% replacement rate applies to recent earnings, which are, in general, higher than average lifetime earnings. These features might create some financial incentives to apply for disability pensions.

Yet, the financial advantages of being eligible to disability pensions are lower than in the past. The average disability pension has been steadily decreasing relative to the average old-age pension: in 1996 both were roughly equal while in 2016 the average disability benefit was 43% lower than the average old-age pension. Partially due to this

relatively low level, almost 90% of benefits increased at retirement when converted to old-age pensions in 2016.

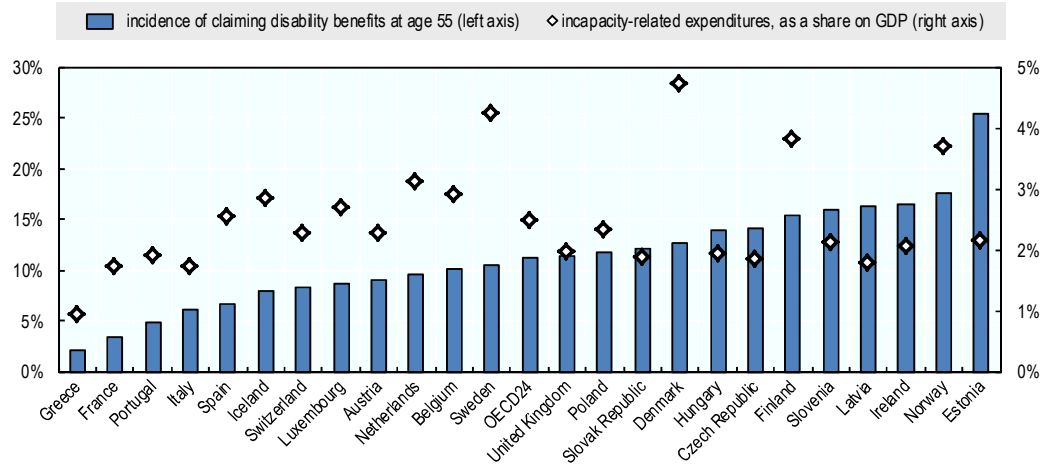
Take-up rates of disability pensions are high and increasing

Latvia is among European countries with the highest incidence of claiming disability benefits. In 2013, 16.3% of people aged 55 claimed disability benefits in Latvia compared to an average of 11.3% among European OECD countries. Only three countries have similar or higher take-up rate of disability benefits: Ireland and Norway at 16.4% and 17.6%, respectively, and Estonia at the high rate of 25%. Other Central and Eastern European countries (CEECs) also show above average incidence, at 15.6% at age 55 on average. At the other side of the spectrum, in Greece, France Italy, Portugal and Spain less than 7% of the 55years-old claimed disability pensions (Figure 6.4).[10]

These take-up rates can only partially explain the cross-country variation in total incapability related expenditures (as a share of GDP). On the one hand, countries with the lowest incidence of claiming benefits (Greece, France Italy, Portugal and Spain) show low levels of spending. On the other hand, while having above-average take-up rates, all CEECs spend less than the OECD24 average of 2.5% of GDP.[11] Moreover, Denmark and Sweden are the only countries that spend more than 4% of GDP on incapacity-related benefits while the incidence of claiming disability benefits at 12.8% and 10.6%, respectively, are close to the OECD24 average.

Figure 6.4. **Incidence of claiming disability benefits is high in Latvia**

At age 55 in European OECD countries, 2013 or latest



Note: Incidence of benefit recipients at age 55 obtained through smoothing share of people who claimed disability benefit at least once in a year in the population. Expenditures data for Poland and Greece are from 2010, for other countries from 2013. Germany is missing due to data availability.

Source: EU-SILC 2014, OECD Social Expenditure Database.

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Differences in the share of people claiming disability benefits among OECD countries stem from various factors. First, countries differ in terms of overall health status and job quality. In particular, low life expectancy in Latvia suggests, as a proxy for health, that the need for disability benefit might be high. Only 35% of Latvians aged 45-64 assess their health as good or very good against over 60% among 34 OECD countries in 2015, on average.[12] Second, generous safety nets or the prevalence of special pension schemes

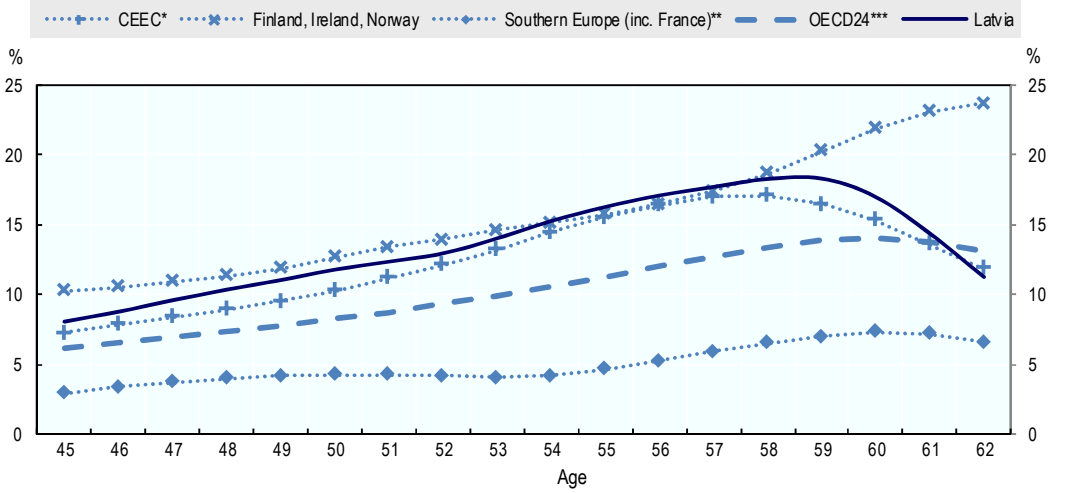
with early retirement ages diminish incentives to claim disability pensions in some countries. In Latvia, the exemptions to the main pension scheme are relatively rare (section 6.3) and the level of minimum income provision (GMI) is also very low (Figure 6.3).

Third, the loss of work capacity needed to be eligible to disability pensions varies among countries. Some countries grant disability benefits only when the work capacity is reduced almost fully while others grant partial benefits also for a small reduction in work capacity. In France and Germany, people with partially reduced work capacity tend to receive unemployment benefits rather than disability pensions. The benchmark for the work capacity assessment also differs: some countries assess the work ability in any job whereas others relate it to the work requirements in a specific occupation (OECD, 2010). If the disability pensions for those with only moderate disability were excluded from the analysis in Latvia, the incidence of claiming disability benefits would decrease from 16% to approximately 10%, slightly below the OECD average. Fourth, countries differ in terms of the effectiveness and scope of policies aimed at enhancing the skills and employment opportunities for people with disabilities. In Latvia, the disability benefit is rarely accompanied by any activation measures while ALMPs are focused on the unemployed.

The incidence of claiming disability benefits increases with age. On average in the EU OECD countries, it was almost twice at age 55 (11.3%) than at 45 (6.2%) in 2013, as in Latvia which, however, has higher levels of 16.2% and 8.1%, respectively. The conversion of disability pensions into old-age pensions results in the decreasing incidence of claiming them close to the retirement age in most countries. In 2013, the statutory retirement age in Latvia, at 62, was lower than in many countries and therefore the peak of claiming disability benefits is observed relatively early, as in other CEECs (Figure 6.5).

Figure 6.5. **Age patterns of claiming disability benefits differ across countries**

Incidence of claiming disability benefit by age in 2013 in selected European countries



Note: Smoothed share of people who claimed disability benefit at least once in a year in the population. Central and Eastern European Countries (CEEC) (*) include: the Czech Republic, Estonia, Hungary, Poland, Slovenia and the Slovak Republic. Southern Europe including France (**) averages data from France, Greece, Italy, Portugal and Spain. OECD24 (***) include European OECD countries except Germany (due to data availability).Finland, Ireland and Norway are grouped together as they are the non-CEECs with highest incidence of claiming disability benefits (Figure 6.4).

Source: EU-SILC 2014.

StatLink http://dx.doi.org/10.1787/888933657999

In Latvia, the take-up rate of disability pensions increased substantially during the crisis among all age groups; for example, among those aged 45-57 it increased from 8.6% in 2008 to 9.8% in 2011, and it continued to increase, albeit at a slower pace, to reach 10.3% in 2016.[13] The rising number of disability pensions might have been partly driven by the increase in the normal and early retirement ages and by the gradual withdrawal of special pension rights for workers of arduous and hazardous occupations (section 6.3). Indeed, the incidence of claiming disability benefit in the age group 58-62 increased from 10.5% in 2008 to 16.8% in 2016. In addition, disability pensions transformed into old-age pensions represented 20% of newly granted old-age pensions in 2016 compared to 10% in 2010 and 15% in 2008.

6.5. Conclusion

In Latvia, early retirement from the main scheme is possible two years before the statutory retirement age with a large penalty of 50% until reaching the statutory retirement age and a permanent benefit reduction afterwards as a result of built-in automatic adjustments. Those mechanisms offer strong disincentives to early retirement. Yet, the early retirement option is frequently used.

In addition, early retirement options at younger ages and higher benefits are provided for two types of schemes covering selected occupations. Special rights for workers of arduous and hazardous jobs are granted to those who worked in these jobs before the 1996 reform. Therefore, these special rights will disappear in about twenty years. The second group for selected public-sector employees – so-called service-pensions – has been expanding since 2000. They are provided with a top-up to the NDC-DC benefits which is financed by taxes. Almost 40% of the recipients of these pensions are younger than 50 and most of them combine work with claiming pensions. There is little justification for these exemptions.

In Latvia, disability pensions are frequently claimed compared to other OECD countries. What is more, the take-up rate of disability pensions at the same ages has increased steadily since 2008. The average disability pension is not particularly high compared to wages and old-age pensions. Yet, disability pensions might be attractive for some people as they provide a replacement rate of about 50% of recent earnings and are then converted into an old-age pension. All in all, effective support in terms of rehabilitation and active labour market policies should be provided for older workers with reduced work capabilities in order to increase their employment chances. However, the more detailed assessment of disability pension policies goes much beyond the scope of this review.

Key recommendations

- Incorporate service pensions back to the main pension scheme.
- Maintain the commitment to eliminate special pension rights for arduous and hazardous occupations.
- Ensure effective support for older workers with reduced work capacity in order to increase their employment chances.

Notes

1. However, if the FDC capital was added to notional accounts upon pension calculation, the temporary penalty would apply to the total pension (Chapter 4).
2. The life expectancy (G-factor) in 2017 was 18.27 at age 63 and 19.65 at age 61.
3. Assumptions are: real wage bill growth equal to the average GDP growth in 2004-2016 of 3.5%, which implies a real indexation of pensions (50% of real wage bill growth) of 1.75%; 3% real rate of return in the FDC; and, 2016 G-factor (life expectancy).
4. Numbers of beneficiaries are calculated at the end of a given years.
5. The only exceptions are the employees of the state-owned "Latvian Railways"; however, they pay additional pension contributions in order to finance their earlier retirement. Additional contributions are financed by the employer. This arrangement was introduced in 2016 and hence, it has not yet affected the observed level of pensions.
6. Arduous and hazardous occupations are divided into two categories: those more and those less arduous. They differ in terms of minimum vesting period: 15 (20) years for women (men) for more arduous occupations and 20 (25) for in less arduous, respectively. Moreover, upon calculating pension, the (notional) capital accrued before 2006 is increased by 10% to 20%, depending on the occupation.
7. The detailed definitions of the specific categories are available at OECD Social Expenditure Database, http://dx.doi.org/10.1787/data-00167-en.
8. A disability acquired during childhood also gives entitlement to the disability pension. The benefits for those with disabilities from childhood are slightly more generous.
9. The state social security allowance also determines the level of basic and minimum old-age pensions. Depending on the degree of the loss of work capacity the minimum disability pension is equal to the state social security allowance multiplied by 1.4 or 1.6.
10. The comparison at older ages is less relevant because disability pensions are transformed into old-age pensions when reaching the normal retirement age in Latvia.
11. The OECD average of incapacity-related expenditure of 2.1% of GDP is lower than the average for the 24 European OECD countries in Figure 6.4 at (2.5%) in 2013.
12. OECD Health Database.
13. The numbers for 2008-2016 in this paragraph are based on the administrative, social security data provided by the Latvian Ministry of Welfare. The previous paragraph and Figure 3.5 are based on the less accurate but harmonised EU-SILC survey data.

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This report assesses the performance of all components of Latvia's pension system. Latvia was the first country to fully implement a non-financial (notional) defined contribution (NDC) scheme in 1996. A funded mandatory earnings-related scheme complemented NDC since 2001. Voluntary private pensions cover only limited number of people. Over the last 20 years, the severe economic crisis, population ageing and strong emigration have revealed both strengths and weaknesses of the Latvian pension system. The review assesses also the minimum and basic pension schemes which provide the first-layer of protection against the old age poverty especially for those with short or patchy careers. Separate analysis focuses on the disability and early retirement schemes, including the schemes for workers in arduous and hazardous occupations. The detailed analysis leads to tailored recommendations on how to improve the performance of each element as well as the pension system as a whole.

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